

Can Science Promote Religion for the Benefit of Society?

HOW CAN SCIENCE HELP RELIGION TOWARD
OPTIMAL BENEFIT FOR SOCIETY?

by Bjørn Grinde

Abstract. The dispute between theism and atheism has centered on whether there exists any entity that may be referred to as God and on how to explain life and the universe. As a consequence of this dispute and of the power of scientific explanations, religion may end up having less impact on society. The situation makes the following questions relevant: What are the advantages and disadvantages for society of downgrading religion? If the net effect of religion is considered to be positive, is it possible to counteract this trend? Moreover, examining the benefits of religion raises a further question: Is it possible to influence theology toward a stance with optimal utility for society? As a scientist writing from an atheist perspective, I argue that religion has a potential for serving society and that this advantage need not necessarily be sacrificed on the altar of science.

Keywords: adaptive advantage; anthropic principle; benefits of religion; evolutionary theory; human nature; intelligent design; science.

When atheists discuss religion they tend to focus on two issues—the scientific fallacy of what is preached and the possible detrimental impact religion has on society. As to the first issue, although the most orthodox theologians still dispute even fundamental scientific doctrines, such as the process of evolution, more liberal adherents try to adapt to modern views of the world. The liberals seek to explain the existence of a God within the

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frame of current science by resorting to concepts such as intelligent design and the anthropic principle.¹ Although these concepts may be challenged by scientists (for example, Craig and Smith 1995; Stenger 2003), they need not be in conflict with the majority of scientific knowledge. Indeed, in my view it is possible to depict God completely within the framework of contemporary science.

In this article, however, I concentrate on the second issue: What impact does religion have on modern societies and on individual well-being? Obviously the answer depends a lot on which creed, and which society, one is looking at; thus, the more pertinent question is, What are the potential benefits and disadvantages of religion, and is the net impact such that society ought to support spirituality? As a premise, I hold that it is possible to influence the content of the various creeds, which means that religions may be more beneficial in the future, whether the net impact today is considered to be positive or negative. This premise is supported by the observation that no religion has, to my knowledge, passed through the centuries unchanged. In order to approach the question of possible benefits of religion, I start by looking at current thinking as to the role of spirituality in human evolution.

For the present discussion, the defining features of religion are (1) a belief in the existence of divine, supernatural force(s) with some sort of (benevolent) power; (2) a culturally inherited tradition that suggests guidelines for behavior; and (3) practices such as rites, sermons, and prayer that offer a sense of contact with the divine forces, preferably in a social setting. Although spirituality in some contexts indicates a less structured form of religion, I use the terms *religiousness* and *spirituality* interchangeably. With the term *faith* I point to the personal experience, which includes various sensations, of an individual who relates to some form of Divine Force.

THE EVOLUTION OF SPIRITUALITY

In order to evaluate the potential impact of religion it is necessary to understand the nature of religiousness. As discussed in several recent articles and books, various lines of evidence suggest that spirituality may be an evolutionary adaptation of our species, that we possess an innate tendency to experience faith in a Divine Force (Grinde 1998; Boyer 2002; Atran 2002). The following list summarizes the main evidence:

1. Religious beliefs of some sort seem to be present in all human cultures (Wallace 1966).
2. Considerable time and resources typically are spent on religious practice. In biology, as a rule of thumb, one expects that the amount of resources allocated to a certain type of behavior correlates with the importance of that behavior for survival; the more important the function is, the stronger one expects its genetic foundation to be.

3. Religion is potent when it comes to influencing the human mind.
4. Certain parts of the brain seem to be designed to accommodate spirituality; for example, the transcendental experience associated with deep meditation or prayer has a neurological correlate that has been extensively studied (Newberg, d'Aquili, and Rause 2001; Blanke et al. 2002).
5. Even the Neanderthals may have been religious. Not only did they bury their dead, they apparently added flowers and other objects to the graves (Solecki 1975), behaviors typically associated with the religious idea of an afterlife. Moreover, the Neanderthals are most likely not the direct ancestors of present humans; their line of descent presumably departed from that of our ancestors about half a million years ago (Carroll 2003). Thus, if they were religious, it suggests that some sort of religious tendency was present in hominids even prior to this.

