

of the anatomical and cerebellar blood flow findings in senile dementia. This section would have been significantly strengthened by the inclusion of a discussion of the neurotransmitter changes in dementia, a subject that has stimulated an investigative frenzy over the past several years. Discussions of theoretical gerontology by Sacher, Hayflick, and Singer are thoughtful and stimulating. A section dealing with the impact of environmental factors and life patterns is timely, given current interest in health enhancement, and is particularly notable for the stimulating and innovative analysis by Andres of the apparently beneficial influence of obesity on human longevity. Walford's now-familiar discussion of the relation of immunosenescence and aging is a classic.

The book has some weaknesses. Though most of the papers have been revised, some have not been updated since their original presentation four years ago. The organization of the book is such that the most basic and introductory material, dealing with cell biology and theoretical gerontology, is sandwiched between sections dealing with physiology or pathophysiology.

Despite the minor flaws, this volume is chock full of good information. Though not encyclopedic in scope, it certainly can serve as a useful resource and limited "handbook" of gerontology for both students and experienced investigators.

JOHN W. ROWE

*Harvard Medical School,
Boston, Massachusetts 02215*

Politicization Examined

The Dynamics of Technical Controversy. ALAN MAZUR. Communications Press, Washington, D.C., 1981. x, 150 pp., illus. Cloth, \$11.95; paper, \$5.95.

The first question to which this interesting book is addressed is why certain public issues in which scientific and technological considerations are of crucial importance become controversial to the extent that normal scientific procedures for validating one conclusion or another are ineffective and "politics" takes over. Mazur uses four cases to explore his concerns and illustrate his arguments: the ABM, fluoridation of water, the building of nuclear power plants, and the siting of high-voltage transmission lines. All involve technical issues, but none was settled on "merely technical" grounds. In each case scientists

could be found on each side, confounding facts with values, arguing past one another, often moving toward polarized positions with passion that admitted of no compromise.

Mazur does not try to define what constitutes a scientific or technical controversy except when he indicates that the "products of science and technology have increasingly become objects of controversy, and political debates about them have grown so complex that few people understand what is going on" (p. ix). All of his cases involve "products of science and technology," but nowadays a set so defined would surely embrace an enormous share of the policy agenda (especially if one includes economic analysis as one such product!). All of his cases involve some sort of protest movement. The debates escaped the confines of laboratory, war room, or court to engage a wider public. In the process they became associated with other issues, drew on a more encompassing rhetoric, and, in turn, became dependent on the momentum of the larger coalition of which their advocates had become a part. Pursuant to this analysis, Mazur makes some interesting predictions, for example, tying the future course of public worry about nuclear power not to the issue of technical safety but to the more general issue of energy supply. If concern about the latter wanes, he suggests, concern about the former will also fade.

Mazur includes protests emanating from both the left and the right sides of the political spectrum. He suggests that the political complexion of each movement was set early on and that adherents who joined up later did so more as a function of their political orientations and social network connections than because of anything inherent in the technical substance of the issues. Fluoridation, he suggests, involved technical questions not very different in their policy implications from those raised by nuclear power plants. But anti-fluoridation was a right-wing cause and nuclear power is opposed by the left.

Mazur is suitably modest about his data base, but his arguments are sufficiently cogent to overcome many reservations regarding their empirical underpinnings. One wishes that he had tied his analysis more closely to the work of those who have investigated the dynamics of protest movements generally and of those who, like the late E. E. Schattschneider, have addressed themselves to the processes of public agenda growth and change. This is to say, in part, that since his cases are so much a

part of the generic political process Mazur has written a book of much broader public relevance than, perhaps, he intended. His more prescriptive conclusions suggest that he may have recognized this himself. In the early part of the book he defends the notion of a "science court" or referee to help separate disputes over matters of fact from those over values. In his conclusion, however, he emphasizes the usefulness of adversarial roles and contentious advocates throwing up arguments and disputing in whatever ways are politically effective. In this way, Mazur suggests, the risks and benefits of technology may be more fully identified and explicated than they otherwise would be. In the end he takes substantial comfort from "normal political processes" and sees no better (or, perhaps, worse?) reason for enlarging citizen participation to determine science policy than to determine the money supply or decide how to extricate hostages from Iran. In this, as in much of the book, Mazur's views will not win unanimous approval but are eminently worth careful attention.

ROBERT H. SALISBURY

*Department of Political Science,
Washington University,
St. Louis, Missouri 63130*

Books Received

Arterial Chemoreceptors. Proceedings of a meeting, Valladolid, Spain, Sept. 1979. C. Belmonte, D. J. Pallot, H. Acker, and S. Fidone, Eds. Leicester University Press, Leicester, England, 1981 (U.S. distributor, Humanities Press, Atlantic Highlands, N.J.). xx, 538 pp., illus. \$62.50.

Aspects of Consciousness. Vol. 2, Structural Issues. Geoffrey Underwood and Robin Stevens, Eds. Academic Press, New York, 1981. xiv, 246 pp. \$36.

Aspects of Homogeneous Catalysis. A Series of Advances. Vol. 4. Renato Ugo, Ed. Reidel, Boston, 1981 (distributor, Kluwer Boston, Hingham, Mass.). viii, 204 pp., illus. \$58.

Aspects of the Development of Competence. Papers from a symposium. Minneapolis, Oct. 1979. W. Andrew Collins, Ed. Erlbaum, Hillsdale, N.J., 1981. xii, 270 pp., illus. \$19.95. Hillsdale, N.J., 1981. xii, 270 pp., illus. \$19.95. Minnesota Symposia on Child Psychology, vol. 14.

Astronomy and Astrophysics Abstracts. Vol. 28, Literature 1980, Part 2. S. Böhm and seven others, Eds. Published for Astronomisches Rechen-Institut by Springer-Verlag, New York, 1981. x, 842 pp. \$45.

Atmospheres. A View of the Gaseous Envelopes Surrounding Members of Our Solar System. James P. Barbato and Elizabeth A. Ayer, Pergamon, New York, 1981. xx, 266 pp., illus. Cloth, \$35; paper, \$12.95.

Atomic Physics 7. Proceedings of a conference, Cambridge, Mass., Aug. 1980. Daniel Kleppner and Francis M. Pipkin, Eds. Plenum, New York, 1981. x, 574 pp., illus. \$69.50.

Automatic Control in Power Generation, Distribution and Protection. Proceedings of a symposium, Pretoria, Sept. 1980. J. F. Herbst, Ed. Published for the International Federation of Automatic Control by Pergamon, New York, 1981. cxxvi, 568 pp., illus. \$105. IFAC Proceedings Series.

Automation in Mining, Mineral and Metal Processing. Proceedings of a symposium, Montreal, Aug. 1980. J. O'Shea and M. Polis, Eds. Published for the International Federation of Automatic Control by Pergamon, New York, 1981. xvi, 662 pp., illus. \$145. IFAC Proceedings Series.

(Continued on page 1266)