FOURTH EDITION

Behavior Modification: What It Is and How to Do It

Garry Martin
Joseph Pear
University of Manitoba

Prentice-Hall International, Inc.

Contents

Preface xvii

Acknowledgments xx

To the Student xx

PART I THE BEHAVIOR MODIFICATION APPROACH

1 *Introduction* 1

What Is Behavior? 3
Characteristics of Behavior Modification 7
The Approach of This Book 8
Study Questions 10
Practice Exercise 10
Self-Modification Exercises 10
Extended Discussion and Notes 11

2 *Areas of Application:* An Overview 13

Education: From Preschool to University 13
Severe Problems: Mental Retardation, Childhood Autism, and Schizophrenia 15
Clinical Behavior Therapy with Outpatients 17
Self-Management of Personal Problems 18
Medicine and Health Care 19
Behavioral Community Psychology 21
Business, Industry, and Government 23
Sport Psychology 23
Behavioral Assessment 25
Conclusion 25
Study Questions 25
Extended Discussion and Note 26

PART II BASIC BEHAVIORAL PRINCIPLES AND PROCEDURES

3 *Getting a Behavior to Occur More Often with* Positive Reinforcement 27

"Do you want this, Mommy?"
Reinforcing Darren's Cooperative Behavior 27
Positive Reinforcement 28
Factors Influencing the Effectiveness of Positive Reinforcement 31
Pitfalls of Positive Reinforcement 39
Guidelines for the Effective Application of Positive Reinforcement 41
Study Questions 42
Practice Exercises 43
Self-Modification Exercises 44
Extended Discussion and Notes 44

4 *Decreasing a Behavior with* Extinction 48

"Peter, your tantrums are driving me crazy."
Peter's Case 48
Extinction 49
Factors Influencing the Effectiveness of Extinction 51
Pitfalls of Extinction 55
Guidelines for the Effective Application of Extinction 57
Study Questions 59
Practice Exercise 59

Self-Modification Exercises 60
Extended Discussion and Notes 60

5 ***Getting a New Behavior to Occur: An Application of Shaping*** 64

"Valerie, walk by yourself to supper."
Teaching Valerie to Walk 64
Shaping 65
Factors Influencing the Effectiveness of Shaping 68
Pitfalls of Shaping 70
Guidelines for the Effective Application of Shaping 72
Study Questions 73
Practice Exercise 74
Self-Modification Exercises 74
Extended Discussion and Notes 74

6 ***Developing Behavioral Persistence Through the Use of Intermittent Reinforcement*** 78

"Fred, let's see how many wires you've stripped today."
Improving Fred's Work Rate 78
Some Definitions 79
Ratio Schedules 80
Simple Interval Schedules 83
Interval Schedules with Limited Hold 84
Duration Schedules 85
Overview of Eight Basic Schedules for Increasing and Maintaining Behavior 86
Pitfalls of Intermittent Reinforcement 88
Guidelines for the Effective Use of Intermittent Reinforcement 88
Study Questions 89
Practice Exercises 90
Self-Modification Exercise 90
Extended Discussion and Notes 90

7 **Types of Intermittent Reinforcement *to Decrease Behavior*** 95

"Tommy, a little less talking out, please!"
Decreasing Tommy's Talking Out 95
Differential Reinforcement of Low Rates 96
Differential Reinforcement of Zero Responding 97
Differential Reinforcement of Incompatible Responding 98

Pitfalls of Schedules for Decreasing Behavior 98
Guidelines for the Effective Use of Intermittent Schedules to Decrease Behavior 99
Study Questions 100
Practice Exercises 100
Extended Discussion and Notes 101

8 ***Doing the Right Thing at the Right Time and Place Is a Matter for Stimulus Discrimination Training*** **103**

"Now, children, please work at your desks."
Learning to Follow Teacher's Instructions 103
Stimulus Discrimination Training and Stimulus Control 104
Factors Determining the Effectiveness of Stimulus Discrimination Training 108
Pitfalls of Stimulus Discrimination Training 112
Guidelines for Effective Stimulus Discrimination Training 113
Study Questions 114
Practice Exercises 115
Self-Modification Exercises 115
Extended Discussion and Notes 115

