

# RECONCEPTUALIZING RELIGION, MAGIC, AND SCIENCE\*

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*Three of the most central concepts used in the social scientific study of religion are so poorly and inconsistently defined as to preclude coherent discussion, let alone theoretical progress. In this essay I examine the similarities and crucial differences that can be used to clearly distinguish religion, magic, and science. Among the many contrasts I pursue, science is restricted to the empirical world, while religion is more effective when it limits its concern to the nonempirical, hence there is no necessary incompatibility between the two. Although magic and religion are both based on supernatural assumptions, magic concerns the empirical world and thus is vulnerable to scientific falsification. Furthermore, in contrast with religion, the supernatural assumptions of magic are crude and impersonal. Thus, in contrast with both science and magic, only religion can adequately address issues of ultimate meaning and morality.*

It is often said that social scientists don't know what they're talking about. And too often it's true, at least to the extent that they are using terms they have not bothered to define or seem unaware that a given disagreement is definitional, not substantive. Nowhere has this been more obvious than in discussions of religion, but the problem is nearly as severe vis-a-vis the concepts of magic, and science. There are, of course, no "true" definitions of these terms hovering in hyperspace and awaiting discovery -- all definitions are intellectual conventions. But, it is entirely feasible to formulate mutually exclusive and theoretically efficient definitions of each, while retaining substantial linguistic continuity.

## AMBIGUITIES IN CURRENT USAGE

For thousands of years the term "religion" usually meant the worship of supernatural beings. Even a century ago, social scientists thought this definition was adequate—Edward Burnett Tylor, the founder of British anthropology, being content to define religion as "belief in spiritual beings" ([1871] 1958, 2:8). Then came Emile Durkheim, and all such clarity was lost.

Durkheim not only denied that supernatural beings were essential to religion, but regarded them as "no more than a minor accident," and admonished that the wise "sociologist will pay scant attention to the different ways in which" people conceive of the divine, and "will see in religion only a social discipline" ([1886] 1994:19,21). Hence, Durkheim defined religion as "a unified system of beliefs and practices relative to sacred

things" ([1912] 1995:44). Trouble is, nowhere in any of his work did he even attempt to define "sacred," except to say it is the opposite of profane (which he also failed to define) and that sacred things are "set apart and forbidden" (ibid.). Nor was this merely a neglected formality. When Durkheim applied the terms sacred and profane to specific examples, they proved to be "so closely intermingled as to be inseperable" (Evans-Pritchard, 1965:65).

There is nothing inappropriate about equating religion and the sacred, but doing so sheds no light on what either term means, hence Durkheim's classic statement defined nothing, merely offering one undefined term as a synonym for another. Unfortunately, several generations of sociologists have embraced Durkheim's "definition" without noticing its inadequacy. Worse yet, having equated religion with the sacred, too many scholars have proceeded to discover the sacred (hence religion) virtually everywhere, thus depriving the term of analytical power (see Demerath, 2000; Demerath et al., 1998).

Many other sociologists have attempted to save Durkheim's definition by specifying what the term sacred means, hence the popularity of definitions that focus on the provision of "*ultimate meaning*." In this tradition, religion is any system of beliefs and practices involving answers to questions about the meaning and purpose of life (see Bellah, 1964, 1970; Berger, 1967; Beyer, 1994; Geertz, 1973; Luckmann, 1967; Yinger, 1957). But, as the proponents of this definition frankly admit, "Religion, of course, is not alone in attempting to deal with the ultimate problems of human life" (Yinger, 1957:10). Indeed, explicitly irreligious and even anti-religious philosophies and political creeds often address the meaning of life, including some that claim life has no meaning. If all of these are religions, then the immediate need is to distinguish between those that are and are not predicated on the existence of the supernatural, in which case the definitional task remains to be achieved and all that has been accomplished it to waste the term religion.

Other current definitions of religion put the stress on *faith*, thus classifying as religions all systems of thought able to generate a substantial degree of conviction (Bailey, 1998). However, invincible convictions are as frequently an aspect of non-religious or anti-religious viewpoints—most village atheists epitomize the True Believer.

Obviously, both ultimate meaning and a high level of conviction are aspects of the phenomenon to be identified as religion. However, definitions based primarily on one or the other (or both) have diverted a great deal of intellectual effort to analyses assuming that Communism is some kind of religion, or to emphasizing that groups such as Greenpeace or Amway are "implicit religions," "quasi-religions," or "para-religions" (Bailey, 1998; Beckford, 1984; Greil and Robbins, 1994; McGuire, 1993).

In similar fashion, the term magic has been a conceptual mess. An amazing number of scholars have been content to write about magic at length while leaving it undefined. For example, although Max Weber's books "are saturated with the subject" of magic, he never defined it (O'Keefe, 1982:10). In similar fashion, Bryan Wilson published a very long and dense volume with the title *Magic and the Millennium* (1975), but seems to have assumed that his readers needed no coaching as to the meaning of either term.

