

humanization and inappropriate social control function of behavior modification and also (b) a more proactive view of how people with serious intellectual limitations can be understood and assisted in fulfilling their human potential. The selective use of negative examples presents at times a "straw man" view of the problem. Unquestionably, there are misuses of behavioral technology but also an enormous range of documented positive applications. The author only pays lip service to these constructive uses.

There is an anachronistic element to the book because the author's concerns are a replay of those expressed decades ago by humanistic persons. Acknowledging this is not meant to take away from the worth of the author's views, but rather to recognize the author's place in a historic stream of concern with the misuses of behavioral techniques. It takes a well-written, forceful, and personalized book such as this one to remind us that humane treatment means more than just avoiding institutional filth, isolation, and physical abuse as described by writers such as Burton Blatt. Of importance here is that the author's notion of "fulfilling human potential" goes considerably beyond shaping compliance behaviors to increase the quota of output in shelter workshops and moves into appreciating the client's full emotionality and humanness, as would be the case for any normal person.

The book contains many examples and illustrations of the author's way of thinking about intervention with mentally limited individuals. In making this last statement, I was about to refer to them as mentally handicapped individuals; however, I am now aware that from the author's point of view, the truly handicapped individuals are probably the caretaking persons whose values are conformity and compliance and who are unable or unwilling to delve into the inner psychological life and phenomenology of the clients for whom they are responsible.

Lovett's data base rests in the many case examples, and the absence of "hard" data is perhaps a limitation of the book. But from the author's perspective, what others might consider hard data would be seen as a narrow and limited view of the person. Taken as a complete statement, the book is less antibehavioral than it is a case for reconceptualizing our assumptions about the behavior of mentally limited individuals, their motivational system, and what our responsibilities should be in terms of supporting their development as persons. I am reminded of the anecdote of an individual who was whirl-

ing a cat around by its tail. The onlookers were quite concerned and upset, but on being informed that the person with the cat was mentally retarded, the onlookers presented a kind of knowing "Aha." The label of mental retardation, of course, in no way explained the behavior, and it is this theme of needing to individualize our view of intellectually limited individuals that personifies Lovett's very readable and provocative book.

Lovett describes some classic studies on behavior management with institutionalized persons and then adds his own humanistic interpretation to the events, suggesting other ways of viewing the client's behavior and other ways of responding to the client. Some of the author's suggestions beg questions of feasibility, and the reader will need to determine if he does justice to the research studies he reports and analyzes. The use of the term *cognitive counseling* may also be misleading in relation to its more common current applications. Many of the described interventions involve modifying environmental variables and staff perceptions rather than direct counseling interaction with the client.

The book will probably be a disappointment to persons who are looking for step-by-step, concrete methodology for understanding and changing behavior. This is a valuable book for supervisory-level personnel who can establish policy and who will be in a position to influence others who work directly with the persons with special needs. In the final analysis, I believe it is more of a philosophical treatise than a methodology text. The humane and human treatment of such individuals begins not only when we interact with them, but also when we wake up in the morning and have to conceptualize what it is that we are going to do with our clients. This is a thought-provoking, somewhat subjective, but scholarly effort by the author, whose intention to influence our perceptions, intervention rationale, and methods with persons experiencing special needs will likely achieve some success. ■

How to Avoid Traps and Fallacies: The Multilevel Issue in Educational Research

Hans Oosthoek and
Pieter van den Eeden (Eds.)
**Education From the Multi-Level
Perspective: Models, Methodology and
Empirical Findings**
London: Gordon & Breach Science,
1984. 295 pp. \$39.95

Review by
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Education is a multilevel (or more precisely, hierarchical) enterprise: Students are nested within classes and teachers, classes and teachers are nested within schools, and schools are nested within districts. In research and evaluation projects, this hierarchical structure gives rise to multilevel data. The problem educational researchers have to solve is to specify appropriate analytical models that accurately reflect the structure of such data. Researchers interested in analyzing educational effects typically distinguish among several units and levels of analysis, such as students, classrooms, teachers, and schools. If a single level of data is clearly the appropriate one for addressing the purposes of a study, then the study should be designed that way and analyses should be conducted on that level. If, for example, one is mainly interested in individual behavior and performance, analyses should be conducted at the student level. Alternatively, class-level analyses are appropriate whenever interest focuses on group processes.

However, unilevel design and collec-

tion of data is seldom the case. Many empirical investigations in education aim to explain the behavior at one level of organization when data are collected either at a different level or from more than one level.

