Preface to the Instructor

Audience

When we wrote the first edition of *Elementary Principles of Behavior (EPB),* we intended this book for first-year, university-level psychology courses. But an American Psychology Association committee pleasantly surprised us by also recommending it for high school psychology courses. Then we found behavior analysts using it at all levels, including graduate courses; in a variety of departments, from dentistry to social work to special education; and from community colleges to universities to in-service training programs. So we've tried to write subsequent editions for the graduate student, as well as the undergraduate student. To assess the generality of our success, we evaluate *EPB* in both graduate and undergraduate courses. Though they vary a bit, the grad students evaluate the book at least as favorably as the undergrads, in spite of *Elementary* in the book's title. We've built more flexibility into this edition to accommodate further this variety of audiences, especially with our different levels of the enrichment section. But also, we've tried to write the essential Fundamentals sections to appeal to both the jaded graduate student and the eager freshman. And, we've tried to write those Fundamentals sections so all students can easily understand them. However, though we've tried to make the Fundamentals simple, we've also tried not to make them simplistic. And though we've tried to make the Fundamentals clear, we've also tried not to make them conceptually unrigorous. (Some value a book only if it's difficult; we hope such readers will feel compelled to adopt different criteria.)

The Fundamentals and Enrichment Sections

The following material is redundant with a section in Chapter 1, but it's worth looking at here also: We've divided each chapter into two main sections. We call the second section the Enrichment section. All the subsections that come before it we call the Fundamentals section, the bare bones of the text. The student needs to master each Fundamentals section to understand the Fundamentals sections of following chapters. However, the student needn't master the Enrichment sections to understand the later Fundamentals sections. Also, we've divided the Enrichment sections into three levels-Basic, Intermediate, and an occasional Advanced. We've tried to keep the Basic sections at the same level of difficulty as the Fundamentals sections. The Intermediate and Advanced levels get progressively more difficult and esoteric; yet they assume no knowledge of behavior analysis beyond this book. Here's the audience to whom we've aimed each level: the Basic level-beginning students who will do no further work in behavior analysis, and the Intermediate level-juniors, seniors, and others who will be doing further work in behavior analysis. We assume anyone reading the Intermediate level also will read the lower level. Of course, the instructor may evaluate the levels of difficulty or appropriateness differently from the way we have.

In the Skinner Box

To illustrate many basic behavioral contingencies and procedures, we go to hypothetical examples in the Skinner box. We find the simplicity of the life of the rat or pigeon in the test chamber to be an excellent tool for understanding the complexity of the life of the human being in the normal environment. We also do this to emphasize the phylogenic continuity of the principles of behavior. But we put most of this in the Enrichment section, so teachers can omit it if they wish to play down that continuity. (Incidentally, we've found phylogenic continuity of behavior doesn't put off most students. Students are amazingly open to new ideas. However, their professors in the humanities and social sciences aren't always!)

First Names

When we first introduce specific behavior analysts in this book, we normally do so formally, with their last names and professional titles. But then we usually move into an informal first-name style. We do this for three reasons: We think this style makes for more pleasant reading about real people with real first names. We think this style may suggest that professional behavior analysts are just regular human beings and that being a professional behavior analyst is a reasonable goal to which the reader might aspire. Finally, a first-name style correctly suggests that behavior analysts form a small, closeknit, warm, and friendly family whose members know each other on a first-name basis. On the other hand, we don't intend to suggest presumptuous familiarity. Our data say that students prefer it this way.

Where's the Introductory Chapter?

We omitted the traditional intro chapter because we find general intro summaries of a discipline to make great logical sense to the professional and little pedagogical sense for the novice. By being broad, they must be too general, too abstract, and too vague to alter effectively the repertoire of the beginning reader or to act as an effective establishing operation or discriminative stimulus that will increase the likelihood the novice will go to the next chapter. Our experience suggests it's best to start right off with case studies that will effectively reinforce reading the book. No student has said he or she missed having an intro chapter.

Simple Rigor

We've tried hard to make this book easy-readable, clear, interesting, and entertaining. But we've also tried hard to make it rigorous. We have tried not to compromise rigor in the name of popularization or simplification. Furthermore, we've tried to provide the basis for a solid conceptual mastery of the principles of behavior. As part of this effort, we've included compare-and-contrast sections in which we help the student compare and contrast confusing concepts and make important distinctions-for example, escape versus punishment, reinforcer versus reinforcement, time-out versus response cost, penalty versus extinction, and differential reinforcement versus reinforcement.