9 ***Developing Appropriate Behavior with Fading*** 119

"Peter, what's your name?"
Teaching Peter His Name 119
Fading 120
Using Fading Procedures to Teach Verbal Skills 123
Factors Influencing the Effectiveness of Fading 125
Pitfalls of Fading 127
Guidelines for the Effective Application of Fading 127
Study Questions 128
Practice Exercises 128
Extended Discussion and Notes 129

10 ***Developing and Maintaining Behavior with Conditioned Reinforcement*** 131

"OK, team! Here's how you can earn an Eagle Effort Award."
Coach Dawson's Point Program 131
Conditioned Reinforcement 132
Factors Influencing the Effectiveness of Conditioned Reinforcement 134

Pitfalls of Conditioned Reinforcement 135
Guidelines for the Effective Use of Conditioned Reinforcement 136
Study Questions 137
Self-Modification Exercise 137
Extended Discussion and Notes 138

11 ***Getting a New Behavior to Occur with* Behavioral Chaining** **140**

"Agnes, please make a coffee pack for me."
Teaching Agnes to Assemble a Coffee Pack 140
Stimulus-Response Chaining 141
Chaining Compared with Fading and Shaping 144
Factors Influencing the Effectiveness of Chaining 145
Pitfalls of Chaining 148
Guidelines for the Effective Use of Chaining 149
Study Questions 149
Practice Exercises 150
Self-Modification Exercise 150
Extended Discussion and Notes 150

12 ***Transferring Behavior to New Settings and Making It Last:* Generality *of Behavior Change*** **153**

"Hi, there. I have a nice surprise for you in my car."
Teaching Stan to Protect Himself 153
Generality: Stimulus Generalization, Response Generalization, and Behavior Maintenance 154
Factors Influencing the Effectiveness of Programming Generality of Behavior Change 155
Pitfalls of Generality 160
Guidelines for Programming Generality of Behavior Change 162
Study Questions 163
Practice Exercises 163
Self-Modification Exercise 163
Extended Discussion and Notes 164

13 ***Eliminating Inappropriate Behavior Through* Punishment** **167**

"Ben, don't be so aggressive."
Eliminating Ben's Aggressiveness 167
The Principle of Punishment 168

Types of Punishers 169
Factors Influencing the Effectiveness of Punishment 171
Should Punishment Be Used? 174
Pitfalls of Punishment 177
Guidelines for the Effective Application of Punishment Procedures 178
Study Questions 178
Practice Exercises 179
Self-Modification Exercise 179
Extended Discussion and Notes 180

14 ***Establishing a Desirable Behavior by Using Escape and Avoidance Conditioning*** 182

"Scotty, would you like to play with your new toy?"
A New Toy for Scotty 182
Escape and Avoidance 183
Pitfalls of Escape and Avoidance 187
Guidelines for the Effective Application of Escape and Avoidance 187
Study Questions 188
Practice Exercises 189
Self-Modification Exercise 189
Extended Discussion and Notes 189

15 ***Procedures Based on* Principles of Respondent Conditioning** 192

Principles of Respondent Conditioning 192
Respondent and Operant Conditioning Compared 197
Applications of Respondent Conditioning Principles 201
A Cautionary Note 208
Study Questions 208
Extended Discussion and Notes 209

PART III SOME PRELIMINARY CONSIDERATIONS TO EFFECTIVE PROGRAMMING STRATEGIES

16 ***Short-Cut Tactics with Stimulus Control:* Instruction, Modeling, Guidance, and Situational Inducement** 213

Instruction 214
Modeling 215

Physical Guidance 217
Situational Inducement 219
Study Questions 224
Practice Exercises 225
Self-Modification Exercise 226
Extended Discussion and Notes 226