Some scholars have equated magic and religion and refer to "magico-religious acts and beliefs" (Goody, 1961:160). Many others have followed Durkheim ([1912] 1995) in distinguishing religion from magic on the basis their goals, identifying religion as being mainly concerned with general, long-range, goals and magic as concerned with immedi-

ate and concrete goals (Malinowski [1948] 1992; Roberts, 1995; Yinger, 1957). That criterion proves useful, but it is insufficient. How do we distinguish a parent's prayers for the recovery of a sick infant (an immediate and concrete goal) from the recitation of an occult formula directed towards the same result, or, indeed, from a medical prescription? Is each an instance of magic? If not, why not? As for Durkheim's nephew Marcel Mauss, in his famous *A General Theory of Magic*, he felt it sufficient to define magic as "any rite that does not play a part in organized cults" (1950:24). Given that by "organized cults" Mauss meant religions, his often cited definition is simply that those rites that are not religious are magical, neither term being defined, nor did he even define rites.

Some recent European scholars define magic as "esoteric knowledge" revealed only "to a select few," as in the Hermetic and Gnostic traditions (Eleta, 1997:52). This unrealistically limits magic to its most "professionalized" and sophisticated forms, while failing to provide a basis for distinguishing it from secular secrets such as classified scientific research. Indeed, social scientists have often identified magic as a primitive, or incorrect, form of science (Hegel, [1840] 1996; Horton, 1962, 1964; Levi-Strauss, 1966; Tylor, [1871] 1958). Sir James G. Frazer noted that science and magic both assume the "order and uniformity of nature," that the "same causes will always produce the same effects" and both believe in the existence of "immutable laws, the operation of which can be foreseen and calculated precisely" ([1922] 1950:56). But, the "fatal flaw of magic lies...in its total misconception" of the fundamental principles of causation. When these principles are "legitimately applied they yield science; illegitimately applied they yield magic, the bastard sister of science" (ibid.:57). This led Frazer to his famous conclusion that "all magic is necessarily false and barren; were it ever to become true and fruitful, it would no longer be magic but science" (ibid.).

These views are, of course, inherently evolutionary. If magic is failed science, then it is doomed to be replaced by the rise of real science. Thus, Keith Roberts (1995:23) claimed that "Magic, I assert, will be replaced in large part by science, technology, and the modern secular world view." But, having left science undefined (as did Frazer and most others who have contrasted magic and science), Roberts offered no criteria by which we can discover when this replacement will have been achieved. Such omissions may have encouraged some social scientists who claim there is *no difference* between magic and science, agreeing with Patrick Curry (1999:403) as to "the tendentiousness of the magic/science opposition." And so it has gone.

Of course, post-modernist scholars deny the worth or even the possibility of general definitions or of cross-cultural comparisons (Derrida, 1972). In the most extreme version, abstractions are condemned as acts of attempted political domination; cross-cultural comparisons are said to be intrinsically imperialistic and destructive (Lyotard, 1993). Even the more moderate proponents condemn the notion of objectivity—Stephen Tyler (1986:139) dismissed all attempts even to describe a single culture (let alone compare two or more) as merely "a fantasy reality of a reality of fantasy." Jonathan Z. Smith (1978:240-241) has summed up these views as an "ethic of particularity" wherein "any attempt at generalization" violates "the personhood of those studied." But, as Smith went on to note, the "process of comparison is a fundamental characteristic of human intelligence...comparison, the bringing together of two or more objects for the purpose of noting similarity or dissimilarity, is the omnipresent substructure of human thought. Without it we could not

speak, perceive, learn or reason..." In point of fact, the post-modernists cannot even attack comparative studies except by making constant comparisons (Eagleton, 1996; Holdrege, 2000). My position was well-expressed by Rosalie and Murray Wax: "If the first sin of the social scientist is the belief that the practices of his own people are superior to all, the second sin is the failure to distinguish genuine differences among peoples" (1962:180).

Finally, an aversion to definitions and especially to cross-cultural conceptualizations has a long history in social science (long predating post-modernism) and has been especially frequent in the area of religion (cf. Needham, 1985). Thus, Martin Southwold (1978) argued that religion is such "a compound of diverse elements" that it cannot usefully be defined and that we should instead concentrate on understanding "why religions are compounded as they are." But, had he truly left religion undefined, Southwold could never have known whether he was studying the cultural compounds of religions rather than of, say, military tactics. In similar fashion, many social scientists have approvingly quoted Jane Harrison's (1912:29) advice that rather than to define religion, one should "collect the facts that are admittedly religious and see from what human activities they appear to have sprung." However, as Jack Goody (1961:142) explained, Harrison "was merely taking refuge in an implicit rather than an explicit judgment of what constitutes the 'admittedly religious'." Had Southwold and Harrison truly been unable to "define" religious phenomena, their work would have been incoherent.

In fact, even most of those who fear to define their terms seem willing to identify some general categories of social and cultural phenomena across cultures, "colonialism" and "hegemony" being common examples. Moreover, meaningful conversation, let alone the exigencies of social science, require us to classify phenomena in mutually exclusive ways. To propose that Judaism and socialism, or that physics and voodoo, are the same, results in intellectual fruit salad. Therefore, in this essay I offer clear criteria for distinguishing among *religion*, *magic*, and *science*.

