

RELIGION GENERALIZED AND NATURALIZED

by Loyal Rue

Abstract. Much of contemporary scholarly opinion rejects the attempt to construct a general theory of religion (that is, its origin, structure, and functions). This view says that particular religious traditions are unique, *sui generis*, incommensurable, and cannot therefore be generalized. Much of contemporary opinion also rejects the attempt to explain religious phenomena using the categories and concepts of the natural and social sciences. This view says that the phenomena of religion cannot be understood apart from a recognition of "the sacred," or some element of transcendence, implying that religion cannot be naturalized. This article begins to show how the phenomena of religion can be both generalized and naturalized.

Keywords: antireductionism; consilience; generalists; levels of meaning; naturalism; particularists; scientific materialism.

If religion is not about God, then what on earth *is* it about? It is about *us*. It is about manipulating our brains so that we may think, feel, and act in ways that are good for us, both individually and collectively. Religious traditions may be likened to the bow of a violin, playing upon the strings of human nature to produce harmonious relations between individuals and their social and physical environments. Religion has always been about this business of adaptation, and it will remain so.

To be sure, it is one thing to state a raw thesis of this sort and quite another to show how it all works. The purpose of this essay is to lay the groundwork for showing how the ideas, images, symbols, and rituals of religious traditions have been designed to engage and to organize human neural systems. To introduce this task, I indicate in a broad way what is at stake in this issue, and in the process hopefully come clean with respect to a few personal biases.

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At stake herein is a general and naturalistic theory of religion. By a *general* theory I mean one that tells us what religion is, where it comes from, and how it functions. General theories are premised on the belief that universal properties of structure and function can be found lurking behind the varying details of religious phenomena. The goal of a general theory is to show that all religious traditions may be seen as particular variations on a set of common themes. By a *naturalistic* theory I mean one that reduces religious experiences and expressions to the status of natural events having natural causes. As such, a naturalistic theory of religion seeks to understand religious phenomena by using categories, concepts, principles, and methods continuous with the ones normally applied to nonreligious domains of human behavior. Briefly stated, the central claims are, first, that it is possible to construct a satisfying general account of religion, and second, that this can be done without invoking special (that is, supernatural) principles of explanation.

DISCLAIMERS

I begin with three important disclaimers. First, the issue is not about hostility to the idea of God. I will not be arguing either for or against the existence of God. Perhaps there are gods, perhaps not. I will not pretend to know one way or the other. The question of God's existence simply does not come into the business of understanding religious phenomena. Both the existence of God and the nonexistence of God are perfectly consistent with the claim that religion is essentially about fiddling on the strings of human nature. There is much to be said for the thesis that all theological formulations are equally and utterly dubious for the simple reason that God is inscrutable. The measure of a religious orientation is therefore not whether it gives an accurate account of divine reality but whether it effectively manages human nature. It could be argued, of course, that religion will lack the power to manage human nature unless it is believed to offer truths about God. This may be the case, but even so it is easy to see that *belief* is the thing, not the reality of the objects of belief. The religious question, then, is completely independent of the theological question. God—whatever God is—probably has no more to do with religion than religion has to do with God.

Second, the issue is not about criticizing the religious life. Indeed, I hope the opposite message comes through clearly; I regard religion generally to be a salutary thing. Religious phenomena are everywhere present in human life and will undoubtedly remain so. As far as anyone can tell—and there is plenty of evidence to the point—there has never been a coherent human culture without a religious tradition. Religion is a given, an important universal feature of human affairs, God or not. My work should therefore not be seen as an attempt to undermine religious sensibilities. If

anything, I hope to kindle insights that will enable us to deepen them.

Third, the thesis I explore here is not original. The claim that religion is not about God has been advanced many times in the past, notably by the likes of Kant, Feuerbach, Marx, Durkheim, and Freud. Each of these authors believed, as I do, that regardless of what religion *says* it is about, it has to *do* fundamentally with meeting the challenges to a full life. Kant thought that religion was about achieving rational coherence in human experience; Feuerbach believed that religion was a covert way of coming to terms with self-alienation; Marx thought that religion was about coping with the dehumanizing consequences of economic exploitation; Durkheim associated religion with a veneration of the social order; and Freud described religion as the projection of deep psychological dynamics. In each of these views, the claim is that religion is about us, not about God. I simply offer a fresh iteration of the thesis on the warrant that new insights into human nature have cleared a path toward a new theory of religion.

