HOW SCIENCE CAN HELP RELIGION BENEFIT SOCIETY

by P. Roger Gillette

Abstract. Modern science has given us a revolutionary new understanding of the close interrelationship and interdependence of humans not only with all other humans but with all other living species and with the nonliving elements of the geosphere and the rest of the universe. This new understanding can provide a basis for new understandings of (1) the basic nature of religion, (2) the basic principles of major world religious traditions, and (3) the basic principles of religious ethics. The new understanding of religious ethics will involve a better understanding of our rights and responsibilities, as individuals and groups, with respect to other individuals and groups of humans, other living species, and the nonliving universe. This improved understanding will benefit not only human individuals and human societies, local and global, but also local and global ecosystems.

Keywords: altruism; ecological ethics; environmental ethics; evolutionary psychobiology; evolutionary psychology; human rights and responsibilities; medical ethics; natural theology; religious naturalism.

A kindergarten teacher handed out paper and crayons and asked the students to draw whatever they wanted to. After a few minutes the teacher approached one of the students and asked, "What are you drawing, Johnny?"

"I'm drawing a picture of God."

"But nobody has seen God or knows what God looks like."

"They will when I get through drawing my picture!"

A naive kindergartner? Perhaps. But Johnny could be male or female, of any age, living anywhere on Earth at any time in the last several millennia. Over those millennia a host of persons have claimed to be able to provide a valid description of God. It's a normal human activity.

P. Roger Gillette is a retired physicist and system development engineer, and a student in philosophy and religious studies at Willamette University. His mailing address is 2385 Crestview Dr. S., Salem, OR 97302.

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Recently, physicists have been trying to describe the elementary particles, such as electrons. They now believe that the best they can do is to represent an electron by a mathematical expression. They may attempt to draw a picture or make a three-dimensional model as an aid in thinking or talking with others, especially the general public, but they are increasingly likely to admit that such representations do not do justice even to the mathematical expression and that the latter may not be the best possible representation of reality. If physicists can be this humble about their ability to describe the basic building blocks of the universe, should not theologians be at least as humble about their ability to describe the ultimate source and sustainer of the universe, which includes not only all matter-energy but even the space-time in which the matter-energy exists?

Bjørn Grinde (2005) asks the question "How can science help religion toward optimal benefit for society?" One way is for scientists to demonstrate an appropriate level of humility in presenting their descriptions of the universe, and to suggest that theologians demonstrate a similar humility in describing the source and purpose of the universe and how human beings, as part of the universe, should act in order to further that purpose.

But the help science can provide goes far beyond this. The major world religious traditions were all initiated many centuries ago, mostly during the first millennium B.C.E. Thus they are based on and to a considerable extent incorporate views of the nature and operation of the universe far different from and less sophisticated than the views currently provided by the sciences. It is true that, as Grinde says, the traditions have all been somewhat flexible and have adjusted to some degree to changing worldviews. However, all of the sciences have undergone major revolutions within the last century, and religious traditions generally have not been able to keep up.

Grinde lists three defining features of religion. These three features can be expected to be affected differently by changes in worldview. (His list does not include worldview as such, a feature of most religious traditions.) To facilitate discussion of the effects of recent scientific advances on these features, I use terms for them for which I provide what I call "thin" definitions, mostly based on the meanings of their Greek and Latin roots.

After briefly discussing my thin definitions, covering the terms *theology*, *religion*, and *ethics* (as rough equivalents to Grinde's three defining features of what he means by the term *religion*), I show how current findings in the sciences can affect each. In so doing, I hope to further show that these effects of the sciences on the major religious traditions can produce significant reductions in the harms and equally significant increases in the already major benefits they provide for the global human society, and indeed for the global ecosystem.