In pursuit of useful definitions, I begin with a feature so basic that religion, magic, and science have it in common,

### Control

From the dawn of human existence, our efforts to control nature and events have been constant and unrelenting. For example, when early humans confronted the dangers and uncertainties involved in hunting large mammals, sometimes they sought to maximize results and minimize dangers by attempting to stampede a herd over a cliff. When this was impossible, they sometimes recited spells over their spear and arrow points to make them more deadly, and in most instances they prayed to a supernatural being to protect them and deliver the game into their hands. In each example the goal was control. It is the desire for control that motivates humans to develop skills, crafts, technologies, and, ultimately, science. People do magic for the same reason and the desire to control one's fate is an essential element of religion.

I am not yet prepared to define religion or magic because it will be more effective to let these definitions emerge. However, it is necessary at the start to limit what I mean by science.

Definition 1: *Science is a method utilized in organized efforts to explain nature, always subject to modifications and corrections through systematic observations.*

Put another way, science consists of two components: *theory* and *research*. Theorizing is the explanatory part of science. Scientific theories are abstract statements about *why* and *how* some portion of nature (including human social life) fits together and works. However, not all abstract statements, even those offering explanations, qualify as scientific theories, otherwise theology would be a science. Rather, abstract statements are scientific only if it is possible to deduce from them some definite predictions and prohibitions about what will be observed. And that's where research comes in. It consists of making those observations that are relevant to the empirical predictions and prohibitions. Clearly, then, science is limited to statements about natural and material reality—about things that are in principle observable. Hence, there are entire realms of discourse that science does not address.

By "organized," I mean to note that science is not random discovery, nor is it achieved in solitude. Granted that some scientists have worked alone, but not in isolation. From earliest days, scientists have constituted networks and have been very communicative. Indeed, not even Nicolaus Copernicus is an exception to this rule—he was anything but an obscure Catholic canon in far off Poland. Copernicus was educated at Cracow, one of the greatest universities of that time, and then spent another three and a half years at the University of Bologna, possibly the best university in Europe. Next, he spent about four years at the University in Padua, interrupted by a brief visit to the University of Ferrara where he received a degree of Doctor of Canon Law. Having returned to Cracow, Copernicus attracted students, one of whom, Georg Joachim Rheticus, linked him to scholars in newly-Protestant German universities. Had Copernicus actually been only an obscure Polish canon, it seems safe to suppose that he would not have constructed a heliocentric model of the solar system. First of all, it is unlikely that he would have learned of the sophisticated discussions of the sun's apparent motion being the result of the rotation of the earth, first proposed by the then well-known scholastic natural philosophers, Jean Buridan (1300-1358) and Nicole Oresme (1325-1382). Their discussions of planetary motion were so well-informed that "Copernicus could not improve upon them" (Grant, 1996:169). Nor did Copernicus need to explain why buildings and other things on the earth were not toppled by a rotating earth, since Buridan and Oresme had solved that problem too with their work on impetus and motion. Copernicus' actual achievement lay in working out the geometry of a heliocentric system and showing that planetary positions could be predicted from it, albeit with some loss of accuracy. Secondly, without the reassurance and urging of his large network of scholarly friends, Copernicus never would have published his work (as it was, he almost didn't).

Consistent with the views of most contemporary historians as well as philosophers of science, the definition of science presented above excludes all efforts through most of human history to explain and control the material world, even those not involving supernatural means. Most of these efforts can be excluded from the category of science because until recent times "technical progress—sometimes considerable—was mere empiricism," as Marc Bloch ([1940] 1961:83) put it. That is, progress was the product of obser-

vation and of trial and error, but was lacking in explanations—in theorizing. This objection can even be applied to Copernicus, since his heliocentric conception of the solar system was merely a descriptive claim (much of it wrong). He had little to say about *why* planets remain in their orbits around the sun, or moons about the planets. Until Newton there was no *scientific theory* of the solar system. I am willing to include Copernicus among the founders of modern science only because of his influence on and participation in a network of astronomers whose work soon qualified as truly scientific. But, the earlier technical innovations of Greco-Roman times, of Islam, of Imperial China, let alone those achieved in prehistorical times, do not constitute science and are better described as lore, skills, wisdom, techniques, crafts, technologies, engineering, or simply knowledge. Thus, for example, even without telescopes the ancients excelled in astronomical observations. But, until they were linked to testable theories, these observations remained merely “facts.” Charles Darwin expressed this point vividly:

*About thirty years ago there was much talk that geologists ought to observe and not theorize; and I well remember someone saying that at that rate a man might as well go into a gravel-pit and count the pebbles and describe the colours. How odd it is that anyone should not see that all observation must be for or against some view if it is to be of any service! (1903:1:195).*

As for the intellectual achievements of Greek or eastern philosophers, their empiricism was quite a-theoretical, and their theorizing was non-empirical. Consider Aristotle. Although praised for his empiricism, he didn't let it interfere with his theorizing. For example, he taught that the speed at which objects fall to earth is proportionate to their weight—that a stone twice as heavy as another will fall twice as fast (*On the Heavens*). A trip to any of the nearby cliffs would have allowed him to falsify this proposition. He also explained in his *Physics* that the motion of a projectile is due to the push given it from the air closing behind it, paying no heed to the need to open the air in front of it. The superb, and sadly neglected, scholastic scientist-theologian Jean Buridan dispatched this Aristotelian proposition by observing that when a man runs, he “does not feel the air moving him, but rather feels the air in front strongly resisting him” (in Clagett, 1961:536).

