Book Reviews

Religion Without Revelation. Julian Huxley. Harper, New York, rev. ed. 2, 1957. 252 pp. $4.

Julian Huxley is a well-read man, as even a cursory glance at the revised edition of *Religion Without Revelation* will reveal. The mass of material paraded across the pages here is truly amazing, especially when the reader considers that Huxley is not talking about his own professional field. As a biologist he obviously has, as a person, an intense interest in religion and its history, but it is concern for religion as a human phenomenon and not as conventional Christian theology.

A comparison with the original edition indicates that Huxley has softened his attitude toward traditional religion considerably. In place of the original chapter describing the then (1927) low estate of organized religion, he has simply substituted a statement of the naturalist's approach to God. The original edition was a more militant book in a time of open revolt from traditional Christianity; this edition is simply a statement of the naturalist's sincere interest in religion.

Perhaps the most striking thing about the book as a whole, to a philosopher, is that anyone needs to argue that a nontheistic religion is possible. The Stoics had no God recognizable in our sense, and the Epicureans (notably Lucretius) long ago delivered elaborate arguments against transcendent religious beliefs. The Christian claim to revelation is not an assertion that all men must subscribe to the Christian beliefs; this would be contrary to the meaning of revelation. Revelation means that only believers accept this particular disclosure of God as being true, so that if it were not natural and possible to live without admitting the truth of the revelation, conversion would have no meaning. If religion without revelation were not always naturally attractive to some men, Christianity would lose all distinctiveness.

Huxley does give clear and well-documented support of the naturalist's view, but it will be a "new conception" (page 1) only to those people unfamiliar with philosophical history. Most of the statement, however, is a personal declaration of what he, Huxley, believes, and as such no one can argue about it. (It is helpful to remember that the book was originally published as one of a series on "What I Believe.")

His call for the application of scientific method to religion (page 4) seems not to have taken hold, and today what we find more prevalent is an attempt to establish theological methods upon their own foundations. Not that science is being ignored; the truth is that modern science has been completely accepted, but it has not seemed able to serve as a basis for theological revival. The challenge of science seems to have had the effect of driving theology in search of its own methodology rather than of reforming it as a branch of the natural sciences.

Huxley's modern reinterpretation of traditional doctrines (for example, the trinity treated as nonhuman forces, ideals, and human nature) is one possible account of what has often been described in different ways, but it surely does not of itself prove that traditional doctrines can no longer be interpreted traditionally by thoughtful persons. God, as Huxley indicates, may not be a useful hypothesis, as a trinity or otherwise, to science; but this does not say that God may not remain a hypothesis in nonscientific disciplines. Huxley's reinterpretation is surely possible; the only question arises from his apparent assumption that a new interpretation makes traditional views no longer tenable. After all, theology may not be as scientific as all that.

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The Carbohydrates. Chemistry, biochemistry, physiology. Ward Pigman, Ed. Academic Press, New York, 1957. xvii + 902 pp. $20.

This is a complete revision and expansion of *The Chemistry of the Carbohydrates* by W. Pigman and R. M. Goepp, Jr., published in 1948, although, according to the editor, considerable borderline material has been deleted and a number of chapters have been condensed. The present volume contains sections on the structure, stereochemistry, occurrence, properties, and synthesis of the monosaccharides; the chemistry of carbohydrate esters; chemistry of the glycosides, simple acetals, and thioacetals; chemistry of the polyols; carbohydrate acids and acid products; carbohydrate esters and hydrosugars and unsaturated derivatives; carbohydrate nitrogenous derivatives; oligosaccharides; naturally occurring glycosides and glycosidases; and chemistry of polysaccharides, as well as a section on methods for the quantitative determination of carbohydrates. All of these topics are treated in ample detail, with copious references to the appropriate literature, principally from the standpoint of the organic chemist. These chapters would serve admirably as a reference work for interested individuals and as a text for the advanced student of chemistry.

The volume also contains two new chapters, one dealing with photosynthesis and carbohydrate metabolism and the other with carbohydrates and nutrition. These are adequate in terms of a very rapid survey. However, only eighty-odd pages of a total of 902 are devoted to these aspects of the carbohydrates, and they hardly justify the use of the terms *biochemistry* and *physiology* as part of the title of the volume.

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Morphological Astronomy. F. Zwicky. Springer, Berlin, 1957. iv + 299 pp. Illus. DM. 49.60.

This book, by a well-known astronomer of Mount Wilson and Palomar Observatories, is an unusual mixture of factual information on one of the most important of astronomical subjects—galaxies—and a development of the author's ideas on the morphological method. These latter he bases on Faraday's concept "that ultimately all things are interrelated in a most surprising variety of ways."

In his morphological approach to science, the author takes a strong stand against the present trend of research to learn more and more about less and less. "The morphological method always attempts to attain the most general perspective." The main emphasis in the book is definitely on galaxies—a field in which the author uses his own researches to illustrate the morphological approach. On galaxies, there is a vast amount of material of value to both the professional astronomer and to the student, including some excellent photographs. We cannot help regretting, however, that Zwicky keeps all distances of galaxies on