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The anthropological literature on religion is diverse and voluminous, but there is one common perspective that pervades virtually that entire body of work, and that is the conviction that the epistemological principles of the scientific method cannot and/or should not be applied to the content of religious beliefs, on the grounds that nonempirical phenomena are necessarily beyond the purview of empirical science. Evans-Pritchard offers a familiar formulation of the position in *Theories of Primitive Religion*:

He [the anthropologist] is not concerned, *qua* anthropologist, with the truth or falsity of religious thought. As I understand the matter there is no possibility of his *knowing* whether the spiritual beings of primitive religions or of any others have any existence or not, and since that is the case he cannot take the question into consideration (Evans-Pritchard 1965:17).

Whatever personal convictions anthropologists may hold as individuals, the overwhelming majority have agreed with Evans-Pritchard that, as anthropologists, they either cannot or should not investigate the truth or falsity of religious beliefs. In virtually every major anthropological work on religion, and in most if not all introductory textbooks in cultural anthropology, the question of the truth or falsity of religious beliefs is evaded, ignored, or de-emphasized in favor of questions concerning the social, psychological, ecological, symbolic, aesthetic, and/or ethical functions and dimensions of religion.<sup>1</sup>

Thus, for example, Anthony Wallace, who affirms that religion “is based on supernaturalistic beliefs about the nature of the world which are not only inconsistent with scientific knowledge but also difficult to relate even to naive human experience” (Wallace 1966:vi), nevertheless chooses to “ignore the extremes of fundamentalist piety and anticlerical iconoclasm” and to regard religion as “neither a path of truth nor a thicket of superstition, but simply [as] a kind of human behavior...which can be classified as belief and ritual concerned with supernatural beings, powers, and forces” (Wallace 1966:5). Similarly, Edward Norbeck, who recognizes that “religious beliefs and acts are created by man on the basis of his life” (Norbeck 1974:7), nevertheless explicitly restricts the anthropological study of religious beliefs to “interpretations of their role in human life and of the factors that have molded the customs into their particular forms” (Norbeck 1974:3). Clifford Geertz (1973:89), who defines religion as a system of “sacred symbols” which functions “to synthesize a people’s ethos...and their world view,” is completely unconcerned with the question of whether any particular religiously-supported world view is true or false. And Marvin Harris, who has long been one of anthropology’s most persistent critics of irrational modes of thought, nevertheless declares that he “can readily subscribe to the popular belief that science and religion need not conflict,” since science, he argues, “does not dispute the doctrines of revealed religions as long as they are not used to cast doubt on the authenticity of the knowledge science itself has achieved” (Harris 1979:6).

In short, a common element of the anthropological perspective on religion can be summarized in a simple syllogism:

1. The essential defining feature of science is empiricism (i.e., the belief that the only reality which exists is the reality amenable to the five senses, implying that reliable knowledge of that reality can be obtained only through the five senses).
2. The essential defining feature of religion is supernaturalism (i.e., the belief that there is a reality which lies beyond or somehow transcends the reality amenable to the five senses, implying that reliable knowledge of that reality can be obtained by means other than the five senses).
3. Therefore, science cannot be used to determine whether religious beliefs are true or false, since empirical epistemological procedures cannot be applied to supernatural phenomena.

Despite its virtual ubiquity in anthropology, that argument is unsound, for the simple reason that both of its premises are false. The essential defining feature of science is *not* empiricism, and the essential defining feature of religion is *not* supernaturalism. The conclusion that religion is or should be immune from scientific scrutiny is thus wholly unwarranted; moreover, that conclusion is also ethically objectionable. Considerations of disciplinary integrity, public welfare, and human dignity demand that religious claims be subjected to anthropological evaluation.

My position, then, is that anthropological science can and should be applied to the content of religious beliefs. My goal here is to establish three points: first, that rationality rather than empiricism is the key element of science; second, that irrationality rather than supernaturalism is the key element of religion; and third, that anthropologists have an intellectual and ethical obligation to investigate the truth or falsity of religious beliefs. The first point concerns the nature of science; the second involves the nature of religion; and the third, obviously, is a question of value.

### **The Nature of Science**

In the most fundamental sense, science can be defined as a systematic and self-correcting method for acquiring reliable factual knowledge. “It is the desire for explanations which are at once systematic and controllable by factual evidence that generates science,” the philosopher Ernest Nagel (1961:4) observes, “and it is the organization and classification of knowledge on the basis of explanatory principles that is the distinctive goal of the sciences.” The rules of the scientific method (which include testability, observer-independence, replicability, and logical consistency) do not restrict science to the pursuit of *empirical* knowledge, how-ever. Instead, they restrict science to the pursuit of *propositional* knowledge.