The same can be said of the rest of the famous Greeks—their work either is entirely empirical or it does not qualify as science for lack of empiricism, being sets of abstract assertions that disregard or do not imply observable consequences. Thus, when Democritus proposed the thesis that all matter is composed of atoms, he did not anticipate scientific atomic theory. His “theory” was mere speculation, having no basis in observation or any empirical implications. That it turned out to be “correct” (and most of it did not) lends no more significance to his “guess” than to that his contemporary Empedocles, who asserted that all matter is composed of fire, air, water, and earth or Aristotle's version a century later that matter consists of heat, cold, dryness, moistness, and quintessence. Indeed, for all his brilliance and analytical power, Euclid was not a scientist because, in-and-of-itself, geometry lacks substance, having only the capacity to describe reality, not to explain any portion of it.

Of course, these millennia of technological and intellectual progress were vital to the eventual development of science, but it is the consensus among contemporary historians,

philosophers, and sociologists of science that the “scientific endeavor” that arose “in the West [was] an enterprise different from its medieval European, Arabic, Chinese, or Indian antecedents” (Ben-David, 1990:258). Real science arose only once: in Europe (Cohen 1985; Collins, 1998; Dorn, 1991; Grant, 1996; Huff, 1993; Kuhn, 1962; Lindberg, 1992). In this regard it is instructive that China, Islam, India, as well as ancient Greece and Rome, had a highly developed alchemy. But, only in Europe did alchemy develop into in chemistry. Moreover, only this very exceptional instance offers *any* basis for suggesting that magic is primitive science. On the other hand, there are substantial grounds for the claim that science developed out of religion, out of the fundamental axiom of Christian theology that God had created a logical universe based on universal laws that could be discovered though reason and observation.

However, I reject the notion that religion evolved from magic, which is why I have avoided the usual word order of “magic, religion, and science.” This order was established in the nineteenth century by the leading social evolutionists who did think religion originated in magic—an assumption that goes back at least to Hegel, and was embraced by Tyler, Spencer, and Frazer (O’Keefe, 1982). But, perhaps as part of their antipathy to all things British, Durkheim and his circle disagreed. As Durkheim explained:

*Thus magic is not, as Frazer held, a primary datum and religion only its derivative. Quite the contrary, the precepts on which the magician’s art rests were formed under the influence of religious ideas...Hubert and Mauss...have brought to light a whole background of religious conceptions that lie behind the apparently secular mechanisms used by the magician, a whole world of forces the idea of which magic took from religion. We can now see why magic is so full of religious elements: It was born out of religion ([1915] 1995:366).*

Neither view is persuasive. Both the ethnographic and historical records suggest that religion and magic developed in tandem and were always recognized as different—that even very early humans were fully aware of the difference between offering a sacrifice to a Rain God or casting a spell (just as modern athletes know the difference between saying a prayer before a game and wearing their lucky underwear).

## WORLDLY REWARDS

Religion, magic, and science also share an apparent ability to produce results—people not only seek worldly rewards via each of these methods, but each of the three often seems able to deliver. Keep in mind that not only are scientific efforts often stymied (efforts to cure a particular disease, for example), but magical and religious attempts at control are frequently followed by the desired consequence. In the case of magic, for example, it often rains following rain dances since rain dances are held in the rainy season, and rather than being prompted by a lack of rain, usually they are done in *anticipation* of rain. Love potions often work too since they typically are only one part of the courting process. As for religion, it produces many worldly satisfactions (including respectability) without recourse to supernatural means (Iannaccone, 1994; Stark and Finke, 2000). As for calling

on the divine, prayers often do seem to be answered—for example, prayers for the sick often *are* followed by recovery.<sup>1</sup>

Thus far we have seen ways in which religion, science and magic are alike. Each is an effort to control nature; each offers worldly rewards. Now it is time to begin to differentiate these concepts.

## THE SUPERNATURAL

Only magic and religion depend upon the supernatural.

Definition 2: *Supernatural* refers to forces or entities beyond or outside nature which can suspend, alter, or ignore physical forces.

Notice that this definition makes no mention of supernatural *beings*. As will be seen, magic does not assume the existence of such beings, while *most* religions do. However, some religions conceive of the supernatural as an omnipresent *essence* or principle governing life, but which is impersonal, remote, and definitely not a being. The Tao (or Way) is an example. Some Taoists claim it is merely the philosophical principle governing reality. Others allow it as the origin of the universe, but many of them also say that the Tao does not exist, although it is always existent. The term that best fits such a vague conception of the supernatural, is *essence*.

It is unproductive to equate essences and beings and therefore:

Definition 3: *Gods* are supernatural "beings" having consciousness and desire.

