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John D. Cone and Steven C. Hayes

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**THE BROOKS/COLE BASIC CONCEPTS
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Frontmatter

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To

Laura Churchill Cone and Ruth D. Hayes

and to the memory of

Jack Cone, Charles A. Hayes, Jr., and Edwin Koupal

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Frontmatter

[More information](#)



SERIES FOREWORD

The study of environment and behavior has shown a rapid development in recent decades; we expect that interest in this field will continue at a high level in the future. As a young and informative area, it has many exciting qualities. For example, the analysis of the relationship between human behavior and the physical environment has attracted researchers from many fields in the *social sciences*, such as psychology, sociology, geography, and anthropology, and from the *environmental design* fields, such as architecture, urban and regional planning, and interior design. The multidisciplinary character of this field has led to an atmosphere of stimulation, cross-fertilization, and, yes, even confusion and difficulty in communication. Furthermore, because of the diversity in intellectual styles and goals of its participants, research on environment and behavior has as often dealt with applied, real-world problems of environmental design as it has treated basic and theoretical issues.

These factors, coupled with the relatively young stage of development of the field, led us to believe that a series of short books on different areas of the environment and behavior field would be useful to students, researchers, and practitioners. Our view was that the study of environment and behavior had not yet firmed up to the point that a single volume would do justice to the wide range of topics now being studied or to the variety of audiences interested in the field. Furthermore, it became clear to us that new topical areas have emerged over the past decade and that some vehicle is necessary to facilitate the evolutionary growth of the field.

For these reasons, Brooks/Cole established the present series of books on environment and behavior with the following goals in mind: first, we endeavored to develop a series of short volumes on areas of research and knowledge that are relatively well established and are characterized by a reasonably substantial body of knowledge. Second, we have recruited authors from a diversity of disciplines who bring to bear a variety of perspectives on various subjects in the field. Third, we asked authors not only to summarize research and knowledge on their topic but also to set forth a “point of view,” if not a theoretical orientation, in their book. It was our intention, therefore, that these volumes be more than textbooks in the usual sense of the term—that they not only sum-

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978-0-521-31973-7 - Environmental Problems/Behavioral Solutions

John D. Cone and Steven C. Hayes

Frontmatter

[More information](#)

viii SERIES FOREWORD

marize existing knowledge in an understandable way but also, we hope, advance the field intellectually. Fourth, we wanted the books in the series to be useful to a broad range of students and readers. We planned for the volumes to be educationally valuable to students and professionals from different fields in the social sciences and environmental-design fields and to be of interest to readers with different levels of formal professional training. As part of our broad and flexible strategy, the series will allow instructors in a variety of fields teaching a variety of courses to select different combinations of volumes to meet their particular course needs. In so doing, an instructor might select several books for a course or use a small number of volumes as supplementary reading material.

Because the series is open-ended and not restricted to a particular body of content, we hope that it will not only serve to summarize knowledge in the field of environment and behavior but also contribute to the growth and development of this exciting area of study.

Irwin Altman
Daniel Stokols
Lawrence S. Wrightsman



PREFACE

The course of our involvement with environmentally relevant psychology parallels that of the field itself. This book is organized so as to follow that course. In 1972, when we first began working together, both of us had two relatively separate interests: the environment and psychology. One of us (J.D.C.) had an established background in the scientific study of human behavior and a personal commitment to the solution of environmental problems; the other (S.C.H.) had developing scientific interests and was fresh from a year of full-time environmental activism. The mixture of these two interests seemed natural to us. Psychologists are scientists with an interest in the understanding and control of behavior, and many environmental problems seem to be clearly behavioral. This book is about the marriage of these two areas.

Part I describes the differences between physical and behavioral technology and notes that the latter generally has been ignored in the study of environmental problems. When behavior has been studied, it usually has been viewed as a reaction to environmental characteristics rather than as a cause of them. Chapter 1 defines environmentally relevant behavior and distinguishes between protective and destructive types of relevance. The chapter also outlines a conceptual orientation toward the development of a technology for controlling these behaviors. A taxonomy of environmentally protective and destructive behaviors is presented in Chapter 2.

In Part II the basic principles of environmentally relevant behavior are presented (Chapter 3), and the research tactics and designs for studying them are described (Chapter 4). Whereas Part I presents a set of conceptual/philosophical biases, Part II provides the tools with which these biases can be brought to bear on environmental problems.

