

## *Editorial*

Before introducing the papers of the last issue of *Zygon's* thirteenth volume, probably my last full volume as editor in chief, I pause to contemplate a bit of what has been done, where we are, and where the future may lead us. We are expecting some changes that will improve *Zygon* while still providing continuity with what makes it significant.

We can take some pride, in the midst of today's confusions and uncertainties, that we have been able to publish so many papers throwing much light from the sciences and scholarship upon the mission set forth in the first two paragraphs of our first editorial in 1966:

"*Zygon*, the Greek term for anything which joins two bodies, especially the yoking or harnessing of a team which must effectively pull together, is a symbol for this journal whose aim is to reunite the split team, values and knowledge, where co-ordination is essential for a viable dynamics of human culture.

"We respond to the growing fears that the widening chasm in twentieth-century culture between values and knowledge, or good and truth, or religion and science, is disruptive if not lethal for human destiny. In this split, the traditional faiths and philosophies, which once informed men of what is of most sacred concern for them, have lost their credibility and hence their power. Yet human fulfilment or salvation in an age of science requires not less but more insight and conviction concerning life's basic values and moral requirements."

*Zygon* is an intellectually radical journal. It has sought to present evidence for its basic and radical premise that human values, including religion and morals, are a part of the nature studied by the sciences and hence can be illuminated by scientific understanding. This hypothesis is contrary to that of the dominant philosophical view which has asserted that there is an unbridgeable gulf between fact and value, a radical disjunction between what is true and what one ought to do, thereby making science irrelevant to inquiry about proper human values, whether moral, religious, or otherwise. Since the dominant paradigm among sophisticated intellectuals seems to have been shaped by this philosophical view, some have dismissed *Zygon* as absurd or naïve; many have not been clear of its worth; but a growing number have hailed it for bringing values and religion into a new clarity and credibility in the context of twentieth-century scientific ideas.

The emergence of a journal that with some success is advancing human thought toward an understanding that values and religion are very real elements of the overall dynamics of the total system of nature revealed by the sciences is due to an unusual community of leading scientists and scholars and practitioners of religion. A bit of the history of this community is pertinent for our contemplating what we have done, where we are, and where the future may lead us.

*Zygon* is a community venture, a community and a venture which it has been

my privilege to have served for more than three decades. The community includes all those who have been listed on its editorial boards over the years, most of the authors it has published, and a considerable population of conference arrangers and participants. This community has been important for *Zygon* since it has had to generate most of the relevant papers as well as judge their worth in this program for developing a new paradigm for understanding the relation of values and facts.

*Zygon* began with a group that for the most part consisted of scientists, some of the most able in their fields, some of them Nobel Prize winners or otherwise internationally significant for their creative contributions. They represented all the major areas or disciplines from Astronomy to Zoology or from the mathematical-physical sciences, through the biological and behavioral, to the psychosocial and humanistic disciplines. As must follow from the philosophical ban on deriving values from facts, there have not been very many philosophers of the usual sort in either the first group or the succeeding *Zygon*-producing communities, although there have been some from the pioneers within philosophy who have seen science and evolutionary theory in particular as making the radical separation of the "is" from the "ought" no longer tenable. Similarly those who cling close to the norms of the usual paradigms in religious studies and theology have not been heavily represented.

Perhaps what is most significant in the *Zygon*-producing group is their conception of the discipline that was once called the Queen of the Sciences: theology. In this century, in many universities and even within the academic societies concerned with the study of religion, the Queen has fallen and has come to be treated like a poor, decrepit, unwelcome country cousin.

In the *Zygon* community theology (religion's rational clarification, literally "god talk") has been examined in the light of the sciences, and support has been found for the hypothesis that she bears, in an obsolete language, an obscured but most sacred wisdom of the culture (just as the genotype is the sacred "wisdom of the body"), which is probably the key to raising mankind above the apes. Might religion, expressed in the new scientific languages for portraying "reality," again take a leading position among our cultural resources for serving our souls and civilization?

