

Editorial

Blessed are the peacemakers. . . .

Book of Matthew

The roots of this issue of *Zygon* are grounded in a discussion between some members of the Institute on Religion in an Age of Science (IRAS) in Toronto after the 1981 annual meeting of the American Association for the Advancement of Science. IRAS, which is a copublisher of this journal, had then recently become an affiliate society of the AAAS, and many of us were trying to develop programs in science and religion that would be amenable to scientific inquiry.

As the discussion unfolded it assumed a broad evolutionary perspective. In this context it was proposed that the interrelationships between biological evolution and cultural change should be explored. The broad topic suggested to do this was "biocultural evolution."

In order to focus this quite comprehensive area of inquiry, it was decided that it would be fruitful to examine the relations between aggression and cooperation, since these two types of human behavior seem to be influenced both by genetically based predispositions and by culturally encoded information, including values. Biological inputs and cultural inputs of aggressive and cooperative behavior have long histories, one genetic and one social; yet they come together interactively in the brain of each of us human individuals and are manifested as we interact with other individuals in societies and as societies interact with one another.

Those who formulated this general topic in Toronto realized that any fruitful inquiry would have to extend over a number of years, because the subject was so rich; but, because it focused on significant human problems with which religions traditionally have been concerned, a commitment to a long-term effort was judged to be worthwhile. Furthermore, some solid scientific attempts had already been made to unravel the complex relations in human biocultural evolution, for example, E. O. Wilson and Charles Lumsden's *Genes, Mind, and Culture* (Cambridge, Mass.: Harvard University Press, 1981) and L. L. Cavalli-Sforza and M. W. Feldman's *Cultural Transmission and Evolution* (Princeton, N.J.: Princeton University Press, 1981). Thus our own efforts were felt to hold some promise.

Aggression and cooperation in biocultural evolution has become a frequent symposium topic of IRAS at AAAS annual meetings since Toronto. Papers from the 1982 meeting in Washington, D.C. were published in the December 1983 issue of *Zygon*, and some of the papers from the 1983 AAAS meeting in Detroit were published in March 1985. These essays provide some background for this current *Zygon* issue, which attempts to focus the study of aggression and cooperation more on a central institution of human societies—religion—and to explore its role in war and peace.

At the 1985 AAAS meeting in Los Angeles, IRAS began to explore explicitly the role of religion and ideology in the function and management of aggression and cooperation in biocultural evolution. This exploration was extended to the 1985 IRAS annual conference on Star Island, chaired by Ralph Wendell Burhoe and Solomon H. Katz, and titled "Can Scientific Understanding of Religion Clarify the Route to World Peace?" Several of the papers from that

conference constitute this issue of *Zygon*, and some others will be published in future issues.

While there is much in religion that supports cooperative behavior and peaceful societies, John Bowker takes a look at the unacceptable, violent face of religion and offers a pragmatic justification for the serious study of religion in education. Religions, he argues, are long-evolved and well-winnowed systems of information that help insure human survival and nurturing. Because their information is regarded as of ultimate importance by their adherents, any threats to either metaphorical or literal-historical boundaries of religious systems can meet with a violent response.

Like Bowker, Ralph Wendell Burhoe sees religions as systems of foundational values and hence sacred knowledge in the culturetypes of societies, which have evolved in symbiotic union with the human genotype. Burhoe argues that religions have nurtured the expansion of human communities from kin groups, in which members behaved altruistically (risking their own lives) only for those closely related genetically, to nation states and religiously based civilizations, in which altruistic behavior occurred on behalf of nongenetically related people but people who shared a common culturetype and identified themselves with the basic values of the nation or civilization. However, such culturetype systems, while bonding together those within a society, also encourage the maintenance of a society's physical and ideological boundaries in a manner that is often hostile to outsiders. Burhoe then prophesies that, if we are to move peacefully into the global village being created by science and its technology, we must seek values common to all religions, so as to include all adherents in a humanity-wide ingroup. This can be done as more religious communities attempt to reform their traditionally evolved wisdom in the context of a view of the world offered by science.

Such a development in cultural evolution, however, has its dangers. Mordechai Rotenberg is suspicious of too easily dissolving the boundaries between existing religious communities, because, at least in the past, such integration has reflected imperializing, missionizing efforts on the part of one culture to conquer another—a possibility which Burhoe also recognizes. Rotenberg offers a dialogic model of tolerance in which peace is maintained through the recognition of the boundaries and through each society's realizing how important it is for the other to maintain its existing religious system.

