Reviews

Transcendence. Edited by Herbert W. Richardson and Donald R. Cutler. Boston: Beacon Press, 1969. 176 pages. \$7.50.

A generation ago, a theological book on transcendence would likely have explored what was a central concern of neoorthodoxy-the concept of a biblical God who, as creator and sovereign ruler, stands over against history and the world as the Radically Other. That motif is not heard so frequently these days. It is not the subject matter of this volume. Instead, what we find is a variety of approaches to transendence, understood primarily as a dimension of experience. The transcendent is a more, a limit, a whole, a creativity, etc., which is disclosed in but which stands beyond the immediacies of ordinary, everyday life as ground or goal. This beckons one to deeper levels of experiencing which enrich for the moment and fortify one for those moments of ordinariness and/or distress that make up the daily round of human existence. No brief summary such as this can do justice to the richness and variety of the treatments of the individual authors who deal with the issue, but I have tried to suggest the general impact the book had on me. According to editor Richardson, what holds these diverse pieces together is a threefold set of convictions—a belief in a historical process that is open to novelty of achievement under the lure or leading of the transcendent; a conviction that, to be true, the transcendent must be experienced operationally and behaviorally as well as conceptualized; and a willingness to learn from Eastern modes of thought.

Readers of Zygon will find little here that bears directly on the dialogue of theology with the sciences. The book may have some value for the theologically minded who are curious to see how the theme of transcendence is dealt with by a group of theologians, sociologists, philosophers, and psychologists whose names are Henry Nelson Wieman, Charles Hartshorne, Michael Murpny, Harvey Cox, Sam Keen, Huston Smith, Robert Bellah, Donald Schon, Gordon Kaufman, and Emil Fackenheim.

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Determinism. By Bernard Berofsky. Princeton, N.J.: Princeton University Press, 1971. 330 pages. \$10.00.

If beauty resides in the eye of the beholder, so does meaning. It is possible that logicians and positivists will find profundities in *Determinism*, but a scientist with epistemological interests is likely to be disappointed. Too much of the action consists in trotting out hoary straw men which are

predictably dispatched after no end of strenuous fighting. The ritual battle must have its appeal to the initiate of such spectacles, but nothing much new emerges out of the process.

Two quite different topics, sometimes not clearly differentiated by the author, are being dealt with. The first is the principle of determinism, or the principle of universal causation. The second deals with the application of the principle to human behavior and thus touches on the question of "free will."

As far as the first question is concerned, one is left with the clear impression that no improvement over previous positions has been achieved. Popper (whose name does not appear in the book) has long ago made clear that the existence of causality cannot be proven either rationally or empirically but that the acceptance of its truth is a most useful convention. Although there is a chapter devoted to what seems to be intended as a refutation of the Popperian position, the really interesting questions about causality are missed, because the author refuses to come to grips with the conventional nature of the deterministic principle. So the argument goes on in the straightjacket of a scholastic formalism that more often than not sounds irrelevant.

The second topic, that of human freedom, is again approached with tools dulled by age. Today everyone knows perfectly well that the potential for foreknowing, predicting, explaining, causing, etc., human behavior is rapidly increasing. The possibilities of artificial gene selection, electronic brain implants, drugs, operant conditioning, etc., are presenting new challenges to those concerned with the problem of determinism. These are the realities with which any theoretical treatment of free will must cope. Hic Rhodus, hic salta.

Yet, when the author touches on empirical matters, his grasp of facts is weak indeed. What is, for instance, this "knowledge without observation" that Miss Anscombe speaks of? (p. 15). A mysterious faculty conferred on positivist philosophers? Or a physiological process that has a name, like proprioception or somatic sensation?

There is no doubt that the question of determinism and free will is increasing in importance, especially for those geneticists, biologists, surgeons, biochemists, psychologists, sociologists—to name only a few—who are beginning to have greater and greater capabilities to do something about it. It is vital that the questions be brought up and understood before the subtle indeterministic setting of the human organism is tampered out of existence. In this task, the contributions of the various schools of philosophy will be surely needed; their usefulness will depend, however, on whether they see the problem as just a standard intellectual subtopic of their discipline or as a real, evolving (and hence changing) feature of life itself. The main objection to the book under review is that it reduces a fascinating and dangerous issue to a dull routine of "p's" and "not p's."

