**A Review of *Supervision & Management: A Guide to
Modifying Work Behavior* by
J. N. Marr and R. T. Roessler**

Dale Brethower
Western Michigan University

Marr and Roessler have written a valuable and lucid book that is a definite contribution to the literature. The book could be a valuable supplement to courses in supervision or general management and in applied psychology. But the title misleads. The book is not about something as grand and sweeping as “supervision and management”; a better title for the book would be its subtitle, or *Effective Techniques for Modifying Behavior at Work*.

Major Strengths

The book has three major strengths: (a) It clearly describes a model for modifying work related behavior. (b) It describes the model in ways likely to make sense to people who have not already acquired an extensive technical repertoire in behavior analysis. (c) It contains 13 applications of the model to demonstrate effectiveness. The applications show how the ABC (antecedent, behavior, consequence) model can be used in real work settings. The applications illustrate the use of the model with work behavior related to production quantity, production quality, attendance and punctuality, safety, and health. The applied settings include, among others, rehabilitation centers, insurance companies, telephone companies, and manufacturing companies; utility of the model is not

restricted to a specific type of environment.

The ABC model is contrasted with an inner-person approach, showing supervisors or managers how they can focus on specific variables in the work setting in ways that empower them to achieve results that inner-person approaches cannot help them with. For example, managers can manipulate work setting variables, but they are neither trained nor positioned adequately to manipulate the inner person. Moreover, Marr and Roessler provide specific procedures that supervisors can use to deal with issues that concern managers and supervisors: They offer a specific, detailed, practical, and well-illustrated alternative to inner-person approaches.

The book is rich in techniques for changing behavior: Modeling, fading, overcorrection, extinction, contingency management, goal setting, and other procedures are clearly described and well illustrated with specific examples. The procedures are typically described in ways that provide a gentle and palatable rationale, something that reflects the authors' years of practical work.

Major Weaknesses

Too many techniques, too little practice. Without opportunities to practice, the readers will not learn the techniques. In books aimed primarily at the academic, discipline-oriented, preprofessional market, we tend to try to prepare people with all the knowledge they need to deal with any problem that might arise. Perversely, we try so hard to equip students to handle any eventuality that we don't give them

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Marr, J. N., & Roessler, R. T. (1994). *Supervision & management: A guide to modifying work behavior*. Fayetteville: University of Arkansas Press.

Address correspondence and reprint requests to the author at the Department of Psychology, Western Michigan University, Kalamazoo, Michigan 49008-5052.

enough practice to master very much of the material. And, even if they have enough verbal practice to score high on tests, they remember little. The data on how much of the material students remember a few weeks past the final exam clearly show that most of the material is forgotten. Anyone who wants readers to use the techniques in the workplace will have to provide guided practice if readers are to use the guidance offered.

The behavior-centered approach. Thirty years ago, I thought that a science of behavior (or at least the ABC model for modifying behavior) was just what managers and supervisors needed. But my analysis was wrong then, and Marr and Roessler's is wrong now. Let me explain where we went wrong.

The flaw in Marr and Roessler's analysis can be found in their discussion of outcome and behavior. Outcomes and results, they say, cannot be managed because once something is an outcome or a result, it has already occurred. What supervisors must do, then, is manage behavior because behavior comes before outcome. Further, they argue that if an outcome is bad, it will be because of some behavior that hasn't occurred properly. Their prescription is this: To fix outcomes, fix behavior; to fix behavior, use the ABC model. They then present the behavior-centered management model: First, find the deficit or excess behavior that causes a particular outcome, then select the antecedents and consequences to be used to change the behavior.

The argument is incorrect. Saying that outcomes can't be managed because once an outcome occurs it's over is just like saying consequences can't affect behavior because they happen after behavior has already occurred. There are two flaws in the argument. First, consequences *are* outcomes; they are produced by the behavior. (Sometimes the production is mediated by a person, e.g., "Every time I press the bar he gives me a pellet," or "If teacher catches me being good, she smiles

and gives me good behavior points.") Second, the effect is not on the already-completed behavior but on the probability of future behavior. A manager cannot, indeed, manage the completed outcome but can manage the next outcome—if he or she knows how and has the proper tools and resources.