A proposition is an assertion of fact, a statement which makes a claim that is either true or false depending on the evidence. The scientific method is simply a set of procedures for evaluating the evidence offered in support of any proposition. No proposition is ever rejected by science on an *a priori* basis (unless the proposition is self-contradictory); science is predicated upon the assumption that *any* factual assertion *could* be true. Nor does science demand that the evidence offered in support of any claim be *empirical*; science demands only that the evidence be *objective*.

As a set of guidelines for the acquisition of knowledge, scientific objectivity implies two things: first, that the truth or falsity of a given factual claim is independent of the claimant's hopes, fears, desires, or goals; and second, that no two conflicting accounts of a given phenomenon can both be correct (Cunningham 1973:4). Critics of the scientific method commonly protest that objectivity in the first sense is unrealistic, because no individual scientist can ever be completely unbiased, and that objectivity in the second sense is unrealizable, because absolute certainty is unattainable. Both of those subordinate premises are correct (it is true that no individual can ever be completely unbiased, and it is true that absolute certainty about evidential questions can never be achieved) but neither of these points is relevant to the claim that science is objective, as Charles Frankel (1955:138-139) explains:

There are two principal reasons why scientific ideas are objective, and neither has anything to do with the personal merits or social status of individual scientists. The first is that these ideas are the result of a cooperative process in which the individual has to submit his results to the test of public observations which others can perform. The second is that these ideas are the result of a process in which no ideas or assumptions are regarded as sacrosanct, and all inherited ideas are subject to the continuing correction of experience.

To be objective, then, in the scientific sense of the term, a statement must fulfill two criteria: first, *it must be publicly verifiable*, and second, *it must be testable*. In the words of the philosopher Carl Hempel (1965:534), an "objective" statement is one that is "capable of test by reference to publicly ascertainable evidence." The scientific claim to objectivity is thus *not* a dogmatically positivistic claim to absolute certainty.<sup>2</sup> Scientific objectivity does not deny that perception is a process of active interpretation rather than passive reception, nor does it deny that the acquisition of reliable knowledge is a highly problematic undertaking. Instead, scientific objectivity merely denies that all claims to knowledge are equally valid, and it provides a set of standards by which to evaluate competing claims. To assert that science is objective, as Siegel (1987:161) does, is to assert simply that all claims to knowledge should be "assessed in accordance with presently accepted criteria (e.g. of evidential warrant, explanatory power, perceptual reliability, etc.), which can in turn be critically assessed."

As a technique for acquiring reliable propositional knowledge, science necessarily demands objective evidence, which is to say evidence that is both publicly verifiable and testable. Evidence that was not publicly verifiable would not be reliable, and evidence that was not testable would not be propositional (since a proposition is, by definition, a statement that can be tested against the evidence). Objectivity, however, is *all* that science demands. As long as a propositional claim is both publicly verifiable and testable, it is scientific. There is nothing in the essential defining features of science which says that propositional claims must necessarily be empirical.

In practice, it is true, science has so far been restricted exclusively to empirical data and empirical data-collection procedures, but that restriction is neither prejudicial nor arbitrary. Instead, it is a result of the fact that the empirical approach is the only approach to propositional knowledge that has ever passed the test of public verifiability. If publicly verifiable evidence of non-empirical reality were presented, the recognition of such reality would be incorporated into the scientific world view. If non-empirical data collection procedures (e.g., faith, revelation, intuition) were publicly verifiable, they would be incorporated into the scientific method (Lett 1987:18-22). It is not the fact that science is empirical that makes science objective; instead, it is the fact that science is objective that makes science empirical.

Thus it is a mistake (although a common one<sup>3</sup>) to define science in terms of empiricism, as Bernard (1988:12) does when he says that the scientific method is based on the assumption that “material explanations for observable phenomena are always sufficient, and that meta-physical explanations are never needed.” Science, however, does not *assume* that material explanations are always sufficient; instead, science *concludes*, as an inductive generalization, that material explanations are always sufficient. (Further, under the epistemological principles of science, that conclusion would be subject to revision in the light of new evidence.) Bernard (1988:11-12) offers a better definition of science when he quotes Lastrucci (1963:6) to the effect that science is “an objective, logical, and systematic method of analysis of phenomena, devised to permit the accumulation of reliable knowledge.” The term “empirical” is appropriately missing from that definition.

“Scientific knowledge,” then, means “objective knowledge,” which means propositional knowledge that is both publicly verifiable and testable. In order to ensure the public verifiability of propositional claims, science relies upon the *provisionally* necessary rule of empiricism (while recognizing that empiricism is only a convenient means to an end--namely intersubjectivity--and leaving open the possibility that some as-yet-undefined non-empirical approach might satisfy the criterion of public verifiability). In order to ensure the testability of propositional claims, science relies upon the *logically* necessary rule of falsifiability, Karl Popper’s (1959) indisputable *sine qua non* of the scientific approach to knowledge.

