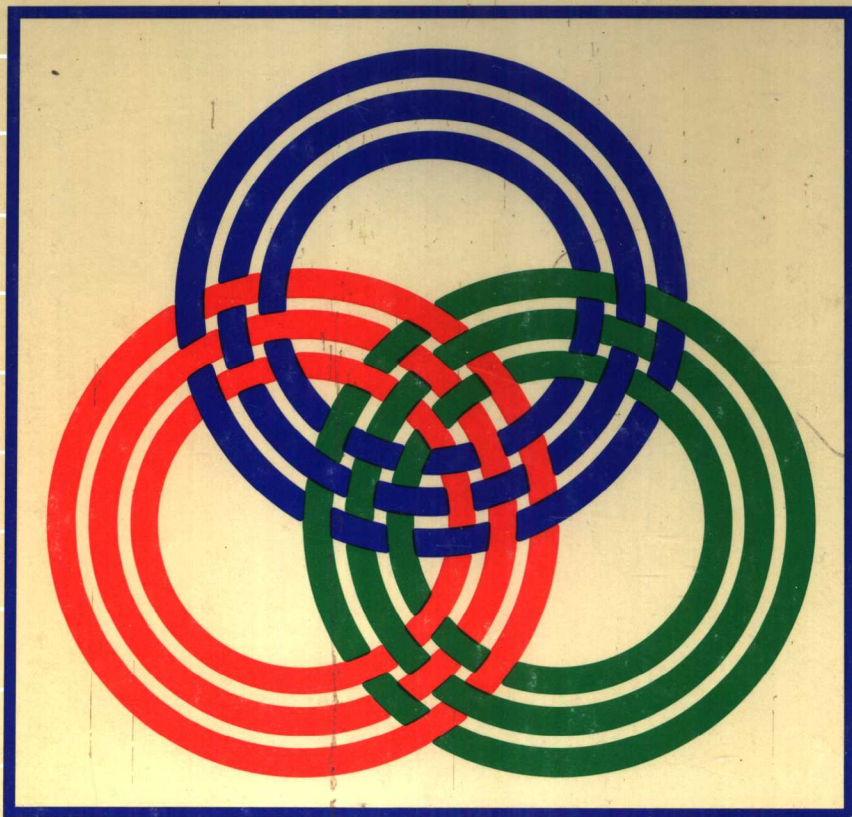


# *Psychology and Sport Behavior*



ANNE MARIE BIRD



BERNETTE K. CRIPE

# PSYCHOLOGY AND SPORT BEHAVIOR

**ANNE MARIE BIRD, Ph.D.**

Professor  
Department of Health, Physical Education and Recreation  
California State University, Fullerton  
Fullerton, California

**BERNETTE K. CRIPE, M.S.**

Formerly Assistant Professor and Chair  
Department of Physical Education and Recreation  
Whittier College  
Whittier, California

*with 60 illustrations*

Editor: Nancy K. Roberson  
Developmental editor: Kathy Sedovic  
Editing supervisor: Judi Wolken  
Manuscript editor: Mark Spann, Melissa Neves  
Designer: Diane M. Beasley  
Production: Kathleen L. Teal

Copyright © 1986 by Times Mirror/Mosby College Publishing

A division of The C.V. Mosby Company  
11830 Westline Industrial Drive  
St. Louis, Missouri 63146

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from the publisher.

Printed in the United States of America

#### Library of Congress Cataloging in Publication Data

Bird, Anne Marie.

Psychology and sport behavior.

Includes bibliographies and index.

I. Sports—Psychological aspects. I. Cripe,  
Bernette K. II. Title.

GV706.4.B57 1986 796'.01 85-10538

ISBN 0-8016-0600-4

GW/VH/VH 9 8 7 6 5 4 3 2 1 01/B/045

We finally found a way  
to say a special thanks to two dear friends.  
This book is dedicated to  
Barbara and Lou.

