sibility without any sense as to whether or not these many theologies form a cohesive, structured statement. The disunited, fragmented character of this bundling of theologies diminishes the moral authority needed to demand ecological responsibility. However, Part 2 still demonstrates very well the breadth of the writer's scholarship.

Most informed evangelicals will appreciate Edwards' argument that ecological responsibility honors the fruits of God's loving fecundity as seen in traditional Roman Catholic thought (Chapter 4). Chapter five states six ecological theses which the reviewer saw as relating holistic and relational ecology to the holism and inter-relationality of the Trinity, another approach which any evangelical should appreciate.

As Chapter Six opens, the unity of argument based upon a relational perspective is maintained as expressed in the following words: "the theology of the trinitarian God revealed in Jesus leads to a view of human beings which is inter-subjective, and interrelated with the Earth, the universe and all its creatures" (p. 133). But, then unity is lost in an eclectic, opportunistic methodology which takes a little bit from "every" current theology. Concepts such as Molmann's "livingness of life" (p. 136), Rahner's "bodilessness" (p. 137), our "stardust" origins on the material side with an unnecessarily detailed exposition of Big Bang cosmology (pp. 139-142), Sally McFague's anti-evolutionary, Liberation perspectives (p. 144), and Gustavo Gutiérrez' Liberation Theology (p. 148) all combine to produce a treatment which lacks the clarity, unity, and authority of Part 1.

Edwards doses his book with a number of general proposals for ecological praxis (Chapter 7). These are generally instructive but some details seemed to the reviewer to go beyond the demands established by the positive arguments presented in the book. For example, the theological framework of the book does not demand that we enter into a "family relationship" with the animals (p. 166) or a Schweitzer-like "reverence for life" (p. 157). Further, while some of us might agree that the poor always merit special attention and grace, we also might suspect that Edwards' usage of this concept moves too close to the violent Marxist excesses of Gutiérrez' Liberation Theology.

Overall this is a scholarly, effective treatment of the issue, one from which any reader can learn and by which any reader can be challenged.

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Philip Kitcher received his Ph.D. from Princeton in the department where Thomas Kuhn and Carl G. Hempel both taught. As Professor of Philosophy at the University of California, San Diego, he has written three highly acclaimed books: Abusing Science: The Case Against Creationism (1982); The Nature of Mathematical Knowledge (1983); and Vaulting Ambition: Sociobiology and the Quest for Human Nature (1985), where he demonstrates a good command of knowledge in biology, mathematics, and philosophy.

This book's aims are to probe the notions of progress and rationality, to correct the excess of Kuhn (1962) and Feyerabend (1970), to incorporate their insights, and to re-establish science as a body of objective knowledge achieved through a communal exercise. Kitcher's effort to rehabilitate the Legend is similar to the neo-orthodoxy of Karl Barth in Christian theology. Kitcher's synthesis is reasonable and should appeal to a practicing scientist.

Chapter 2, "Darwin's Achievement," provides an example for the later discussion of goals, methods, progress, rationality, individual scientific behavior, and the social structure of science.

Chapter 3, "The Microstructure of Scientific Change," treats the growth of science as a naturalistic process in a social context. From the thoughts and actions of individuals, scientific change results in complex ways. Kitcher argues against theory-laden perception and affirms intersubjective agreement of perceptually induced belief. He defines the consensus practice of a community as consisting of a language, an assessment of significant questions, a set of accepted statements, a set of explanatory schemata, a set of paradigms of authority, a set of experiments and instruments, and a set of methodological exemplars and principles.

In Chapter 4, "Varieties of Progress" are defined as conceptual, explanatory, and instrumental. Kuhn's problematic cases (Priestley's phlogiston theory vs Lavosiére's oxygen) of conceptual incommensurability are reanalyzed through a correspondence of key reference terms, thus negating the existence of communication gaps. Explanatory progress is illustrated by Dalton's atomic theory which introduced schemata, lately refined, generalized, and extended. Instrumental progress is exemplified by Galileo's telescope. These progressions eliminate falsehood in favor of truth, the mundane for the genuinely significant questions, and use improved language to reformulate prior truths.