Definitions

- *Theology*. This term comes from the Greek *theos* and *logos*. By translation of these Greek words into English, the term can be taken to mean "study of God," where *God* may be taken to refer to the ultimate originator and sustainer of the universe of matter-energy in space-time.
- *Religion*. This term comes from the Latin *re-* and *ligare*. By translation into English, it can be taken to mean "reconnection" or "intensive connection" (either as an action or activity or the result of activity). The reconnection may be with the created universe or some part of it, or with the creative source and sustainer of the universe, or both. (Grinde puts this a bit differently, emphasizing practices that facilitate such reconnection.) Note that this definition includes not only theistic traditions such as Christianity and Hinduism but also nontheistic traditions such as Buddhism, Confucianism, and naturalistic elements in Western traditions. In fact, many philosophers and theologians are saying explicitly that religion is not about God or gods (Geering 2002; Rue 2005; Rue lists Kant, Feuerbach, Marx, Durkheim, and Freud as other philosophers who have made such assertions [p. 3]).
- *Ethics*. This term comes from the Greek *ethos*. By translation of the Greek word into English, it can be taken to mean "rules for behavior in accordance with a system of values." Thus, religious ethics may prescribe behavior that will further the welfare of those with which or whom one is to be reconnected (and even be an expression of love for them).

More commonly used definitions of these terms are much "thicker" than these thin ones. Certainly much can be learned by analysis based on thick definitions that cannot readily be learned by use of thin ones. Nevertheless, as I hope will become evident, much of great significance can be learned more easily by use of these thin ones.

Science and Its Consequences

Modern science has provided us with a story of the universe that differs markedly from that embodied in most major world religions and their texts. This story has been summarized in numerous recent books and papers (see Fisher 2004; Goodenough 1998; Rue 2000; Swimme and Berry 1992). This new story tells us several things that should be taken into account by theology, religion, and ethics as I have defined them. The primary thing is that the universe as we now know it emerged and evolved as an increasingly complex combination of increasingly complex organisms all related to and interacting with each other. Chance as well as deterministic law play important roles in this process, but chance itself functions according

to determinable laws. These principles apply in the emergence and evolution of galaxies, stars, and planets, of hydrospheres and atmospheres surrounding some planets, and, on at least one planet, of living, thinking, socializing, and creating species—"created co-creators," as Philip Hefner writes (1993).

Perhaps most notable are the scientific findings that (a) this has been a continuous creative evolutionary process, not a series of individual creative events; (b) the emergence of humans has been part of this evolutionary process; and (c) each individual human develops from a single cell by a process that very roughly follows the path by which the human species evolved from single-celled life (see Case-Winters 2004).

Consequences for Theology. God has been defined as the ultimate source of the universe of being-doing in space-time. Descriptions of this God that have been offered by religious and philosophical leaders over the past several millennia have tended to fall into one or more of three general categories: (1) a superpersonal being-doing, (2) an impersonal essence of being-doing, or (3) a lawlike agent. Can current science help us decide which of these categories of descriptions is most likely to be valid?

Currently accepted scientific descriptions of the history of the universe of matter-energy in space-time suggest that all matter-energy, and thus all being-doing, and even all space-time in which the matter-energy and being-doing have occurred, had a definite beginning. It seems logical to suppose that this calls for the source and sustainer of all this matter-energy and space-time to be fundamentally different from it all.

Thus, the third of the three categories of description of the ultimate source of the universe would seem to be the most reasonable—that God (as thinly defined) is more like the natural law than like a superpersonal being-doing or even the essence of all being-doing.

However, we should remember that we can expect only to choose among models, or pictures, of the ultimate, and none of our models can be expected to be absolutely complete and accurate. Even proving the validity of our assessment of the best of the categories of models may be impossible. (Consider the possibility that a truly superpersonal creator could construct a natural law so well that there would never be a need to operate a created universe other than in full accordance with it.)

Furthermore, these three categories of models may not be mutually exclusive. A somewhat thicker definition could perhaps allow for God's description or modeling as a triad of essences: (1) the essence of natural law (which governs the emergence of the universe of matter-energy in space-time) and thus natural law or creativity itself; (2) the essence of the emergent matter-energy in space-time, and thus being-doing or existence itself; and (3) the essence of emergent life-mind, and thus life-mind or personality itself.

Consequences for Religion. If religion is defined as reconnection, with what or whom are we to reconnect?

Current scientific theories in cosmology suggest that the observable universe has emerged as a single complex of interrelated and interactive elements and entities. It seems reasonable to suppose that, if this complex can be considered as having its source in a single creative agent we call God, the creative action is also single. This leads logically to the supposition that, as elements of this created universe, we are called upon to reconnect with this whole creation and with its creator.

