## Editorial

When Edward O. Wilson first outlined the discipline of sociobiology and applied some of its ideas to human beings and their behavior, one of the concerns graphically described in the popular media was that of human freedom. In the minds of many the notion that "genes hold culture on a leash" was the latest but not the only reason to believe that all human behavior was determined, not free.

When the idea of genetic determination of human activity is coupled with that of societal determinism through enculturation, the issue is raised as to whether humans have any real say in their own significant life decisions. Even though we may introspectively feel we are freely deciding, the idea that we are both genetically and socially conditioned creatures raises the fear that such a feeling is only an illusion. Even though traditional social systems of justice often punish wrongdoing on the assumption that people are responsible for their actions—and to be responsible one must freely choose to do the act—the idea of genetic-social determinism raises the specter that there is no real foundation for retributive justice.

Issues such as these prompted Robert C. Sorensen, president of Sorensen Marketing/Management Corporation and professor of marketing at Rider College, along with Karl E. Peters, professor of philosophy and religion at Rollins College, to chair the development of the thirty-third annual summer conference of the Institute on Religion in an Age of Science, 26 July-2 August 1986 on Star Island. The title of the conference was "Free Will: Is It Possible and Is It Desirable?" The first four papers in this issue of Zygon are from that conference.

A few weeks after the Star Island Conference, a companion research conference on free will and determinism was held at the Scandinavian Seminar College in Holte, Denmark. That conference was chaired by Sorensen and Viggo Mortensen, associate professor at the Institute of Ethics and Philosophy of Religion, University of Aarhus. Papers from that conference are being published by Aarhus University Press in the book *Free Will and Determinism*, described in an announcement in this issue of *Zygon*.

This issue opens with Louis Pojman's essay, "Freedom and Determinism: A Contemporary Discussion." Pojman outlines the arguments for and against the major contemporary positions on the determinism-free will debate. On the one hand, our own introspection suggests that we freely decide our courses of action; on the other hand, our belief that all events including our own thoughts and actions have prior causes implies that we are not free but determined. While not taking a stand on the options he analyzes, Pojman concludes his essay with the "compatibilist position"—that determinism and free will each are part of the truth and are in some way or other to be held together.

The next three essays develop this position by offering some new perspectives on the problem. First, in contrast to a more traditional understanding that often sets the issue of determinism and free will in the context of what is eternal in the nature of things, the papers by Michael Ruse and Karl Schmitz-Moormann discuss the question in an evolutionary perspective. In "Darwinism and Determinism" Ruse analyzes different senses of the word *determinism* and then offers an evolutionary scenario of the development of human free will, thereby shedding light on the relations of our intuitions about free will, constraint, and control. In doing this he lays to rest some of the fears in popular thinking mentioned in my opening paragraph. Schmitz-Moormann, in his essay "On the Evolution of Human Freedom," argues even more radically that *both* natural laws and freedom evolve as part of the history of the universe. Free will is not in opposition to natural law but is compatible with evolving structures and the laws governing the functioning of those structures.

Second, in contrast to an understanding of the freedom-determinism question that sets it in the context of atomic individuals who are distinct from their surrounding biological and cultural environments, Winnifred A. Tomm argues for an understanding of human freedom that is compatible with the interconnectedness of all things. Specifically, in "Autonomy and Interrelatedness" Tomm rejects the Kantian separation of reason from the emotions in the morally autonomous person. Then she uses the thinking of two Western philosophers Baruch Spinoza and David Hume along with that of the Buddhist thinker Vasubandu to argue that in the morally autonomous person reason and emotion mutually inform each other. Such a human being is directed by personal interests; however, such interests are not those of an isolated individual but rather of one who is responsive to other humans and to the wider environment.

One of the reasons underlying deterministic thinking is the assumption that all events, even our "own" thoughts and actions, have causes that precede them in time. This concept of efficient causation is central to scientific inquiry as it seeks to provide explanations about how things happen in our universe, on our planet, within the human individual, and in human society. However, seeking such explanations not only challenges our sense of free will but also raises questions about human purpose. In contrast to efficient-causal explanations of human behavior, explanations in terms of purposes suggest we are governed by our visions about the future. William Grey's essay "Evolution and the Meaning of Life" explores how efficient causal explanations have replaced explanations by purposes or goals, and he draws out the implications of this shift in the nature of inquiry for our understanding of life's meaning.

Finally, many recognize today that efficient-causal explanations are often employed in a reductionistic manner. When such explanations are coupled with certain types of empirical thinking that limit human experience to ordinary sense experience, either direct or augmented by technology, it seems that little room is left for religious concerns. A sociologist who wrestled with this issue in science and religion is Peter Berger. Robert C. Fuller's paper "Religion and Empiricism in the Works of Peter Berger" offers a critical analysis of Berger's attempt to use empirical methods to avoid reductionism and thereby to rehabilitate rather than debunk human religious propensities.

The problems considered in this issue of Zygon will continue to be discussed for some time to come. However, by employing a general evolutionary perspective as it interrelates knowledge from the contemporary sciences with insights from ancient religious and philosophical understandings, Zygon is publishing new developments that might resolve some age-old intellectual problems. Resolutions of these problems might then help people living within the world view of contemporary science to comprehend more clearly meaning and purpose for their lives.