

## Editorial

What is the primary challenge that the sciences pose to religion and theology? For many persons in our Western society (presumably not those who read this journal), the issue is whether science “proves” religion to be true or false. As simplistic as this view appears, it may indeed be more widespread in the public mind than we want to admit. In an alternative view science challenges religious thinking to take account of scientific understandings and interpret them in a useful manner. When the challenge is put in these terms, our attention focuses on how science addresses theology rather than religion. Theology is the theoretical component of religion; its ideas and concepts seek to interpret the richness of religion’s concrete elements in a coherent fashion.

Under certain circumstances, science does bid fair to “falsify” theological concepts (the inverted commas are intentional, since I am speaking loosely about a complex matter): when those concepts are inconsistent with the data that the sciences have discovered and with the understandings of the world that have been achieved through scientific consensus. Beyond this “falsification” function, however, and more significantly, science puts pressure on theological theories by its inherent demands that theological thought not only take into account the scientific understandings of the world but also interpret them in useful and fruitful ways.

These three elements may be placed on a continuum that ascends in importance as it unfolds. Taking scientific understandings into account is a more profound exercise for theology than simply to avoid falsification. Doing something with the scientific understandings—providing fruitful interpretations of them—is profounder yet and by far the greatest contribution theology can make to advance human life. It follows that theology must place emphasis on the concepts, the theories and models, currently employed in comprehending our world; only by doing so can theology provide the new interpretations by which human beings can make sense of their lives and shape their actions. Conversely, when theology fails to provide such fruitful concepts, baleful consequences too often ensue.

From its beginning, *Zygon* has considered these elements of the interaction between science and theology to be at the heart of its concerns. Its editors and authors over the years have taken for granted that theology aims to be consistent with scientific understandings, and the journal has focused on theology’s efforts to take science into account and interpret its knowledge. The articles in this issue could not be more forceful in their concentration on the adequacy of concepts for integrating and interpreting scientific findings.

In June 1991, we published Roger Sperry’s article “Beliefs to Live by Consistent with Science,” to which James Jones responded critically in a piece entitled “Can Neuroscience Provide a Complete Account of Human Nature?” (June 1992). In the first article in this issue, Sperry argues that Jones obscured the central point of the original article. In the process,

Sperry walks the reader through an eminently lucid account of the logic and significance of his proposal for a nonreductive "macro-mental" theory of causation that is able to take into account the causal significance of the "ineliminable" contents of subjective experience, including experience that the humanities focus upon in their work. Sperry emphasizes that this theory constitutes a breakthrough, not in the discovery of any new facts, but in proposing a new model, "an overriding *metatheory* or worldview paradigm," that shifts consciousness "from a prior noncausal to a new causally interactive functional role." He reiterates an argument that he has made for some years now, that this new metatheory, by joining the world of science and that of the humanities "in a consistent and unbroken epistemologic continuum" enables theological theories to relate to the sciences in new ways. His metatheory also suggests new frameworks for understanding the importance and function of values in human life—a matter of great import for religion, insofar as it is concerned with values.

Lindon Eaves and Lora Gross draw attention to the failure of theological concepts to consider the knowledge that has emerged from the field of genetics. There is perhaps no other field of scientific research that theologians have handled so ineptly. However, Eaves and Gross devote most of their effort to the constructive task of suggesting how theological concepts can not only take genetic knowledge into account but interpret it in creative ways: they suggest that the concept of Spirit holds great promise in this effort.

Ward Goodenough, like Roger Sperry, offers work at the level of metatheory in his observation that, although traditional Western religions find theological theory to be a necessity for their adherents, other types of religion feel no such need. The encounter with science makes a different impact on this latter type of religion, because they need not work out the implications of science for a concept of God.

Empirical theology is the subject of Karl Peters's contribution to these pages. This school of thought flourished in the United States in the 1930s, 1940s, and 1950s, particularly at the Divinity School of the University of Chicago. In the person of one of its chief proponents, Henry Nelson Wieman, it had great influence on this journal's founder, Ralph Wendell Burhoe. During the years 1966 to 1969, Wieman published five articles in *Zygon*. Karl Peters has emerged as one of a number of thinkers who carry this mode of theological thinking forward today with a level of intensity that may even surpass its heyday a half-century ago. Peters's article underscores the conceptual task of theology, and he describes in helpful ways how empirical theology has developed a methodology that enables it to construct concepts that are especially adapted to the task of integrating scientific understandings.

Philip Hefner's piece also reflects upon the adequacy of theological concepts for understanding the world and human behavior in it. The specific conceptual field for his scrutiny is nature and the relationship of humans to it. His discussion concludes that in order to achieve greater adequacy, theological thought must conceptualize nature as the primary reality for both God and humans and must view human being as part of that nature. Furthermore, it must provide theoretical undergirding for the idea that human purpose is to enhance nature and involves the discernment of ultimacy as an intrinsic dimension of nature. Hefner's work reinforces an effort that is prominent in all of the articles in this issue, to construct

theological concepts that speak of ultimacy in terms that are nondualistic, imaging transcendence within the natural order and not separate from it.

The juxtaposition of the pieces by Peters and Hefner brings to the fore another consideration that is relevant to theology's task of forming more adequate concepts. These authors represent two types of theology, approaching the interaction with science in differing ways. These two types are empirical or naturalistic theology (Peters) and traditional theology (Hefner). In the months ahead, *Zygon* will have occasion to reflect at greater depth on these two approaches. The naturalistic approach, as Peters explains, holds the traditional symbols and doctrines of religion in abeyance as it attempts to discern as accurately as possible the reality of nature and of human beings within the natural world. The wager carried by this theological approach is that such discernment will disclose the dimensions of ultimacy and value that have always been at the heart of the religious vision. By bracketing out, at least provisionally, the traditional ways of symbolizing this dimension, naturalistic theology hopes to gain a clearer sense of how persons may actually encounter ultimacy and value in the contemporary situations of life, and how that dimension is embodied in scientific descriptions of the world. This type of theology is essential to the program of *Zygon* in that it acknowledges how scientific knowledge has destabilized older symbol systems and how seriously we must struggle to form new systems for understanding ultimacy and value.

Traditional theology, beginning with the received symbols and rituals, proceeds on a case-by-case basis to test their adequacy as vehicles of human discernment of ultimacy and value and explores the ways in which they may be reshaped or reinterpreted. It acknowledges also the possibility that some symbols from the past will simply fail the test of adequacy for illumining contemporary life. This traditional approach also stands within this journal's programmatic, in its dual concern for the inherent wisdom of ancient religious traditions and also the necessity of testing those traditions for contemporary adequacy.

This effort to integrate contemporary empirical adequacy with the wisdom of tradition figures with special intensity in Ingrid Shafer's poem "Noogenesis: Weaving Ourselves on Incarnation's Loom." At the very least, her poem is a *tour de force* that requires the reader's intense involvement. What she has attempted is to reflect upon how the multifaceted picture of nature provided by contemporary science reverberates in the mind of a person who is deeply conversant with the tradition of Western religion, philosophy, and literature. The complexities of the poem reflect the complexity of our Western humanistic and religious journey through the centuries. Set against the background of Roger Sperry's discussion, Shafer is testing in detail the "consistent and unbroken epistemologic continuum" that Sperry insists upon. Her predisposition is to find as much continuity as possible, to show the reader not only that much more of the Western tradition is consistent with the contemporary scientific understanding of things than we normally grant, but that this inner coherence reaches beyond the West to Vedantic, Buddhist, and Taoist notions. Her wager is that Sperry's metatheory can be a useful interpretive key to understanding our larger cultural past.

—Philip Hefner