17 Alternative Strategies *for Decreasing Behavior* **230**

It Helps to Consider the Causes of Behavior 231
Alternative Strategies for Decreasing Behavior 232
Guidelines for Decreasing Behavior 239
Study Questions 240
Practice Exercises 241
Self-Modification Exercises 241
Extended Discussion and Notes 241

PART IV DEALING WITH DATA

18 Behavioral Assessment: *Initial Considerations* **244**

Minimal Components of a Program: Assessment, Intervention, and Follow-up 244
Data! Data! Data! Why Bother? 246
Sources of Information for Baseline Assessment 250
Study Questions 254
Extended Discussion and Notes 255

19 Direct Behavioral Assessment: *What to Record and How* **257**

Characteristics of Behavior to Be Recorded 257
Continuous Recording, Interval Recording, and Time-Sampling Recording 266
Assessing the Accuracy of Observations 268
Study Questions 271
Practice Exercise 271
Self-Modification Exercise 271
Extended Discussion and Notes 000

20 *Doing* Research *in Behavior Modification* **275**

The Reversal-Replication (ABAB) Research Design 276
Multiple-Baseline Designs 279

Multi-element Designs 282
Data Analysis and Interpretation 283
Study Questions 287
Practice Exercise 287
Self-Modification Exercise 288
Extended Discussion and Notes 288

PART V PUTTING IT ALL TOGETHER

21 **Designing a Program to Overcome a Behavioral Handicap** 292

A Problem Has Been Referred: Should You Design a Program? 292
Selecting and Implementing an Assessment Procedure 295
Preliminary Considerations of Program Design 297
Strategies of Program Design and Implementation 299
Program Maintenance and Evaluation 301
Study Questions 302
Practice Exercise 303
Extended Discussion and Notes 303

22 **Token Economies** 305

Initial Steps in Setting up a Token Economy 306
Specific Implementation Procedures 310
Programming Generality to the Natural Environment 313
Ethical Considerations 314
A Summary of Considerations in Designing a Token Economy 315
Study Questions 316
Practice Exercises 317
Extended Discussion and Notes 317

23 **Helping an Individual to Develop Self-Control** 319

Causes of Self-Control Problems 320
A Model for Self-Control 321
Steps in a Self-Control Program 323
Circumventing the Therapist 336
Study Questions 337
Self-Modification Exercises 337
Extended Discussion and Notes 338

24 **Systematic Self-Desensitization** *341*

Constructing the Fear Hierarchy *342*
Learning Deep Muscle Relaxation *345*
Implementing the Self-Desensitization Program *347*
When to Seek Professional Assistance *350*
Study Questions *350*
Self-Modification Exercise *351*
Extended Discussion and Notes *351*

25 **Cognitive Behavior Modification** *353*

"Thinking," "Believing," and Private Behavior *353*
Carol's Case *356*
Some Cognitive Procedures *359*
Concluding Comments *366*
Study Questions *366*
Extended Discussion and Notes *367*

26 ***Areas of* Clinical Behavior Therapy** *369*

Anxiety Disorders: Focus on Agoraphobia *369*
Obsessive-Compulsive Disorders *370*
Failure to Cope with Stress *372*
Depression *372*
Alcoholism *374*
Obesity *375*
Marital Distress *376*
Sexual Dysfunction: Focus on Low Sexual Desire *377*
Personality Disorders *378*
Study Questions *378*
Extended Discussion and Notes *379*

PART VI BEHAVIOR MODIFICATION: A RAPIDLY GROWING CONCERN

27 ***Giving It All Some Perspective:* A Brief History** *380*

The Two Major Lines of Development *380*
Behavior Therapy and Behavior Modification Compared *388*
The Future of Behavior Modification *389*
Study Questions *390*
Extended Discussion and Notes *391*

28 **Ethical Issues** *393*

Criticisms of Behavior Modification *395*
Ethical Safeguards *398*
Conclusions *406*
Study Questions *406*
Practice Exercise *407*
Extended Discussion and Notes *408*

References *410*

Author Index *441*

Subject Index *449*