Attempts at cross-level inference (e.g., using class-level data to infer about individual behavior and vice versa) generally cause problems. These problems have been labeled *ecological* and *individual fallacies* and are extensively described in the literature (cf. Burstein, 1980). Furthermore, it has been frequently shown that separate analyses of educational effects at different levels can reveal substantially different results. In light of such problems, treating the analysis of multilevel data merely as a problem of choosing the proper unit of analysis is a mistake. Instead, emphasis should first be put into developing adequate theories of educational processes. Then, special care can be given to specifying multilevel analytical models that disentangle effects from sources at various levels.

Comprehensive treatments of these important issues are still rare. Thus, the book edited by Oosthoek and van den Eeden is timely. According to the editors, the contributions to this volume focus on two basic questions: (a) In educational research, what are the relevant levels of analysis and what are the characteristics of these levels? and (b) What hypotheses or propositions could we put forward to explain the interactions among these levels?

The 11 chapters are grouped into three sections. In Part 1, Methods, 4 chapters deal with the problem of how to design studies in a multilevel perspective. Part 2, Empirical Findings, contains another 4 chapters that give examples of empirical analyses with multilevel data drawn from different educational settings. Finally, Part 3 is devoted to Models in Multi-Level Research and—as the editors emphasize—is particularly dedicated to examining variables that are promising and underrepresented in current research.

Given the diversity of chapters, grouping into sections makes sense. However, the editors could have done better by choosing different classification criteria. In particular, the distinction between Parts 2 and 3 is difficult to understand. Most of the chapters in both parts include empirical data as well as statistical models suited for multilevel analysis. On the other hand, the chapter by Belandria and Burstein (in Part 1) clearly represents an empirical study and not—like the other three chapters in this section—a

theoretical/methodological contribution to the multilevel issue.

Part 1 provides useful information for those readers who are not familiar with multilevel analyses. The first chapter by van den Eeden and Hüttner describes possible stages for planning a study that involves multilevel data and analyses. Sorensen's contribution is especially interesting in that it compares organizational differentiation (e.g., assignment of students to tracks, streams, and ability groups) and the effects this has on individual achievement in American and various European educational systems. In another chapter, de Graaf presents a clear and comprehensive introduction into several common statistical models for analyzing multilevel data and discusses selected methodological problems in these approaches.

Readers who expect to find straightforward empirical applications of the more advanced statistical models in the remainder of the book will be disappointed. With the exceptions of Belandria and Burstein's elegant demonstration of multilevel effects of student's background on their achievement and Oosthoek's thorough investigation into factors that influence law students' attitudes toward law, the designs of the empirical studies poorly match the two basic questions of multilevel analysis previously mentioned. Although all of the studies deal with interesting topics, most of them can be faulted for poor specifications and tests of the analytical models. This is unfortunate because the book is supposed to be a showcase for good usage of multilevel strategies.

For example, studies by Dronker and Diekerhoff and by Thomas are secondary analyses based on data that were collected for different purposes. The authors concede that this is not optimal for their research because theoretically important variables cannot be included after the fact in design and analysis. As a consequence, the models suffer from specification errors and yield biased findings.

A second problem concerns the use of simple path analyses via multiple regression (so-called "just-identified" models) in studies by Oosthoek, by Thomas, and by van der Kley. Whereas causal models of this type usually can be easily estimated, their validity is unknown because they perfectly fit the data regardless of the causal ordering of variables actually chosen. One of the specific advantages of more elaborate structural equation procedures (e.g., LISREL) presented in the chapters by Maruyama and Walberg and

by Williams is that they are testable on this count. Unfortunately, multilevel analysis is not a major issue in either of these two contributions.

My overall impression is that, although some chapters are strong and can stand alone on their own merit, the book as a whole is not particularly well organized and exhibits uneven quality. However, despite these flaws, some chapters may prove useful for readers who are looking for a first quick introduction into the topic. For readers who want more specific information, Burstein's (1980) comprehensive review is still a must.

Reference

- Burstein, L. (1980). Analysis of multilevel data in educational research and evaluation. In D. Berliner (Ed.), *Review of research in education* (Vol. 8). Washington, DC: American Educational Research Association.

Toward Temporal Transactional Models

Benjamin B. Lahey and Alan E. Kazdin (Eds.)
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This is Volume 8 of *Advances in Clinical Child Psychology*, a series devoted to the critical review of clinical child psychology. Each chapter is written by a leading figure in an innovative area of theory, re-