---

# PREFACE

During the past decade the field of sport psychology has experienced an explosion of knowledge. This advancement can be seen in both the expansion of the scientific basis and the increase in clinical applications. *Psychology and Sport Behavior* is the first text to fully cover the topics of most contemporary concern in an integrated fashion. It is designed for undergraduate major classes and introductory graduate courses in sport psychology. Its reliance on a strong research base coupled with a very readable writing style should make it appealing to both students and professors. Listed below are some reasons why we think this book is unique and innovative.

## **A Personal Approach**

Anyone who has participated in sport competition, whether it be a weekend athlete, a little league player, or a varsity athlete, has some personal understanding of why sport psychology is so important to athletic success. We have attempted to capitalize on the personal experiences of the reader by using a writing style that personalizes the information presented and allows the student to relate to the examples provided. Such an approach should help to stimulate student interest and understanding.

## **Practical Orientation**

Incorporated into every chapter are multiple practical examples and applications. This strategy further personalizes the information presented, since students can actually implement sport psychology principles within their own activities or when working with others.

## **Up-To-Date Presentation of Topics**

This book represents the most current thinking and research evidence in the field. Similarly, the topics covered are those currently receiving the widest research and clinical attention.

## **Comprehensive Coverage of Topics**

We believe that a student's initial exposure to sport psychology should be one that emphasizes breadth without ignoring the necessary scientific and theoretical frameworks. It is this contemporary blend of the scientific and the practical that contributes so much to the uniqueness of this book. Also we cover topics never systematically offered in

---

previous texts (intervention strategies, imagery, attentional style), as well as the more traditional issues.

### **Organization**

No previous text in sport psychology reflects the timely and comprehensive approach taken in this book. The book is organized into four sections. Section I initially introduces the student to the field of sport psychology and the basic concepts and vocabulary of scientific inquiry. Some professors may want to skip over that preliminary material in favor of getting directly to the "meat" of sport psychology such as the overview of the traditional perspectives used to describe sport behavior, which is presented in the following chapter. Traditional perspectives include behaviorism, trait psychology, and interactionism. Section II first discusses the important and interesting topics of arousal and anxiety in sport situations. Then intervention strategies that can be used to help people learn to cope with competitive stress are introduced. Section III presents the most current issues in the emerging field of cognitive sport psychology. Chapters address the processes of attentional style, observational learning, imagery, and motivation. Section IV discusses sport aggression, group performance, and the coach's leadership style. Taken together, the content of the book provides a conceptual framework for understanding and changing the behaviors of performers, teams, and coaches. Chapter organization should facilitate understanding not only by systematically developing a particular concept, but also by going one step further and illustrating its application.

### **Pedagogical and Design Features**

The appeal and uniqueness of this book are enhanced through the systematic incorporation of several innovative and useful pedagogical and design features.

**Unifying model.** The unifying model is presented in eight of the twelve chapters. It was developed specifically for this text to facilitate understanding of individual difference variables such as anxiety and cognitive processes such as observational learning and imagery. Its explicit purpose is to assist the student in the formulation of a unified conceptualization of important concepts and processes. It provides students with a visual representation that summarizes the written text. Having used this approach with undergraduate students ourselves, we can say with some real enthusiasm that *it works!*

**Chapter openers.** The introduction to each chapter is designed to alert the reader to

the content to follow. Whenever possible, questions are posed to draw the student's interest and stimulate the desire to learn the answers.

**Case studies.** Each chapter includes one or more case studies. These are realistic situations that motivate the student to apply the principles identified in the chapter. The case studies present actual, practical situations with which the reader can easily identify.

**Chapter summaries.** At the end of each chapter a summary is provided. It highlights the most important concepts and issues. The summary should also serve as a valuable review before examinations.

**Figures and tables.** Specially selected photographs are used at the opening of each chapter. Each should help to focus the student's attention on the topic to follow. Multiple figures and tables are used throughout the text. They highlight, summarize, and illustrate important concepts.

**Implications for sport sections.** Every chapter presents a specific section on how the student can apply the chapter content in sport settings. Implications are drawn in regard to athletes, teams, and coaching behaviors.