CAN RELIGION BE GENERALIZED?

The feasibility of general theories of religion is open to question, and there are good reasons to discourage the pursuit of such theories from the start. Indeed, the weight of informed scholarly opinion currently favors a moratorium on general theories. In his excellent treatment of these matters, Daniel Pals claims that “the course of the most recent discussions in the theory of religion has only deepened doubts and multiplied hesitation about all general formulations” (Pals 1996, 278). The sheer diversity of religious phenomena is itself discouraging. In the course of human history, thousands of religious traditions have appeared, each with its own distinctive pattern of meaning. Some speak of millions of gods, others speak of mere dozens, still others speak of only one, and some recognize no gods at all. Some religious traditions are rich, even baroque, in symbolic and ritual convention, while others are minimalist and spare of form. Some traditions are narrowly exclusive, others broadly inclusive. Some are militantly dogmatic, others tolerant. Some religious orientations are focused on community, and others center on the solitary individual.

The complexity of religious phenomena is no less daunting. It is difficult to identify any domain of human interest and activity where religious issues are not at stake. Politics, economics, personal morality, health, education, birth, death, sexuality, art, science—all of these, in some measure, affect and are affected by religion. Religion, then, is as large and complex as life itself. Many cultures, in fact, do not possess a word for religion, apparently not needing to distinguish religious phenomena from the rest of human experience and expression. Given the extremes of diversity and complexity associated with the religious life, one might reasonably doubt the prospects for a satisfying general theory. Theories broad enough to

contain such extremes are likely to sacrifice substance and insight to vagueness, while theories offering significant content will run the risk of neglecting or distorting relevant facts.

Each religious tradition is unique—unique in its cultural setting and historical development, unique in the set of challenges it has faced, and (perhaps most important) unique in the experiences and the constellations of meaning that these have generated in the lives of individual men and women. Serious regard for the unique complexity of religious orientations has provoked a scholarly reaction against general theories in favor of a “particularist” approach to the phenomena of religion.¹ If I understand the particularist view correctly, it goes something like the following. To have a theory about something is to describe and explain what the thing is about—that is, what it *means*. Thus, to have a theory of a particular religious tradition is to show what its various beliefs, values, rituals, and symbols mean to those individuals who practice the religion, within their own self-defining cultural context. Such a theory would attempt to capture the internal logic of the symbols and practices, to convey a sense of the “lived” tradition by somehow getting at what it feels like to be nurtured by it. By contrast, to have a general theory is to show what religious phenomena mean *in general*—that is, apart from their particular setting. But, say the particularists, religious phenomena are always culture-bound, which implies that their meanings will be lost when they are transposed to an alien context of meaning (such as that of the philosopher or the social scientist), where they are not self-defined. Particularists insist that each culture is *sui generis*, one of a kind, irreducible to the generalities that pretend to make the meanings of one culture commensurate with the meanings of another. In the end, there is nothing comparable to being a Christian, or a Jew, or a Buddhist. The essence of each tradition is inexorably linked to particular defining moments. These defining moments, processed by communal intercourse, emerge in self-contained patterns of meaning and a unique rationality by which the entire range of human experience may be interpreted. The sense the world makes to a Hindu is not the sense it makes to a Confucianist or an Ogallala Sioux. In a final sense, these individuals live in fundamentally different worlds of experience and meaning, worlds that cannot be unified by the artificial categories of a general theory. One cannot apprehend the meanings of a tradition from the outside, and one cannot be simultaneously inside a plurality of traditions. Broad theoretical objectivity is therefore out of the question—a religious tradition *just is* its subjective meanings. One might, perhaps, venture a coherent interpretation of a particular cultural tradition, but it is futile to generalize across the boundaries of incommensurate meanings. Thus the moratorium on general theories of religion.

Having already declared my intention to ignore this moratorium, it is only fair that I justify general theorizing in light of particularist objections.

Let it be stressed that this can be done without in any way disparaging the genuine contributions of the particularist approach. In other words, one may applaud the positive program of the particularists without accepting a negative attitude toward general theories. In fact, the particularist approach makes a substantial contribution to the general theorist by providing both heuristic and corrective insights. No one would argue that botanists and zoologists, who study the unique adaptations of particular species, contribute to a bias against general theories of evolution. On the contrary, evolutionary theorists are dependent in many ways on detailed research emphasizing the uniqueness of species. Likewise, particularist interpretations that emphasize the culture-bound nature of religious experiences and expressions are important for formulating general theories about these experiences and expressions. To the extent that we are better informed about the culture-specific meanings of religious traditions, we are better able to say something gainful concerning what religion in general is about.