According to the rule of falsifiability, a claim or statement is to be considered propositional if and only if it is possible to conceive of evidence that would prove the claim false. The rule of falsifiability is simply a means of distinguishing propositional claims from non-propositional ones. If the claim were to fail the test of falsifiability (if it were not possible, in other words, to even imagine falsifying evidence) then all possible evidence would be irrelevant, and the claim would be propositionally meaningless (it might, of course, be emotively meaningful, but it would be entirely devoid of any factual content whatsoever). If the claim were to pass the test of falsifiability, on the other hand (if it were possible to conceive of data that would disprove the assertion) then the evidence would be relevant, the claim would be propositionally meaningful, and the truth or falsity of the proposition could be tested against the evidence (in which case, of course, science would demand that the evidence be publicly verifiable).

The rule of falsifiability is the single most important rule of science. It is the one standard that guarantees that all genuine scientific statements are propositional (rather than emotive or tautological or nonsensical), and it is the salient feature that sharply distinguishes science from other ways of knowing. It is, further, the one standard by which all scientific explanations are judged, as Cohen (1970:32) correctly observes: “Whether or not the theory is scientific depends ultimately on whether the ideas involved in the theory can be submitted to a test of their validity.”

Thus science is a technique for acquiring propositional knowledge that relies exclusively upon the publicly verifiable investigation of falsifiable claims, whatever those claims might be. In the insightful words of Richard Watson (1991:276), “science in the most general sense is an attempt to learn as much as possible about the world in as many ways as *possible with the sole restriction* that what is claimed as knowledge be both testable and attainable by everyone” (emphasis added). There is then no reason *not* to apply science to nonempirical claims. If the claim were a factual one, then it would be falsifiable, whatever the nature of its supporting evidence, and it would be the claimant’s responsibility to identify reliable (i.e., publicly verifiable) evidence that would falsify the claim. As Lakatos (1970:92) insists, “intellectual honesty consists...in specifying precisely the conditions under which one is willing to give up one’s position.”

Those who see empiricism as the defining element of science fail to recognize that the scientific method is a combination of both deduction and induction. Science, in other words, relies upon both logic and experience, both reason and observation, in the pursuit of knowledge. It would in fact be prejudicial to call science empirical; science demands only that the evidence collected through observation and experience be objective (i.e., publicly verifiable and testable), and it is at least logically possible that nonempirical evidence could be objective.

In sum, the essence of science lies in the exclusive commitment to *rational* beliefs, by which I mean beliefs that are *both falsifiable and unfalsified*. If a belief satisfies both criteria (if it is, in the first place, propositional, and it has, in the second place, survived unrelenting attempts at falsification in the light of publicly verifiable evidence), then it deserves to be called scientific knowledge. Scientific knowledge is thus provisional knowledge (it is always logically possible that evidence could be uncovered tomorrow that would falsify a previously unfalsified claim), but the scientific approach to propositional knowledge is nevertheless the only rational approach.<sup>4</sup> It would obviously be *irrational* to give factual credence to a purportedly propositional claim that was either nonfalsifiable (i.e., propositionally meaningless) or falsified (i.e., evidentially wrong). That brings us to religion.

### **The Nature of Religion**

In *Religion in Human Life*, Edward Norbeck (1974:6) observes that “religion is characteristically seen by anthropologists as a distinctive symbolic expression of human life that interprets man himself and his universe, providing motives for human action, and also a group of associated acts which have survival value for the human species.” Various formulations could be subsumed under that general description, such as Lessa and Vogt’s (1972:1) notion that “religion may be described as a system of beliefs and practices directed toward the ‘ultimate concern’ of a society,” or Geertz’s (1973:90) concept of religion as “a system of symbols” that integrates a culture’s world view and ethos. Those definitions, however, could logically embrace existentialism, communism, secular humanism, or other philosophies which most anthropologists would be reluctant to call religion. How then is religion distinguished from comparable sets of beliefs and behaviors that fulfill similar functions?

