



SCHLEGEL

His plan of work for his last year in Cambridge included a draft of a book on physics and religion. Here he planned to develop hints, which had appeared elsewhere, of his conviction that the conceptual viewpoint of modern physics had radically changed the possibilities for a rapprochement between science and theology. Classical physics, as he saw it, entailed not only a dualism between a cosmic God understood to be outside the natural universe, but also a dualism between the natural universe and the creativity, freedom, and other distinctive features of the human. Quantum physics, however, has shown that there is a close relation between the occurrence of certain natural events and the act of human observation. In the light of these results, Schlegel followed Niels Bohr, who replaced the dualism of subjective mind and objective nature by a unity of mind and nature, in which subject and object are separable only at the cost of distortion of our representation of reality.

Schlegel saw here an important analogy for the relation between God and humans. His scientific conscience did not take easily to the transcendental elements of traditional theology about God. He believed that people in this age can more easily conceive of God in individual experience and that the introduction of the subjective into quantum physics brings physics near to the subjectivism of some forms of philosophical theology. Just as physics now permits free creative intervention in the physical world, so he concluded that (quoting from a recent manuscript) "the individual person can—even though it be in a small way—reach and affect God. There is at least some element of mutual relationship." This analogy may indeed provide a powerful new model for understanding

God's immanent activity in the world and particularly His providential presence in human life—two areas of traditional belief that have sat most uneasily with the kind of naturalism that seemed most consistent with classical physics.

These were the thoughts that were occupying Schlegel during his last working months. He was at once a man of science, a humanist deeply concerned with the problems of use and misuse of physics and a man of faith.

MARY HESSE

ARTHUR PEACOCKE
Cambridge University

Charles F. Lucks

Charles F. Lucks, chief of the instrumentation division of the Columbus Laboratories of Battelle Memorial Institute until his retirement in 1972, died on 8 July 1982, at the age of 75.

Lucks was one of the earliest members of the Institute, joining the staff in 1930, its first year of operation. Two years earlier, he had earned a BS degree in engineering physics from The Ohio State University, and he immediately became interested in the physical properties of materials while employed at the B. F. Goodrich Rubber Company. This interest continued at Battelle, with the development of a life-long commitment to thermophysics and, in particular, to the quantitative measurement of thermal, electrical and mechanical properties of metals, alloys and ceramics. In 1937 his responsibilities included establishing a technical group responsible for the development of precision measurement methods and apparatus, as well as the management of the Institute's reference physical standards and an Institute-wide instrument pool and certification program. Besides providing a service function to other components of the Laboratories, his organization helped significantly in setting the pace for the quality and accuracy of Battelle research.

In his 42 years of professional activity, Lucks contributed more than 30 technical publications in physical property measurement and instrumentation, especially on the generation of accurate data on technologically significant materials. Largely through his initiative and leadership, the first of a continuing series of conferences now operating under the title "International Thermal Conductivity Conferences" was held in 1961. Lucks' commitment to this effort continued in his capacity as member of the governing board of ITCC. He was also the author of the book *High-Temperature Materials-Thermal Radiative Properties*.

CHARLES M. SCHWARTZ
Battelle Memorial Institute

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