Directed by its biases and armed by its tools, the first tentative work in environmentally relevant psychology began in the early 1970s. The first area to be investigated with much intensity was environmental aesthetics, particularly litter control and noise control. Part III documents the work on these problems.

Environments can do more than annoy or disgust. They can be depleted; they can be polluted; they can even kill. Thus, emboldened by the early success in aesthetic areas, researchers in the field soon began to attack more serious

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978-0-521-31973-7 - Environmental Problems/Behavioral Solutions

John D. Cone and Steven C. Hayes

Frontmatter

[More information](#)

x PREFACE

problems, such as recycling, energy consumption, and transportation. These areas are examined in Part IV.

As the problems have become more complicated, the solutions have become more difficult to find. Researchers throughout the field are heartened by the progress achieved thus far but are sobered by the tasks yet ahead. In Part V we address some of these tasks. We examine the difficult issues of generality and maintenance, and we speculate on the proper role for behavioral scientists to take in solving environmental problems.

The book has been written for upper-division undergraduate or beginning graduate students in any of the behavioral sciences or in fields of study dealing with environmental design. A knowledge of general behavioral-science research procedures is not required, nor is a specific acquaintance with applied behavior analysis. Chapters 3 and 4 have been included particularly for readers without such prior experience and may be skipped by others who find them too repetitious of earlier learning.

To further the book's general applicability to a wide range of audiences, we have included a glossary of terms. In addition, because doing things about environmental problems may have more pedagogic value than merely reading about them, projects have been suggested at the end of many of the chapters. These projects are not merely academic exercises. They are included to foster an interest in the value of empiricism and experimentation, not just as a part of science but as a part of life.

The preparation of this small volume has been assisted by numerous people in whose debt we will long remain. The consulting editors for this Brooks/Cole series—Daniel Stokols, Lawrence Wrightsman, and, especially, Irwin Altman—provided many hours of their time and many useful comments on early drafts of each chapter. It is largely due to Irv's careful editorial suggestions and his skillful blend of positive reinforcement and criticism that the book has finally been completed. Many other colleagues have helped, but E. Scott Geller deserves special mention for his continued, unselfish provision of early copies of his own prolific writings in this area.

Writing a book is challenge enough without having numerous hassles with the technical preparation of the manuscript. We are sincerely grateful to Beverly Ruf and Gene Sharp, who, by their competent handling of the manuscript's typing and proofing, gave us the "space" to be more concerned with the substance of our message. In this regard we want also to acknowledge the tremendous support given us by the staff at Brooks/Cole. William Hicks and Claire Verduin guided us from the beginning in managing the overall flow of the manuscript. Along the way, Lorraine Brownlee, Vena Dyer, Karen List, and Bob Rowland have assisted in various capacities. Thanks must also go to Grace Holloway, whose final editing was exceptionally competent. Not only did she catch all our grammatical *faux pas*, but she also read for content and made numerous useful (if painful!) suggestions for improving the organization and flow of the book. Deborah Windom assisted greatly with the index.

Cambridge University Press

978-0-521-31973-7 - Environmental Problems/Behavioral Solutions

John D. Cone and Steven C. Hayes

Frontmatter

[More information](#)

PREFACE xi

Last, we wish to express special appreciation to our wives and families. Jan Cone was exceptionally patient and supportive, especially during one intensive period of writing in which both of us were living in the same house but writing on juxtaposed schedules (S.C.H., “the mole,” worked best between 10 P.M. and 8 A.M.!).

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978-0-521-31973-7 - Environmental Problems/Behavioral Solutions

John D. Cone and Steven C. Hayes

Frontmatter

[More information](#)

CONTENTS

PART I **THE NATURE OF ENVIRONMENTALLY RELEVANT** **BEHAVIORAL SCIENCE 1**

CHAPTER 1 BEHAVIORAL SCIENCE AND **ENVIRONMENTAL PROBLEMS 3**

- Physical versus Behavioral Technology 4
- Environmentally Relevant Behaviors 5
- A Framework for Examining Behavior 6
- Summary 10

CHAPTER 2 ENVIRONMENTALLY RELEVANT **PSYCHOLOGY 11**

- Environmental Relevance: A Matter of Degree 11
- A Taxonomy of Environmental Problems and
Relevant Behaviors 15
- Environmentally Relevant Psychology:
A Definition 18
- Summary 20