**Glossaries.** Key terms are presented in boldface in the text and reemphasized and defined in the chapter glossary. These key terms are presented once again in a comprehensive glossary located at the end of the book for easy accessibility to the student.

**Review questions.** At the end of each chapter thought-provoking questions are posed. They provide a vehicle for both review and further analysis of the material presented earlier in the chapter.

**Annotated readings.** The annotated readings are primarily designed to direct the student to sources for additional reading or study. Generally, the selections either extend or apply the material presented in the text. The annotations provide useful synopses to promote student interest.

**References.** The reference list at the end of the text mirrors both the foremost traditional sources and the most current studies, reflecting the "cutting edge" of the field.

## Acknowledgments

A book of this import is never really the work of only the authors. Many individuals contribute either through their own research efforts, their technical expertise, or their personal encouragement. Although we cannot express our appreciation to each person individually, several deserve particular recognition.

We wish to express our sincere appreciation to the publisher's reviewers for their significant contributions to the quality of this book:

Steven Houseworth, Ph.D., University of Kansas  
Sharon A. Mathes, Ph.D., Iowa State University  
Gerald DeMers, Ph.D., Washington State University  
David B. Wardell, Ph.D., University of Colorado-Boulder  
Dean Ryan, Ed.D., University of California-Davis  
William Kozar, Ph.D., Texas Tech University  
Evelyn Hall, Ph.D., Louisiana State University-Baton Rouge  
David P. Yukelson, Ph.D., University of Houston  
Julius Gundershiem, Ph.D., University of Massachusetts-Amherst  
Margaret Faulkner, Ph.D., Towson State University  
Sherman Button, Ph.D., Boise State University

We are both impressed by and indebted to the very fine editorial staff of our publisher. In particular we appreciate the excellent work done by Nancy K. Roberson, Kathy Sedovic, and Mark Spann.

We are very appreciative of the sensitive and creative photography done by Dr. Judith Brame and Dr. Ann Stutts. We would also like to thank Steve Boaz for his initial assistance with the indexing of this book.

Finally, we would like to express our appreciation to the many friends, students, and colleagues who expressed both interest in and encouragement for our project.

Anne Marie Bird  
Bernette K. Cripe



# CONTENTS

## SECTION I

---

### THE SCIENTIFIC BASIS OF SPORT PSYCHOLOGY

---

#### **1 Scientific Dimensions of Sport Behavior, 2**

- Development of Sport Psychology, 3
- Principles of Scientific Inquiry, 4
- Basic Scientific Concepts and Vocabulary, 6
- Fundamental Types of Research, 11
- Implications for Sport, 14
- Case Study 1, 15
- Case Study 2, 15
- Summary, 15
- Discussion Questions, 16
- Glossary, 16
- Suggested Readings, 17

#### **2 Perspectives on Understanding Sport Behavior, 20**

- Behaviorism and Sport, 21
- Trait Psychology and Personality in Sport, 27
- Interactionism and Sport Behavior, 37
- Implications for Sport, 41
- Case Study 1, Applied Behavioral Coaching, 41
- Case Study 2, Low Basketball Free Throw Performance and the Unifying Model, 43
- Summary, 44
- Discussion Questions, 44
- Glossary, 45
- Suggested Readings, 45

## SECTION II

---

### AROUSAL, ANXIETY, AND INTERVENTIONS IN SPORT

---

#### **3 Arousal and Sport Behavior, 50**

- The Nature of Arousal, 51
- Conflicting Theoretical Explanations, 51

---

The Unifying Model and the Measurement of Arousal, 59  
Applications to Motor, Sport, and Exercise Behavior, 62  
Implications for Sport, 72  
Case Study 1, Using Cue Reduction Feedback to Reduce Arousal, 72  
Case Study 2, Novelty Drills for Increased Motivation in Basketball, 73  
Summary, 74  
Discussion Questions, 75  
Glossary, 75  
Suggested Readings, 76