Research Methods and Ethics

We introduce the issues of research methods in small units in the Intermediate Enrichment sections throughout this book. We do so for two reasons. First, we can introduce the issues with the research to which they are crucial. But more important, we can avoid combining all the methodology issues in one chapter too early in the book-an approach most students find deadly. When you start with the research methods first, students don't know what the heck they're researching and could care less about the methodology.

In short, we think a pedagogical sequence differs from a logical sequence. Often they go in opposite directions. So we recommend an analog to backward chaining. Start with what interests most studentssaving the world through behavior mod. Spice it with small doses of methodology. Then have them review the whole area once we've got them irrevocably committed to our cause! Incidentally, we think much the same about the history of a discipline. Students appreciate it more at the end of a course than at the beginning. At the beginning, they could care less about where the discipline came from, because they may not care all that much about the discipline itself. But if the course has succeeded in helping students appreciate our field, then they may become more interested in its history. In this book, we integrate a small amount of history as we go along. We've included ethical issues in the Intermediate Enrichment sections throughout this book, as we've done with the research-methodology issues. And for many of the same reasons.

Spreading research methodology in small chunks throughout the book may cause a problem if you want your students to do research projects from the beginning of the semester and you believe they need to know some basic design concepts. So to reduce this problem, at the back of this book we've also provided a chapter on research methods. This will then give your students a more coherent view. Furthermore, Chapter 29, Research Methods, is divide into three main sections, the last two being the ones most relevant to actual research methods and the most accessible after the students have read the first couple of chapters of *EPB.* So assigning the last two sections of Chapter 29 more

Respondent Conditioning

The chapter on respondent conditioning is at the back of the book, for two reasons: First, respondent conditioning is not fundamental to our treatment of

operant behavior, so putting it early would break the cumulative flow of the concepts and principles. Second, we think students need a good grounding in operant procedures before they can discriminate between those procedures and respondent procedures. It ain't easy. (Most grad students and some faculty members can't discriminate between a conditioned eliciting stimulus and a discriminative stimulus.) Introducing respondent conditioning before students have a firm grounding in operant conditioning puts the students at great risk of erroneously classifying every behavior they see as respondent when it is probably operant. Students have an almost genetic tendency to respondently, reflexively, immediately say *respondent conditioning* or *reflexive* whenever confronted with a novel instance of operant behavior. This latent Pavlovianism might best be prepared for by many chapters of operant analyses before the Pavlovianism can be unleashed and extinguished. But instructors who think otherwise can assign the first nine sections of the respondent conditioning chapter right after Chapter 2 in this book with as much ease as if the chapters were physically placed early in the book. The tenth section of the respondent conditioning chapter should wait until after the extinction chapter. And the last section should wait until after the discrimination chapter. One size fits all.

Fictional Use of Published Research

We feature fictional heroes and heroines in this book. They are Mae, Sid, Dawn, Juke, the students from Sid's seminar, and some of the clients. We find this fictional approach to increase the readability of the text. Graduate students, as well as undergraduate students, prefer this approach. However, our heroes and heroines refer to the original research. We use their referencing to illustrate that a good practitioner checks the published research before intervening. We also use this referencing and associated comments to help the reader appreciate the real people who did the real work. (All the data and graphs we present are based on the actual data from the relevant research.)

More Flexibility

We've included a few sections on the structure of the book, for example "How to Use the Study Questions" and "In Defense of Mickey-Mouse Questions." Most reviewers said they appreciated them. That's just one more thing they wouldn't have to worry about telling their students. But some instructors might not want to use them. And probably some

instructors will not want to use all the material in all the enrichment sections. When we use the book, we vary the sections we assign depending on the level of the course.