PART II **AN APPLIED BEHAVIOR-ANALYTIC APPROACH TO** **ENVIRONMENTALLY RELEVANT BEHAVIORAL** **SCIENCE 23**

CHAPTER 3 BASIC PRINCIPLES OF BEHAVIOR 25

- Two Types of Behavior 25
- Increasing Behavior 26
- Decreasing Behavior 28
- Stimulus Control 30
- Timing the Stimulus Change 30

xiv CONTENTS

Scheduling the Stimulus Change	31
Schedules Based on Single Responses of More Than One Person	33
Applying the Basic Principles	34
Summary	35

**CHAPTER 4 RESEARCH STRATEGIES AND DESIGNS IN
THE DEVELOPMENT OF BEHAVIORAL SOLUTIONS 36**

The Correlational/Descriptive Strategy	38
Experimental/Manipulative Strategies	41
Measuring the Dependent Variable	50
Summary	50

**PART III
SOLVING PROBLEMS OF ENVIRONMENTAL AESTHETICS 53**

**CHAPTER 5 ENVIRONMENTAL AESTHETICS: LITTER
AND ENVIRONMENTAL DESIGN 55**

Litter	55
Designing Environments to Minimize Litter and Perpetuate Their Own Attractiveness	74
Summary	80
Suggested Projects	81

CHAPTER 6 NOISE AND ITS CONTROL 85

Sound and Its Measurement	86
The Definition of Noise	88
The Effects of Noise	90
The Control of Noise	92
Summary	103
Suggested Project	103

**PART IV
SOLVING HEALTH-RELATED AND RESOURCE-RELATED
ENVIRONMENTAL PROBLEMS 105**

CHAPTER 7 POPULATION CONTROL 107

The Ethics of Population Control	108
Views on Population Control	110
Research Issues	114
Family-Planning Programs	116

Cambridge University Press

978-0-521-31973-7 - Environmental Problems/Behavioral Solutions

John D. Cone and Steven C. Hayes

Frontmatter

[More information](#)

Summary	125
Suggested Project	125

CHAPTER 8 RECYCLING 127

The Problem of Waste: Why Recycle?	127
The Factors Inhibiting Recycling	130
Methods of Waste Reduction and Resource Recovery	133
Summary	148
Suggested Project	148

CHAPTER 9 TRANSPORTATION 149

The Energy Used in Transportation	149
Altering the Use of Mass-Transit Systems	150
Altering the Use of Automobiles	156
Reducing Fuel Usage in Fleet-Operated Trucks	161
Issues in Altering Transportation Behavior	162
Summary	167
Suggested Projects	168

CHAPTER 10 RESIDENTIAL ENERGY CONSERVATION 173

Altering Overall Energy Consumption in Individual Residences	175
Altering Specific Energy-Related Behaviors	193
Reducing Energy Consumed in Master-Metered Housing	195
Summary	197
Suggested Project	198

CHAPTER 11 RESIDENTIAL WATER CONSERVATION 199

Major Uses of Water in the Home	201
Water-Saving Devices	201
Deterrents to Residential Water Conservation	206
What Can Behavior Analysts Do about Water Conservation?	210
Summary	213
Suggested Projects	214

PART V**PROMOTING THE USE OF BEHAVIORAL APPROACHES TO ENVIRONMENTAL PROBLEMS 219**

CHAPTER 12 THE GENERALITY OF BEHAVIORAL SOLUTIONS 221

- Types of Generality 222
- Evidence for the Generality of Behavioral Solutions 222
- Tactical Considerations in Behavioral Solutions 228
- Contributions of Reactive Research to Behavioral Solutions 229
- Prevention of the Development of Environmentally Destructive Behavioral Repertoires 231
- An Eco-Systems Perspective 232
- Summary 232

CHAPTER 13 PROMOTING BEHAVIORAL-SCIENCE IMPACT THROUGH EXPERIMENTAL SOCIAL REFORM 234

- Systems-Level Contingencies 234
- How Can We Influence Systems? 237
- Behavioral Experimentation: How, What, and Why? 238
- What Does the Behavioral Scientist Need? 240
- Issues in the Pursuit of Behavioral Solutions 241
- The Future of Environmentally Relevant Psychology 243

- Glossary 244
- References 250
- Author Index 267
- Subject Index 273

Cambridge University Press

978-0-521-31973-7 - Environmental Problems/Behavioral Solutions

John D. Cone and Steven C. Hayes

Frontmatter

[More information](#)



Environmental Problems/ Behavioral Solutions