As Norbeck (1974:6) explains, “the distinguishing trait commonly used is supernaturalism, ideas and acts centered on views of supernatural power.” The concept of the supernatural has been firmly tied to the anthropological definition of religion since the origins of the discipline. Edward Tylor (1958:8), for example, argued that “it seems best...to claim, as a minimum definition of Religion, the belief in Spiritual Beings.” Frazer (1963:58) maintained that “religion involves, first, a belief in superhuman beings who rule the world, and, second, an attempt to win their favour.” Malinowski (1954:17) observed that sacred “acts and observances are always associated with beliefs in supernatural forces, especially those of magic, or with ideas about beings, spirits, ghosts, dead ancestors, or gods.” The concept of the supernatural continues to dominate anthropological conceptions of religion today. Marvin Harris (1989:399), for example, declares that “the basis of all that is distinctly religious in human thought is animism, the belief that humans share the world with a population of extraordinary, extracorporeal, and mostly invisible beings.”

There is a fundamental problem with the term “supernatural,” however: it is so varyingly conceived in the different cultures of the world that it lacks a common, unambiguous definition. The Yanomamo, Roman

Catholic, !Kung San, and Buddhist conceptions of the “supernatural” realm, for example, are widely divergent and even contradictory in some aspects. The problem is that the term “supernatural” is an *emic* concept, meaning that it is defined in terms of the categories and concepts regarded as meaningful and appropriate by the members of particular cultures; it is not an *etic* concept, one defined in terms of the categories and concepts regarded as meaningful and appropriate by the community of scientific observers (Lett 1990). As an emic concept, the term “supernatural” has as many definitions as there are cultures; as an etic concept, it has no recognized, agreed-upon definition.

Nor could any such objective, scientific definition be offered for the term “supernatural,” for the simple reason that the word is propositionally meaningless. The term “supernatural” is purportedly used to designate a reality that somehow transcends the natural universe of empirical reality, but what does it mean to “transcend empirical reality?” If such a thing as “nonempirical reality” exists, how could we, as empirical beings, even know about it? (Revelation and intuition, after all, are demonstrably unreliable--witness the mutually exclusive claims to knowledge made by different people on revelatory grounds.) If such a thing as “nonempirical reality” exists, by what mechanism is it connected to empirical reality? (How, in other words, do supernatural beings and forces have an impact on the natural world?) Further, if such a thing as “nonempirical reality” exists, why is there not a single shred of objective evidence to indicate its existence? As the physicist Victor Stenger (1990:33) points out, there is no rational reason whatsoever to even hypothesize the existence of the “supernatural:”

At this writing, neither the data gathered by our external senses, the instruments we have built to enhance those senses, nor our innermost thoughts require that we introduce a nonmaterial component to the universe. No human experience, measurement, or observation forces us to adopt fundamental hypotheses or explanatory principles beyond those of the Standard Model of physics and the chance processes of evolution.

The term “supernatural” thus purports to describe a reality that we could not know or recognize, one that could not have any impact on the reality we do know and recognize, and one for which we have no evidence whatsoever; it is, in short, unintelligible. The philosopher William Gray (1991:39) eschews the term “supernatural” and suggests instead that religious statements can be described as “metaphysical,” by which he means statements that refer to facts that could not possibly be observed. But what would an “unobservable fact” be? To substitute “metaphysical” for “supernatural” is simply to play a semantic game. Terms such as “supernatural,” “metaphysical,” and “nonempirical reality” are, in fact, oxymorons. It would make just as much sense to talk about the “unreal real.”

Connotatively, the term “super-natural” presents additional problems: it is not sufficiently comprehensive to embrace beliefs and behaviors that are virtually identical in form and function to so-called “religious” beliefs and behaviors, but which would not commonly be called “supernatural.” Gods, demons, angels, and souls, for example, could easily be called “supernatural,” and so too, perhaps, could incubi, succubi, ghosts, goblins, fairies, sprites, trolls, and leprechauns. But what about witches, clairvoyants, telepathists, psychokinetics, extraterrestrials, psychic surgeons, vampires, werewolves, spirit channelers, fire-walkers, astrologers, the Loch Ness Monster, and Sasquatch? Would those too be called “supernatural?” Would anthropologists call beliefs in such beings and forces “religious?”

At least one recent anthropological text on religion recognizes this problem. In *Magic, Witchcraft, and Religion*, Lehmann and Myers (1989:3) argue that it is time for anthropologists to abandon the restrictive connotations of the term “supernatural:”

Expanding the definition of religion beyond spiritual and superhuman beings to include the extraordinary, the mysterious, and unexplainable allows a more comprehensive view of religious behaviors among the peoples of the world and permits the anthropological investigation of phenomena such as magic, sorcery, curses, and other practices that hold meaning for both pre-literate and literate societies.

