



Vignettes: Design and Intervention

Concentration on causation can resolve old misgivings about the term "natural selection" A student today who objected that the term implicitly ascribes intentions to nature would likely be told that it is not the intentions alone of the human breeder that make her selective breeding causally efficacious in changing a herd or flock. If the farmer merely looks over the gate and intends then nothing happens; it is what she does physically, in separating certain animals or killing or castrating them or whatever, that makes the difference causally. The appropriateness of the term selection as applied to nature is, therefore, due not to any mimicking by nature of the farmer's intentions but to the occurrence in the wild of causal interventions that are equivalent in their consequences to the physical interventions the farmer makes in a physical course of events on the farm.

—M. J. S. Hodge, in *Keywords in Evolutionary Biology*
(Evelyn Fox Keller and Elisabeth A. Lloyd, Eds.; Harvard University Press)

One afternoon, having landed far down the river with a companion and walked about through a quantity of *Desmodium* (*marylandicum* or *rigidum*, which have roundish joints) by the shore there, we found our pantaloons covered with its seeds to a remarkable and amusing degree. These green scale-like seeds densely covering and greening our legs . . . amounted to a kind of coat of mail. It was the event of our walk, and we were proud to wear this badge, regarding each other with a little envy from time to time, as if he were the most distinguished who had the most of them on his clothes. My companion betrayed a certain religion about it, for he said, reproving me, that he thought it would not be right to walk intentionally amid the *Desmodium* in order to get more of the ticks on us, nor yet to pick them off, but they must be carried about till they were rubbed off accidentally. The consequence was that when he reappeared for a walk a day or two after, his clothes were nearly as well covered as at first. I saw that Nature's design was furthered even by his superstition.

—Henry D. Thoreau, in *Faith in a Seed: The Dispersion of Seeds and Other Late Natural History Writings* (Bradley P. Dunn, Ed.; Island Press/Shearwater Books)

interesting volume is that there is not much agreement over what constitutes a national versus an international scientific program. Hoch and Platt in a study of migration of scientists get all tangled up in overdefining the terms. They conclude that distinctive migrants (that is, highly original scientists) bring their own ideas, whereas lesser lights bring "national" science. Thus (to introduce an example of my own) Einstein would not have represented German "national" science in the United States, but his assistant Walther Meyer would have. Einstein, of course, was as much a bearer of German science, not to mention its professional culture and the disciplinary culture of German theoretical physics, as was Meyer. Internationalization in the context of this chapter simply means "diffusion," and the new term adds nothing to our understanding of this process.

Although a case is certainly made here for an intensification of international and transnational scientific activity, it is not at all clear that it is, in the editors' words, "gaining the upper hand," particularly as regards the cognitive structure of science. Although the latter has had (putatively, at least) an international dimension since the Scientific Revolution, distinctive national and disciplinary cultures seem likely to structure scientific activity for a good time to come.

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Books Received

Achievement and Motivation. A Social-Developmental Perspective. Ann K. Boggiano and Thane S. Pittman, Eds. Cambridge University Press, New York, 1992. x, 291 pp., illus. \$44.95. Cambridge Studies in Social and Emotional Development.

Basic Biochemical Methods. Renee R. Alexander and Joan M. Griffiths. 2nd ed. Wiley-Liss, New York, 1993. xiv, 353 pp., illus. Spiral bound, \$39.95.

Centuries of Darkness. A Challenge to the Conventional Chronology of Old World Archaeology. Peter James with I. J. Thorpe *et al.* Rutgers University Press, New Brunswick, NJ, 1993. xxii, 434 pp., illus. \$45; paper, \$16.95.

Drug Resistance in Oncology. Beverly A. Teicher, Ed. Dekker, New York, 1993. xiv, 654 pp., illus. \$195.

Early Deprivation of Empathic Care. John Leopold Weil. International Universities Press, Madison, CT, 1992. xiv, 217 pp., illus. \$30.

Fifty Years of Personality Psychology. Kenneth H. Craik, Robert Hogan, and Raymond N. Wolfe, Eds. Plenum, New York, 1993. xx, 313 pp. \$47.50. Perspectives on Individual Differences. Based on a symposium, Aug. 1987.

