

Rather, the lack of definitive statements in the book is a reflection of our lack of knowledge in many areas of mammalian physiology, behavior and ecology.

I have only one minor criticism of this book. Throughout the book the author classifies various species according to the somewhat outmoded "r-selected, K-selected" scheme of life history strategies. He acknowledges that this approach is overly simplistic, but I think that a more current discussion of life history strategies would have enhanced the book.

In summary, this book is more than a reference source on mammalian biology. It is a readable discussion of the evolutionary biology of mammals, and it will undoubtedly serve as the source of research ideas for years to come.

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Anatomy and Physiology

ANATOMY AND PHYSIOLOGY LABORATORY TEXTBOOK

by Harold J. Benson and Stanley E. Gunstrum. Pre-3rd ed. Report Edition. 1981. Wm. C. Brown Company (Dubuque, IA) 440 p. Softback, price not given.

This laboratory textbook is designed to provide the basic principles of anatomy and physiology to paramedical students. Nevertheless, it contains a diversity of exercises that can be drawn upon by general college and/or Advanced Placement high school biology educators. The textbook consists of ten parts. Once the fundamental concepts of Part I have been mastered (anatomical terminology, microscopy, histology, etc.), the remaining nine parts—each of which deal with a specific body system(s)—flow instructively through a clearly written and illustrated series of exercises. Not enough can be said about the clarity and usefulness of the numerous photographic and diagrammatic illustrations. As a result, anatomical verification/identification and physiological setup are greatly enhanced.

The anatomical exercises require the hands-on dissection of the cat with a successful attempt by the authors to closely correlate this dissection with the

major theme of the textbook—the human body. The physiological exercises are well represented and are, for the most part, those normally found in other laboratory textbooks of their kind. Although the authors state that most of these exercises can be completed within a two-hour lab period, many of them would require an additional pre-lab discussion of concepts, equipment techniques, etc. to insure their completion. Equipment needs are not elaborate. A novel and rewarding inclusion is a section that provides the hows and whys for various electronic instruments that are utilized in several of the physiological exercises.

All of the perforated laboratory report sheets are found at the end of the textbook. Although the space provided for answers and diagrams is at a premium, their arrangement is orderly and consistent, enabling the user to concentrate more on the content and trends of the exercise than on where to record the data.

The only flaw this textbook has is in its treatment of histological detail throughout Parts 2-10. A lack of clear, instructive, and illustrative support would demand too much supplemental instructor guidance time. Students would not be able to proceed independently through these sections.

The instructor's manual is divided into two parts: Part 1 focuses on the problems and remedies that might be encountered in each of the 53 exercises. Part 2 provides the answers to all the questions from the Report Sheets.

In conclusion, this laboratory textbook has been significantly improved from previous editions with the inclusion of new physiological exercises. It remains clearly written, well illustrated, and well organized. Its flexibility allows it to be used in whole (for a two-semester anatomy and physiology course), or in part.

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Social and Ethical Issues

FACING VALUE DECISIONS: RATIONALE-BUILDING FOR TEACHERS

by James P. Shaver and William Strong. 2nd ed. 1982. Teachers College Press (Columbia University, New York 10027). 190 p. + xv. \$14.95 softback.

How whimsical that reviewing a book on values forces me to expose my own values! The authors must be right in their contention that values underlie everything we do. A good exercise might lie in using the authors' analytical procedures to ferret out the values concealed within the comments that follow.

Virtually all of our actions as teachers reflect the values we hold.

The question... is not *whether* you will deal with values or *whether* your values will affect what you do. It is rather, *what* will you do about values, and *will you be aware* of the influence of your own values and make it as conscious and rational as possible. (p.8).

Values represent inevitable components not only of the formal subject matter of schooling, but appear also as a hidden curriculum in the way we act, speak, move, and react. Your values may affect students more strongly in the way you administer a class than in the subject matter you may introduce. What you omit or fail to do may have as great importance as what you include or do.

The authors make many specific references to values questions that form an inevitable part of science teaching. For biology teachers these include the current conflict about the teaching of creationism. Or can you imagine a biology class with no references to ecological problems? What about the killing and dissection of animals in lab? And then there is sex. Moral implications constitute inevitable components of virtually all scientifically oriented subject matter. Can any science instruction be considered adequate if it lacks discussion of the value implications in scientific findings?