As one reflects on the essays by Bowker, Burhoe, and Rotenberg, one of the central issues in an evolutionary understanding of human history surfaces. Evolutionary theory, following Charles Darwin, stresses not only the importance of change through random interaction within and between natural systems and then the selection of some new variations as biologically viable in further such interaction. It also stresses the importance of inheritance: for any species to survive it must sufficiently replicate the information that defines it and allows it to continue from one generation to the next. By analogy, the same applies to evolving cultures. Cultures are continually changing in the interactions taking place both within cultural systems and between cultures; but, if a culture is to remain and continue as itself, it must also maintain those boundaries which identify it for what it is and must protect itself from being destroyed by other cultures. While Burhoe urges us to see the necessity of further change in all cultures as we move toward a more common human community, Rotenberg's line of thinking leads us to see the practical importance of preserving existing traditions. Thus, we face one of the most fundamental issues confronting humanity today—that of the proper relation between innovation and

tradition, between change and continuity. These are essential ingredients in human biocultural evolution, and how they are to be balanced in a particular set of circumstances should be of primary concern to all seeking to promote peace.

That this problem can become even more complicated is illustrated by Alice Kehoe's study of how a cultural innovation that supports peace is transformed into a factor in promoting bloodshed. Taking Jack Wilson's Ghost Dance religion as an example of a revitalization movement that gives rise to a new sociological charter, Kehoe traces the steps by which the Ghost Dance religion of the Paiutes, favoring peace and love, entered into the thinking of the Lakota Sioux and contributed to the massacre of the Lakota at Wounded Knee. Revitalization movements, one way in which cultural evolution occurs, may promote peace or war. And even movements supportive of peace, through further cultural variation, may contribute to violence.

The analysis of religious systems in war and peace is made still more complex by the fact that today in many developed societies religion is only one factor in a culture, as Kehoe's paper also illustrates. While the ultimate concerns of religion traditionally have served to orient and guide societies for long periods of time, one of the results of the rise of modern scientific-technological national societies is that other facets of the society compete with traditional religion in influencing people's behavior, including cooperative or aggressive behavior.

However, this wider view of pluralistic societies and this recognition that religion is not the only cultural factor informing behavior may help us see opportunities for peace—even when religions support war. Elise Boulding develops a way of schematizing conflict on a continuum and then shows that religious ideology tends to support the extremes of the continuum—either a peaceable garden culture grounded in visions of mystical union or a militant, holy-war culture (the imperialistic, missionizing society about which Rotenberg is concerned). Boulding then distinguishes between conflict and violence, and she suggests that religions should move toward the middle ground and find more practical ways to manage conflict in order to avoid war. Finally, she gives examples of some nonreligious ways in which this can and is taking place.

Kenneth Boulding carries further the theme of nonreligious factors promoting peace. He suggests that what we need in the management of relations between cultures is competence. Writing from the perspective of an economist and concerned with the relations between such basic values as peace (the absence of war), justice, and freedom, Boulding argues that these can be attained as decision makers become more competent, basing their decisions not on ideology but on ever greater realism and accuracy in mapping the world and in projecting the future in periods of rapid cultural change.

Thus these papers, and the IRAS conference on which they are based, leave one with the impression that nonreligious aspects of cultures may be just as important—if not more important—in promoting peace than dialogue between or reformations of religions. And the reason for this should be clear if we take Bowker and Burhoe seriously: if religions deal with what is of ultimate concern, if they offer sacred knowledge to their adherents, then the followers of today's religious traditions may be much more willing to cooperate on nonreligious, less ultimate concerns than on what they consider sacred. Has not such cooperation regarding nonreligious matters happened in societies such as the United States, which by its constitutional disestablishment of religion permits religious freedom and allows each tradition to maintain its boundaries and which through other cultural institutions makes possible economic, educa-

tional, scientific, and other types of cooperation between members of different religious communities? And is this not happening around the planet earth, as people from various societies cooperate with one another on scientific and business ventures, even though they are ideologically or religiously in opposing camps?

One way to understand this, even from a religious point of view, is to remember that the work of that which continually creates and recreates the universe—whether it be called Yahweh, Allah, Brahman, the Tao, or God—works not just through formal religion but through all aspects of nature and through all aspects of human culture. The ultimate system that gives birth and death to all species and all cultures is not limited to working only within the confines of what we humans identify as religious. So, it is not in the final analysis nonreligious to recognize that elements of cultures other than religion may take the lead in urging even religious traditionalists into a new era of cooperative humanity, while, at the same time, religious elements (and non-religious elements, too) are promoting the handling of conflict in a way that increases the chances of war. Future issues of *Zygon* will contain papers that present some further analysis of the aspects of human cultures most determinative of human behavior and that develop further the above theological analysis of religion's role in war and peace.

All this is consistent with the primary aim of *Zygon*. In its own way our journal is a peacemaker. While many in our modern society see religion at odds with science, while others see the various elements of society existing in isolation from one another, while still others exhibit a kind of schizophrenia as they compartmentalize their work, their leisure, and their values—in the pages of *Zygon* we attempt at least intellectually to be true to the meaning of *zygon* and to the modified symbol of the Tao on the journal's cover. We attempt to yoke or unite yang and yin, science and religion, biology and culture, aggression and cooperation in dynamic harmonies, in order to help overcome fragmentation, alienation, estrangement, conflict, and warfare. It is part of the purpose of this small but significant, innovative segment of contemporary scientific society—of this activity called *Zygon*—to heed the imperative implied in a saying from religious tradition: “Blessed are the peacemakers. . . .”

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