The particularist bias against general theories of the nature and function of religion is tied to the claim that the essential and self-defined meanings of a tradition are lost when one assumes a perspective that transcends cultural particularity. This claim is in turn tied to certain assumptions about the nature of meaning. To escape the bias against general theories, one need only show that particularist assumptions about meaning do not constrain the general theorist. On this point it is relevant to see that meaning is open to analysis at different levels of generality.

On one level it makes sense to speak of *subjective meaning*, referring to various mental states of an individual such as beliefs, desires, hopes, fears, regrets, intentions, and the like. These are all meaning states—that is, they are *about* something or another. For example, Maggie may hope that she will win the lottery, or she may believe that her car is in the garage. The meaning of her hope is about the reality and the outcome of an event (the lottery), and the meaning of her belief is about the reality and the location of an object (her car). To *be* Maggie is in an important sense to experience her meaning states. In some measure, Maggie's meaning states will be absolutely unique—that is, it is probable that no one else is capable of thinking about her car (or her brother, or her future) in exactly the same ways as she thinks of them. The meanings involved are uniquely hers. Or consider Maggie's religious piety. It is likely that no one else has religious beliefs and experiences that are precisely identical to hers. Maggie's religious orientation—her peculiar constellation of meaning states about God, the creation, her responsibilities, her destiny—is hers alone. If Maggie is, say, a Christian, then *her* Christianity is like no one else's.

The particularist view does not deny the importance of subjective meaning states, but it wants to make a claim for an authentic level of meaning that transcends individual subjectivity. Maggie's Christianity may be unique in some measure, but not completely so. Maggie shares important overlaps

of meaning with other Christians, and these overlaps define a coherent body of *conventional meanings*. Conventional meanings lie outside the realm of subjective states. They are in the public domain, making it possible to identify an objectively real thing called the Christian cultural tradition. A cultural tradition is the sum total of its conventional meanings, meanings that come to have an objective reality through a continuous historical process of social interaction and negotiation. A cultural tradition is both a repository of subjective expressions and a reservoir of symbols for nurturing subjective experiences. But its symbolic meanings are not subjective; they are independent artifacts belonging collectively and exclusively to those whose subjective meanings are drawn from them and among whom these meanings are commensurable. As objective artifacts the conventional meanings of a cultural tradition are open to the inquiry of particularists, whose purpose it is to construct coherent interpretations of symbols and their functions in the lives of those who share them.

The real question is whether theory can venture beyond these self-contained conventions. Particularists say no. It may be tempting to compare, say, Christians and Hindus on the basis of perceived similarities in their patterns of worship, but because these patterns are uniquely provoked in different cultures by distinctive meanings and experiences, they are not comparable things—coincidental, perhaps, but not commensurate. There exist no useful points of contact between the conventional meanings of Christian and Hindu cultures, which means that all attempts at generalized comparisons are off. The urge toward a general theory must therefore be resisted for the reason that religion, in general, does not exist.

If this were all there is to the business of meaning, we might readily accept the particularist bias against general theories of religion. But there is more to be said. It seems clear enough that the particularist view is committed to the doctrine that everything relevant and interesting about subjective and conventional meanings is determined at the level of cultural dynamics. Take Maggie's Christian piety, for example. It is demonstrably true that Maggie would not have the subjective meanings she does were it not for the ministrations of the particular cultural tradition in which these meanings were nurtured. Further, it is demonstrably true that Christian culture would not have the conventional meanings it does were it not for any number of Maggies who through the centuries achieved significant overlaps of subjective meanings. Thus we are left with the picture of an ongoing dialectic between individuals and the larger cultural context that both creates and is created by them. But this picture is arbitrarily narrow and circular, for it leaves out everything entailed by the recognition that subjective and conventional meanings are ultimately performed by human brains.