#### **4 Anxiety, Motor Performance, Sport, and Exercise, 78**

Types of Anxiety, 79  
The Competitive Process and Precompetitive Anxiety, 80  
The Unifying Model and the Anxiety Process, 83  
Contemporary Perspectives on Anxiety and Motor Skills, 84  
Competitive Anxiety and Sport Behavior, 89  
Implications for Sport, 105  
Case Study 1, Gymnastics and Precompetitive Practice, 106  
Case Study 2, Competitive Stress and Youth Soccer, 107  
Case Study 3, Anxiety and Evaluation Potential in Discus Performance, 107  
Summary, 108  
Discussion Questions, 109  
Glossary, 109  
Suggested Readings, 110

#### **5 Intervention Strategies and Sport Behavior, 112**

Selecting and Designing Intervention Approaches, 113  
Selected Intervention Strategies, 114  
Stress and the Unifying Model, 131  
Implications for Sport, 133  
Case Study 1, A Stress Management Training Program for a College Football Team, 134  
Case Study 2, Stress Inoculation for a High School Basketball Player, 136  
Summary, 137  
Discussion Questions, 139  
Glossary, 139  
Suggested Readings, 139

## SECTION III

---

**COGNITIVE PROCESSES AND SPORT BEHAVIOR**

---

**6 Attention, Attentional Style, and Sport Behavior, 146**

- A Brief Overview of Attentional Constraints, 147
- Attention and Skill Level, 149
- Attentional Style as an Individual Difference Variable, 149
- Methodological Issues, 152
- Attentional Style and Anxiety, 154
- Current Issues and Concerns, 156
- Attentional Factors Related to Coaching Effectiveness, 156
- Implications for Sport, 162
- Case Study 1, Attention Control for Athletes, 163
- Case Study 2, Attentional Style and Volleyball Performance, 164
- Case Study 3, Narrow-External Focus: Tennis Drills, 165
- Case Study 4, Anxiety, Attentional Focus, and the Tennis Serve, 165
- Summary, 166
- Discussion Questions, 167
- Glossary, 167
- Suggested Readings, 168

**7 Observational Learning and Motor Performance, 170**

- The Nature of Observational Learning, 171
- Early Theoretical Interpretations, 172
- Social Learning Theory, 173
- The Observational Learning of Motor Skills, 181
- Implications for Sport, 188
- Case Study 1, Observational Learning and Motor Skill Acquisition, 189
- Case Study 2, Observational Learning and Motor Skill Refinement, 190
- Summary, 191
- Discussion Questions, 192
- Glossary, 192
- Suggested Readings, 193

**8 Imagery, Sport, and Motor Behavior, 194**

- The Nature of Imagery, 195
- Theoretical Interpretations of the Imagery Process, 197
- Factors Influencing Imaginal Rehearsal, 201
- Imagery and the Unifying Model, 208
- Implications for Sport, 211
- Case Study 1, Imaginal Rehearsal of a Golf Putt, 211
- Case Study 2, Imaginal Rehearsal Designed for Gaining Control, 212
- Summary, 214
- Discussion Questions, 215
- Glossary, 215
- Suggested Readings, 215

**9 Cognitive Basis of Motivation in Sport, 218**

- Competence and Intrinsic Motivation, 219
- Attribution Theory, 225
- Self-efficacy Theory, 230
- Motivation and the Unifying Model, 235
- Implications for Sport, 237
- Case Study 1, Teaching and Coaching for Sport Mastery, 238
- Summary, 239
- Discussion Questions, 240
- Glossary, 241
- Suggested Readings, 242

**SECTION IV**

---

**AGGRESSION, GROUP PERFORMANCE, AND COACHING BEHAVIOR**

---

**10 Aggression and Sport, 246**

- The Nature of Aggression, 247
- Theoretical Explanations of Aggression, 248
- Player-Related Variables, 253
- Game-Related Variables, 257
- Collective Aggression, 258
- Implications for Sport, 260
- Case Study 1, The Overly Aggressive Basketball Player, 262
- Summary, 264
- Discussion Questions, 265
- Glossary, 265
- Suggested Readings, 266

