

can continue with relationships which are naturally repugnant to them" (p. 201). Furthermore, the chapters on the emotional and psychologic aspects of sexuality would have benefited from having a woman coauthor: the discussion of women's feelings and perceptions seems less perceptive than that of men's.

Nonetheless, as a whole the book is factually accurate, substantive, and refreshingly nonjudgmental. It is well illustrated and provides an excellent resource for teenagers seeking accurate answers to some of their very important personal questions.

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THE JOYS AND SORROWS OF PARENTHOOD, by the Committee on Public Education of the Group for the Advancement of Psychiatry. 1973. Charles Scribner's Sons, New York. 159 p. \$5.95 (hardback).

This little book may be read profitably by all parents and prospective parents. Inasmuch as teachers—especially elementary-school and secondary-school teachers—have a surrogate parental function in their role as teachers, the book will also be useful to them. My own perspectives in reading the book were those of a parent, a teacher, and a biologist.

Not being familiar with professional organizations of psychiatrists, I was interested in the credentials of the authors. From the book's dust cover I learned that the Group for Advancement of Psychiatry (GAP) is an organization of more than 300 of America's most distinguished psychiatrists. Committees within the group explore timely topics relating to psychiatry. One such GAP committee wrote *The Joys and Sorrows of Parenthood*.

The authors accurately claim that the book is *not* a how-to-do-it book on childrearing. It is designed, however, to help parents allay the anxieties and guilt feelings they have acquired in rearing their children. As with most other parents who become caught up in the popular image of parenthood (which emphasizes its joys), I have experienced some of its disappointments and sorrows. Seeing my own parental problems, my failures and inadequacies, and noting those of my friends and colleagues, I can readily identify with a book that "centers on what it is to be a parent, on expectations for one's self instead of for the children, on the goals of an individual apart from the children." Chapter titles further reveal the nature of the book: *Parenthood*, *a Period of Personal Development*; *Expectation and Disappointment in Parenthood*; *The Psychology of Values*; *Discipline—Self and Imposed*; *Varieties*

of Parenthood Experiences; *The Middle Years of Parenthood*; *Grandparenthood*; and *Parents Are People Too*.

As a biology teacher I found that some of the chapters relate well to current concerns in science education. The chapter on the psychology of values emphasizes parental values, transmission of values, and the roles of religion, parents, family, and society in helping children to develop values. The biology teacher concerned with relating his science to the value systems of his students will profit from reading this chapter. Most teachers, both in-service and preservice, will also profit from the chapter on discipline, which includes discussions of permissiveness vs. license, self-discipline vs. imposed discipline, and punishment vs. the real object of discipline.

As might be expected from a Committee on Public Education, the book has been written for the lay public. It is not filled with footnotes and the technical jargon of professional psychiatrists; it is not a scholarly research publication. It could be read with understanding by most high-school upperclassmen (and their parents). Although not a book that will find its way into the library as a biology book, it has a very definite place in the high-school and college library as a reference for courses in family living and sex education.

The book concludes with a 57-item bibliography. More than two-thirds of these references were published in the 1960s; the two most recent were published in 1970.

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THE BEHAVIOURAL PHYSIOLOGY OF ANIMALS AND MAN: THE COLLECTED PAPERS OF ERICH VON HOLST, VOL. 1. Translated by Robert Martin. 1973. University of Miami Press, Coral Gables. 355 p. \$18.00 (hardback).

Erich von Holst, scientifically active from 1932 to 1962, was one of the founders of behavioral physiology. A generally recognized pioneer, he was the first director of the Max Planck Institute for Behavioral Physiology, in Bavaria. His work, published first in German, has a place among classic sources for studies in neurophysiology, psychology, ethology, and other disciplines in psychobiology and neurobiology. Most of the 14 essays in this collection are research reports, and several of these are still extensively used and cited in the world's scientific literature. They are on the nature of order in the central nervous system; brain mechanisms in the coordination of body movements; the reference principle; mechanisms of convergence and accommodation in visual function; functions of human visual per-

ception; brain localizations and behavioral organization of drives; and tactile illusions. Although well-written and ably translated, these are too detailed and difficult for direct use in the classroom. However, a diligent instructor could gain from these essays some excellent ideas for classroom demonstrations on the scientific method and on how we can learn about our senses, nervous system, and behavior patterns.

The last five essays, on the other hand, are more broadly and philosophically oriented. Some could serve as assigned readings and as the starting points for discussions in high-school or elementary college biology classes. Their topics are the nature of animal life (9 p.); human environment and technology (16 p.); problems of modern research on instinct (14 p.); and freedom (5 p.). The instructor will have to supplement the short list of references at the end of the book, with others that are in English, more current, and more appropriate for class or student use. Many such are available from journals (such as *Scientific American* and *Animal Behavior*), monographs, and textbooks.

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Laboratory Manuals

A MANUAL OF BASIC VIROLOGICAL TECHNIQUES, by Grace C. Rovozzo and Carroll N. Burke. 1973. Prentice-Hall, Inc., Englewood Cliffs, N.J. 287 p. \$6.95.

The book succeeds very well in achieving the goal stated by the authors in the preface: "to acquaint the user with procedures which are fundamental to the study of viruses." Chapters are devoted to egg and tissue cultures, propagation of viruses, virologic techniques, biochemical characterizations, and bacteriophages. Consistently, throughout, the explanations are exceptionally clear, the illustrations beneficial and not redundant. The equipment called for is well within the reach of most biology laboratories, and the procedures are arranged in a straight-line, step arrangement, which makes them very easy to follow. Of particular benefit is a long chapter entitled "Preparation of Materials, Equipment and Supplies." Cleaning procedures, sterilization, disinfecting, infiltration, and preparation of media are all covered simply and clearly in that chapter. I recommend the chapter to anyone working in microbiology: student assistants, students, preparators, stockroom people, teachers, and professional consultants.

Any biology teacher who plans to have class exercises in microbiology or viruses or who encourages students to do special projects in these areas should have this book. Although no special