The various meanings that play into different aspects of human life have their origins in all those dynamics that result in brains organized to *have*

meanings. A good share of these dynamics are cultural, as the particularist will be quick to point out, but the cultural matrix comes far short of telling the whole story. No less important, surely, are the dynamics of biological evolution that have assembled and organized the functions of the human brain over millions of years. Neither Maggie nor Christian culture would have the meanings they do were it not for the ministrations of natural selection. The brain sculpted in human beings by the evolutionary process has a complex modular organization. It is composed of distinct yet interactive functional units, each one adapted to perform specific operations. There are modules for perception, for memory, for emotions, for language, and much else—each with its own evolutionary subplot, each with its appointed task, but all working in a cooperative hierarchy to serve the interests of the organism. This modular brain is the biological substrate for all meanings: for all individuals, for all cultures, for all times and circumstances.

In a profound sense these various systems of the human brain participate in the construction of meanings. It seems arbitrary to deny it. They are *about* something, as surely as subjective and conventional meanings are about something. It is very difficult to specify just how the meanings embedded in neural systems become involved in the formulation of explicit beliefs, values, intentions, and the like. The aboutness of these deep meanings does not enter into conscious experience in the same way that the aboutness of subjective meanings does. Like the operating system in a computer, these subconscious meanings provide the general rules and defaults that enable and constrain the explicit meanings that eventually emerge into consciousness. I will refer to these as *adaptive meanings*, for they have been appointed by natural selection to direct on-site constructions of meaning having more specific aboutness, enabling individuals to think, feel, and act in ways that will be appropriate to local circumstances.

The obvious example is language. All normal human beings are equipped with neural modules preparing them to learn whatever particular language their culture presents to them. Thus, a Chinese infant placed in a French family will acquire the French language as surely as French children will. I believe it appropriate to say that the information states of the brain's language modules—that is, their adaptive meanings—participate in the subjective meaning of every explicit linguistic formulation.

Likewise, I believe it should be possible to specify the adaptive meanings that contribute to the formulation of specific religious beliefs and values. If so, a general theory of religion is feasible. It is true that religion in general does not exist, but the same is true of language in general, and this has not precluded the construction of insightful general theories about the nature, origins, and functions of language. A general theory of religion should focus on the adaptive meanings inherent in certain modular systems of the brain. Such a theory should be able to tell us what these meanings are about at the highest level of generality. Our best resource for

such a general theory will be the discipline of evolutionary psychology. Evolutionary psychologists have been very helpful in describing the rules and strategies inherent in particular adaptations, such as perceptual systems, emotional systems, and language systems. These studies are relevant to a general theory of religion because they contribute to the larger (and perhaps more speculative) task of understanding the general purposes that are characteristic of human nature.

At the most general level of all, we can say with confidence that the ultimate goal of human beings accords with that of all other life forms—that is, to maximize reproductive fitness. Every species, however, has its own characteristic global strategies for doing this. If we can identify these broad strategies for our species, we will have in hand the general purposes of *human* nature. To know this is to know what our particular projects and their meanings (including religious ones) are really about.

What, then, are the general strategies that may be said to be both universal and exclusive to human nature? I offer the following summary. The general strategy of our species is to achieve personal wholeness and social coherence—that is, to develop healthy and robust personalities while at the same time constructing harmonious and cooperative social groups. To the extent that we succeed in these vital projects, we enhance our prospects for reproductive fitness. For other species the strategies will be slightly or vastly different, but for human beings the name of the game is personality and sociality.

How, then, do we achieve these ends? We achieve them in large measure by formulating explicit on-site meanings about how things are in the world around us and which things matter for advancing our individual and collective interests. That is, we construct and maintain shared world-views composed of cosmological and moral elements. These shared traditions of meaning tell us who we are, where we come from, and how we should live. They give us an orientation in nature, society, and history and thus provide us with resources to negotiate our way through the many challenges to a full life. The precise contents of cosmological and moral ideas will vary somewhat with the accidents of historical experience, and this variance tells us that there are many particular ways to pursue the general goals of personality and sociality. Nevertheless, the general goals are universally and exclusively human.

Here we have the basic ingredients for a general theory of cultural and religious traditions. If the theory is correct, we may say that the neural operating systems of our species (our human nature) have prepared us to construct integrated narratives about how things are and which things matter, and that these shared meanings may be judged as more or less adaptive to the extent that they are conducive to the achievement of personal wholeness and social coherence. This leaves us in the odd position of asserting that, while subjective and conventional religious meanings may

be about God, religion in general is not—it is rather about influencing neural modules for the sake of personal wholeness and social coherence. An adequate general theory of religion should be able to bring substance to these various claims, and, further, should be able to show us how conventional religious meanings have been honed to promote personal wholeness and social coherence. I intend to explore these areas more fully in future work.