The outcome we call a consequence has a measurable effect on future instances of the behavior; supervisory actions can have an effect on future outcomes. Managers and supervisors, supervisors especially, earn their keep by assuring outcomes, not by managing behavior. Their job is to ensure that the right things get done, get done right (in terms of quality and cost), and get completed at the right times. Managers and supervisors are responsible for outcomes and results, not merely for behavior. They have to manage materials and tools and schedules as well.

Gilbert (1978) argued specifically that a behavior-centered approach misses the mark because it misses the importance of the products of behavior. Behavior, Gilbert informs us, adds cost. The products or results add value. Gilbert's argument is that managers and supervisors (as well as laboratory researchers) manage both behavior and the outcome or product of behavior. Gilbert argued for a performance-centered approach, defining performance as behavior plus the product or outcome of the behavior. In arguing for attention to performance (i.e., behavior plus product), Gilbert is being consistent with what we do in the behavior analysis laboratory. Laboratory behavior is defined not by its topography, but by the outcomes or consequences that follow it. Behavior is managed, in the laboratory, by managing its defining outcomes (and antecedents). Similarly, performance is defined not by topography, but by outcomes.

Marr and Roessler are simply mistaken when they say that outcomes cannot be managed. But they are not suggesting that outcomes are unimportant. For example, in an appendix (ti-

tled "Proving It with Hard Data the Easy Way") they have this to say.

First, a target behavior or a product of that behavior must be selected. If you choose a target behavior it should be performance-related. That is, it should be a behavior that has an effect on the outcome. Sometimes it is easier to target a product of behavior. (p. 215)

I would add that it is not only sometimes easier to target a product of behavior, it is better. My emphasis on the products of behavior is consistent with the main thrust of the book. Marr and Roessler repeatedly urge readers to modify work-related behavior, not just any behavior. About half of their major application examples are about work behavior that is, at least and at best, loosely related to performance. For example, absenteeism relates loosely to work performance and is certainly an important cost. Similarly, health-related behaviors can relate to work performance and probably do; they can certainly be very costly. The other half of their major applications target the products of behavior.

There are two exercises that I would use and recommend to others:

1. For each application, specify whether what is targeted is behavior or product. If behavior is targeted, specify the outcome that the behavior relates to; then specify how to measure whether modifying the behavior modifies the outcome. In addition, specify how to measure the cost of the behavior, the cost of changing it, and the value of the products or outcomes.

2. For each application that targets a behavior, specify an outcome that could be targeted. Then specify an application that targets the product rather than the behavior.

The first exercise would help managers or supervisors to decide whether or not to change behavior and how to measure the value added thereby. The second exercise would help psychologists or performance engineers or other

professionals to learn to design performance-based techniques as well as behavior-centered techniques. Not incidentally, the two exercises would help unbiased learners discover whether there are any important differences between a behavior-centered approach and a performance-centered (behavior plus product) approach. (Serious scholars should find or create opportunities to test the two approaches.)

I suspect that there could be very productive class discussions about the relative merits of a behavior-centered versus a performance-centered approach. For example, classes could discuss why behavioral applications in education and mental health have been accused, sometimes inaccurately, of focusing on compliance rather than improvements in performances that add value. Do Marr and Roessler focus on worker compliance with management directives about behavior rather than on value-adding performance (i.e., behaviors that yield valuable outcomes and results)?

Conclusion

It is much easier to prove that the ABC model can be used to change behavior than it is to prove that changing a behavior adds value (i.e., actually improves an important outcome). The applications in the book do the former very well but too often fail to do the latter. Marr and Roessler have provided a valuable addition to the field. It is up to all of us, stimulated by the book and using exercises such as those suggested above, to guide our learning, our practice, and our research to build upon the significant strengths of what Marr and Roessler have so ably offered.

REFERENCE

- Gilbert, T. (1978). *Human competence: Engineering worthy performance*. New York: McGraw-Hill.