The authors' preoccupation with the classification of values seemed a little tedious and pedantic to me. Although a hierarchy among values labeled moral, nonmoral, aesthetic, performance, intrinsic, instrumental, personal, or basic can no doubt prevent us from overlooking unacknowledged values, such a taxonomy tends to lose the reader's attention.

Throughout the book, the authors introduce short scenarios and skits as vehicles for exposing and exploring hidden or unacknowledged values. They offer role-playing exercises for individuals or groups to use as awareness builders. These, occasional cartoons, and the friendly tone of the writing prevent the text from taking on the sanctimonious or pompous tone that could so easily develop in this kind of book.

A lengthy analysis of the competition—the values clarification approach of Rath, Simon, and associates and

helps show differences in perspective. I wish Shaver and Strong had resisted the temptation to claim superiority.

All in all, this book merits the attention of biology teachers. It led me to re-think some personal values and attitudes. I came away with several ideas I intend to try out in my own teaching situation this year. What more can a reader hope for?

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SCIENCE IN SOCIETY

by the Science in Society Project. 1981. The Association for Science Education (College Lane, Hatfield, England AL109AA). A series of soft-back books. Price not given.

The package of materials reviewed includes eight "projects" which, apparently, make up a "Science in Society Course." Each project involves students in examination of an issue or problem involving some aspect of the human physical environment and in the practical requirements of responsible decisionmaking in society. Each project consists of a student book and a teacher's guide; two also include books of role cards to be used in role-playing activity. Five of the eight projects are identified as "simplified versions" of materials developed earlier in Robert Gordon's Institute of Technology at Aberdeen and published in another form by the Institution of Electrical Engineers. The remaining three projects were developed by the Science in Society Project staff especially for this series.

The content of each project, contained largely in the 5-7/8" x 8-1/4" softback student book, consists of background information on the problem and the problem setting, including statistical data, maps, charts, diagrams, etc., and a series of descriptions of tasks to be performed in order to be able, finally, to arrive at and justify responsible decisions. Each product of a student task, such as selecting the most desirable site for an electricity generating plant, depends for its accuracy, quality, and reasonableness on careful and extensive consideration and use of the information which has been made available in the student book. Student books are less than 25 pages in length, including all graphic materials.

The teacher's guide which accompanies each student book is also soft-back, measures 8-1/4" x 11-11/16", and none exceeds 15 pages of text. It offers a brief discussion of the rationale of the

project, its aims, and the manner in which activity should be organized for students. The teacher's guide also contains larger versions of the maps, charts, and diagrams included in the student book and lists of correct responses to the series of questions and/or computations required of students as they work through the activities in the project.

Because no general description of the entire course was included in the review packet, one has to assume much of what the authors' motives were in selecting and organizing these materials. It seems plain, however, that the course is designed for secondary level students and that it has a very pragmatic philosophy: to engage students in the kinds of problem-solving activity concerning their surroundings that are a constant challenge to their elders. Project titles include "Dental Health Project," "Power Station Project," "Central Heating Project," "Alternative Energy Project," "Public Inquiry Project," and a "Hilltop Project" dealing with some problems of a farming community.

It is immediately obvious, also, that these materials are distinctively British, cast in British locales and terminology, and organized around British institutional traditions. The remaining two projects, "Minerals in Buenafortuna" and the "Marimbian Health Service Project" utilize fictitious former British and Spanish protectorates to illustrate some of the problems faced by developing nations with rich mineral resources but limited educational, political, and economic sophistication.

Overall, I found the series of projects interesting and would judge them to be challenging to a group of highly motivated students who are conversant with the language and traditions of the British Commonwealth. The problems addressed are not unique to the British, however, and most could easily be transposed to a context in the United States.

The teacher using these materials would need to be highly self-sufficient in planning and organizing beyond the dictates of the materials themselves. Not much is provided in the way of guidance for using these materials with any other than very bright students. In any case, what can be learned from these exercises would be especially valuable and useful to students hoping to become valued contributors to decision-making beyond the classroom, and both science and society would very likely benefit.

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