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The One and the Many: Teilhard de Chardin's Vision of Unity. By Donald P. Gray. New York: Herder & Herder, 1969. 183 pages. \$6.95.

In the flood of writings on Teilhard de Chardin, it is difficult for a book to make a substantial contribution. Yet Donald Gray has managed to bring to light aspects of Teilhard's thought that could easily remain undetected. Because of the phenomenological character of Teilhard's widely read major work, the impression is given to some that the Jesuit paleontologist did not formulate the metaphysics that underlies his vision. By studying Teilhard's early writings, Gray draws into focus Teilhard's own attempt to work out this metaphysical understructure. As a result, the book does a service to members of the scientific community who would like to see the philosophical presuppositions that shaped Teilhard's theory of evolution. It provides philosophers with valuable data for situating Teilhard within the various strands of twentieth-century process thought. Finally, it gives theologians clues for clarifying Teilhard's interpretation of Christian belief.

Gray draws heavily from Teilhard's early writings, covering the period from 1916–27. In these, more explicitly than in most of his later writings, Teilhard was engaged in exploring philosophical and theological themes. The author contends that these early writings are crucial for an accurate interpretation of the total corpus of Teilhard's work.

Gray claims that Teilhard's central concern is the problem of the one and the many. It is in terms of this problem that Teilhard formulates issues and develops solutions rather than in other categories, such as being and non-being. Teilhard is concerned with a threefold aspect of the problem: the relation of matter and spirit, the relation of the individual and the total human community, and the relation of the one God and the pluralistic world of creatures. Ultimately, for Teilhard, the problem is rooted in the process of trinitization within the divine life.

Although the problem of the one and the many is classical, Teilhard brings a fresh perspective by viewing it from the standpoint of evolution. He sees evolution as a movement from the many to the one, yet in such a way that—through creative union—the many become one without losing their identity as many. Through his theory of creative union, Teilhard sought to resolve the problem of the one and the many. This theory views the whole of created reality as dipolar: either actively uniting or passively undergoing unification. The process of unification leads to the emergence of new possibilities; hence, through a gradual process of unification, the world is being created.

With creative union as a focal point, Gray moves over the expanse of Teilhard's vision—from the primordial realm of multiplicity, through the dialectic of matter and spirit, into the various levels of Teilhard's understanding of Omega, and finally into the area of spirituality. At each stage, Gray clarifies issues by viewing them in the light of the one and the many: for example, in the doctrine of creation, the relation of the past and the future, the nature of evil, the doctrine of original sin, the humanistic and religious readings of Omega, and a spirituality that avoids pantheistic monism while affirming the union of all in God. In the problem of the one and the many, Teilhard sees a way of unifying science, philosophy, and religion;

for, while retaining its distinctiveness, each of these makes a unique contribution to understanding and resolving the problem.

This is a rich book, not only in its basic thesis and the main lines of its argument, but also in the precision of its details. Built on solid research, the study contains detailed analyses of key texts, where again and again the author pinpoints with striking accuracy the heart of an issue. If Gray's thesis is correct—and I am inclined to agree—then it merits being taken seriously in evaluating Teilhard's position. An assessment of Teilhard—whether positive or negative—should take into account the problematic in which he is working. Gray's book has made a significant contribution in identifying this problematic and charting its logic within Teilhard's synthesis. Although Gray does not give an overarching evaluation of Teilhard's thought, he helps lay the groundwork for solid critical assessment.

EWERT H. COUSINS

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Bergson and the Evolution of Physics. Edited and translated by P. A. Y. GUNTER. Knoxville, Tenn.: University of Tennessee Press, 1969. xii+348 pages. \$10.50.

That nature should be uniform, symmetrical, correlated in all its parts is one of those unmistakably philosophical, if not metaphysical, postulates voiced even by those leaders of modern physics who at the same time derided, as Max Born did in his Atomic Physics, the "dry tracts of metaphysics." Equally inconsistent is the manner in which they, and philosophers emulating the methods of physics, deprecate common-sense experience, as if any and all pointer readings would not, in the ultimate analysis, depend on a common-sense observation. But the area where the much-vaunted operational method of modern physics most blatantly ignores the realm of reality concerns man's experience of time. The experience of the "now" in which past and future are so intimately united is not only a most elemental datum of existence but is also a most mysterious one, and that is certainly so as far as operationalism, or physics for that matter, is concerned. Or, as Einstein once felt impelled to remark, the "now" completely escapes the net of physics.

