

Books Received

Although these types of models still constitute the primary explanatory approach to contemporary aphasia research (and have motivated and guided Goodglass's own work), much of this book is devoted to detailing their limitations.

As an alternative, Goodglass looks to connectionist computer models that advocate the adoption of interactive activation mechanisms for parallel and multidirectional communication among information sources. More surprisingly, he also adopts from connectionism the idea of distributed, association-based learning (and retention) of information, allowing the argument, for example, that entities such as a "lexicon" of abstract word representations can be jettisoned in favor of patterns of learned associations among components of meaning and sound. The adoption of parallel-processing mechanisms in no way requires the assumption of completely distributed representations, although they appear here as necessarily linked. The advocacy of a distributed, association-based activation mechanism in the realm of language processing is highly controversial. The challenge, for Goodglass and others advocating such radical alternatives to linguistically defined, modular components, is to find ways of formulating such notions into falsifiable hypotheses.

There is much to argue about in the author's attempts to synthesize the diverse results that constitute the "state of the field." In fact, he has made no attempt to avoid the troublesome controversies that have dominated aphasia research for the past ten years: the proper role of aphasia classification in research; the relative importance of linguistic theory and cognitive science in understanding aphasia; the effect of premorbid differences among individuals on the development of aphasic symptoms. His views on these and other issues, which are clearly stated, should stimulate discussion among aphasiologists for some time to come.

This volume thus serves not merely as a summary of this fascinating and contentious field from a man who helped to shape and define it. It constitutes a scholarly yet practical description of aphasic phenomena and the history of their study at the same time as it breaks new ground in attempting to fit the diverse pieces of the puzzle into a coherent theoretical framework. *Understanding Aphasia* provides an accessible introduction to the topic for the interested scientist while raising many substantive issues for debate among aphasia researchers.

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Anthropology and Africa. Changing Perspectives on a Changing Scene. Sally Falk Moore. University Press of Virginia, Charlottesville, 1994. x, 165 pp. \$29.50; paper, \$9.95.

Aquatic and Surface Photochemistry. George R. Helz, Richard G. Zepp, and Donald G. Crosby, Eds. Lewis, Boca Raton, FL, 1994. xx, 552 pp., illus. \$85. Based on a symposium, San Francisco.

Arena Birds. Sexual Selection and Behavior. Paul A. Johnsgard. Smithsonian Institution Press, Washington, DC, 1994. x, 330 pp., illus., + plates. \$39.95.

Arsenic in the Environment. Part 2, Human Health and Ecosystem Effects. Jerome O. Nriagu, Ed. Wiley, New York, 1994. xvi, 293 pp., illus. \$85. Advances in Environmental Science and Technology, vol. 27.

The Art of Asylum-Keeping. Thomas Story Kirkbride and the Origins of American Psychiatry. Nancy Tomes. University of Pennsylvania Press, Philadelphia, 1994. xxxvi, 387 pp., illus. Paper, \$14.95. Studies in Health, Illness, and Caregiving. Reprint, 1984 ed.

Artful Science. Enlightenment, Entertainment and the Eclipse of Visual Education. Barbara Maria Stafford. MIT Press, Cambridge, MA, 1994. xxx, 350 pp., illus. \$35.

Astrodynamics 1993. Arun K. Misra *et al.*, Eds. Published for American Astronautical Society by Univelt, San Diego, CA, 1994. 3 vols. 1xxii, 2725 pp., illus. \$390. Advances in the Astronautical Sciences, vol. 85. From a conference, Victoria, British Columbia, Canada, Aug. 1993.

Biomagnetic Stimulation. Shoogo Ueno, Ed. Plenum, New York, 1994. xii, 136 pp., illus. \$85. From a symposium, Fukuoka, Japan, July 1991.

Biomembrane Electrochemistry. Martin Blank and Igor Vodyanoy, Eds. American Chemical Society, Washington, DC, 1994. xiv, 605 pp., illus. \$139.95. Advances in Chemistry Series, 235.

Biotechnology. Vol. 1, Biological Fundamentals. H. Sahm, Ed. 2nd ed. VCH, New York, 1993. xiv, 641 pp., illus. \$320.

Bound Carbohydrates in Nature. Leonard Warren. Cambridge University Press, New York, 1994. xii, 113 pp., illus. \$39.95; paper, \$16.95. Lezioni Lincee.

By the Grace of Guile. The Role of Deception in Natural History and Human Affairs. Loyal Rue. Oxford University Press, New York, 1994. viii, 359 pp., illus. \$25.

Chaos and the Evolving Ecological Universe. Sally J. Goerner. Gordon and Breach, Philadelphia, 1994 (distributor, International Publishers Distributor, Langhorne, PA). xiv, 255 pp., illus. \$43 or £28. World Futures General Evolution Studies, vol. 7.

Chemistry of Nucleosides and Nucleotides. Vol. 3. Leroy B. Townsend, Ed. Plenum, New York, 1994. xiv, 553 pp., illus. \$120.

Cholecystokinin. Joseph R. Reeve, Jr. *et al.*, Eds. New York Academy of Sciences, New York, 1994. xviii, 467 pp., illus. Paper, \$130. Annals of the New York Academy of Sciences, vol. 713. From a conference, Chatham, MA, May 1993.

Circadian Cancer Therapy. William J. M. Hrushesky, Ed. CRC Press, Boca Raton, FL, 1994. vi, 292 pp., illus. \$169.95.

The Colloid Chemistry of Silica. Horacio E. Bergna, Ed. American Chemical Society, Washington, DC, 1994. xviii, 695 pp., illus. \$129.95. Advances in Chemistry Series, 234. From a symposium, Washington, DC, Aug. 1990.

