

Editorial

One of the persistent themes implicit in much of the work appearing in *Zygon: Journal of Religion and Science* is the complex relationship between tradition and innovation. In many ways the “yoking” signified by the word *zygon* involves interrelating past and present human understandings in constructing for the future a better relationship between science, religion, and values. The “Statement of Perspective” on the second page of each issue of the journal concludes: “*Zygon’s* hypothesis is that when long-evolved religious wisdom is yoked with significant, recent scientific discoveries about the world and human nature there results credible expression of basic meaning, values, and moral convictions that provides valid and effective guidance for enhancing human life.” This statement of perspective was developed in the spring of 1979 as the joint effort of founding editor Ralph Wendell Burhoe and myself, in consultation with others. Even as it serves as one expression of the relation between tradition and innovation, for the two of us the statement also represents our own personal involvement in a transition between editors that attempted to unite a founder’s vision with a younger colleague’s aspirations and enterprise.

During the past decade I have come increasingly to understand and appreciate the dynamic, still mysterious, creative interaction between old and new. I have come to marvel at how a combination of chance and law, variation and selection, tradition and innovation work together to transform energy into ever more complex forms of matter, life, human culture, science, and religion. I have come to appreciate how all things are interconnected even as the universe evolves toward greater diversity, individuality, and freedom. I have come to see the more effective integration of methods of inquiry in the sciences, philosophy, and theology. And I have come to respect and honor the hard work of many individuals using these methods to explore questions of meaning, morality, morale, and motivation in the human quest for a better life and world.

This particular issue of *Zygon* continues this exploration by bringing together two trends in recent issues of the journal. The first is the use of Imre Lakatos’s concept of *research programs*. Working out of the philosophy of science of Karl Popper, Lakatos developed the notion of a research program as a more adequate way to characterize the ongoing inquiry of scientific communities. In the September 1988 issue of *Zygon* Nancey Murphy and Philip Hefner showed how theological inquiry might also be characterized in terms of Lakatosian research programs.

The second trend is the focus on the German theologian Wolfhart Pannenberg as one of the most helpful theological thinkers in the dialogue between religion and science. In March 1988 we published Pannenberg’s “The Doctrine of Creation and Modern Science” from the First Pannenberg Symposium held at the Lutheran School of Theology at Chicago in April 1985. From the many responses to Pannenberg at that symposium we published those by Robert John Russell and Jeffrey S. Wicken.

In this issue we continue the dialogue between Pannenberg and the scientists in the context of the work of Lakatos and in a way that further illuminates the complex relations between old and new. What follows is a sample of some of the

thinking in this issue, interpreted in terms of the dialectic between innovation and tradition.

Philip Hefner leads off by outlining some of the main themes of Pannenberg's rich theology and then formulating them as a Lakatosian research program. Central in Pannenberg's theology is the theme of history governed by a God who continually creates. In relation to modern science Pannenberg sees this continual creation expressed in the interrelationship between contingency and natural law. Three scientists then respond to Pannenberg's thinking appreciatively, critically, and innovatively. Biochemist Jeffrey Wicken attacks the trend toward genetic reductionism espoused by many neo-Darwinists and develops a more open, relational understanding of cosmic evolution grounded in thermodynamics and ecology. Wicken's understanding provides an important place for human subjectivity and creativity and for theology as a constructor and interpreter of human meaning.

However, in keeping with the historical dialectic between tradition and innovation, there is a tentativeness of constructs in both science and theology. Both engage in Lakatosian research programs in which auxiliary hypotheses are falsified and core hypotheses may be replaced in "paradigm shifts." The tentativeness is often indicated by the use of the word *model*. Human geneticist Lindon Eaves points out, however, that some scientific models may be more firmly grounded than others; they are in his word *icons*. Icons are elements of reality that are necessary and irreplaceable for understanding the whole of reality. They are elements that both crystallize reality as it is currently known and open up new horizons for its exploration. For the Christian theologian Jesus as the Christ is such an icon; for the evolutionary biologist an icon is the double helix of DNA. Pannenberg, in his response to the scientist, is uneasy with the notion of icon. He is afraid of the idolatry that can occur when part of a tradition—whether scientific or religious—is taken as fundamental and final. The mystery of a transcendent divine reality expressed immanently in the dialectic of contingency and law (in which laws too are in the final analysis contingent) must not be forgotten.

Theoretical physicist and cosmologist Frank Tipler looks to the distant future for a resolution of the ongoing dialectics between chance and law, innovation and tradition. In his comments on resurrection, Tipler presents a speculative yet scientifically grounded picture of the recovery of all traditions called information systems. God, for Tipler, is being born; through innovations of chance and law, the traditions of the universe are being unified into the being of God.