The notion of an innate tendency toward religiousness does not imply that there is a “spirituality gene.” If anything, the proposed evolutionary scenario suggests that there were slight changes in some of the genes that affect brain function and that the sum of these modifications was to give humans a certain predisposition toward religious belief, as we have a predisposition for falling in love or enjoying art and music.

The alternative, nongenetic, explanation for the evidence outlined above is that religiousness simply fits with worldly aspects of the human brain. This theory suggests that as hominids evolved an inquisitive mind and a need for comforting explanations, religion was invented as a solution (Vanechoutte 1993). However, the difference between the genetic and the nongenetic explanations of spirituality is not absolute. The proposed genetic changes required for religiousness to take root presumably concerned nerve circuitry involved in functions such as submission to a superior being, the creation of thought constructs and adherence to the belief in them, the redirection of love and devotion toward abstract beings, and an engagement in rituals and related forms of socializing. The mind was probably equipped with rudiments of these features prior to any religious commitment, so the advent of spirituality did not necessarily require any drastic changes. All of this evidence favors the notion that certain brain features were modified, as a consequence of evolutionary adaptation, in the direction required to strengthen an affiliation with spirits.

Although the notion of spirituality as an evolutionary adaptation can be taken as an argument for atheism, it may equally well be argued that if the rules evolution operates by at one point were laid down by a Divine Force, our tendency to search for that Force stems from divinity. In fact, one may take the argument one step further and suggest that God, or the Divine Force, directed evolution toward the development of a capability to sense

God, that the “rules of evolution” were designed in such a way that an intelligent and spiritual being was a likely or even inevitable outcome.

EVOLUTIONARY ADVANTAGES OF SPIRITUALITY

If one accepts the notion of an innate religious tendency, it follows that religion offered adaptive advantages during our evolutionary history. That is, those with an emerging spiritual mind gave rise to more offspring than those who did not have this tendency in their brains. How could spirituality improve fitness?

The most important advantage probably concerns the role of religion in uniting people behind appropriate rules of conduct and thereby strengthening group cohesion. A tribe whose members cooperate and obey communal regulations would likely flourish. Indeed, any factor that helps generate social concord must have been valuable, and spirituality appears to be a potent factor (Rappaport 1971; Bateson 1983). In other words, spirituality may have evolved partly as a consequence of the rare and somewhat controversial process referred to as group selection (Wilson 2003).

The typical moralizing gods probably appeared after the agricultural revolution some ten thousand years ago, presumably as a consequence of increasing group size and more intergroup conflicts (Roes and Raymond 2003). The cohesive qualities of Stone Age religions therefore may have been less pronounced than in, for example, the Christian tradition. Yet, although tribal religions probably were less concerned about the idea of uniting people under one God, they likely had an important impact on social life. At least, the typical tribal traditions of recent times that we do know about act as a focus of social life and include moralizing advice on behavior (Wallace 1966; Channa 2002).

Besides the advantages for the tribe, spirituality presumably also offered advantages to the individual. The combination of animal emotions and human intelligence may have had traumatic consequences; our ability to speculate, for example, brought with it worry and distress. Even Stone Age religions probably offered a view of reality that explained disturbing phenomena and led people to believe that somebody shielded them from an otherwise uncertain existence.² Elevated levels of anxiety and stress presumably increase morbidity and decrease life span (Carroll 1992; Cavigelli and McClintock 2003), factors that are expected to correlate with a decrease of biological fitness. Moreover, the soothing effect may have released energy for the many functions of life, which again translates into improved reproductive potential.