We wish in this editorial to emphasize this concern in the origins and traditions of the *Zygon*-producing community and its implications for the future. The fact is that many significant leaders from the natural and social sciences and some from the humanities are talking seriously with theologians about scientific translations of theology and its practical spiritual and moral applications. In contemplating the problem of science and values we have not joined the academic community that has swept religious myths and theologies under the rug; but, more like the "natural historian" who has sought to interpret scientifically the marvelous wisdom for life evolved under nature's selection long prior to our science, we now seek to understand scientifically the evolutionary sources of religious wisdom as it evolved up the hierarchy of the strata of life from the biological to the highest, contemporary spiritual and theological levels, always selected, presumably, by the same transhuman system of reality that creates all life. We have been a community that has believed that past religious and theological traditions, when articulated in a more current language so as to be understood in the context of today's world view, again would provide humans with better spiritual and moral food than we could synthesize. We share Aleksandr Solzhenitzyn's view on religion as cru-

## ZYGON

cial—but on scientific grounds. Whence came this scientific appreciation of religion's wisdom and sacrality?

*Zygon's* roots go back to the impact of World War II. (See also *Zygon* 1 [1966]: 1–10, 117–119; 8 [1973]: 59–80; 9 [1974]: 2–6; and 10 [1975]: 2–11.) During the onset of that war, the American Academy of Arts and Sciences under the leadership of its president, the astronomer Harlow Shapley, and its secretary, the neurophysiologist Hudson Hoagland, initiated a series of its stated meetings with communications presented by fellows from various disciplines. The series was “devoted,” as Alfred North Whitehead in his introduction to the series said, “to the consideration of the ways in which learning derived from the systematic study of Arts and Sciences can profitably influence the re-organization of civilization in the future beyond this war.”

The scientific leaders of the Academy had recognized the responsibility and the relevance of the sciences together with the humanities for some constructive efforts in the guiding of human destiny. When I was made the first paid executive officer of the Academy in 1947, I was urged to facilitate the Academy's developing all kinds of interdisciplinary projects for the welfare of mankind. Here is a list of some of the earlier projects that were developed: The Improvement of Science Education in Secondary Schools (1947); The Artist in Contemporary American Society (1947); Science and Human Values (1948); Peacetime Uses of Atomic Energy (1948); Aging (1948); Medical Care and the Public (1949); The Scientist and World Politics (1950); Current Issues in the Philosophy of Science (1950); The Sun in the Service of Man (1951); Development of the World's Resources (1951). (The number in parentheses indicates the year the project was initiated.)

The Science and Human Values project was the work of a committee of fellows. Some two or three dozen, nearly all of them scientists of various kinds, met several times a year for four or five years to present and discuss papers. Many of those sought to show how the sciences could illuminate and guide the development of values. This was surprising enough in view of the general academic taboo on such an enterprise. It will be even more surprising to some to learn that Albert Einstein's successor to the physics chair at Prague and the Vienna Circle's former secretary and prime leader in the United States, Philipp Frank, was a key leader in this project. He participated actively in the committee's work with clergymen and theologians that led to the establishment of the Institute on Religion in an Age of Science (IRAS) and *Zygon*. One compelling idea of IRAS came when, in 1952, George Wald, then chairman of the committee, exclaimed in one of its meetings that the information on human nature coming from the sciences was not so denigrating of man and of the higher religious traditions as the public, including some of the clergy and theologians, seemed to think. He suggested that scientists ought to communicate the good news to them. There seemed to be a considerable consensus that this should be helpful for the significant but especially difficult work of religious institutions.

My explorations at that time found little interest in such a program among the theologians and clergy who were then fellows of the Academy. Moreover, the committee members felt that the gulf between the largely secular academic community and the community of those engaged in practical religion and theology was so great that such a program might best be carried on independently of the Academy. Guided by a clergyman, Dana McLean Greeley, who later became president of the American Unitarian Association, in 1952 I

