

GARDNER, WILLIAM I. *Behavior Modification in Mental Retardation: The Education and Rehabilitation of the Mentally Retarded Adolescent and Adult*. Chicago: Aldine-Atherton, 1971. ix + 379 Pp. \$11.75.

Many manuals, handbooks, and textbooks on behavior modification have been published in the last few years. What makes Gardner's effort unique is that he has addressed himself primarily to personnel concerned with habilitation of retarded people. "The major focus of the book," he says, "is on the practitioner who in his daily contact with the learning and behavior problems of the retarded is faced with the questions of 'what to do' and 'how best to do it.'"

The book is divided into four parts, beginning with *Problems of Education and Rehabilitation of the Mentally Retarded Client*. In the first chapter of Part I, Gardner outlines a few cases which illustrate, briefly, the prescriptive limitations of a psychodynamic approach to retardation—an approach which he feels still dominates the field of rehabilitation and which is responsible for the failure of most habilitation programs. He gives other examples to show how disrupting behaviors can be decelerated by treatment based on behavioral observations rather than on assumptions about "internal causes." In the second and third chapters, Gardner categorizes the behavioral problems of retarded people as "excessive" and "deficit" and he points out some environmental causes for problems commonly referred to rehabilitation counselors. Leaning heavily on Bijou's (1966) analysis of retarded development, Gardner presents a rather compelling argument that the behavioral limitations of many retarded people—especially those in institutions—are the result of invalid assumptions about the nature of retardation.

However, his oversimplified typology may have misleading implications. If one accepts Gardner's classification of all problem behaviors as either "excessive" or "deficit," the goals of treatment should be evident: acceleration of low rate (deficit) behaviors and deceleration of objectionable high rate behaviors. These are the desired *effects* and they can be specified in terms of rate changes. Indeed, as Gardner says, the same *principles* may be applicable to all accelerations. But this reviewer can not agree that "the same behavior change *procedures* would be used in dealing with [specific task skill deficits] as would be used in dealing with any . . . other behavior deficits" (p. 36). (*Italics* throughout are the reviewer's.) While the same *principles* may apply to all, the *operations* (procedures) that may prove effective for different clients to produce the same results may require considerable experimentation to locate. Failure to distinguish between principles and procedures, between operations and their effects or functions may underlie the well-intentioned but misguided efforts of those who attempt what they call behavior modification.

In Part II, *Behavior Modification: Concepts and Principles*, Gardner begins by describing behavior modification as a general "learning" orientation toward behavioral causation, symptom substitution, diagnosis, emotional behavior, motivation, and the physical locus of treatment. Three other chapters, all written in highly technical language, are devoted to concepts of respondent, operant, and observational learning. Respondent and observational learning are given only cursory treatment, suggesting that Gardner does not consider it especially important for habilitation personnel to develop facility with these approaches. (It may be worth noting that "observational learning" does not even appear in the index.) The emphasis, in any case, is on operant learning, which he covers far more thoroughly but, again, in technical language which is often confusing due to lack of clear operational definitions.

While description of the standard replication procedure is straightforward enough, the description (p. 96) of DRO (which, for some reason, is also not in the index) is confusing, as is the explanation of time-out (pp. 111–112). Sequential analysis of multiple, simultaneously recorded behaviors—which would probably be of particular usefulness in a workshop setting—is not mentioned.

Gardner rightfully emphasizes the individuality of reinforcer preferences. He also notes that the reinforcing properties of selected events may fluctuate from day to day and from occasion to occasion, but he does not point out that this is a particularly likely occurrence when the reinforcing function of behavior-contingent consequences has not been adequately tested. In a later section of the book (p. 183) Gardner presents a graph showing temporary behavior disruption and no gain from a *single* presentation of what is referred to as “social reinforcement.” If the reader is thus led to believe that consequence = “reinforcer” before effectiveness has been demonstrated, he may join a discouragingly large number of others who say that “reinforcers” don’t work!

Part III, *Psychological Evaluation of the Mentally Retarded Client*, has two chapters. The first, “Behavioral Evaluation,” gives some cogent reasons why conventional assessment methods do not yield more useful information for modifying human behavior. This well-organized and clearly written chapter should be read by *all* habilitative and educational personnel, as well as by all who perform assessment, no matter what their clinical specialty.

Gardner’s alternative to conventional approaches, “A Functional Analysis Approach to Evaluation,” is harder to follow, but useful in that he suggests methods for gathering pretreatment assessment information that is directly related to and prescriptive of remediation procedures. A “clinical behavior analysis,” as the author calls it, is a search for the critical behavior-controlling variables in the client’s immediate environment. The analysis produces “functional hypotheses” about specific problem behaviors and their relationships with specific antecedent and subsequent events. Treatment recommendations result, and they may range in specificity from FR2 to institutionalization—although it is not clear how the latter would “provide the tangible and social reinforcement needed for positive behavior development” (p. 168). Assessment, he points out, is a continuing project “ending only after the behavioral goals have been accomplished” (p. 165).

Impressions and speculations feature heavily in Gardner’s approach to pretreatment assessment; it is unclear at what point active functional analysis (treatment) must replace the armchair. The implication is that prediction of behavior is either not feasible or not desirable. It would seem to this reviewer that pretreatment assessment, according to this approach, would best be done by whoever undertakes the job of treatment. For the habilitator attempting to modify a few specific behaviors in an individual client, the approach should be far more productive than a battery of conventional tests. But when a behavior modifier is faced with many retarded clients it may be impossible for him to find the time for component analysis of each individual’s multiple excesses and deficiencies before treatment begins. That, indeed, is why most behavior modification undertakings begin without predictively valid behavior samples.