Lehmann and Myers fail, however, to suggest an alternative term to replace the word “supernatural.” Fortunately, there is an obvious alternative available, one that is winning increasing acceptance both inside and outside anthropology, namely the word “paranormal.”<sup>5</sup> The term refers ostensibly to phenomena that lie beyond the normal range of human perception and experience, although in practice it does not denote simply anomalous phenomena. Instead, it describes putative phenomena whose existence would in fact violate the rules of reality revealed by science and common sense. From an etic point of view, therefore, the notion of the “paranormal,” like the notion of the “supernatural,” is propositionally meaningless. Unlike the term “supernatural,” however, the term “paranormal” is not restrictive in its connotations, and that is its principal advantage. “Paranormal” is a useful umbrella label for the complete set of emic beliefs concerning the unreal real. The term embraces the entire range of transcendental beliefs, covering at once everything that would otherwise be called magical, religious, supernatural, metaphysical, occult, or parapsychological.

Therein lies the real common denominator in all paranormal beliefs: not that they are all “supernatural,” but that they are all *irrational*, by which I mean that every single paranormal belief in the world, whether labeled “religious,” “magical,” “spiritual,” “metaphysical,” “occult,” or “parapsychological,” is *either nonfalsifiable or has been falsified*. (The vast majority of all paranormal propositions--such as the Judeo-Christian proposition that “God” exists--are nonfalsifiable and hence propositionally meaningless; a smaller percentage--such as the Judeo-Christian proposition that a universal flood covered the earth sometime within the past 10,000 years--are falsifiable but have invariably been falsified by objective evidence.)

The simple fact of the matter is that every religious belief in every culture in the world is demonstrably untrue. Regardless of whether the religious practices are organized communally or ecclesiastically, regardless of whether they are mediated by shamans or priests, regardless of whether the intent is manipulative or supplicative, the one constant that runs through all religious practices all over the world is that all such practices are founded upon nonfalsifiable or falsified beliefs concerning the paranormal.

Irrationality is thus the defining element in religion. *Religion and science are not at odds because religion wants to be “supernatural” while science wants to be “empirical;” instead, religion and science are at odds because religion wants to be irrational (relying ultimately upon beliefs that are either nonfalsifiable or falsified), while science wants to be rational (relying exclusively upon beliefs that are both falsifiable and unfalsified).*

I am aware that many anthropologists are likely to react negatively to the pejorative connotations of the word “irrational.” The term, however, is simply descriptive and therefore entirely appropriate. It is unarguably irrational to maintain a belief in an allegedly propositional claim when that claim is either propositionally meaningless or has been decisively repudiated by objective evidence. Whether it is laudable or forgivable to do

so is another question: it is not, of course, a factual question, but neither is it a question that scientists can entirely avoid.

### A Question of Value

It seems to me that the obligation to expose religious beliefs as nonsensical is an ethical one incumbent upon every anthropological scientist, for the simple reason that the essential ethos of science lies in an unwavering dedication to truth. As Frankel and Trend (1991:182) put it, “the basic demand of science is that we seek and tell the honest truth, insofar as we know it, without fear or favor.” In the pursuit of scientific knowledge, the evidence is the only thing that matters. Emotional, aesthetic, or political considerations are never germane to the truth or falsity of any propositional claim. (There *are* moons around Jupiter, just as Galileo claimed, even though the Catholic Church and most Christians at the time did not like him for saying it.) In science, there is no room for compromise in the commitment to candor. Scientists cannot allow themselves to be propagandists or apologists touting convenient or comforting myths.

It is not simply our desires for intellectual honesty and disciplinary integrity that compel us to face the truth about religious beliefs; as anthropologists, we are specifically enjoined to do so by our code of ethics. According to the Revised Principles of Professional Responsibility adopted by the American Anthropological Association in 1990, anthropologists have an explicit obligation “to contribute to the formation of informational grounds upon which public policy may be founded” (Fluehr-Lobban 1991:276). When anthropologists fail to publicly proclaim the falsity of religious beliefs, they fail to live up to their ethical responsibilities in this regard. In a debate concerning public policy on population control, for example, anthropologists have an ethical obligation to explain that God does not disapprove of the use of contraceptives because there is no such thing as God.

We also have an obligation not to pick and choose which truths we are willing to tell publicly. I think, for example, that the political threat from the oxymoronic “scientific creationists” would be better met if anthropologists were to debunk the entire range of creationist claims (including the belief that God exists as well as the belief that humans and dinosaurs were contemporaneous); otherwise the creationists will continue to criticize us, with considerable justification, for our arbitrariness and inconsistency in choosing which paranormal claims we will accept or tolerate and which we will attack (see Toumey 1994).

I am convinced that our collective failure to stake out a firm anthropological position on paranormal phenomena has compromised our intellectual integrity, weakened our public credibility, and hampered our political effectiveness. Carlos Castaneda was able to use his anthropological credentials to buttress the credibility (and the sales) of his paranormal fantasies, partly because, as far as the general public knew, the discipline of anthropology accepted the reality of hundred-foot gnats and astral projection (de Mille 1990). While it is true that most individual anthropologists rejected Castaneda’s paranormal claims, few did so publicly or effectively (Murray 1990).