Contemporary Topics in Medium Energy Physics. Klaus Goeke, W.-Y. Pauchy Hwang, and Josef Speth, Eds. Plenum, New York, 1994. xii, 363 pp., illus. \$95. From a symposium, Bochum, Germany, Sept. 1992.

Controlling the Atom in the 21st Century. David P. O'Very, Christopher E. Paine, and Dan W. Reicher, Eds. Westview, Boulder, CO, 1994. xiv, 397 pp., illus. \$59.85. Natural Resources Defense Council Book. Based on a conference, Syria, VA, Dec. 1992.

Homeopathy in the Light of Modern Science. A. C. Dutta. 4th ed. Jain, New Delhi, 1994. xii, 152 pp., illus. Paper, \$6.

Hostages of Each Other. The Transformation of Nuclear Safety Since Three Mile Island. Joseph V. Rees. University of Chicago Press, Chicago, 1994. xii, 238 pp., illus. \$24.95.

The Physics of Liquid Crystals. P. G. de Gennes and J. Prost. 2nd ed. Clarendon (Oxford University Press), New York, 1994. xvi, 597 pp., illus. \$90. International Series of Monographs on Physics, 83.

Plant-Animal Interactions in Mediterranean-Type Ecosystems. M. Arianoutsou and R. H. Groves, Eds. Kluwer, Norwell, MA, 1994. x, 182 pp., illus. \$112.50 or £74 or Dfl. 185. Tasks for Vegetation Science, 31. From a conference, Maleme, Crete, Greece, Sept. 1991.

The Poisons Around Us. Henry A. Schroeder. Keats, New Canaan, CT, 1994. xiv, 144 pp. Paper, \$12.95. Augmented reprint, 1974 ed.

Primordial Immunity. Foundations for the Vertebrate Immune System. Gregory Beck *et al.*, Eds. New York Academy of Sciences, New York, 1994. xii, 376 pp., illus. Paper, \$100. Annals of the New York Academy of Sciences, vol. 712. From a conference, Woods Hole, MA, May 1993.

Properties of Liquids and Solutions. J. N. Murrell and A. D. Jenkins. 2nd ed. Wiley, New York, 1994. xii, 303 pp., illus. \$79.95; paper, \$34.95.

Protocols for Gene Analysis. Adrian J. Harwood, Ed. Humana, Totowa, NJ, 1994. xvi, 411 pp., illus. Spiral bound, \$69.50. Methods in Molecular Biology, vol. 31.

The Psychiatric Persuasion. Knowledge, Gender, and Power in Modern America. Elizabeth Lunbeck. Princeton University Press, Princeton, NJ, 1994. xiv, 431 pp., illus. \$29.95 or £25.

Puerto Rican Women and Children. Issues in Health, Growth, and Development. Gontran Lamberty and Cynthia Garcia Coll, Ed. Plenum, New York, 1994. xx, 285 pp., illus. \$45. Topics in Social Psychiatry. From a conference, Providence, RI, Nov. 1990.

Pulsatility in Neuroendocrine Systems. Jon E. Levine, Ed. Academic Press, San Diego, CA, 1994. xviii, 510 pp., illus. \$95. Methods in Neurosciences, vol. 20.

Sexual Accusations and Social Turmoil. What Can Be Done? Jules H. Masserman. Regent, Oakland, CA, 1994. xvi, 187 pp., illus. \$34.95; paper, \$17.95.

Singular Limits of Dispersive Waves. N. M. Ercolani *et al.*, Eds. Plenum, New York, 1994. xiv, 369 pp., illus. \$105. NATO Advanced Science Institutes Series B, vol. 320. From a workshop, Lyons, France, July 1991.

A Social History of Truth. Civility and Science in Seventeenth-Century England. Steven Shapin. University of Chicago Press, Chicago, 1994. xxii, 483 pp., illus. \$29.95 or £23.95. Science and Its Conceptual Foundations.

Soil Ecology. Ken Killham with Ralph Foster. Cambridge University Press, New York, 1994. xviii, 242 pp., illus. \$64.95; paper, \$24.95.

Solar and Planetary Dynamos. M. R. E. Proctor, P. C. Matthews, and A. M. Rucklidge, Eds. Cambridge University Press, New York, 1994. xii, 366 pp., illus. \$49.95. Publications of the Newton Institute. From an institute, Cambridge, U.K., Sept. 1992.

Sound Mind, Sound Body. A New Model for Lifelong Health. Kenneth R. Pelletier. Simon and Schuster, New York, 1994. 319 pp. \$23.

Sponges in Time and Space. Biology, Chemistry, Paleontology. Rob W. M. Van Soest, Theo M. G. Van Kempen, and Jean-Claude Braekman, Eds. Balkema, Brookfield, VT, 1994. xviii, 515 pp., illus. \$95 or Dfl. 165. From a congress, Amsterdam, April 1993.

Statistical Applications Using Fuzzy Sets. Kenneth G. Manton, Max A. Woodbury, and H. Dennis Tolley. Wiley, New York, 1994. xiv, 312 pp., illus. \$59.95. Wiley Series in Probability and Mathematical Statistics.

Stochastic Orders and Their Applications. Moshe Shaked and J. George Shanthikumar. Academic Press, San Diego, CA, 1994. xvi, 545 pp. \$79.95. Probability and Mathematical Statistics.

Surviving with the Biosphere. Nicholas Polunin and John Burnett, Eds. Edinburgh University Press, Edinburgh, U.K., 1994 (distributor, Columbia University Press, New York). xxii, 572 pp., illus. \$79. From a conference, Budapest, April 1990.