This definition leads to the recognition that there exist *Godless religions*, which is, of course, what intellectual devotees of Buddhism, Taoism, and Confucianism have always claimed. But, it also must be recognized that Godless religions are unable to gather a mass following, always being limited in their appeal to small, intellectual elites. Thus, in Imperial China, the forms of Taoism, Buddhism, and Confucianism practiced in various monasteries and among court philosophers and the Mandarins of the civil service, were (relatively)<sup>2</sup> Godless. But the common people always associated an abundant pantheon of Gods with the Taoist, Confucian, and Buddhist ideals (Parrinder, 1983; Smart, 1984). Mistaking the Godless Buddhism of eastern elites for the Buddhism of the eastern masses caused Durkheim to exclude the Gods from his definition of religion in order to save the generalization that all societies have religions. Beginning with the first major reviews of *Elementary Forms*, anthropologists have ridiculed Durkheim's knowledge of ethnography (see Goldenweiser, 1915), and his error concerning the Godlessness of popular Buddhism has always been seen as an extraordinary blunder (see Spiro, 1966a, 1966b). Unfortunately, for several generations sociologists remained unaware of this error (see Goode, 1951), and many still haven't heard. Nevertheless, Godless religions are of little interest to social scientists since they exist primarily as *scriptures*, not as human activities. However, because these scriptures are so abstruse and abundant, they are highly esteemed by scholars.

Given this qualification concerning the lack of mass appeal of Godless religions, it is possible to say that most examples of what qualifies as religion are predicated on conceptions of Gods. But this is not true of magic. Magic is *limited to impersonal conceptions of the supernatural*, what the celebrated Bronislaw Malinowski described as a “mystic, impersonal power.” He went on to describe the nearly “universal idea found wherever magic flourishes” that there exists “a supernatural, impersonal force” ([1948] 1992:19-20).

Summing up more than a century of anthropological studies of magic, John Middleton (1967:ix) pointed out:

*...the realm of magic is that in which human beings believe that they may directly affect nature and each other, for good or for ill, by their own efforts (even through the precise mechanism may not be understood by them), as distinct from appealing to divine powers by sacrifice or prayer.*

Of course, Middleton did not mean to place in the magical realm just any or even most human efforts to affect nature or one another. He assumed his readers understood that, just as rain dances differ from irrigation projects, only efforts involving a resort to supernatural means constitute magic. Hence, as a *first step* towards a definition of magic we may identify it as *efforts to manipulate supernatural forces to gain rewards (or avoid costs) without reference to a God or Gods*. This is consistent with Frazer’s (1922) position that desired results are inherent in magical acts, while religion depends on effects granted by external agents.

When a Catholic wears a St. Christopher’s medal to ensure a safe journey, that is not magic because the power of the medal is attributed to the patron saint whose powers, in turn, are granted by a God. The medal is intrinsic to an exchange with a God. But, when devotees of the New Age place “mystic” crystals under their pillows in order to cure a cold, this is magic because no appeal has been made to a God. The same applies to astrology. The conclusion that, for example, tomorrow is not an auspicious day for travel, is not a message from God, but is a calculation concerning the location of heavenly bodies relative to one’s birth date. Magic deals in impersonal supernatural forces, often in the belief that such forces are *inherent properties* of particular objects or words—especially written or spoken formulae and incantations. Ruth Benedict distinguished religion and magic in this way, proposing that the former involves “personal relations with the supernatural,” while the latter deals with “mechanistic manipulation of the impersonal” (1938:637).

Anthropologists often use the Melanesian word “mana” to identify these impersonal supernatural forces or properties. More than a century ago R. H. Codrington defined mana as “a force altogether distinct from physical power which acts in all kinds of ways for good and evil and which it is of the greatest advantage to possess and control” (1891:118-119). Paul Radin ([1937] 1957:13) quoted an interview with a Maori who “regarded *mana* as...something localized in a specific object...” Ruth Benedict offered a more precise description of mana: “this supernatural quality [is] an attribute of objects just as color and weight are attributes of objects. There [is] just the same reason that a stone should have supernatural power as one of its qualities as there [is] that it should have hardness. It [does] not imply the personification of the stone...” (1938:631-632).

Admittedly, the most sophisticated form of magic known as sorcery sometimes may involve supernatural forces a bit more animate than mana. That is, sometimes sorcerers do attempt to compel certain primitive spiritual entities such as imps and demons to perform certain services, or, as in the case of necromancy, to communicate with the dead. Even so, it still remains possible to "distinguish between magic and religion on the basis of the criterion of compulsion" (Levack, 1995:6. Also see Peters, 1978). As Benedict (1938:637) put it: "*Magic* is mechanical procedure, the compulsion of the supernatural." Later in her essay, Benedict (1938:647) explained that there are "two techniques for handling the supernatural—at the one extreme compulsion and at the other rapport." Compulsion of spiritual entities remains within the realm of magic, but exchanges with the Gods (which imply rapport) shifts the activity into the realm of religion. Although Max Weber failed to define magic, he also noticed that magic involved the compulsion of supernatural forces, in contrast to religion which involved supplications to the Gods. As he put it, "those beings that are worshipped and entreated religiously may be termed 'gods,' in contrast to the 'demons,' which are magically coerced and charmed" ([1922] 1993: 28).

## EXPLANATIONS AND ULTIMATE MEANING

Just as the notion of mana is vague even among those who believe in it, so too the underlying explanations utilized in magic are vague almost to the point of non-existence. Magic asserts causal claims (if you do this, that will happen), but with little or no attempt to say why. As Malinowski ([1948] 1992:70) put it, magic is "circumscribed in its beliefs, stunted in its fundamental assumptions."