POSSIBLE PRESENT ADVANTAGES

Even if one agrees that religion is an adaptation that at one time enhanced survival and procreation, it is not obvious that religion is useful today. We

try hard to curb other aspects of human mental adaptation, such as our aggressive tendencies; in fact, some regimes (the former Soviet Union, for example) also try to curb our religious tendencies. Moreover, given the present world population there seems to be no reason to value factors that enhance procreation. Yet, I argue that the advantages of spirituality suggested above are still relevant.

Modern societies seem to be in dire need of means that can help foster genial behavior. Religion may serve this purpose. Indeed, civilization could hardly exist without the human capacity for moral and altruistic behavior. Like any other aspect of the human psyche, however, such capacities can be either strengthened or diminished. Religion has the potential of boosting these aspects of human mentality, because practitioners typically accept and adopt religiously defined guidelines of behavior with a minimum of external pressure. Consequently, a suitable religion has a better chance of success, compared to secular instruments, in promoting empathic behavior. In fact, in complex modern societies this aspect of religion may prove even more relevant than in a close-knit tribal society where geniality was a natural consequence of long-term relationships.

The observation that the typical moralizing gods appeared as a consequence of large-scale societies supports the latter contention. Although the expansion of the moralizing aspect of religion may be cultural and not genetic, the success of using religion for this purpose is probably based on our innate religious tendency. Moreover, the observed effect of religious belief on crime rates substantiates the notion that religion is an important factor when it comes to inspiring people toward benevolent behavior (Baier and Wright 2001).

As to individual advantages, human destiny probably appears as uncertain today as it seemed in the Stone Age. The cause of our worries may be different, but, as before, the answers offered by a religion may prove more soothing than those provided by logic. Faith does hold a clue to relief from anxiety. For example, it offers an alternative to worrying about death. The soothing effect of religion may not suit everyone, but it very likely enhances the quality of life of many practitioners.

Another important feature of religious communities is that they cater to our social needs and to our need for someone to offer love and devotion. An inverse relationship has been reported between the importance of the Christian faith and the general trust in fellow citizens (Warren 1999). In countries where uncertainty rules as a consequence of a lack of trust among the inhabitants, there apparently is more need for a God to trust in.

Based on the discussion so far, I argue that religion is, or at least has the potential of being, a valuable asset for modern societies. Today the desired benefit concerns not the potential effect on procreation but rather the effect on the quality of life and the stability of both local and global society.

It may be argued that the potential advantages referred to above do not

depend on the existence of an innate tendency toward religiousness. However, the positive impact of religion is expected to be more pronounced, and thus more worthwhile to exploit, if it is based on an inherent human quality. An innate tendency for spirituality implies that the above advantages have more to offer and are more likely to persist, regardless of cultural factors or how society is otherwise organized. Furthermore, if capacities such as sociability and anxiety have been tuned by evolution to exist in the presence of religious faith, faith would be expected to improve these features today.

The latter argument can be expressed in a more general way. Present thinking in evolutionary medicine favors that, as a rule of thumb, health and quality of life are best cared for by adjusting life to our genetic predispositions (Nesse and Williams 1996; Grinde 2002). That is, in the absence of specific advantages favoring a different lifestyle, one is advised to consider the way of life that one's genes appear to be adapted to. If religiousness is in our genes, this line of reasoning suggests, engaging in religious practice can improve health and quality of life. In fact, the notion that religion may have a positive impact is backed by empirical evidence. Several studies on quality of life have concluded that religious persons tend to be healthier and happier (Ferriss 2002; Koenig and Cohen 2002).

NEGATIVE ASPECTS OF RELIGION

Most people will agree that religion can be a potent factor in influencing behavior. However, some of the impact of present religions is not constructive. Some creeds, for example, have been accused of promoting aggression and warfare, misleading the public in scientific matters, or obstructing the freedom of women. In short, there are problematic discrepancies between present cultural values and some of the principles that major creeds adhere to.