The distinctly metaphysical nature of some postulates about the external world, the fundamental role of common-sense experience, the uniqueness of man's consciousness about the "now," and the inexorably unidirectional flow of time are rather trite truths. It is only once or twice in a century that a genius is seized by their incomparable significance and devotes his whole intellectual career to the task of unfolding it in every possible detail. Bergson was one of these rare geniuses. His early love was mathematics, and Spencerian mechanism was his idol. He certainly had the talent to become one of the leading mathematical physicists during that crucial era that witnessed the collapse of the proud edifice of classical physics, as radioactivity, relativity, and quantum theory emerged on the scientific horizon. Instead, Bergson chose the career of a philosopher, undoubtedly because his mind could only be satisfied with the deepest and broadest aspects of questions posed before it.

Exigencies of this type soon made him aware of the sad inadequacies of mechanism and positivism. He also discovered that the crux of the matter lay with the naïve willfulness by which the notion of time was reduced to the homogeneous juxtaposition of imaginary elements making up the Euclidean space continuum. The great milestones of Bergson's thought, Essai sur les données immédiates de la conscience (1889), Matière et mémoire (1896), Evolution créatrice (1907), Durée et simultanéité (1922), have a lasting value, not only because of their exposure of the shallowness of positivism; these works, especially the early ones, are also a storehouse of remarks which prove the heuristic value of sound philosophical reflections for physical science.

Physicists who cared to read Bergson without the blindfolds of positivism or operationalism recognized this in several illuminating essays which form a substantial part of the book. Louis de Broglie's "The Concepts of Contemporary Physics and Bergson's Ideas on Time and Motion," Satosi Watanabé's "The Concept of Time in Modern Physics and Bergson's Pure Duration," Olivier Costa de Beauregard's "The Principle of Relativity and the Spatialization of Time," and Milič Čapek's "Bergson's Theory of Matter and Modern Physics" are particularly informative in this respect. The work is introduced by a lengthy essay of P. A. Y. Gunter on "Bergsonian Method and Evolution of Science," which is probably the best that has so far appeared on the topic. In it one not only finds incisive details on Bergson's intellectual evolution and fundamental philosophical objectives, but one is amply exposed to the frustrating difficulties arising from the languages used by the philosopher and the physicist, respectively. Both languages are inherently limited though equally needed, lest one should wind up with an atrophied image of reality. The precision of the quantitative language of mathematical physics shall forever tantalize the philosopher aware of the primordial features of commonsense experience and language. The physicist, in turn, should be mindful of the fact that, even in his own restricted field, he cannot escape raising questions which point "beyond physics (meta-physics)," and therefore he should not resent listening to answers which, of necessity, can only be "meta-physical."

Contrary to the assertion in the introductory essay, Kelvin was not one of those in his time who "thoroughly criticized" Newtonian physics. Some information about the career and position of the less known authors of essays would have been helpful. A list of Bergson's works relating to physics and a bibliography on that relation bring to a close the book, which is a most welcome addition to the recent literature on the history and philosophy of modern physics.

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Evolving World, Converging Man. By ROBERT FRANCOEUR. New York: Holt, Rinehart & Winston, 1970. 222 pages. \$5.95.

Utopian Motherhood: New Trends in Human Reproduction. By ROBERT FRAN-COEUR. Garden City, N.Y.: Doubleday & Co., 1970. 278 pages. \$6.95.

Evolving World, Converging Man is a mosaic, sweeping in design; Utopian

Motherhood is a carefully detailed analysis of some of the mosaic's basic building stones. The latter is the more valuable of the two books.

Assuming that the shift in human thought from a stable cosmology to a dynamic cosmogenesis constitutes a revolution in thinking during the last one hundred years, Professor Francoeur declares his intent in writing Evolving World, Converging Man: he states in the preface that he intends to throw himself into the midst of the complex interaction between the "ever deepening scientific image of the world and our emerging religious-philosophic image of man." He certainly does this but without ever venturing far outside the boundaries of the thought of Teilhard de Chardin.