Richard Keickhefer (1976:6) contrasted technology with the use of magic, such as attempting to harm another person by sticking pins in a wax doll, as follows:

*For most [technologies] that they employ, people have some vague (and perhaps incorrect) notion of the mechanisms involved, or else they assume that they could ascertain this mechanism if they so endeavored, or they take it on faith that someone understands the link between cause and effect. But the man who mutilates his enemy's representation cannot make any of these claims. He may believe that the magical act works, but he cannot explain how.*

Indeed, magical lore displays remarkably little curiosity or speculation.<sup>3</sup> Not only does it not have reference to the Gods, it does not engage questions of "ultimate meaning," defined by Talcott Parsons (1951:367) as concerning the fundamental point and purpose of "nature, human nature, society, the vicissitudes of human life, etc." Does life have a purpose? Why are we here? What can we hope? Why do we suffer? Does justice exist? Is death the end? Magic offers no answers. As Durkheim noted ([1915] 1995:42), magic is not concerned with the meaning of the universe, but with "technical and utilitarian ends" and hence "it does not waste its time in speculation." Or, as Middleton (1967:ix) put it, "Magical beliefs and practices are particularly significant in being mainly instrumental, with little expressive content."

Definition 4: ***Magic** refers to all efforts to manipulate supernatural forces to gain rewards (or avoid costs) without reference to a God or Gods or to general explanations of existence.*

In contrast to magic, the fundamental purpose of both religion and science is to provide *explanations*. Why does this happen? How did things come to be? This sets them very sharply apart from magic, while references to the supernatural distinguish religious from scientific explanations. Having access only to the observable world helps to account for the relative reluctance of science to deal with questions of ultimate meaning. Those who associate their science with atheism, as Bertrand Russell did, tend to deny that such questions are themselves "meaningful." Some others attempt to discover ultimate meaning within the scientific sphere—the late Carl Sagan substituted "Cosmos" for God and, when waxing philosophical, always capitalized Nature (Ross, 1985). But many scientists simply defer to theology when such questions come up. I reflect this variation in Figure 1-1 by "perhaps" vis-a-vis science and questions of ultimate meaning.

Finally, I am able to define religion:

Definition 5: ***Religion** consists of explanations of existence based on supernatural assumptions and including statements about the nature of the supernatural and about ultimate meaning.*

Thus, religion tells us the meaning of life (if any) and what the supernatural is like, whether beings or essences, and if the latter, about their character and concerns. Because Gods are conscious beings, they are potential exchange partners because all beings are assumed to want something for which they might be induced to give something valuable. Indeed, the core of Godly religious doctrines consists of explanations about what Gods want and what one must do to earn their blessings. Or more formally:

Definition 6: ***Theology** consists of explanations that justify and specify the terms of exchange with Gods, based on reasoning about revelations.*

Definition 7: ***Revelations** are communications believed to come from Gods.*

Put another way, theology is the result of *applying reason to revelation* in order to expand understanding of divine concerns and desires and to increase the range of applications to which that understanding may be applied. This definition is entirely traditional. In *Summa Theologiae* (Part I, q.1, a. 1), Thomas Aquinas (c.1225-1274) referred to theology as "doctrine about God according to divine revelation," and Karl Rahner (1975:1687), stated the authoritative contemporary Catholic view: "Theology is the *science* of faith. It is the conscious and methodical explanation and explication of the divine revelation." A classic example of such reasoning is the evolution of an elaborate theology concerning Mary despite how little actually is said about her in the New Testament (Pelikan, 1996).

Because divine essences are incapable of exchanges, they may present mysteries, but they pose no tactical questions and thus prompt no effort to discover terms of exchange.

Of course, the sacred books of Godless religions also tell us about the supernatural, but the sacred books of Godly religions claim to report what the divine has to tell us. Eisai, the first Zen master, taught what he had *intuited* about the supernatural realm; Joseph Smith, the first Mormon, taught what he had been *revealed* to him. As Avery Dulles (1992:3) put it: "Judaism, Christianity, and Islam...profess to derive their fundamental vision not from mere human speculation, which would be tentative and uncertain, but from God's own testimony—that is to say, from a historically given divine revelation." Indeed, the authority of the Mishnah rests on the Jewish belief that God continues to reveal himself to scholars through their close study of the Torah.

It is important to see that this definition of theology does not reduce Godly religions to a set of commandments or divine demands. Terms of exchange with the Gods provide the foundation for religious thought, but there will be an extensive collection of ideas, principles, myths, symbols, images, and other elements of religious culture built upon this base. Within the context of clarifying what the Gods want, religious explanations often explain the fundamental meaning of life: how we got here and where we are going. Religion is first, and foremost, an intellectual product and hence I propose that *ideas* are its truly fundamental aspect. Indeed, it is this that made religion a necessary antecedent to the emergence of science, while indifference to ideas is what separates magic from both.

