

worth reading because it says much that is applicable to all teaching situations.

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STUDENTS AND DECISION-MAKING, by Robert S. Morison. 1970. Public Affairs Press, Washington, D.C. 142 pp. \$2.00.

The president of Cornell University appointed a commission to study the governance of that university—including the role of the students. This book is, in part, the chairman's personal report.

The first part of the book is a brief, well-written discussion of the university's purposes, relationship to society, and administrative apparatus. It emphasizes the point that many of the misunderstandings and consequent unrest within the university have resulted from the failure to understand and examine problems that have arisen from the public-service function of the university.

The second part was written largely by a commission member, David Moore, dean of Cornell's School of Industrial and Labor Relations. It is devoted to a discussion of the student and his discontents, which have grown out of his encounters with society and the university and his general feeling of powerlessness. An excellent description of the university as a community contains the suggestion that some of the student unrest may reflect the quest for community.

The third part lists changes that can be made within the existing framework of the university: students should be given greater responsibility for their own education; every student should have the opportunity to develop a continuing relationship with a wise and concerned faculty member; students should be allowed to "shop around" for courses at the beginning of the term; greater opportunity should be provided for independent study and research; and students should be involved in decision-making at all levels.

The fourth part contains comments by Ian Macneil, professor of law at Cornell, on student involvement in decision-making and its relationship to intellectual liberty. The advantages and dangers of student involvement in decision-making are examined. Macneil prefers to have more alternate courses rather than to have students make decisions as members of course committees: alternate courses provide for greater intellectual liberty, he believes.

Although the book reads like a commission report in places and some of the ideas are difficult to follow, it is an interesting analysis. The suggestions for change within the university seem realistic. I recommend the book to anyone who is concerned with campus un-

rest and wants a greater insight into the problems of governing a university.

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SCHOOLING FOR WHAT?, by Don H. Parker. 1970. McGraw-Hill Book Co., New York. 285 pp. \$7.95.

American society has been moving through another cycle of crisis, which has included the frustrations of the "generation gap" and the deadly serious confrontations on campuses. We have now come to a contemplative but still unpredictable stand-off among divergent social forces. Somewhere near the middle of these events Don H. Parker talked to 1,000 concerned Americans about the revolt of American youth. This book is, in part, a transcription of the feelings and concerns and the "vast discontent" expressed in those interviews. But, in large part, it is also a podium from which the author delivers his own personal diatribe against "establishment" values and against the inefficiencies and unfounded premises of education as it exists in America today. He uses the common and diverse frustrations and resentments of his cross-section of Americana as justification for one more blast at the way society schools its children.

In formal interviews Parker used 10 questions to glean the feelings and opinions of the respondents, most of whom were 15 to 24 years old. The questions were these:

- "1. Why should we have schools?"
- "2. Can you think of ways to make schooling better?"
- "3. What do you like most about schooling now?"
- "4. What do you like least about schooling now?"
- "5. Why should people work?"
- "6. What else should people do besides work?"
- "7. Do you think schooling helps you learn about these other things?"
- "8. Now what about the individual? In these days we hear a lot about trying to be an individual. The idea of 'being an individual' is probably not very new, but 'being an individual' seems harder than ever in these times. Why do you think this is so?"
- "9. If you believe we should have sex education in the public schools, what kinds of things should be learned?"
- "10. Now in conclusion, can we consider this. It is being said that we are living in an 'age of contention,' an 'age of controversy,' between the younger and the older, between race groups, and between various other kinds of groups. Why this sudden outburst—the demonstrations, the riots, the marches, the sit-ins, even the long hair and the funny clothes? Why do you think this is happening?"

That the biases of the author are implicit in his selection of questions is evident. What is not revealed is the actual bias represented in the population of respondents. This population is not adequately described. Further biases are evident in the selection of certain responses for quotation and as a basis for inferences expressed in this book. The result is that it is the opinions of the author that form the theme that pervades this book. "Today," he says, "youth is a new force to be reckoned with and we are going to have to change the schools fast, or they are going to change them for us. We still have time to choose between revolution and anarchy in our schools—and in our country."

The problem is not that one would disagree but that there is nothing really new in the author's assessment of the nature of things. The only time that America has not been blaming its educational system for its problems has been when it was too busy working itself out of world and lesser wars imposed upon it by external threats to power and to peace. Criticism and philosophic idealism are easy positions to take, as evidenced by the large and growing number of persons of those persuasions. Thus the author documents what most readers will be already well informed about and adds little that is new to the discourse. The crucial question of *how* a society reforms itself is not answered. It is not enough to say, as Parker does, "We must turn the school curriculum upside down, so that the major part of the student's time is occupied in educating the use of the skills and knowledge he has in pursuit of goals he himself sets, based on what his interests are, instead of the meaningless acquisition of skills and knowledge for which he has no use."

The author reveals himself as a romantic by his only slightly concealed admiration of life-style experiments, such as the communes and educational ones such as the free universities, while devaluing institutionalized research programs, such as accountability and national-assessment studies.

None of this is all "bad" or all "good." What matters is that the critic is indecisive in spite of being well informed. His voluminous treatment of what is wrong is out of balance when placed in context with the variety of human needs, aspirations, and frustrations that have, in fact, forced the evolution of the present system and which, inexorably, will force the evolution of another—no matter what we do.

Readers who wish to extend their involvement in, or awareness of, criticism of education can find one model in *Schooling for What?* Others, like myself, may hope for and find more productive involvement in efforts to trans-

form this system from within. We have come to this crisis juncture not because what we have been doing is all "bad" or all "good" but because, as in all other ages and with all other peoples, we are human and fallible.