Most of the tensions between particularist and generalist theories about religion arise, I suspect, from the fact that different minds find themselves attracted to different sets of facts. Consider that some facts tell us about inherited similarities and differences, and other facts tell us about acquired similarities and differences. *Inherited similarities* include all the morphological and behavioral traits that determine the uniqueness of a given species, what we might call the “nature” of the species. *Inherited differences* provide the individual variations upon which natural selection acts. Without genetic variations of this sort there would be no biotic evolution to speak of. *Acquired similarities* are determined by common patterns of learned adaptations to the environment. These patterns culminate in distinctive cultural traditions. *Acquired differences* result from unique experiences, providing the individual variations upon which cultural selection acts. Without such variations cultures would lack their most significant resource for innovative change. These four categories of facts evoke most of the interesting questions about human beings, including interesting questions about religious behavior.

People who think and write about religion are moved to do so because they become curious about facts of one sort or another. Suppose you become curious about Saint Teresa and want to make sense of her life. To do so would be to move in the direction of a theory of Saint Teresa—that is, you will try to sort out the details in a way that makes her life into an intelligible whole. This would amount, in part, to a theory of religion at the most particular level, the level of acquired differences, or biography. At a more general level, you might become curious about the larger tradition of which she was a part. Thus, you will be attracted to the facts of history and ethnography, which will lead you toward a comprehensive theory about the uniqueness of Christianity. This is the level of acquired similarities, the level of conventional meanings, where the so-called particularist theorist operates. You will find both gaps between and overlaps of ethnographic and biographic theories. A comprehensive theory of Christianity will certainly be relevant to the biographer of Saint Teresa. At the same time, however, no adequate comprehensive theory of Christianity would overlook her influence on the larger tradition. So there are overlaps. But there are irreducible gaps as well. The most erudite theory of Christian tradition could never predict the details of Saint Teresa’s spiritual life. Alternatively, knowing all there is to know about Saint Teresa will not take

you very far toward a theory about the larger reality of Christian tradition.

Now let us say that your curiosity heads off in a different direction. Suppose that in the course of things you become curious about the phenomenon of mysticism. You have noticed that mystics emerge in all religious traditions, and you want to understand why that happens. It will not help much to become an expert on Saint Teresa, or even on Christianity, because these theories cannot explain the independent appearance of mysticism in, say, Hinduism. Being an authority on the uniqueness of Christianity could not enable you to predict that even one Hindu mystic would exist. Nor would it help to be knowledgeable about every religious tradition save Hinduism. At best, this knowledge would embolden a guess that, since every other tradition has mystics, Hinduism can be counted on to have them too. But this would explain nothing. You cannot explain why every tradition has mystics by saying that mystics are found in every tradition. There is something real and important about the phenomenon of mysticism that clearly transcends the historical contingencies typical of ethnographic and biographic explanation. Here are two interesting facts about mysticism: (1) every tradition has its fair share of it, and (2) not all religious people are mystics. These facts suggest that mysticism is both differential and, in some decisive measure, inherited. No one inherits genes for mysticism, but people do differentially inherit genes for various psychological characteristics that predispose them to unpack their acquired religious baggage in distinctive ways. Mysticism may be characterized as one of these ways, as may legalism, fundamentalism, scholasticism, and other well-defined panreligious stereotypes. To pursue a satisfying account of these phenomena, one needs the resources of psychological theories about inherited differences in temperaments, personality types, and cognitive styles, not to mention a variety of psychopathologies.

Finally, one's curiosity about religion might be drawn to the most universal facts of all, such as why religious traditions are found in every human culture and only in human culture; why these traditions invariably develop narrative integrations of cosmology and morality; why they all address themselves to matters of personal therapy and social policy; and why they dwell on so many of the same virtues. These formal characteristics, shared by religious traditions everywhere, are not accidental. They indicate species traits, transcending the contingencies of historical existence, and yet they constitute real facts, deserving of theoretical inquiry, which cannot be explained apart from a theory of human nature grounded in the disciplines of biology, anthropology, evolutionary psychology, and the neural sciences. These domains provide the primary conceptual resources for a general theory of religion. A general theory of religion is therefore necessary if we are to understand a substantial set of undeniable facts. Yet a general theory—even the most sophisticated—could never predict the appearance of Judaism or Jainism.