In fact, our discipline as a whole has a lamentable record when it comes to public responses to paranormal claims. There have been notable exceptions in archeology and biological anthropology, where a number of scholars have responded forcefully and well to the ancient astronaut and creationist myths (e.g., White 1974; Cole 1978; Rathje 1978; Cazeau and Scott 1979; Godfrey 1983; Stiebing 1984; Cole and Godfrey 1985; Harold and Eve 1987; Feder 1980, 1984, 1990), but cultural anthropologists have been remarkably remiss in responding to the myriad paranormal claims that fall within their domain (see Lett 1991).

Margaret Mead, for example, maintained a lifelong interest in paranormal phenomena and was an ardent champion of irrational beliefs (Gardner 1988). She was apparently persuaded that “some individuals have capacities for certain kinds of communications which we label telepathy and clairvoyance” (Mead 1977:48), even though the most casual scholarship would have revealed that that proposition has been decisively falsified (the evidence comes from more than a century of intensive research that has been thoroughly documented and widely disseminated--see Kurtz 1985; Druckman and Swets 1988; Hansel 1989; Alcock 1990). In 1969, Mead was influential in persuading the American Association for the Advancement of Science to accept the habitually pseudoscientific Para-psychological Association as a constituent member. In all of this, Mead used her considerable talents for popularization to promulgate nonsensical beliefs among the general public. However sincere and well-intentioned, her efforts were irresponsible, unprofessional, and unethical; worse still, they were not atypical of cultural anthropology.<sup>6</sup>

Even those anthropologists who do not share Mead's gullibility have been notably reluctant to confront the truth about paranormal beliefs. Anthony Wallace, for example, in all likelihood thought he was being purely objective when he decided to avoid the “extremes of piety and iconoclasm” and to regard religion as “neither a path of truth nor a thicket of superstition” (Wallace 1966:5). In science, however, being objective does not entail being fair to everyone involved; instead, being objective entails being fair to the truth. The simple truth of the matter is that religion *is* a thicket of superstition, and if we have an ethical obligation to tell the truth, we have an ethical obligation to say so.

I find Wallace's equivocation on the truth or falsity of religious beliefs to be particularly regrettable, because his *Religion: An Anthropological View* is one of the justly celebrated classics in the anthropology of religion. Wallace, of course, would not agree that his stance is anything less than fair and appropriate; indeed, he is very forthright in declaring and defending his value position. In the opening pages of his book, for example, he states that “although my own confidence has been given to science rather than to religion, I retain a sympathetic respect and even admiration for religious people and religious behavior” (Wallace 1966:vi).

I suspect that most anthropologists would be inclined to agree with Wallace. Eric Gans (1990:1), who has urged anthropologists to “demonstrate a far greater concern and respect for the form and content of religious experience,” is one who clearly shares Wallace's sympathy for the religious temperament. Whether Wallace and Gans are justified in according religious people respect and admiration is a debatable question, however. No reasonable person would deny that religious people are entitled to their convictions, but an important distinction must be made between an individual's *right* to his or her own opinion (which is always inalienable) and the *rightness* of that opinion (which is never unchallengeable). With that in mind, it could be argued that individuals who are led by ignorance or timidity to embrace incorrect opinions might deserve empathy and compassion, but they would hardly deserve respect and admiration. Respect and admiration, instead, should be reserved for individuals who exhibit dignity, courage, or nobility in response to the universal challenges of human life.

The philosopher Paul Kurtz (1983) articulates just such a position in a lengthy rebuttal to religious values entitled *In Defense of Secular Humanism*. From Kurtz's point of view, religious people live in a world of illusion, unwilling to accept and face reality as it is. In order to maintain their beliefs, they must prostitute their intellectual integrity, denying the abundant contradictory evidence that constantly surrounds them. They exhibit an “immature and unhealthy attitude” that is “out of touch with cognitive reality” and that “has all the

hallmarks of pathology” (Kurtz 1983:173). Religious people fail to exhibit the moral courage that is the foundation of a responsible approach to life.

The physicist Victor Stenger (1990) shares Kurtz’s disdain for religious commitment, and he is one of many skeptical rationalists in a variety of fields who do so. Religious people, Stenger argues, fail to accept responsibility for defining the meaning and conduct of their own lives; instead, they lazily and thoughtlessly embrace an inherited set of illogical wish-fulfillment fantasies. By refusing to fully utilize their quintessentially human attributes--the abilities to think, to wonder, to discover, to learn--religious people deny themselves the possibility of human dignity or nobility. It is only those with the courage to reject religious commitment, Stenger (1990:31-32) suggests, who deserve admiration; in his words, “those who have no need to deny the reality they see with their own eyes willingly trade an eternity of slavery to supernatural forces for a lifetime of freedom to think, to create, to be themselves.”