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MEASUREMENT AND EVALUATION IN THE CLASSROOM, by Clarence H. Nelson. 1970. Collier-Macmillan Ltd., London. 138 pp. \$2.25.

The author intends this book as a convenient source of practical procedures for the novice classroom teacher confronted with problems in measurement and evaluation. Indeed, it does contain many informational tidbits. Since the text is brief and the narrative generally fluid, a once-over-lightly treatment by the teacher could have some positive results. The test items furnished as examples deal primarily with science content. The author claims that the principles implicit in the items are transferable to other content areas. Chapter headings include the nature of measurement and evaluation; the objective test; composing, duplicating, administering and scoring the test; and standardized tests and classroom performance.

The opening chapter presents a clearly delineated list of frequently occurring problems in the areas of measurement and evaluation. Unfortunately, these problem areas are not referenced in the text, nor is an index provided. This greatly reduces the value of the book as a teacher resource.

Nelson's book has no special value for the science teacher. It does not reflect the most recent trends in evaluation in science teaching. Evaluation in the affective domain is given very limited consideration. Emphasis on item construction stresses the knowledge level. The chapter on the role of instructional objectives lacks substance, is misleading, and is devoid of concrete examples representing either the cognitive or affective domain.

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EFFECTIVE COLLEGE TEACHING: THE QUEST FOR RELEVANCE, ed. by William H. Morris. Published for American Association for Higher Education by American Council on Education, Washington, D.C., 1970. 162 pp. \$3.50.

This is a compilation of chapters on college teaching, most of which focus directly on classroom concerns. It is the direct descendant of an earlier study, *The Quest for Relevance: Effective College Teaching*, sponsored by the

Joint Committee on College Teaching of the American Association for Higher Education.

Most of the chapters deal with the teaching of certain disciplines, but there is a chapter dealing with the problems, issues, and conflicts of higher education as a profession and another chapter on campus administration and politics. The writers have been objective and realistic and have provided highly pertinent considerations for the beginning college teacher in such areas as campus governance, research and publications, committee work, and activism.

In regard to college classroom teaching, the most valuable chapter is by Stanford Erickson, who provides an excellent discourse on student interest and motivation, relevance, goals and change, and evaluation. Although some of these sections should be more specific, the treatment is effective and the selection of topics highly appropriate for the teacher who is concerned about his teaching effectiveness.

There is a chapter on the teaching of science, and scientific literacy as a major goal of science-teaching is argued. Nevertheless, in this reviewer's opinion this is not the most valuable chapter for the college science-teacher. Rather, the entire volume is appropriate reading for any college teacher who is interested in improving his classroom effectiveness.

As a whole, the volume is excellent. It should be among the basic readings required of all prospective college teachers before they assume full instructional responsibilities.

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BLACK PIONEERS OF SCIENCE & INVENTION, by Louis Haber. 1970. Harcourt, Brace, & World, Inc., New York. 189 pp. \$4.50.

This book points up the contributions that black Americans have made to industry, medicine, and agriculture. The personal and professional lives of 14 men are described in 10 to 15 pages each (with portraits). The well-known George Washington Carver is here; so are the less celebrated Benjamin Bannaker, Granville T. Woods, Charles R. Drew, and Percy L. Julian.

From this book students will learn of advances made by black men, even in the face of unequal opportunities. In addition, they will see how scientists are trained and how science progresses through interaction with government and society. The comprehensive bibliography encourages further study. I strongly recommend this book for addition to secondary-school libraries.

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Heredity

THE ORGANIZATION OF HEREDITY, by Kenneth R. Lewis and Bernard John. 1970. American Elsevier Publishing Co., New York. 250 pp. \$11.75 hardback, \$5.95 softback.

Probably no area of biology is better served by a diverse array of textual materials than genetics: there are encyclopedic compendia on things hereditary and there are succinct introductory texts; there are paperback series and there are selected and annotated collections of original papers. The volume under review does something quite different from any of the foregoing.

In nine tightly organized chapters the authors present a selective review of heredity. This is done by examining the chemical, genetic, and functional organization of the genotype. Throughout, the emphasis is on microorganisms and fungi, with various references to *Drosophila* and occasional ones to higher plants and mammalian genetics. A student viewing genetics from this perspective would be directed to biochemical and microbial genetics with a limited awareness of the genetics of higher organisms. This bias is further reinforced by the fact that the following subjects are omitted from treatment in this volume: probability, karyotypes and changes therein, genetics of domesticated forms, human genetics, and population genetics.

What does such an emphasis achieve? One very positive answer is, "A very pure view of genetics." That means the user of this book would learn what genetic material is, how it is organized chemically, something of its chromosomal organization, and how it controls protein synthesis; and he would learn this in terms of those key organisms that contributed the most to these studies over the past three decades. This no-nonsense point of view is reinforced by a style of writing that is appropriate to technical review articles: spare and humorless.

What does this approach not achieve? Fundamentally it lacks flexibility. It does not present enough detail to invoke the excitement of exploration through experimentation, nor (except for an excellent prelude) does it have the intellectual range to embed genetics in its parent science of biology. It is not a beginner's text. Furthermore, there are no problems to aid the student in the practice of genetics, and references are given as in a technical article and, hence, give little guidance to an inexperienced user. Most important: beyond the rhetorical gesture on the final pages—quoting Bateson, who says that "an exact determination of the laws of heredity will probably work