I may be totally wrong about this, but I have the impression that many persons who think and write about religion find it difficult to accept that there may be interesting and important determining factors in each of several factual domains. It is natural to suppose that all the real action plays out in one's own arena of curiosity. The ethnographer might very well concede that many traits are inherited but then insist that none of these is relevant to insights about what religions are or how they work. The generalist might agree that particular traditions have unique characteristics but that these amount to insignificant details. Chauvinism like this actually exists, and wherever it does, it creates misunderstanding and defensive posturing. Generalists are then likely to endure charges of arm waving and armchair deduction, while the efforts of particularists may be trivialized by sweeping claims of reductionism. Academic umbrage of this sort is unfortunate because it tends to undermine the breadth of cooperation necessary for understanding the complexities of religion. In contrast, we might begin to envision an atmosphere in which different levels of theoretical interest are mutually supportive. The serious student of religion will be curious about all sorts of facts and will welcome resources from every direction. For example, a biographer of Saint Teresa should be well grounded in the sciences of human nature. Would it be relevant to an understanding of Saint Teresa's spiritual life to know that she suffered from epilepsy? Of course it would. It is equally important that generalist theorists of religion be well grounded in studies of particular traditions. Would it be relevant to a general theory to show that Buddhists are capable of emotional experiences having no equivalents in Christianity, and vice versa? Certainly. And would one's understanding of particular traditions be enhanced if a general theory could show what it is about human nature that makes such radical cultural differences possible? Of course.

I do not mean to obscure the difficulties. There will be much left to argue about. But disputation is, after all, the fuel of serious inquiry. In any event, I remain convinced that general theories of religion are beyond the merely possible; they are essential to the enterprise.

CAN RELIGION BE NATURALIZED?

It should be evident that the quest for a general theory of religion is not without controversy. Even more controversial, however, is a second major thesis: that religion can be naturalized. This thesis asserts that the experiences and expressions constituting the religious life can be seen to result exclusively from natural causes. This view does not imply that religious phenomena can be completely explained—few events in nature can be—but only that the extent of our understanding is contingent on our efforts to reduce these phenomena to the terms of underlying natural processes.

Naturalism is a variant of metaphysical monism, the philosophical stance

declaring that all meaningful distinctions pertain to observed or reasoned facts within a self-contained and continuous order of being. For the naturalist, the order of being is the order of nature: the natural is real, and the real is natural. If, therefore, we have reason to believe that some entity or event is real, then we have precisely those reasons for believing it to be natural.

Naturalism may be characterized by its rather strict application of “Ockham’s razor,” or the principle of parsimony. William of Ockham, the most influential Western philosopher of the fourteenth century, was famous for his intellectual crusade to eliminate pseudoexplanatory categories. Ockham’s rule of elimination goes as follows: “Plurality is not to be assumed without necessity.” Alternative forms are “What can be done with fewer is done in vain by more” and “Entities are not to be multiplied without necessity.” The point of Ockham’s razor is to achieve economy of explanation by shaving away concepts, principles, and categories that are not essential to the subject matter to be explained and are not established by rigorous methods of observation and reasoning. Thus, naturalists oppose explanations that unnecessarily assume a transcendent order of entities and events having causal influence in the order of nature. Why posit two orders of being where one is sufficient?

It is precisely on this point of sufficiency of explanation that nonnaturalists have pressed the case for supernatural accounts of religion. Naturalists, the argument goes, tend to overeconomize in their explanations to the point of distorting and ignoring facts. So argued Mircea Eliade (1957), an eloquent and prolific opponent of reductionism. Eliade believed that religion could be generalized but not naturalized—generalized because all particular forms of religion derive from human encounters with the *sacred*, but not naturalized, because the sacred does not derive from the order of nature. The sacred, a realm of absolute transcendent reality, cannot be apprehended by natural categories. Nor can the religious life be apprehended apart from the sacred. Natural processes—biological, psychological, economic—may have certain limited effects on religious phenomena, but these are peripheral. Ultimately and essentially, religion is *theogenic*—that is, its facts can be understood only by assuming the causal influence of a supernatural reality.