It would be disingenuous of me not to admit that I concur completely with Kurtz and Stenger. Nevertheless, my personal values regarding religion are entirely beside the point; I mention this only to point out the irony of our discipline’s frequent sympathy for religious commitment. In Western culture, the concept of religious “faith” has a generally positive connotation, but there is nothing positive about the reality masked by that obfuscatory term. “Faith” is nothing more than the willingness to reach an unreasonable conclusion--i.e., a conclusion that either lacks confirming evidence or one that contains disconfirming evidence. Willful ignorance, deliberate self-deception, and delusionary thinking are not admirable human attributes. Religion prejudicially regards faith as an exceptional virtue, but science properly recognizes it as a dangerous vice.

In the final analysis, however, it is irrelevant whether religious conviction deserves respect and admiration, as Wallace and Gans propose, or contempt and disdain, as I believe. My point instead is a very basic one: as scientists, we all have an ethical obligation to tell the truth, regardless of whether that truth is attractive or unattractive, diplomatic or undiplomatic, polite or impolite. As anthropologists, we have not been telling the truth about religion, and we should. The issue is just that simple.

## Conclusion

As a diverse, multifunctional cultural universal, religion is unavoidably a phenomenon of surpassing anthropological interest. What the anthropology of religion has long ignored, however, is the fact that religion and anthropology are competitors in the attempt to fulfill many of the same functions. Much of the domain of inquiry that anthropology has recently claimed for itself is one that religion has long considered its own, including the fundamental questions of human origins, human nature, and human destiny. Elman Service (1985:319) makes this point very tellingly in *A Century of Controversy*:

People, in the union of society, already know the answers to all of the questions they consider basic...Unlike the natural sciences, which at first were called on simply to fill the dark void of ignorance with increasingly sure, or testable, knowledge (and which were likely to be the ones asking the question), the behavioral sciences faced questions that had already been asked *and* answered by the culture itself.

The conflict between religion and anthropology comes about because the answers that the two offer to the “basic questions” concerning humanity are in most cases fundamentally opposed. Religious and scientific perspectives on such questions are rarely complementary, as it is popularly supposed. More often, religious and

scientific perspectives are mutually contradictory and ultimately incompatible. Anthropological science reveals, in addition, that the contradictory answers offered by religion are clearly, demonstrably, and unequivocally *wrong*. When it comes to the questions of human origins and human nature, for example, it is evident that the world's religions are mistaken. Consider the Judeo-Christian tradition as a single instance: the human species is *not* less than 10,000 years old, the present geographical distribution of human populations is *not* attributable to survivor dispersion following a universal flood, the origins of *Homo sapiens* are *not* distinct from the rest of the animal kingdom, the linguistic diversity of the human species is *not* the result of an historic event in southwest Asia 4,000 years ago, illness is *not* caused by the Devil, and women are *not* intellectually inferior to men.

In my view, the goal of anthropology should be to give us the *right* answers to the questions that human beings have always asked. The exceptional value of our discipline does not lie in our subject matter, which is neither unique nor original. Instead, it is the anthropological approach (specifically, the scientific perspective) which makes our discipline worthwhile. No rational person can doubt the unequalled value of scientific investigation. "Since the eighteenth century," as Bernard (1988:25) aptly observes, "every phenomenon, including human thought and behavior, to which the scientific method has been systematically applied over a sustained period of time, by a large number of researchers, has yielded its secrets, and the knowledge has been turned into more effective human control of events."

The unfortunate truth is, however, that the scientific study of human thought and behavior has lagged behind the scientific study of the natural world, in part because social scientists, out of deference to the emotional sensitivities of their fellow humans, have been especially reticent about applying the scientific method to the entire range of anthropological phenomena. The study of religion is only the most obvious instance of that reticence. If we would like to achieve something comparable to the success that our colleagues in physics, chemistry, and biology have achieved, we will have to be equally consistent in our application of the scientific method.

To summarize briefly, we know that no religious belief is true, because we know that all religious beliefs are either nonfalsifiable or falsified. In the interests of scientific integrity, we have an obligation to declare that knowledge. Doing so, of course, would not preclude other anthropological analyses of religion, and I would not want to be understood as having suggested that we should abandon the study of the social, psychological, ecological, symbolic, aesthetic, and ethical functions and dimensions of religion. It is precisely those areas where the anthropology of religion has made and continues to make its greatest contributions. Nevertheless, the scientific study of religion will never be fully legitimate until scientists recognize and proclaim the reality of religion.