**11 Sport Group Productivity and Process, 268**

- Group Productivity, 269
- Cohesion and Sport Group Performance, 274
- Implications for Sport, 279
- Case Study 1, Social Loafing, Player Identifiability, and Football Performance, 280
- Case Study 2, A Cohesion-Building Program for Interacting Sport Teams, 280
- Summary, 281
- Discussion Questions, 281
- Glossary, 282
- Suggested Readings, 283

**12 Leadership and Coaching Behavior, 284**

- Perspectives on Leadership, 285
- Interpersonal Compatibility, 296
- Implications for Sport, 301
- Case Study 1, Situational Leadership Theory and Coaching Style, 302
- Case Study 2, Contingency Theory and Coaching Style, 303
- Summary, 304

Discussion Questions, 305

Glossary, 306

Suggested Readings, 307

**Glossary, 308**

**References, 316**

# THE SCIENTIFIC BASIS OF SPORT PSYCHOLOGY

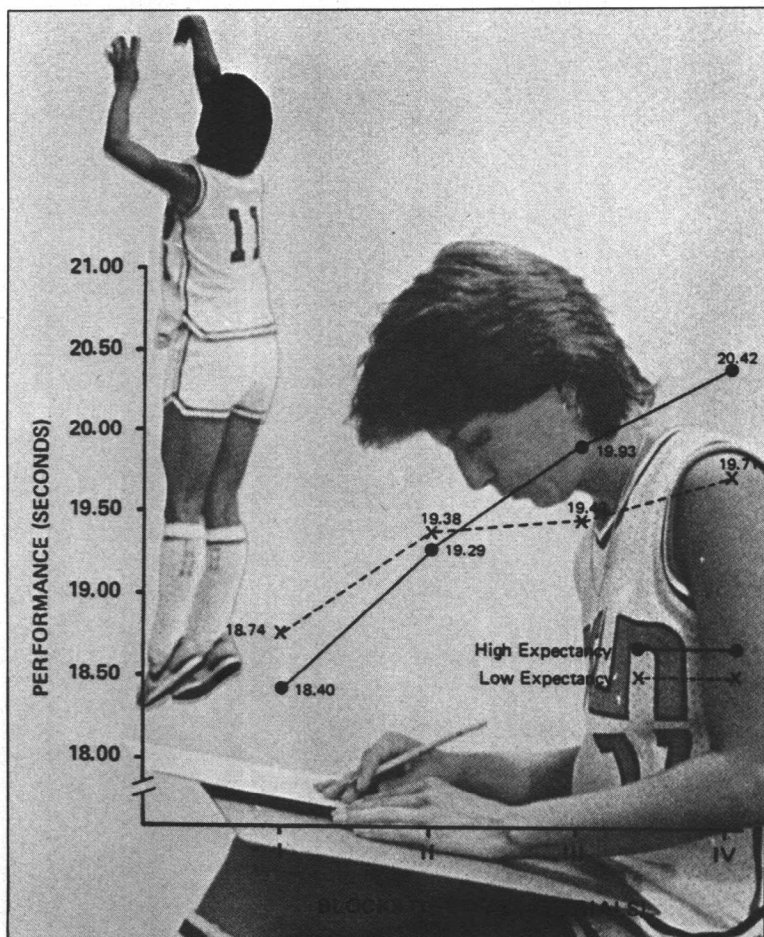
## 1

Scientific Dimensions of  
Sport Behavior

## 2

Perspectives on Understanding  
Sport Behavior

# SCIENTIFIC DIMENSIONS OF SPORT BEHAVIOR



---

Comparatively speaking, the field of sport psychology is quite young; although some studies on athletes were conducted from the 1920s through the 1960s, they were mostly done on a "one shot" basis. Systematic programs of research did not take place until about 1970. Today, however, the field is an exciting, multidimensional one for researchers, coaches, teachers, and athletes alike. Sport psychology research efforts address questions about individual behavior as it occurs in sport and other movement settings: "How do psychological factors affect sport behavior?" "How do sport experiences influence psychological variables?"