There are several other variations on the antireductionist thesis. Some of these maintain that there are patterns of religious meaning inherent in human history that radically transcend the dynamics of nature. Others argue that religion cannot be naturalized because it is essentially about a moral order and that moral values can be neither derived from nor explained by natural facts. In order to make sense of moral behavior, therefore, we are forced to transcend the vocabulary of naturalism. A similar argument is that religion cannot be naturalized because it necessarily involves something immaterial, such as a life force or spiritual awareness,

neither of which can be sufficiently described in natural terms. Another alternative is to concede that certain *forms* of religion such as idolatry, fertility cults, and false prophets can be naturalized but that “true” religion is divinely inspired and cannot be traced to natural causes. And finally there are default arguments, insisting that the many failures of previous attempts to naturalize religion (Freud’s psychogenic theory, for example, or Durkheim’s sociogenic theory) warrant the conclusion that the job simply can’t be done. These arguments all share in the view that religious experiences and expressions cannot be reduced to the status of natural phenomena. Even after the naturalists have taken their best theoretical shots, there remains something of decisive significance that eludes our understanding. Thus, reason ordains, in order to have an adequate theory of religion one must admit to the necessity of supernatural categories of explanation.

In the face of such arguments, the naturalist is left with a single option: to produce. The only sure way to make the case for naturalizing religion is actually to do it—that is, give an account of the origins and functions of religion that renders theogenic alternatives vapid and unnecessary. It may be observed that the history of inquiry is on the side of naturalism. Earthquakes, floods, astral displays, birth defects, diseases, and a good many other phenomena have been effectively naturalized to the undisputed satisfaction of all. And for the past century we have been slowly acquiring the theoretical resources for naturalizing human behavior. Recent progress in behavioral genetics, neuroscience, and evolutionary theory provides additional resources for extending the naturalistic program into the more sensitive areas of art, literature, morality, and religion.

It should not be assumed that all naturalists agree on a common worldview. Far from it. There have been many widely divergent variations on the naturalistic theme, including the syncretism of Confucius, the materialism of the Atomists, the substantialism of Aristotle, and the idealism of Hegel. Naturalists will agree that the natural order is ultimate, but beyond this point there is much room for dispute about the nature of nature. Everything depends upon the recognition of natural facts—that is, what entities, events, properties, and processes one accepts as real. I cast my lot with a version of naturalism I call *consilient scientific materialism*.

Materialism. A materialist worldview claims that all natural facts can be construed, in some minimal sense at least, in terms of the organization of matter. This should not be taken to suggest that all natural facts are “nothing but” physical facts, only that whatever is or happens in nature is contingent on a substrate of material reality.

The picture of nature presented to us by contemporary science reveals a cosmic evolutionary process that has unfolded in a complex hierarchy of interlocking systems and subsystems that govern the organization of matter. As one follows the arrow of time, more complex systems emerge to

organize matter, bringing new entities, properties, and relations into the order of nature. At the lowest level are subatomic particles, which are organized into higher-level complex systems called atoms. Atoms have diverse properties, which account for their organization into various molecular systems. Molecules are systematically organized to form a variety of complex structures, including rocks, minerals, planets, stars, and galaxies. Molecules also may be organized into living systems, composed of cells, tissues, organs, and so on. Living organisms are systematically organized into populations, communities, and ecosystems. The most highly organized material systems are found in human beings. Here, nerve cells are organized into various functional systems, which may be integrated into coherent personalities. Persons then interact in complex patterns to form social groups and cultural systems.

Some materialists still maintain that all of this complexity in the organization of matter may be reduced to the dynamics of atomic and molecular systems. This is the strong reductionist thesis, which claims that it is in principle feasible to give a full account of higher systems in terms of physics and chemistry. This view, now very much in the minority, is a good example of taking Ockham's razor too far. A more satisfying picture recognizes that, although more complex systems are contingent on physical and chemical substrates, they nevertheless involve emergent principles of organization and manifest genuinely novel properties that cannot be fully described by the principles and properties known to the physical sciences. That is to say, not all natural facts are physical facts. There also exist biological facts, psychological facts, and cultural facts.

I assume a view of nature in which all natural facts may be resolved into four general categories, or levels of material organization: physical, biological, psychological, and cultural. The distinctions between these four levels of nature may be seen to derive from different modes of information. Physical facts describe the behavior of matter insofar as it is organized by information inherent in physical systems. Biological facts describe the behavior of matter insofar as it is organized by information preserved in the genetic code. Psychological facts describe the behavior of matter insofar as it is organized by information stored in neural systems. And cultural facts (sociosymbolic facts) describe the behavior of matter insofar as it is organized by information embodied in symbols. That's it! If something is a fact, then it is in principle reducible to these four types (or perhaps a constellation of them, in the case of complex facts, which most are).