Rule-Government Behavior

We asked a nonrandom sample of our colleagues what they thought were the most important issues to hit our field in 20 years (since the first edition of this book). Many pointed to the issues of rule-governed behavior and the control of behavior by delayed outcomes. We agree. But some think these issues are passing fads! And few seem to agree on the theoretical analysis of these issues. So we make a big deal out of it, but at the end of the book. This postponing helps: The student can approach complex rule-governed behavior after mastering the basic concepts and principles. But this postponing also hinders: While reading the first part of the book, students risk doing simplistic analyses of complex contingencies-for example, in organizational behavior management. We have tried to reduce this problem of simplistic analysis by restricting the first part of our book mainly to research based on immediate rein-forcement and punishment. In theory, the students can read those later chapters on rule-governed behavior early in the course. But we've tried that, and the theory doesn't work too well; the rule-govemed behavior chapters seem too difficult without reading the preceding chapters. So here's how we cope: When a student raises an example in which a delayed outcome seems to control behavior, we say, "Put it on the back burner until we get to the ad-vanced chapters; then we'll deal with it." If we, as teachers, really get our act together, we might actually set up a back-burner section where we store students' examples until the burner is hot; but that hasn't happened yet.

Changes from EPB 3.0 to EPB 4.0

I've been collecting changes, corrections, and im-provements for the last 3 years and started making the revisions about a year ago. We've revised the book three times since then, so that as I write this, we are on *EPB* 3.4. We revise a chapter, carry it to the Copy Desk in the morning, wait while they run off copies, pick it up and hand it to our students the same day; they read it and have a quiz over it 2 days later; we collect the corrections and problems from our observations, the observations of 15 to 100 students, and the observations of three to five TAs who run our three to five sections of 20 students each; and we stash it for the next semester's revision cycle.

Survey data from the *EPB* Users Group suggested that professors don't want radical changes in *EPB;* and as I read the e-mail, I gradually realized that radical changes would be a pain in the rear for professors who have invested considerable time setting up their courses around the structure of *EPB* 3.0. So there have been no radical changes. One thing of interest was that essentially none of the reviewers or users wanted much by way of new references and studies, though many of the studies in *EPB* are, shall we say, *classic.* The point was that the existing studies were good ones and illustrated the concepts and principles well. Everyone seems to agree that the goal is to have a textbook that teaches the concepts effectively rather than one that functions as an encyclopedia full of the latest references. So we've concentrated on improving clarity and teaching effectiveness rather than updating references, though we've added a few. Here are some of the more conspicuous improvements in *EPB 4.0:*

a Discrete-Trial Procedures versus Free Operant Procedures-new topic

Revisions in every area in which students had quiz difficulties that seemed due to ambiguity or lack of emphasis in the text.

Though much more could be done, we're happy with the way *EPB 4.0* has evolved. Hope you will be.

The EPB *Users'Group on the WWW*

If you are a teacher using *EPB,* drop me an e-mail note at Richard - Malott@CSI.COM and I'll put you on the *EPB* e-mailing list-a nice way to stay in touch.

And if you are either a teacher or a student using *EPB,* check out our *EPB* home page on the World Wide Web at **http://vms.cc.wniich.edul-Malott/EPB.htmi.**

- Verbal Behavior-new topic
- Stimulus Equivalence-new topic
- Matching to Sample-new topic
- Autism and Verbal Behavior-new topic
- Etiology of Autism-new topic
- Procrastination-new topic
- Varieties of Mentalism and Behaviorism-new topic
- Biological Determinism-new topic
- Nonchained Behavior Sequences-new topic
- ADHD-new topic (finally, a case officially la beled as such)
- Autism and Behavior Analysis-expanded coverage
- Functional Assessment and Functional Analy sis-expanded coverage
- Respondent Conditioning-expanded cover age
- Circularity, Reification, and the Medical Model Myth-integration and clarification
- Differential Reinforcement of Alternative Be havior-new diagrams
- Sick Social Cycle-new diagrams
- Differential Reinforcement and Differential Punishment-improved diagrams
- Shaping-improved diagrams
- Chaining-improved diagrams
- The Dead-Man Test-how to roll him over
- DRL versus FI-compare and contrast in the Skinner Box

Instructor's Manual

To get our *Instructor's Manual with Tests,* contact your local Prentice Hall representative. For additional supplementary materials for *EPB,* check out the *EPB* Web page at **http://vms.cc.wniich.edu/-Malott/EPB.htnd.**

These materials include the following:

Flash Cards

The term is printed on one side of the card and the definition on the other. One card for each concept, principle, and rule of thumb in the book. Ideal for memorizing the definitions so that students can ace the tests. Has a big impact on quiz scores.

Advanced Enrichment Sections

This booklet contains some Advanced Enrichment sections and Conceptual Question sections that will challenge graduate students in behavior analysis but would not be appropriate for most undergraduates.

Advanced Study Objectives

Heavy-duty stuff. Appropriate for grad students only.

Acknowledgments