went to the third annual interfaith Conference on the Coming Great Church, an autonomous group whose primary leadership included two clergymen, the Methodist Edwin Prince Booth, who was a professor of historical theology at Boston University, and the Unitarian Lyman V. Rutledge. The conference met for a week each summer on Star Island, one of the Isles of Shoals, off Portsmouth, New Hampshire. Participating were clergy and lay people from the three major American faiths and occasionally others. Like the Academy scientists, they too believed that the international scene after the war required more effective agencies to promote peace. They were ashamed of the impotence of religions to generate a peaceful world and felt that some kind of rational-spiritual revitalization, reformation, and convergence of world religious faiths could be generated to provide higher levels of mutual cooperation and peace in the world. When I suggested to them that there was a group of scientists who might have some useful information for them concerning the credibility of religious beliefs in the context of the scientific world view and also concerning the potentiality that the expression of religious belief in the scientific conceptual system, which had general credibility among the leaders of all cultures of the world, could lead to a convergence of religious understandings, they asked me to develop my proposal for their 1954 summer conference involving the scientists.

The 1954 conference was so exciting and successful that a number of the scientists and religious leaders formed the autonomous IRAS. While such religious leaders of the Conference on the Coming Great Church as Booth, Greeley, and Rutledge are not visible in *Zygon*, it should be known that they and their successors as members of IRAS—and there have been hundreds of them—have had an incalculable influence in calling forth the journal, defining its potentialities, encouraging it, financing it, and shaping its policies.

Historical accuracy compels one to note that academic theological leadership, with some rare exceptions, was neither very enthusiastic nor active in the development of IRAS.

IRAS scientists, often with the enthusiastic theologian Booth, presented their hypothesis at a number of one- or two-day colloquia to which some seven theological schools had been persuaded to invite them. They hoped to stimulate the development and possible use of their modern theories—we might say their modern myths—about man and his relation to the scheme of things. They also sought, beginning in the middle 1950s, to develop a journal for the publication of papers from their conferences and elsewhere. But the IRAS idea did not catch on widely.

A fire for this new light in theological education was kindled in 1960, however, when Malcolm R. Sutherland was made president of Meadville/Lombard Theological School, affiliated with the University of Chicago. In his first year Sutherland, who had witnessed some of the excitement for religion kindled by the scientists on Star Island, began some practical steps that led to significant and continuing support from an established theological institution for work toward a broad union of theology and the sciences. He brought a few of the scientists to Chicago and utilized some whose home base was already in Chicago for some colloquia at Meadville to explore possibilities of involving the sciences in the education of clergy. By the end of 1963 he, his small faculty, and his trustees were ready to launch an unusual and admittedly risky experiment for a theological school.

There were to be three phases: (1) a department to involve the sciences in

the theological curriculum for students preparing for the ministry; (2) a center for advanced studies, involving scientists working with theologians; and (3) a journal for the wider dissemination of the studies. The dream included the hope that some of the rich, new intellectual understandings, which often had generated rewarding, sometimes exhilarating, moral and spiritual feelings at Star Island, might be transplanted to theological education.

The dream was so appealing that I was persuaded to resign my position at the American Academy in order to accept Sutherland's invitation to lead the experiment. But, from the start in 1964, the paucity of funds, of faculty, and of texts with an integrated scientific-theological perspective, plus the fact that during the late 1960s theological students were no less in rebellion than other students against the traditional academic disciplines, among other factors, led to the failure of the first phase of this experiment—scientific theology in educating the clergy.

The other two phases of the Meadville experiment succeeded in producing a useful center for advanced study in religion and the sciences and in establishing this journal. Meadville funded several fellowships at the center and a number of others participated at their own expense, either on sabbatical leave or as local scholars on a part-time basis. Meadville funded most of the editorial personnel and editorial office expense for *Zygon* and joined IRAS in some subsidy to the University of Chicago Press for printing and distributing the journal in its first years. I have estimated that from 1964 to 1972 Meadville may have put more than a half million dollars into the center and the journal—a remarkable gift of a small theological school toward the large task of attempting to make theology better adapted so that it more effectively might provide meaning and guidance for a population whose minds find the scientific models of the world most credible and have difficulty in fitting traditional philosophical and theological models with them.

Meadville's capacity to fund the center and the journal ceased after 1972. Since then the center for advanced study has become the independent Center for Advanced Study in Religion and Science (CASIRAS) and took Meadville's place on the Joint Publication Board which publishes *Zygon*. With some four thousand dollars a year of support since 1972 from IRAS and CASIRAS and office space donated since 1974 by the Lutheran School of Theology at Chicago and the Chicago Cluster of Theological Schools, we have continued the publication of *Zygon* and, with Philip Hefner of LSTC and a few others, continued some operations of CASIRAS, all on a voluntary basis.