After a very succinct and novel sketch of some billions of years of cosmic history plus thirty million years of preparation for some two million years of mankind's development, Francoeur concludes with Teilhard that, with the emergence of man, the cosmos turns in upon itself. With this, he says, comes the shift in emphasis from organic and biological evolution to social and psychological. Evolution in man is concentrated on the expansion of consciousness.

Even though Francoeur insists on a distinction between unchangeable beliefs and ever-changing explanations of those beliefs, the relationship between what man believes and what man knows is never very clear as the discourse proceeds. Behind his language is the desire that man should work out an image of cosmogenesis, knowing (or believing) that the universe is marked by order, logicality, intelligibility, meaning, and harmony.

Among the theologians quoted or cited in the study are: Saint Thomas, Rahner, Pelikan, Schoonenberg, Barth, Brunner, and Gilkey. These and many other theological, philosophical, and scientific resources converge to permit, sanction, or advocate a new philosophical posture which Francoeur calls evolutionary monism. From the perspective of this position, a few suggestions are made about how some common Roman Catholic doctrines might be reworked.

In short, the general argument of this book, as Francoeur informs the reader in the preface, is "quite tenatative and sketchy." Many crucial questions about the relationship between biological evolution and cultural evolution are not critically considered. Extrapolating too quickly from one to the other, as did Teilhard, gives one the courage to look too far beyond the wildly ambiguous shape of human history.

If Evolving World, Converging Man is not a book that will benefit nearly everybody, Utopian Motherhood is. This may be so because there are more people who have a personal involvement with motherhood than there are people who have a personal involvement with the thought of Teilhard de Chardin. For the daily increasing number of people, male and female, who are working to terminate the centuries-old masculine sexism and its institutionalization, this book is indispensable.

Francoeur begins this highly integrated and carefully written study with the bold assertion that all of us, men and women, stand at the brink of a revolution more radical and far reaching than the small beginnings of women's emancipation made one hundred years ago. Having successfully separated sexual intercourse from reproduction, and having gained the power to direct his reproductive processes, man has created a biological bomb. It is Francoeur's contention that the presence of this bomb is right now contributing to the disintegration of the masculine and feminine mystiques which have given guidance to Western men and women for many hundreds of years. The cultural impact of asexual cloning of human beings, artificial insemination, frozen germ cells, embryo transplants, artificial wombs, prenatal monitoring, and genetic engineering is just beginning to be felt. With sexuality no longer being a biologically oriented reality but rather a sociopsychological one, man faces a new age of "crisis and creation." Man must create replacements for the ancient mystiques.

Professor Francoeur does not hesitate at all in defining human sexuality as communion-dialogue between persons as sexual beings. He readily admits, however, that we do not yet know what it means to be male or female in this "brave new world of ours." He says we must take risks and plunge ahead in the creation of new images or multiple images of man and woman.

The author effectively brings his readers into the linguistic context of experimental embryology. Before long, strangers to the field feel somewhat at home in the categories of abiogenesis, surrogate motherhood, and superovulation. At some time during the reading, one feels with fresh intensity how terribly unprepared we are for all of this. The data presented are massive in scope, fascinating, and, at times, overwhelming in their implications.

Professor Francoeur spots at least three fundamental trends present in embryological research. The first is that sexual intercourse is increasingly moving out of the reproductive arena. Hence, sexual intercourse must be integrated into our lives on some basis other than reproduction. Second, other than monogamous forms of marriage and parenthood will develop to supplement and modify the exclusivity of monogamous-couple marriage. Third, the time is nearly upon us when the simple transplantation of past moral dictates will no longer be possible. Francoeur points out that categories of adultery, infidelity, incest, fornication are part of what he calls a dying pastoral culture which no longer speaks intelligibly. He sees the basic human values undergirding the old system in need not of translation but of transformation. That man is finally accepting his sexuality as a dynamic process inseparable from his or her development as a sexual person is for the author the most overshadowing of trends within the new embryology. He notes that this is at last happening after two million years of evolution and five thousand years of civilization.

Francoeur recognizes that the professional scholar, church leader, or whoever, can no longer be the guardian of human morality. The answers to the questions about man's future are not neat and are not clear-cut. He rightfully asserts that we must turn to a much broader resource base for assistance and insight. Looking to the public for new signals, he says, the scholar and church leader must function as a catalyst, a question poser, rather than an all-knowing oracle. If the scholar's task is to ask questions provocative of dialogue, I believe Francoeur has carried out such with distinction.

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