

of the century needs to fix its bearing on eternal, unchanging truth" (46). Wilhoit closes the section on foundations with a study on spirituality.

The next five chapters describe adult learners, their psychology, their development, and learning patterns. One of these chapters, "Contributions of Malcolm Knowles," written by Knowles himself, presents a distillation of Knowles' decades of work in adult education. It also includes an autobiographical sketch and an annotated bibliography of his own work from 1950 onwards.

Then come four chapters on teaching methods for adults. These deal with small groups, inductive learning, goal setting, and curriculum. For James Galvin and David Veerman, "curriculum for adult education is, in essence, the process of planning educational experiences for adults" (178). Their cycle begins and ends with the participants—determining their needs, enlisting their participation, formulating clear objectives, designing a program, and evaluating the program and its results.

Seven chapters discuss the different kinds of adult learners in the church: young adults, singles, ethnic groups, and oldsters. Special attention is paid to developmental theory and family-life education. The last chapters deal specifically with educational programs in the church: Sunday school, workshops and seminars, mentoring as teaching, and others. The possibilities seem to be limited only by the creativity of the leader, although the lack of church budget for education does pose threats to some programs.

Throughout the book, the emphasis is on discipling, on becoming people of faith. While filling adults' minds with information may be helpful, spiritual growth in grace is even more important.

The *Handbook* gathers in one source a great deal of useful material. Not only is each chapter worth reading and digesting; at the end of each is a list of sources "for further reading," which combined form an excellent bibliography on Christian education. The material is well organized, highly readable, and up-to-date.

If pastors would read the book, they might be more willing to support Christian education for adults within the church. To ensure that a few future pastors get an overview of the topic, I am planning to use the book as a text for my next class in "Teaching Ministry."

Andrews University

NANCY VYHMEISTER

Gilkey, Langdon. *Nature, Reality, and the Sacred: The Nexus of Science and Religion*. Minneapolis: Fortress Press, 1993. 266 pp. Cloth, \$18.00.

In *Nature, Reality, and the Sacred*, Langdon Gilkey seeks to describe the sacred links between science and religion. He rejects creationism because it ignores science, it values doctrine over symbol, and it refuses to modernize its cosmology. He also rejects scientism because of its ontological dogma and its

ignorance of religion and of its own nonscientific ground. However, Gilkey does not critique scientific methods or results.

In part one, Gilkey surveys the various perspectives on knowledge. First, ancient cultures created value-inclusive systems, such as Dharma (India), Tao (China), and Logos (Greece). The Greeks replaced mythology with the idea that the divine is universal, timeless, rational order. Second, medieval Christian thought posited a larger Hebrew-Christian framework where reason is transcended by the divine, and human beings are the image of God. Third, modern philosophy views nature as material, mathematical, universal, necessary, rational, coherent, and without purpose, quality, formal/final cause, or deity. Kant formalized this separation of faith and reason. Fourth, contemporary thinkers (Whitehead, Tillich, Santayana) provide a way out of Kant's subjective maze, namely critical realism. This development requires a hermeneutic of science, philosophy and theology— each with its unique data, evidence, experience, authority, symbolism, and preunderstanding.

In part two, Gilkey proposes a role for theology based on science *and* primal religion. Theology, he suggests, explains primal symbols in terms of the meaning it finds in science and philosophy. On the other hand, he perceives scientific-limit questions as puzzles demanding a spiritual symbolic system. The classic answer to the limit question of viability was technology, but now we see that technology must be slowed or stopped, lest it destroy us. Irrationality threatens nature, on which rationality depends, and science is destructive, submerging the sacred. Rescuing nature and humanity has become a religious issue because religion responds to the dialectic of life and death, being and nonbeing, which renews life and the environment.

Gilkey regrets that Western culture has lost the primal unity of contingency and temporality. He argues that science need not separate nature and value because meaning arises from process. Therefore we should see nature in terms of spirit with a latent history. Orderly change requires a principle of order. Progressing change needs a principle of progressive order called "God" or the "evolutionary principle." Gilkey maintains that in the past, science and religion failed to respect nature as an image of God's transcendence, immensity, infinity, endlessness, wisdom, and power. We forgot to honor and love her as ourselves. History and persons do provide symbols of God, but without the symbols of nature, God would not be God. Nature is our mother and creator, says Gilkey; through its processes God brought us into being. Gilkey translates God as nature in the dictum of Acts 17:28: "In nature we live and move and have our being Nature is source and ground of sacred power, life, and order" (153).

In part three, Gilkey seeks to articulate the sacred in nature. Metaphysical inferences are developed into a natural theology which does not prove God, but is a basis for all other proofs. For Gilkey, natural theology is philosophical, not religious. It is not the final criterion or center of theology and does not tell much about God. Rather, natural theology is a first step in correlating religious and nonreligious knowledge.

For Gilkey, a persuasive ontology begins with science and presents aspects of nature inclusively, as principles of experience, as categories of all entities, and as symbols of being. To see power, life, order, and dialectical unity as traces of the sacred is an act of faith. Theism is superior to theories which deny sacred traces by reduction or contradiction of facts or save the facts at the expense of coherence.

For Gilkey, nature is dynamic process from actuality to possibility, with increasing novelty, order, and value. Ontology includes nature and history, objects and subjects, theory, and practice. The cosmos has a penumbra of mystery with sacred traces pointing to the source of life, death, and grace. God is "the unconditioned power to be—yet present in each puff of existence; God is the transcendent ground of freedom—yet creative in each quantum jump as in each human decision; God is the eternal source or order amid novelty, uniting the determined past with the possibilities latent in the open future" (203).

Having described the contents of *Nature, Reality, and the Sacred*, I turn now to evaluation. There are many aspects to appreciate in Gilkey's book, for example: his rejection of purely religious or purely scientific approaches; his masterful survey of the historical shifts in the science-religion nexus; his response to the challenge of limit questions, which makes theology a legitimate hermeneutical inquiry; and his account of natural theology which concludes that theism is the most reasonable explanation of nature in a scientific age.

However, I have three concerns. First, Gilkey seems unaware of those creationists who neither ignore nor counter science, though they are as concerned about scientism as he is. They emphasize doctrine over symbol in an attempt to translate religious language into scientific understanding without losing objective content. Gilkey's translation of religious language leads to transformation of religious content (see W. Hordern, *New Directions in Theology Today* [Philadelphia: Westminster, 1966], 1:141-154). Second, Gilkey's emphasis on the preunderstandings of science, philosophy and theology compromises his recognition of *Christian* scientists, philosophers and theologians, who can and must begin any inquiry with Christian preunderstanding. Third, in spite of Gilkey's delimitations, it seems inevitable that natural theology, informed by science, will take precedence in his "symbolic" theology. What is needed is a theology which is not only communicable in this scientific age but is also faithful to objective Christian revelation (see Chet Raymo, "God as Top Quark," in *Commonweal* 121 [May, 1994]: 31-32).

In addition to helpful notes and an index, Gilkey has added a very useful bibliography with sections titled "Historical;" "Religion and Science;" "Theology and Philosophy;" "Technology, Ethics, and Society;" and "Creation versus Evolution." Gilkey's book will provide stimulation and challenge to any explorer of the important question of the nexus of science and religion.