Getting Here. The Story of Human Evolution. William Howells. Compass, Washington, DC, 1993. xiv, 261 pp., illus. \$36; paper, \$19.95.

Hands. John Napier. Revised by Russell H. Tuttle. Princeton University Press, Princeton, NJ, 1993. xii, 180 pp., illus. Paper, \$10.95. Princeton Science Library.

Invention. The Care and Feeding of Ideas. Norbert Wiener. MIT Press, Cambridge, MA, 1993. xvi, 159 pp. \$19.95.

Kevlar Aramid Fiber. H. H. Yang. Wiley, New York, 1993. x, 200 pp., illus. \$82.95.

Laboratory Exercises in Human Anatomy with Cat Dissections. Gerard J. Tortora. 3rd ed. Macmillan, New York, 1993. xvi, 496 pp., illus. Paper, \$34.

Lu Gwei-Djen. A Commemoration. Pentland, Durham, United Kingdom, 1993. x, 32 pp., illus. Paper, P9.50.

The Macmillan Illustrated Encyclopedia of Dinosaurs and Prehistoric Animals. A Visual Who's Who of Prehistoric Life. Dougal Dixon *et al.* Collier (Macmillan), New York, 1992. 312 pp. Paper, \$25. Reprint, 1988 ed.

Numerical/Chronological/Author Index 1986-1992. An Index of Publications of the American Astronautical Society. Horace Jacobs and Robert H. Jacobs. Univelt, San Diego, CA, 1993. x, 317 pp. \$70; paper, \$50. Advances in the Astronautical Sciences Science and Technology Series.

O.R.. The True Story of 24 Hours in a Hospital Operating Room. B. D. Colen. Dutton, New York, 1993. viii, 214 pp. \$20.

P. P. Ewald and his Dynamical Theory of X-Ray Diffraction. A Memorial Volume for Paul P. Ewald, 23 January 1888-22 August 1985. D. W. J. Cruickshank, H. J. Juretschke, and N. Kato, Eds. Oxford University Press, New York, 1992. xii, 161 pp., illus. \$65. International Union of Crystallography Monographs on Crystallography, 2.

Parascript. Parasites and the Language of Evolution. Daniel R. Brooks and Deborah A. McLennan.

Smithsonian Institution Press, Washington, DC, 1993. x, 429 pp., illus. \$69; paper, \$25. Smithsonian Series in Comparative Evolutionary Biology.

Preparatory Chemistry. H. Stephen Stoker. 4th ed. Macmillan, New York, 1993. Various pages, illus. Paper, \$34.50.

Recursion Theory for Metamathematics. Raymond M. Smullyan. Oxford University Press, New York, 1993. xvi, 163 pp. \$29.95. Oxford Logic Guides, 22.

Regulation and Control Mechanisms in Biological Systems. Vishnampet S. Vaidyanathan. Prentice Hall, Englewood Cliffs, NJ, 1993. x, 294 pp., illus. \$56. Prentice Hall Biophysics and Bioengineering Series.

Sex and Russian Society. Igor Kon and James Riordan, Eds. Indiana University Press, Bloomington, 1993. viii, 168 pp., illus. \$29.95; paper, \$10.95.

Sexual Behaviour and AIDS in Britain. E. G. Knox, C. MacArthur, and K. J. Simons. HMSO, London, 1993. xii, 246 pp., illus. P20.

Targeted. The Anatomy of an Animal Rights Attack. Lorenz Otto Lutherer and Margaret Sheffield Simon. University of Oklahoma Press, Norman, 1992. xx, 170 pp., illus. \$22.95.

Targeting of Drugs 3. The Challenge of Peptides and Proteins. Gregory Gregoriadis, Alexander T. Florence, and George Poste, Eds. Plenum, New York, 1992. viii, 129 pp., illus. \$59.50. NATO Advanced Science Institutes Series A, vol. 238. From an institute, Cape Sounion Beach, Greece, June 1991.

Wasting the Rain. Rivers, People, and Planning in Africa. W. M. Adams. University of Minnesota Press, Minneapolis, 1992. 256 pp., illus. Paper, \$17.95.