The last part of the book, *Methods of Producing Behavior Change*, begins with a chapter that points out some of the environmental inadequacies that generate and maintain the very problem behaviors referred for treatment. The author offers 47 guides—some of which suffer from lack of definition—for designing environmental components that rectify these faults. The following chapter discusses the development

of an individual treatment program designed to minimize the discrepancies between the client's presenting behavior and the requirements of whatever environment he is to be prepared for. Once again, the author cites some of the general principles for strengthening and weakening behavior and for developing control over acquired behavior, but while these are now called "specific strategies," they are not given in any greater operational detail than in the earlier chapters on operant learning and functional analysis.

Applications are reviewed in two chapters, one on the moderately and mildly retarded and one on the severely and profoundly retarded. (Despite the author's earlier criticisms of labeling and his espousal of functional behavior analysis to reveal individual abilities, he divides retarded people on the basis of their IQ-based labels and presumed ability limits.) Applications in school, in occupational training, and in counseling are described in the chapter on the mildly and moderately retarded, with 31 learning principles for special class teachers. The chapter on the severely and profoundly retarded introduces nine areas of behavioral limitations which the author believes distinguish this group. Most of this chapter reviews procedures for eliminating behavior and answers some of the common questions about punishment. The remainder includes brief reviews of the literature on self-help skills, work skills, and imitation, and presents eight guides for developing effective programs.

The last chapter, "Applied Behavioral Technology in a Vocational Rehabilitation Setting," by Screven, Straka and LaFond, is the highlight of the book and should be valuable to teachers and habilitators, especially those who wonder how the pieces can be put together to form a cohesive program of vocational training in a community agency. The research program at Jewish Vocational Service of Milwaukee is designing and testing sheltered workshop systems for people throughout the population called "retarded." Clients are taught basic prevocational skills such as counting, word-picture matching, word naming, and sound-word matching as well as dressing and grooming, and they learn how to work at a repetitive consignment job for 2½-hr periods twice a day. Those who are nonverbal and "profoundly retarded" are first taught simpler discrimination skills that enable them to move toward more advanced participation. Varying degrees of environmental control and personal supervision are available. The objective is to develop work environments that maximize client performance—decidedly antithetical to the notion of fitting client behavior to available, albeit inadequate environments. This is a well written chapter which stands on its own merit. It is here that the excitement of a positive behavioral approach becomes evident!

With the apparent dual objectives of providing not only a methodological handbook but a theoretical upbringing as well, the author set himself a task that is difficult if not impossible to accomplish without the most carefully planned arrangement of content. There are many other sources where the same information has been published in more condensed, more explicit form. Some go beyond the scope of Gardner's book to describe actual operations that have enabled parents to treat their own children, ward personnel to become habilitators, and retarded people to chart and control their own behavior.

For practitioners with no previous exposure to behavioral theory and methods, Gardner's book may be too difficult and confusing to sustain their attention. As a text for serious students in guidance and rehabilitation counseling, however, the book may furnish a point of departure for critical discussion of comparative conceptual approaches. The reader may need to have at hand a glossary of basic terms in experimental behavior analysis, for technical terms abound, appearing as early as the

preface (Pavlovian use of "reinforcement") and the introductory chapter ("reinforcing components" and "token reinforcement"). A background in psychodynamics will be helpful, for it is implicitly assumed throughout the book.

Practicing habilitators who select this book to acquaint themselves with behavior modification should be prepared to spend time for study. This is not a book to be read casually during cancelled appointments; it is slow reading. Nor is it a reference for clinical problem-solving; it focuses on concepts and principles. Although problems are addressed and solutions suggested in passing, they are not easily found by searching chapter titles, subheadings, or least of all, the index. Practitioners who wish to use a token economy will need to refer to other sources to find out how to build the reinforcing properties of tokens.

Behavior analysis applied in the domain of retardation has clearly provided new opportunities, not only for people thus labeled, but also for those who wish to help them acquire new levels of competence—opportunities hitherto denied them, whether by psychodynamics proponents or by "historical misfortunes" (White & Wolfensberger, 1969). Many neophytes, now excellent behavior modifiers, have come this way not through academic conceptual debate, but rather, because they have wished to become more effective as habilitators of retarded people. They have been shown how to learn from the people they teach by performing mini-experiments that constitute the basic methodology of behavior modification. As a tool for producing capable behavior modifiers, able to chart, treat, and evaluate treatment effects, Gardner's book will probably be useful as a supplement to—but not a substitute for—supervised experience in pinpointing and recording behavior and *actively* manipulating environments to produce convincing evidence of effects. As Azrin (1970) has pointed out, there is "a desperate need . . . for description of the specific details on how reinforcement principles are translated into specific procedures for a specific population." Although it suffers from lack of careful editing, Gardner's book is a step in this direction.

REFERENCES

- AZRIN, N. H. Foreword to A. N. Deibert & A. J. Harmon, *New tools for changing behavior*. Champaign, IL: Research Press, 1970.
- BRJOU, S. W. A functional analysis of retarded development. In N. R. Ellis (Ed.) *International review of research in mental retardation*. New York: Academic Press, 1966. Vol. 1, pp. 1-19.
- WHITE, W. D., & WOLFENBERGER, W. The evolution of dehumanization in our institutions. *Mental Retardation*, 1969, 7(3), 5-9.

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