

Reviews

are not more frequently blended when the benefits can be so great.

The questions raised in this volume are among the most significant that face today's researchers in education. When it comes to answers, beware; this is not a cookbook of neat recipes. You will find that earnest scholars disagree about what should be studied and how.

This is not a "how to" manual with step-by-step instructions on the conduct of field research. It is a volume that reflects on the nature of field work. It reminds us of the importance of stepping back from our work, surveying its shape, sensing its trends, and accounting for its assets and liabilities. Socrates said an unexamined life is not worth living. One might extrapolate that an unexamined field of work is not worth pursuing.

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Hugh Munby, Graham Orpwood, Thomas Russell.
SEEING CURRICULUM IN A NEW LIGHT:
ESSAYS FROM SCIENCE EDUCATION
Toronto: Ontario Institute for Studies in Education, 1980.
184 pp. \$8.50 paper.

The authors use as a central metaphor for their essays the idea that philosophy can be used as a "lens" to deal with a wide range of problems typically encountered in the field of curriculum. These problems, although diverse and intractable, can be made to yield when approached philosophically; this is the promise of the book, and one can imagine a wide readership for it. Although the focus is on science education, the book is really about important curriculum problems. It contains ten articles which have been divided naturally into three areas - teaching; curriculum; research.

What sort of a tool does the book offer to the perplexed? At heart, the essays attempt to show how teachers and others who make decisions about the curriculum can do so in a rational manner; the book is about a rational approach to problems. Now there are many approaches to understanding rationality; these essays mostly reflect an approach which has been called by Toulmin "The Philosopher as Geometer." Central to this approach, Toulmin notes, is the idea that "Our beliefs and arguments must be both rigidly structured and anchored to firm ground... The initial acceptance of a geometrical model... was regarded as setting a pattern for all intellectual criticism." Thus, one of the authors notes, "Conceptual Analysis (has) all the promise for looking at educational phenomena... that natural philosophy had for looking at natural phenomena..." (p.6)

The authors have used an impressive variety of philosophical sources to develop analytical schemes to be applied to particular problems in science education (Scheffler and Komisar on teaching, Pepper on metaphors, Toulmin on argument, Schwab on the practical, Gauthier on practical reasoning, and Dearden on concepts). These sources are used to develop "clue structures" for the analysis of educational rhetoric, classroom discourse, and teacher performance. Two examples will show the orientation and method characteristic of the book. In Munby's "Analysing Teaching for Intellectual Independence", Scheffler's analysis of the conditions of knowledge is used to develop a clue structure (characteristics of discourse which allow one to judge whether or not conditions for independence are provided). The analytical scheme is applied to samples of classroom discourse in order to judge whether or not provision is being made in that discourse for intellectual independence.

Orpwood, in "Analysing Arguments for Objectives", uses Gauthier to establish a clue structure for identifying the conditions for good advice. Good advice is seen to rest on valid practical arguments, the nature of which Gauthier explicates; the analytical scheme so grounded is used to critique a particular example of curricular advice given in the form of objectives. In both examples, and also in Mahung's essay, the analyses are intended to expose the logical structure of the language in question and thereby to provide a model for others to follow. In a sense, these examples are "object lessons" in conceptual analysis.

Other papers move us somewhat towards the domain of teaching in its cultural rather than logical context, without abandoning the "Geometrical" thread. For example, Russell's "Developing Teachers' Analytical Skills" is sensitive to the problems teachers face in attempting to confront their own teaching performances. He argues for teacher self-awareness and self-criticism, and uses the work of Sarrason to support his analysis. Kilbourn argues for the use of ethnographic research methods diagnostically, within a clinical approach to teacher supervision. Again the focus is on a systematic approach to the problems teachers have in the classroom, and on how greater self awareness might be engendered to assist teachers in their professional development.

These latter papers reflect the use of a different philosophical lens, what Toulmin has called the "Philosopher as Anthropologist." From this perspective concepts are considered in relation to their relevance in human life: "One looks for the basis of their rationality not (only) outward in the supposedly universal structure of the world... but inward, in the shared characteristics of human nature, experience, and 'forms of life'."

So the "lenses" at work in the book can be seen as varying, because the underlying conceptions of rationality differ. These lenses

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are effectively applied to a wide range of dichotomies that characterize the curriculum field: dependence/independence; holism/reductionism; theory/practice; self/others; scientific/humanistic. The lenses work both to decompose these dichotomies further - to burn away the underbrush - and also to enlarge certain issues in curriculum. The important issue of the nature of the foundations of curriculum is writ large.

The limitations of empirical social science as a source-bed for curriculum theory are exposed; the errors of false dependence on the apparent authority of empirical research in education are documented. For those who consider science as a sacred cow in education, this book will no doubt be bitter fodder. So often in the literature, the experimental paradigm in curriculum is smuggled into discussions of curriculum theory. Not so here. The authors are careful to examine their assumptions about the relevance of the problems and methods they discuss. My only quibble, and it is a small one, is that the authors might have explored briefly, in the spirit of the book, their particular conception of rationality in relation to other conceptions of rationality, and their collective relationship to curriculum theory.

For those who seek a consistent and careful treatment of perennial problems of the curriculum field, and greater familiarity with a particular philosophical approach to these problems, the book is an excellent choice. To a large degree, these essays make good their promise.

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Peter Medway.

FINDING A LANGUAGE: AUTONOMY AND LEARNING IN SCHOOL.
London, England: Writers and Readers Publishing Cooperative, 1980.
95 pp. 1.95 Pounds, paper.

Much of what Peter Medway has to say in this little book is of paramount importance to English teachers and others concerned with English curriculum. However, despite the fact that language is the issue at hand, Medway does not always use it to its best communicative advantage. For one thing, to uncover basic information, the reader must follow the author through an introductory maze (the book starts off with a student composition about rabbits in ditches). Well into Chapter One, the reader finally discovers important background information - namely, that the book is about the British system, the senior school, and students between the ages of 14