The most severe criticism of dominant religions such as Christianity, Islam, and Judaism is that they promote aggressive behavior. As history convincingly shows, adherents of these traditions have supported a wide range of activities, including warfare, terrorism, genocide, witch hunts, and slave trading, that were boosted by the alleged support of God. For most practitioners, however, adverse behaviors such as religiously based warfare and terrorism involve *misuse* of the religion in question. Unfortunately, much of the present discussion about religion is flavored by this misuse.

The existence of an external enemy is a potent factor in bringing people together and getting them to act unselfishly for the benefit of the group. Any belief system that unites people can be relied upon to help, particularly one that offers them hope for an afterlife. Consequently, it is not surprising to find that the major religions easily become entangled in warfare. However, those who wage war tend to take advantage not only of our

religious tendencies but also of our tendency to value companionship and compassion for comrades. Thus, as a parallel to the often-heard argument that religion is destructive and should be curbed because of its role in conflicts, it might be argued that we ought to curb the social aspects of the human psyche as well, because they too can be misused in the hands of aggressors. In my mind, the more intelligent response is to promote both our compassionate tendencies and our religious tendencies but try to direct them toward optimal utility for all humans.

Besides the use of religions to support aggressive behavior, there are two other common arenas of discord associated with religious practice: conflicts between adherents and atheists and conflicts between practitioners of different creeds. Such discord seems to reflect at least partly the fact that the dominant religious scriptures were written long ago. They stem from less knowledgeable societies and from cultures with conditions quite different from those we have today. That these societies experienced considerable internal and external unrest may be particularly relevant. As shown in the next section, the problems are not necessarily unsolvable.

One consequence of the fact that scriptures tend to be relics of ancient cultures is that the moral codes and behavioral advice included are not necessarily optimal for present conditions. Some codes of behavior are inappropriate because they were shaped in a society with different needs, such as the need to unite against neighboring states; others were shaped with the benefit of certain subgroups of the population in mind, such as the rulers, one sex, or the elderly. Moreover, many of the ideas laid down in scriptures are scientifically outdated and lead to unnecessary conflicts that may counteract the progress of science as well as undermine faith.

It is important to note that all of these problems concern specific aspects of particular creeds. Arguing that certain features of some religions are unsuitable for modern societies does not imply that religiousness itself is inappropriate. There are many religious movements with suitable codes of behavior and nonviolent attitudes.

THE TWO FACES OF GOD

It is customary to evaluate the various features of society, including institutions and political decisions, using a cost-benefit type analysis. If religions were to be assessed in a similar way, my guess is that in most societies they would end up on the positive side. However, I would also assume that in most societies it should be possible to further improve the impact of religion. To this end, three areas of discord ought to be addressed: the conflict between science and religion, the conflict between different creeds, and the existence of practices and tenets that for various reasons are considered unsuitable in present societies.

One response to these concerns is to point out that God may be depicted in two ways, serving two different purposes. The common way of

describing God is through religious scriptures and stories and through the icons, monuments, and symbols created by practitioners. The various portraits attained by these descriptions may all be inspired by God, but inevitably personal and cultural flavors are added. The Hindu conception of divine beings is obviously quite different from that of the Christian tradition. Moreover, within the various creeds of a single religion, even among adherents of a single creed, there are considerable differences in how one relates to God. The proposed innate spiritual tendency in our brain is just a seed that develops under the influence of individual experiences and peculiarities. Each person has his or her own way of veneration, and each new culture reshapes existing creeds in some minor or major fashion. These multitudes of ways of presenting and relating to spirituality reflect the intimate, or detailed, portraits of God.

Some of the notions and principles the various portrayals adhere to cause disputes, either between creeds or between particular religions and secular society. From the point of view of an observing atheist, those disparities that ought to be given attention are of a political nature and should therefore be resolved primarily by political processes. Medical interventions, such as abortion and gene therapy, are examples of issues that have given rise to heated debate. Although there are ethical concerns relating to medical treatment, I think that the rules regarding what sort of interventions should be allowed ought to be handled by a secular government and based primarily on input from the medical sciences. In these cases, as in other cases relating to what rules society as a whole should go by, the lawmaking bodies of democratic societies seem to offer a better chance of adopting sensible policies as compared to basing the rules on the interpretation of ancient religious scriptures.