Until 1978 our search for new institutional and financial support, adequate for the level of operation felt necessary for the editorial and publication office of *Zygon*, had been a failure. Except for a few minor grants, foundations shunned it, perhaps mostly because of the still widespread conviction that one cannot integrate theology and the sciences. The same is probably the case for the lack of offers from universities and theological schools. While there were a couple of offers from universities, the Joint Publication Board did not find that they related adequately to the community and the hypothesis that generated *Zygon*.

During the past few years I have had some health problems that have made it impossible for me to take care of my tasks as I ought, and, with the Joint Publication Board, I have sought ever more eagerly to find suitable personnel and financing to carry on the journal.

We are happy to announce that we expect *Zygon* during 1979 to have an

excellent new editor in chief, appointed from the *Zygon* community, to lead the same large team of the various editorial board members and other associates who on a voluntary basis have cooperated to generate *Zygon* in the past; and we expect new financial support for a larger editorial-office staff that can respond adequately to the many inquiries and tasks that in recent years have had to be neglected. I express my apologies for this neglect. We believe that in the near future *Zygon* will be back on schedule and moving to new heights of significance.

We must note another change in the arrangements for publishing *Zygon*. This will be the last issue printed and distributed for us by the University of Chicago Press. Beginning with the March 1979 issue, which should follow this one rather quickly, the printing and distribution of *Zygon* will be handled with the cooperation of the Council on the Study of Religion at the Wilfrid Laurier University Press. We take this occasion to express our appreciation for the cooperative and expert services given us by the University of Chicago Press personnel during the publication of our first thirteen volumes.

In this year when we have become aware of the tragic power of irrational religious feelings to engender evil, such as the mass suicides at Jonestown, Guyana, it is good to have hopes restored by new support for the *Zygon*-producing community to provide rational strength for sound religious tradition. The phenomenon of suicidal and society-destroying religious zealotry, whether in this country or abroad, is something that we need to understand better in order to prevent. Moreover, we need to be able to fulfill the inherent human need for some kind of suitable religion if we are to prevent irrational and destructive cults from filling empty souls. Deep feelings and powerful motivations are an essential part of religion and necessary for proper moral motivation; but they are dangerous when they become disconnected from reality and reason. The failure of mainline churches in Christendom to provide a credible and spiritually and morally satisfying religious experience has been blamed in part for the rise of such different ideologies as Fascism, Marxism, and the less rational cults.

It is therefore with special interest that we publish in this issue on New Biocultural Explanations of the Persistence and Power of Religion some papers from our 1977 IRAS Star Island Conference that provide new insights from the sciences into the mysteries of religion.

Eugene G. d'Aquili's "The Neurobiological Bases of Myths and Concepts of Deity" argues that belief in supernatural powers—gods or demons—derives from the functioning of neural structures which became remarkably elaborated through their genetic as well as cultural evolution because of the adaptive advantage they conferred on their bearers.

Barbara W. Lex, in "Neurological Bases of Revitalization Movements," presents an anthropological and biological investigation of the genesis of "crisis cults" and a detailed hypothesis of the brain dynamics that generate the emotional and behavioral patterns of cult experience. Lex and d'Aquili provide important insight into what underlies and can be done about the cults as well as about religious-need fulfillment in the population generally.

J. W. Bowker, in "Art, Theology, and Religious Systems: A Case for the Inquisition," examines the conflict between an artist and religious orthodoxy and finds that religions, like genetic transmission systems, are constrained, by their needs to replicate faithfully a well-tested lifeway and their opposing

## *ZYGON*

needs to adapt to new conditions, to evolve compromised structures of information and behavior that necessarily produce tension. (Any insights here for understanding “original sin”?)

These three papers provide tantalizing and highly significant pictures for those concerned not only with understanding the sociobiological origins of human values and religion but also with our duties (reality’s requirements) if we are to adapt the theological, value-generating core of our culture viably to a future civilization in an age of science.

R. W. B.