Many social scientists will condemn this definition of religion as "intellectualist," being limited to beliefs, whereas (they claim) religion consists primarily of actions and feelings, especially of rites and various forms of awe and ecstasy (Beattie, 1966; Douglas, 1966; Morris, 1987). Indeed, Robert Bellah (1970:220) deemed my approach the "objectivist fallacy." These criticisms are a form of premature elaboration. Once we know what religion is, then (and only then) can we distinguish actions and feelings that are religious rather than otherwise. A high mass and a Nazi Party rally both qualify as rites and both can inspire deep emotions in participants. Only by noting which is grounded in supernatural assumptions and which is not, can they be effectively distinguished. In similar fashion, William James rejected the idea of "religious sentiments" or "emotions" per se. Rather, what can be identified as "religious fear, religious love, religious awe, religious joy, and so forth" are nothing more (or less) than natural emotions "directed to a religious object"—objects being religious because they involve "the divine" ([1902] 1958:39-42). Hence, when I refer to religious rites, for example, I mean rites that are performed for religious motives or purposes. Using "religion" as a modifier makes it possible to incorporate all aspects of religion and the religious life without the use of more complex definitions.

### **"OTHERWORLDLY" REWARDS AND MORALITY**

Although magic assumes the supernatural realm, it locates its rewards here and now, while religion locates its most valuable rewards (and often its most extreme costs) in another realm. This "other" world is the not only a sacred sphere, it is a "place" that humans may expect to enter, if only after death. By far the most vivid notions of the "other" world and belief in its accessibility—often conceived of as dual worlds of heaven or hell—tend to be limited to the great monotheisms. But all religions posit "other" realms—even Taoist intellectuals anticipate immortality and Confucian philosophers are concerned about pleasing the spirits of their ancestors.

Religions that posit the availability of the most valuable rewards in a life-to-come have the capacity to involve humans in *extended* exchange relations with the Gods. That is, in order to qualify for immense rewards in the afterlife and (often) to avoid immense costs, humans must sustain their obligations to the Gods. One may seek magical results on a one-time basis, but otherworldly rewards tend to require life-long commitment. Indeed, otherworldly rewards enable religions to impose *extensive* requirements for sustaining relationships with the Gods. These usually are sets of specific rules, such as modesty in dress, chastity outside marriage, sobriety, honesty, dietary rules, restrictions on speech, and the like. In this way, Godly religions are enabled to define and sanctify the moral order.

In contrast, the impersonality of the supernatural component of Godless religions and of magic makes human motives and morals irrelevant. Thus, the Gods may require that supplicants be pure in heart, but mana and the Tao ask no questions. Indeed, even if, in order to "work," a spell must be recited by someone having special attributes, such as being a virgin or a hunchback, the concern is not with inner feelings or moral virtue, but with the instrumentality alone. Thus, magic cannot inspire morality. The same is true of divine essences as they do not judge (or do anything) and hence they cannot sanctify the moral order. This surely is not to suggest that societies or individuals lacking Gods are necessarily lacking moral codes. It is simply to note that these codes will not make reference to religious justifications.

Nor can science justify morality. Donald N. Levine (1995:306) has suggested that "social theory" can address "questions that science may not answer but which we feel compelled to pursue nevertheless." Such a suggestion assumes that social theory is a form of unscientific moralizing, which is, in fact, too often the case. Indeed, when Auguste Comte coined the term sociology, it was to identify a field that would serve as a scientific substitute for religion as the basis for establishing morality. But, it has long been recognized that one can shift one's concerns between moral questions and scientific questions, but that the phrase "science of morality" violates the domain assumptions of each term. Dostoyevsky's character Ivan Karamazov came much closer to the truth when he said that, "If God is dead, everything is permitted." Of course, as noted, any number of moral rules can be *asserted* on purely secular grounds. And they can be enforced, given sufficient group solidarity (Miller and Kanazawa, 2000; Stark, 2001). But a crucial philosophical problem persists: lacking the legitimacy provided by divine will, how is it possible to *justify* moral rules, to prevent them from being seen as arbitrary, provisional, and subject to individual choice?

## EMPIRICAL FALSIFICATION

Science has been defined in terms of its reliance on observations. Not only do systematic observations yield empirical generalizations that can prompt the construction of theories, far more important is that any scientific theory is subject to contradiction by observations. As noted, a scientific theory predicts and prohibits certain observable states of affairs. It says, this is what *must* occur and this is what *may not* occur. When these predictions and prohibitions are not consistent with the relevant observations it is necessary to reject or revise that theory. It is by being able to falsify theories that science makes

progress. By ruthlessly weeding out theories that fail, or which are less efficient or precise, we gain confidence in those that continue to survive confrontations with the facts.

Just as vulnerability to falsification is the primary scientific virtue, it is a primary weakness of magic. It is assumed that scientific "truths" are provisional, subject to future rejection or revision, but this is not the assumption on which magic rests. When magic fails, as it often does, this seldom inspires magicians to revise, but merely to try again, and again. As Malinowski ([1948] 1992:19) claimed, "Science is guided by reason and corrected by observation, magic [is] impervious to both."