Chapter 5, "Realism and Scientific Progress," defends the coherence of the realist conception of truth and the author's account of true knowledge. He espouses a correspondence theory of truth which is verified through common sense in our daily experience. A non-realist position will impoverish life; besides, the past history of science shows the unusual stability of scientific knowledge in many fields despite occasional errors. The scientific process depends mainly upon the objective, "real" nature instead of human social forces.

In Chapter 6, Kitcher agrees with Kuhn's insight in "Dissolving Rationality" for individual scientist; however, he endeavors to salvage the rationality for the scientific
enterprise through a compromised model. Rationality is not the logical connection among beliefs as logical positivists claimed, but rather a mental attitude, a psychologically connected state of mind which can promote cognitive goals. Rationality is achieved through debates within the scientific community and emergence of a new well-argued consensus practice.

Chapter 7, "The Experimental Philosophy," articulates individual methodology to attain the epistemic goals which pay attention to "encounter with nature" in addition to "conversation with peers." Here, Popperian's falsification of alternative hypotheses is achieved through instruments, experiments, measurements, and interpretation. Kitcher demolishes Kuhnian epistemological relativism through careful analysis of historical cases.

In the final chapter, "The Organization of Cognitive Labor," Kitcher discusses how the variety of individual strategies can combine to advance community, epistemic goals. Many social phenomena, like authority, cooperation, calibration, prestige, entrepreneurs, credit distribution, response to innovation, theory choice, and cognitive variation, are analyzed through simplified mathematical models. Kitcher concludes that there are advantages in cognitive diversity for a scientific community, just as the democratic process is beneficial for a political system.

This book presents an optimistic view about the progress of science. Christians have a basis for this optimism since God is the Creator and the Sustainer of this universe, and humans are endowed with the image of God. Newton understood nature as another book given by God. Everything is in God's control and science will progress as it reveals God's glory. This book describes the characteristics of science which are compatible to the thinking of a bench scientist. We sometimes are captivated by the recent trend of scientific relativism; this book provides a well-argued synthesis which demonstrates that a common—sense, realist approach is still commendable. I highly recommend this book to the readers of PSCF.

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This was a difficult book to read and even more difficult to understand. I attribute this to two factors, the author's style and the complexity of the subject. On the first, note the following sentence (p. 172): "While 'form' gave evidence to the relationship of a particular entity to a divine archetype and hence its 'resemblance' to other material forms, the different 'virtues' of similar forms establish the particular place of individual entities within the analogically organized hierarchy of created things and hence each one's difference within this divine text." Imag-

Despite the tough going and slogging through Latin and French quotes, I was inexplicably drawn into the topic. Being a plant taxonomist, I deal with the concept of typology, albeit usually unwittingly. I learned much about the origin of typology from this book as well as the philosophy behind the concept of "Natural History."

Before the Enlightenment Period, science tried to understand nature by trying to know the language of God, that is, the language spoken and understood by Adam in the Garden of Eden. Postlapsarian (a favorite term of Bono's) man was cut off from this God-given source of knowledge best exemplified by Genesis 2:19 where God "brought all the beasts of the field and all the birds of the air. He [God] brought them to man to see what he would name them; and whatever the man called each living creature, that was its name." In other words, it was the language of Adam that was important rather than the animals themselves because the name incorporated the essence of the object. In present western civilization, we are far removed from this concept. Not so with our scientific forefathers of the Middle Ages. A great effort was placed on trying to determine the mystery of the language through cabalistic approaches and mysticism.

The Protestant Reformation and especially the Puritan impact in England changed all that. Although Bono does not state it as such, it was the acceptance of the Bible as a divine revelation, completely outside human ken, that drew attention towards understanding the creation. Francis Bacon exemplified this approach and stimulated interest in what we now call scientific research. This change to an inductive study was more revolutionary than I realized before I read this book.

Despite the writing style and the scholarship included in the volume, I have been rewarded by the effort put into reading this book. It has helped me to understand how we arrived where we are in the scientific community and gives valuable insight into the current questioning in science regarding objectivity. The book also helped me understand the origins of the "Doctrine of Signatures," so important in ethnobotany. Bono gives insight into some sources of mysticism carried into present day practices of homeopathic medicine and other alternative medicines.

It was disappointing to find numerous typographical errors as well as references cited in the text not included in the references cited section.

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