From the lofty heights of this sampling of the far-reaching thinking by the authors in this issue, let us come back to *Zygon's* own tradition and to some innovations now taking place for its future development and improvement. In an evolving universe on an evolving planet in a constantly changing society and working with a dynamic enterprise, I have learned that survival depends on generating innovations and then integrating those innovations with what has been tested and established. In many ways I have tried to do this with *Zygon*. However, during the past year I have initiated, and the Joint Publication Board of *Zygon* has carried through, what is to date the most promising (and to me most satisfying) set of innovations yoked with the *Zygon* tradition. My expectation is that two forthcoming developments will open up a new era for our journal.

The first is an expansion of editorial leadership. About a year ago, as I entered my tenth year as editor, I decided that I had been sole editor of the

journal long enough and that *Zygon* should begin moving in the direction of finding a new editor. My wish was to continue in a capacity with the journal by which I could help educate people about the nature and significance of *Zygon* but not to have the primary responsibility of continually deciding what to publish; instead I hoped I could find more time to develop my own research and writing in religion and science. My wish has come true. Beginning with the September 1989 issue, our journal will expand from a single editor to a team of three editors.

The leader of the new team, as the first among equals, will be Philip Hefner. Hefner is known internationally as a distinguished theologian in the Christian tradition—one of a handful who takes science seriously in doing innovative, constructive reflection regarding issues of moral direction and human destiny. He has been a leader and key person in two of the organizations that are co-publishers of the journal; as president for five years of the Institute on Religion in an Age of Science and as co-director for more than fifteen consecutive years with Ralph Burhoe of the Center for Advanced Study in Religion and Science (CASIRAS), Hefner has been one of the primary coordinators of much of the research and reflection that has appeared in *Zygon*. He is the author of ten major *Zygon* articles, the first appearing in the journal's second year (1967) and the most recent in this issue. In the last few years he has founded the Chicago Center for Religion and Science under the auspices of the Lutheran School of Theology at Chicago (LSTC) and CASIRAS. Over the last fifteen years LSTC and its president, William Leshner, have provided enthusiastic and at times crucial support for *Zygon* and its first two editors. Now CCRS—under Hefner's guidance and with the diligent efforts of its Associate Director, physicist Thomas Gilbert (who is also *Zygon*'s book review editor)—provides a sound infrastructure for helping sustain the journal. With his outstanding mind, his responsible and sensitive leadership, his devotion to excellence, and his comprehensive understanding of *Zygon*'s objectives, Hefner is most worthy of carrying forward innovatively the traditions of *Zygon*. I am delighted that he is taking on the responsibilities of editor-in-chief, and I look forward to working with him in many ways.

Assisting Hefner in the selection of manuscripts for publication and in producing the journal will be executive editor Carol Rausch Gorski. Gorski is associate for programs at the Chicago Center for Religion and Science and is editorial consultant to the faculty at McCormick Theological Seminary and the Lutheran School of Theology at Chicago. A professional editor, she brings to *Zygon* twenty years' experience in science writing and in substantive editing, assisting scholars and professionals with the development of their ideas. As I have worked with her over the past few months, I have come to appreciate her expertise in making editorial judgments. Her sound business sense and professional commitment will make her an effective manager of the editorial office and its procedures for determining what to publish. Her skills as an editor will be much appreciated by *Zygon* authors.

I will continue, along with Hefner, as one of the two editors of *Zygon*. Initially I will work with Hefner and Gorski to edit and produce the journal during a transition period; I expect the last issue that I produce alone will be March 1990. After that my primary job will evolve into that of developing ways to expand the impact of our journal throughout the world.

The second innovation accomplished by the Joint Publication Board of *Zygon* should help me in increasing our journal's impact. In May a memorandum of agreement was signed between the Joint Publication Board of *Zygon*

(the publisher representing the sponsoring institutions described on the inside back cover of each issue) and Basil Blackwell, Inc. as the new publishing agent for the journal. Basil Blackwell is a distinguished international publisher of books and journals in the natural sciences, social sciences, humanities, and theology.

As of June this year Basil Blackwell has begun subscription and marketing services on behalf of *Zygon*. Beginning with the March 1990 issue, the journal itself will be produced at and distributed by Basil Blackwell. Our expectation is that this innovation will continue *Zygon's* tradition of being a high quality publication, initially published at the University of Chicago Press, and carried forward ably from 1979 through the December 1989 issue by Wilfrid Laurier University Press. My long-range hope is that Basil Blackwell's strong, worldwide marketing program will bring our journal into more libraries, offices, and homes around the world. As a result the community of those involved in exploring *Zygon's* hypothesis will grow and flourish.

My immediate hope is that as a reader you will support these innovations designed to continue and to improve on the *Zygon* tradition. With your continued involvement as readers, contributors to the Patrons program, and contributors of ideas, and with the expanded team of editors and the help of Basil Blackwell, I expect that our journal will become stronger in its scholarship and readability and that its impact on the world will increase. Together we can inaugurate a new era in the history of "yoking" together the religious and philosophical traditions of humanity with the knowledge of the contemporary sciences, in order to provide "credible expression of basic meaning, values, and moral convictions that provides valid and effective guidance for enhancing human life."

Karl E. Peters