Intellectual and emotional reconnection with the universe is probably most readily achieved in stages or steps. Thus in our religious worship (worth-ship) we may seek reconnection with ourselves, then our families and immediate associates, our larger social and ecological groups, our global ecosystem or ecosphere, our universe, and finally our God.

If love is the strongest form of reconnection we can experience, the above statement can readily be related to commands to love your God and to love your neighbor as yourself—commands that are commonly taken to be the essence of "the law and the prophets" in the Judeo-Christian tradition.

Consequences for Ethics. Love for any person or thing naturally implies concern for the well-being of that person or thing. As has already been indicated in our definition of the term *ethics*, such concern implies ethical principles and rules calling for behavior that will further and not hinder the achievement and preservation of that well-being. Thus we can consider ourselves as being required ethically to further and not hinder the welfare of ourselves, our families and associates, and so on up to and including the global ecosystem—and beyond, as far as our behavior can be expected to affect the well-being of those elements of the universe.

The feasibility of implementing such a system of ethics is discussed in several of the papers in the Symposium on the Created Co-Creator published in the December 2004 issue of *Zygon* (see especially Irons 2004).

BENEFITS

Social. Benefits at all levels of society, from local to global, can result from shifts in people's theological, religious, and ethical beliefs from traditional ones toward those outlined above—that is, shifts from individual family and local tribal personlike deities to a universal lawlike God; from reconnection only with one's own nuclear family group and local human group to reconnection at all levels from nuclear family groups to the global ecosystem; and from concern for the well-being only of one's own nuclear family and local human group to concern for well-being at all levels from nuclear family groups to the global ecosystem.

Clearly, such shifts can lead to a reduction in conflict and warfare and an expansion of cooperative effort to reduce the total amount of suffering in

the world, including mental as well as physical anguish—and, more generally, to achieve the common good of all members of all species of life, with a balanced regard for intraspecies and interspecies competing interests.

Personal. How the religious faith outlined by this thin description can satisfy more specific personal needs may not be immediately obvious. For example, how would such a faith satisfy felt needs for ultimate security and justice for people beset with "undeserved" suffering and other perceived injustices? (In the Christian tradition, these needs are satisfied by the offer of a nurturing super-parent God and supernatural life with that God after natural death.) How would such a faith provide answers to questions in medical ethics, especially questions that arise at the beginning and end of life? How would it provide answers to questions in ecological ethics?

These questions can be addressed adequately only by developing and analyzing a thicker, more detailed, description of the suggested faith, which cannot be done within the scope of this essay. But perhaps it can be said that ultimate meaning and significance for a life involving a limited amount of matter-energy in a limited amount of space-time can be found in—and only in—a feeling of transcendence, beauty, and joy in achieving various stages of reconnection and at-one-ment with the whole of the created universe and with its creative source.

DISCUSSION

As Grinde indicates, it seems unlikely that people in great numbers will simply abandon any of the current major world religious traditions in favor of a faith incorporating the principles outlined here. However, as Grinde and many other authors have suggested, all religious traditions have shown tendencies to evolve and change over the centuries of their history, and there is hope that they can and will move in the suggested directions.

This process, as Grinde also indicates, can be hoped for and expected to occur as people in the various world faith traditions become increasingly aware of and familiar with faith traditions other than their own, as well as with current science and its revolutionary findings. Movement can also occur among persons such as atheistic scientists as they become aware of the possibility of a religious faith that is consistent with their scientific knowledge and realize that they can and perhaps should adopt it.

Grinde's "two faces" of God—the "detailed portrait" and the "common-core" or "indistinct-and-formless" face—seem fairly close to my "super-person-like" and "natural-law-like" models. Grinde is undoubtedly correct in his assertion that most people will continue to feel a need to hold to their own personal models or portraits of God. And this should be acceptable, provided that they do not demand that others agree with them and

try to suppress those who don't. The difficulties differing faiths have in this regard are described very clearly by Martin E. Marty (2005).

As Grinde concludes, we do not need to sacrifice God on the altar of science. Nevertheless, we do have to recognize that our concepts or pictures of God are and probably always will be too small. Thus we need to expand our picture of God to match our expanded picture of the universe and our new understanding of our place in it—always remembering that both God and the universe will forever remain beyond our inherently limited imaging capabilities.

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