Issues that primarily concern the relationship between a devotee and his God, however, again from an atheist's point of view, should not require any resolution. It should not matter that some people prefer to paint God with a beard while others paint her with breasts. Conflicts that arise from the differences in portraying God seem futile and destructive.

One way to try to curb these conflicts is to promote an alternative portrait of God that reflects the essence of spirituality. A depiction of God that included the common core of all creeds could serve to reconcile the various religions. The notion is not new. Historical proponents include leaders of spiritual movements such as Baha'u'llah and the sixteenth-century Indian emperor Akhbar. Today, however, it is not sufficient to reconcile the various religious movements; the effort also must offer a platform for spirituality that can withstand the scrutiny of science. (Recent books that lead in this direction include Glynn 1999; Dembski and Behe 1999; Peters 2002; Matthews, Tucker, and Hefner 2002.) If the portrait is to be acceptable by science as well, it needs to be particularly minimalistic. The

adding of details not universally present will lead to its being considered scientifically invalid.

Briefly, I can imagine God as a Divine Force that set the universe in motion. This Force would entail the laws that the universe operates by, including the principles that govern the process of evolution. Several questions lack scientific answers, such as what was before the Big Bang (or before the beginning of time) or what is beyond the furthest galaxies (or beyond the universe). These questions may belong to the realm of the Divine Force. Moreover, there are still questions regarding the evolution of life that we lack adequate theories for, such as how the first replicating cell was formed. And even when it comes to issues that we are able to explain to some detail, such as the evolution of human beings, the explanations do not rule out the influence of a Divine Force. It is not, for example, obvious that an intelligent, spiritual being should result from the principles of evolution. In these cases, one may imagine the “hand of God” without stepping on the toes of scientists.³

The problem is that, although it should be possible to draw a sketch of the Divine Force that is compatible with science, such a sketch will lack the vitality and vigor required to create a valued focus of worship. The sketch will reflect the spirituality that is entailed in the human psyche, but it will not incorporate the notions and images formed by the imagination of the various practitioners. Thus, the two ways of portraying God, the elaborate version and the minimalistic version, are both appropriate. Both ways of looking at the Divine can serve us well.

It seems necessary to engage our imagination for the Divine Force to have a meaningful and constructive impact on our state of mind. Consequently, we need the elaborate, or personal, portrait in order to relate to and appreciate God. The minimal portrait, however, is required to resolve the conflict between science and religion. Moreover, if the various religions can agree that such a depiction reflects the shared spirituality of all faiths, it may also help ease the tension between the creeds. If one accepts that the more elaborate versions are influenced by the human mind, the differences in detail become less important. Neither the scientific community nor the practitioners of alternative creeds need concern themselves with the particulars of someone’s personal way of sensing God.

The more elaborate portraits of God will necessarily be based on existing religious traditions. These traditions, however, are continuously molded by worldly aspects of the social setting they belong to. It should therefore be possible to direct religious movements toward practices that are in concord with present values and thereby to serve the community better—for example, by rewarding nonviolent attitudes. Science may help in this process by pointing out where the problems and conflicts are and by using present knowledge on how to best exert influence. Moreover, gaining acceptance for the concept of the two faces of God may further enhance the

process. If adherents recognize that the elaborate portraits are not universal truths laid down by God, it may be easier for them to reconsider some of the tenets that are problematic in present societies.

DISCUSSION AND CONCLUSION

The question of whether there exists such an entity as God is an emotional issue, with people taking distinct sides for or against. This propensity for emotional reaction may obscure a rational analysis of religion as a human phenomenon and work counter to the facilitating of useful deductions. For me it is important to evaluate religion in an objective, noncommitted way. This article is such an attempt.