Science. The various disciplines of science represent attempts to organize our knowledge of physical, biological, psychological, and cultural facts. If we were to construct the academic curriculum afresh, in conformity with this view of nature, we would do well to establish four major faculties. Alas, we are left to contend with the disciplines that developed

haphazardly over time. Still, there is a rough correlation between the existing disciplines, subdisciplines, and interdisciplines and the four categories of natural facts.

At the level of physical facts are the corresponding disciplines of physics, chemistry, astronomy, geology, astrophysics, and cosmology. Bridging the gap between physical systems and biological systems are the interdisciplines of biophysics and biochemistry. Corresponding to the level of biological facts we find cell biology, genetics, physiology, anatomy, zoology, botany, and ecology. The neurosciences, together with evolutionary psychology, bridge the gap between biological and psychological systems. At the level of psychological facts are the various subdisciplines of cognitive psychology, developmental psychology, personality theory, and others. Social psychology connects the levels of psychological and cultural facts. Attending to the organization of cultural or symbolic facts is an unruly assemblage of disciplines, including sociology, anthropology, political science, economics, history, linguistics, mathematics, philosophy, and the various "critical" disciplines focused on literature, the arts, and religion. The major differences between these intellectual domains have to do with methods, and with lingering attachments to traditional agendas. What they share in common is their (selective) interest in the artifacts of human symbolic abilities.

Taken together, these many disciplines constitute *science*, the collaborative enterprise of systematically organizing our knowledge of the natural order. For the scientific materialist, all plausible explanations for natural phenomena will find their place among these disciplines.

Consilience. Scientific materialism claims that all natural facts involve the organization of matter and that the empirically grounded and self-correcting disciplines of science are to be considered normative in all attempts to explain natural facts. A consilient scientific materialism goes a step further to advance a thesis about the unity of science. Edward O. Wilson (1998) has rescued the concept of consilience from historical obscurity to characterize the ultimate prize of inquiry: a coherent, unified meshwork of ideas that renders intelligible the full scope of human experience. The sciences, as we have them, still tend to be fragmented into separate domains of inquiry. But such fragmentation is both artificial and unsatisfying. If nature is itself a unified meshwork of interlocking causal events, as the naturalist believes, we should expect that existing gaps between the sciences might be significantly narrowed by further inquiry. Wilson demonstrates that the unification of knowledge is already remarkably complete among the natural sciences. Consilience of theoretical explanation from physics to chemistry to biology and well into the nascent field of neuroscience has already been achieved. What remains is to explore ways of thinking that might extend the consilience program to include the social sciences and the humanistic sciences.

Thus we are returned to the original question: Can religion be naturalized? To naturalize religion is to provide explanations for religious phenomena that are consilient with our scientific explanations for other natural facts. The focus of this inquiry is on human nature. For a consilient theory of religion to succeed, it must show, first, what human nature is and how it emerges in the process of evolution, and second, how religious experiences and expressions emerge from the dynamics of human nature. To the extent that such a consilient theory succeeds, we shall have before us a satisfying naturalistic understanding of religious phenomena.

But suppose it *does* succeed. What then? What can be said about the power of religion under the conditions of understanding it? Does an understanding of religion preclude religious understanding? Does the attempt to naturalize religion also effectively neutralize it? These are delicate questions that need to be addressed. I say "delicate" because the religious life is the sanctuary of existential meaning, where attempts to naturalize may be experienced as hostile acts intended to destroy the meaning of life, to undermine faith and hope, to steal away the treasured grail. I do not attempt to deny the reality or the gravity of the experience. I have endured it myself. Nevertheless, the urge toward consilient explanation is strong. All I can promise from my own experience is that any existential losses incurred by naturalizing religious meanings may be compensated for without remainder by an acquired sense for the mystery and sanctity of nature itself.

NOTE

1. Pals (1996, esp. chapters 7 and 8) has an excellent discussion of the particularist position, which he associates with the influential anthropologist Clifford Geertz and his followers.

REFERENCES

- Eliade, Mircea. 1957. *The Sacred and the Profane*. New York: Harcourt, Brace and World.
Pals, Daniel. 1996. *Seven Theories of Religion*. New York: Oxford Univ. Press.
Wilson, Edward O. 1998. *Consilience: The Unity of Knowledge*. New York: Alfred A. Knopf.