In contrast, because religion is able to confine its major explanations to a realm not subject to empirical inspection, unlike magic it *can be* immune to falsification. I am, of course, entirely aware of religious prophecies and activities that are vulnerable to failure. But these are unnecessary, and often inimical, to the success of religious organizations and as religions mature they tend to cease such undertakings—which gives religion immense social and institutional advantages in contrast with magic. While religion may propose to compensate a person for suffering in this life by admitting them to paradise, magic seeks to provide pleasures here and now. Or while religion reassures the lonely that God loves them, magic offers them charms to attract lovers. These specific and worldly promises are extremely vulnerable to disconfirmation; when they fail, that fact will be obvious to all concerned. Consequently, compared with religion, magic is *very risky goods*. Therefore, over time magic and religion will tend to be differentiated, as specialists in providing religion will tend to reduce or eliminate magic from their "product line," leaving it to specialists in magic.

In a classic paper on this topic, David G. Mandelbaum (1966) described how the priests of all of the great eastern religions maintain an acknowledged symbiosis with local magicians. People seek to ensure their general welfare and gain otherworldly rewards through religion, but consult magicians for specific and immediate needs. Thus, he explained (1966:1177), a Brahmin priest will not (or only very rarely) attempt "to cure an immediate and specific ailment." For this, people must consult a magician. The Brahmin priests need not risk empirical failures because they have far more valuable commodities to offer without risk. In contrast, the risks of magic are immense as reflected in the very high turnover of practitioners, at least in a given locale, and by the lower class origins of magicians (Mandelbaum, 1966).

The unreliable character of magic also prevents magicians from establishing extended exchange relationships with a lay following, or as Durkheim ([1915] 1995:42) put it:

*There is no Church of magic. Between the magician and the individuals who consult him, there are no durable ties that make them members of a single moral body, comparable to the ties that join the faithful of the same god or the adherents of the same cult. The magician has a clientele, not a Church.*

By the same token, magical failures become the basis for intense competition and conflict. This creates a very dangerous situation when religions do not divorce themselves from magic, but attempt to provide it in competition with magicians—as demonstrated by the European witch hunts.

## SCOPE

When people discuss the existence of God, they are not speaking with the authority of science. Nor can anyone confer the authority of science on statements such as "Everyone deserves happiness." These statements have no contingent empirical implications. It is quite impossible to demonstrate either the existence or non-existence of God, nor can statements about what people "deserve" be put to scientific tests. The point is that the *scope* of science is limited to natural or material reality. It cannot penetrate non-empirical realms anymore than it can tell us how we ought to *feel* about the natural or material world. Indeed, even a simple statement such as "That's a beautiful sunset," is beyond science, albeit science can determine what sorts of sunsets most people in a given culture will judge to be beautiful—but that's an entirely different order of question. The limited scope of science explains why it is *not* fundamentally incompatible with religion.

To sum up: magic differs from religion because it does not posit the existence of Gods, does not offer explanations either of its own domain or address questions of ultimate meaning, does not offer "otherworldly" rewards, and is unable to sanctify the moral order, while religion does all of these. Magic and religion also differ in that the former is subject to empirical falsification, while the latter need not be. Magic differs from science because its primary mechanism is supernatural, because it offers no general explanations even of its own workings, and because, unlike science, its scope is not limited to natural or material reality. Science and religion differ over reliance on the supernatural and on Gods, on the promise of "otherworldly" rewards, as well as sanctification of the moral order, falsification, and scope.

FIGURE 1: CONTRASTING RELIGION, MAGIC, AND SCIENCE

	Religion	Magic	Science
Attempts to control nature and events	Yes	Yes	Yes
Offers worldly rewards	Yes	Yes	Yes
Depends on the supernatural	Yes	Yes	No
Invokes a God or Gods	Usually	No	No
Offers general explanations of relevant domains	Yes	No	Yes
Addresses questions of "ultimate meaning"	Yes	No	Perhaps
Can offer "otherworldly" rewards	Yes	No	No
Can sanctify the moral order	Yes	No	No
Subject to empirical falsification	No	Yes	Yes
Scope limited to natural or material reality	No	No	Yes

Figure 1 compares religion, magic and science on all of the dimensions discussed above and could eliminate confusions.

## CONCLUSION

An anonymous reviewer of this paper asked why the field should accept these definitions, suggesting that it might be better to embrace definitions on the basis of how words have been used rather than to impose arbitrary standards about how they "ought" to be

used. A survey of past usage is appropriate for term papers on the history of social thought, but science, even social science, is not served by ancestor worship. No introductory physics book offers Aristotle's definition of matter as one of the respectable alternatives. The same principle applies in the social scientific study of religion. We are not obliged to stick with poorly defined terms, simply because some dead Europeans or Harvardians defined them that way. What we must seek are definitions of terms that are coherent, mutually exclusive, and theoretically efficient. If I have not achieved these goals, then this essay too ought to go into the dustbin of intellectual history.

### NOTES:

\* Before writing this paper I benefitted from conversations with Laurence Iannaccone about these matters.

1. Indeed, there is now an immense body of very reputable research demonstrating the preventative and curative effects of religious belief and practice (Ellison and Levin, 1998).
2. It is hard to imagine that the substantial amount of praying that went on among these intellectuals was directed to 'nothing.'
3. Some contemporary magicians do offer reasons why their techniques 'work,' probably in response to the modern emphasis on why concerning all things.

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