In pursuit of answers to such questions, sport psychologists use research methods common to all behavioral sciences. They follow a series of steps to describe, explain, predict, and ultimately change behavior in the hope of developing theories that can further our understanding of individual behavior in sport and movement settings. That knowledge can then be applied to modify negative psychological influences or enhance skilled performance. Without a solid grounding in both the method of science and current knowledge in aspects of sport psychology research, it is not possible to have a clear understanding of how individual sport behavior can be improved.

This chapter introduces you to the historical development of the field of sport psychology and to several aspects of the scientific process. A discussion of the concepts and vocabulary associated with scientific inquiry is included because this knowledge is crucial to a full appreciation of the nature of contemporary sport psychology.

---

## DEVELOPMENT OF SPORT PSYCHOLOGY

---

Most of the early sport psychology research focused on attempts to link personality or character with participation in athletics. As such, the majority of those early investigations were designed to compare the personalities of athletes with those of nonathletes.

When few definitive trends emerged from personality-based research, sport psychologists became disheartened with that approach and began to argue that a better avenue for understanding psychological aspects of individual sport behavior might be theory testing. Throughout most of the 1970s sport psychologists searched the literature for theories in the parent discipline of psychology that might also be applicable to motor skills. A good example of such theory borrowing is the use of social facilitation theory, which provided testable predictions of how the presence of other people should affect both initial skill acquisition and later skill performance. The most fundamental prediction was that the presence of other persons should be disruptive to early skill acquisition but facilitative to later (more highly skilled) performance. Much of this theory testing took place in laboratory settings, and the early laboratory-based results were promising in terms of developing sport psychology as a scientific field. Unfortunately, when those

---



same predictions were taken to field settings for reality testing, little was uncovered in terms of practical applications to sport behavior.

As a result of the difficulties in applying theories such as social facilitation to sport, theory testing of this nature was almost totally abandoned by sport psychologists in the late 1970s and early 1980s (Landers, 1983). Researchers began to ask more clinical questions such as "How should the coach intervene to enhance athletic performance?" "How does mental practice or imagery affect sport performance?" "How can relaxation or biofeedback assist in the management of sport-related stress?" Many researchers also studied coach-athlete compatibility and the relationship between team cohesion and team outcome.

As a consequence of this more clinical approach to sport psychology, the field has moved closer to answering the questions posed most frequently by coaches. This is certainly desirable; however, a distinct vacuum in sport psychology theory still exists. When sport psychologists rejected theory testing in favor of more humanistic concerns they also almost eliminated any systematic attempts at building theoretical understandings of sport-related behavior. Such theory building is critical to providing a sound basis on which to draw the methods and strategies used to intervene or change behavior within sport settings.

On the other hand, many of today's leading researchers in the field are again arguing for and actively engaging in research that can lead to development of new theories that are unique to individual sport behavior. Research is taking place on the playing field, in the gymnasium, and in the laboratory. Questions are being answered for both practical and theoretical reasons. It is hoped that the next decade will continue to see much more sport-specific theory building as the discipline of sport psychology matures as a science in its own right, ultimately complete with its own theories and its own sound clinical principles.

---

## PRINCIPLES OF SCIENTIFIC INQUIRY

---

To more clearly understand how a science develops and why theory development is so important, it is necessary to understand certain aspects of science and scientific inquiry. If sport psychology is to be considered a legitimate science, then it must use the methods and vocabulary common to all sciences. Throughout the text you will encounter common scientific vocabulary. We hope that by explaining the vocabulary, methods, and strategies of scientific inquiry in this chapter, you will be free to concentrate on the pertinent topics and issues presented in the rest of this text.

The unit of analysis in sport psychology is *individual behavior as it occurs in sport situations*. To achieve an understanding of that behavior, four steps must be followed.

### Description and Explanation

First, you must attempt to *describe* exactly how a person behaves in an identifiable situation. For instance, you might observe that when other people are watching, the strokes of a particular tennis player become stiff and erratic. Once you see that this