I conclude that religion appears to offer more advantages than disadvantages and that it is possible to influence religion toward an even more positive impact on society. If this conclusion is accepted, the rational attitude for society would be to deal with human spirituality in a supportive and constructive way. The scientific establishment would work toward improving religious practice rather than attack spirituality for weaknesses that pertain to certain aspects of selected creeds.

I suggest the following features as targets for the attempt to influence current religions:

1. A common core depiction of God, or the Divine Force, should be outlined. The description should serve the purpose of reconciling science and religion and the various religious creeds. The description should be compatible with current science and acceptable to current religions.
2. The more elaborate portraits of God should be supported, with the understanding that they reflect a more personal relationship with God. Incompatibilities should not be contested.
3. One should urge religious principles and practices to conform with accepted norms of society and to the nature of being human.
4. In order to serve a global community, the various creeds should advocate peaceful coexistence. Moreover, they should allow for the existence of a variety of denominations, thus minimizing possible religious conflicts and making it more difficult to use spirituality for aggressive purposes.
5. Religion should be considered as a separate entity from science. Although potentially compatible, the two cater to different features of the human psyche.⁴ In our genes are laid down the capacity to enjoy a variety of facets of living, including religion and art. Just as we do not ask whether a painting is a true representation of reality but rather appreciate it for the emotions it induces, we should not criticize the tenets and images of religions as long as they do not mislead people in a destructive way.

In my mind, all religions hold in them the possibility of having a favorable impact. The question is not therefore one of choosing a certain creed. What we need is better communication—that is, an improvement of the dialog between secular society and religious movements, between science and spirituality, and between the different creeds. Accepting the two faces of God could be a step in this direction.

Having places and institutions where people can come together and share their spiritual experiences is good. For a particular congregation it may be important that the adherents agree on a certain way of portraying and relating to God. For society as a whole, however, there are advantages in having a plethora of congregations. Individuals differ in how they relate to spirituality, so in order to offer as many people as possible a constructive relationship with the Divine, a variety of creeds is preferable.

We tend to focus on minor disparities. Instead we ought to work toward molding human spirituality and the elaborate religions into something even more suitable for both the individual and for present society.

Actually, in my understanding, this was the primary vision of most prophets. I believe that their teachings and scriptures were formulated for the purpose of creating not only a better religion but also a better society. Moreover, the scriptures were written by highly intelligent people, but they were based on the cultural peculiarities and scientific wisdom of their days. The world has changed, and some of the ideas need to be adjusted according to current knowledge.

A portrait of divinity that rests within the framework of current science would be useful. Certain recent attempts seem to be easy targets for scientifically based criticism (Craig and Smith 1995; Stenger 2003), but that does not mean the task is impossible. I believe that we do not need to sacrifice God on the altar of science.

NOTES

1. The attempt to reconcile science and religion has been the focus of several books, as well as articles in journals such as *Zygon*. See, for example, Glynn 1999; Dembski and Behe 1999; Peters 2002; Matthews, Tucker, and Hefner 2002.

2. Although the content of Stone Age religions is necessarily speculative, the statement is substantiated by knowledge on present tribal religions (Wallace 1966; Channa 2002) and by the previously mentioned indication that even the Neanderthals may have believed in an afterlife.

3. There have been several attempts at describing God in terms that are compatible with modern science, for instance under banners such as intelligent design and the anthropic principle (see Note 1). Unfortunately most attempts have been met with rather fierce, and partly relevant, critique by scientists. I believe the effort is important for society. We do need a description of God that can withstand the scrutiny of science. The existence of a Divine Force can never be scientifically proved, but then, science is not about obtaining proofs but about building models of reality based on empirical evidence. My point is that God may fit in such a model, and I am presently trying to offer a more detailed model of life and universe that includes a Divine Force.

4. This stance is discussed more fully by Paul Kurtz, Barry Karr, and Ranjit Sandhu (2003).

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