## Notes

<sup>1</sup>There have been exceptions, of course. Murdock (1980:54), for example, makes this unambiguous observation: “There are no such things as souls, or demons, and such mental constructs as Jehovah are as fictitious as those of Superman or Santa Claus.” Similarly, Schneider (1965:85) offers this forthright declaration: “There is no supernatural. Ghosts do not exist.” But these are the exceptions that prove the rule.

<sup>2</sup>Scientific objectivity is, admittedly, founded upon a pair of ultimately unprovable assumptions: first, the assumption that “reality is ‘out there’ to be discovered,” as Bernard (1988:12) says (or that “there are things outside of the observer which no amount of merely logical manipulation can create or destroy,” as Harris [1964:169] puts it), and second, the assumption that reality is amenable to human inquiry (or that reliable knowledge is attainable, in other words). However, while it may not be possible to conclusively prove the truth of either assumption, neither is it possible to reasonably doubt the validity of either. Both assumptions are decisively validated by the overwhelming weight of human experience. Our lives are *not* mere illusions, and we *have* succeeded in understanding and predicting much of the world. To deny the first assumption is to engage in the worst sort of solipsism; “it is quite true that facts do not speak for themselves,” as Spaulding (1988:264) astutely observes, “but a conclusion that therefore there are no facts is a crashing *non sequitur*.” To deny the second assumption is to claim to know that no knowledge is possible, and that, obviously, is self-contradictory.

<sup>3</sup>It is a mistake that I myself have made. In the first edition of my textbook on anthropological theory (Lett 1987:26), I suggested that science could be defined as “a systematic method of inquiry based upon empirical observation that seeks to provide coherent, reliable, and testable explanations of empirical phenomena and that rejects all accounts, descriptions, and analyses that are either not falsifiable or that have been decisively falsified.” Of course, I was following some well-established anthropological precedents. Peltó and Peltó (1978:22), for example, define science as “the structure and the processes of discovery and verification of systematic and reliable knowledge about any relatively enduring aspect of the universe, carried out by means of empirical observations, and the development of concepts and propositions for interrelating and explaining such observations.” Harris (1979:27) maintains that science “seeks to restrict fields of inquiry to events, entities, and relationships that are knowable by means of explicit, logico-empirical, inductive-deductive, quantifiable public procedures or ‘operations’ subject to replication by independent observers.” I now recognize, however, that objectivity is the defining quality of science, and that science is empirical as a *consequence* of objectivity, not as a *condition* of objectivity.

<sup>4</sup>The fact that scientific knowledge is not absolutely certain knowledge in no way diminishes the unique value and demonstrable superiority of the scientific approach. As Watson (1991:276) notes, “public, objective knowledge of the world including human beings is not certain, but neither is it merely one interpretation out of many, each of which is no better than any other.” When it comes to the acquisition of factual knowledge, the scientific method has a record of success that far outshines any other epistemological approach. The reliability, predictability, generalizability, and usefulness of scientific knowledge are simply unparalleled; the vindication of the scientific method on pragmatic grounds is decisive.

<sup>5</sup>The term “paranormal” was first popularized by parapsychologists, but is likely to be most familiar to anthropologists through the efforts of The Committee for the Scientific Investigation of Claims of the Paranormal. CSICOP, which was founded in 1976 by the philosopher Paul Kurtz, is a national organization of philosophers, natural scientists, social scientists, physicians, engineers, attorneys, journalists, magicians, and other skeptical people committed to the rational analysis of paranormal claims. The organization includes a number of anthropologists among its Fellows and contributors to its quarterly journal, *The Skeptical Inquirer*.

<sup>6</sup>Joseph K. Long’s (1977) edited volume *Extrasensory Ecology: Parapsychology and Anthropology* is perhaps the most regrettable example of the irrational approach to the paranormal within cultural anthropology. The collection can be described, somewhat charitably, as one of the saddest and silliest books ever published under an anthropological aegis. Long’s gullibility and flagrant disregard for rational principles of evidential reasoning are egregious. He baldly states, for example, that “ghosts, astral projections, and poltergeists are real” (1977:viii), he describes levitation as “probable” (1977:384-385), he claims that at least some so-called “psychic surgeons” (who are really sleight-of-hand artists) have successfully performed barehanded operations on human patients that involve “deep and random cutting, extraction of parts, and immediate healing of the wound leaving virtually no scar” (1977:375), and he endorses the transparently fraudulent “psychokinetic” stunts of the Israeli showman Uri Geller as genuine (1977:248).