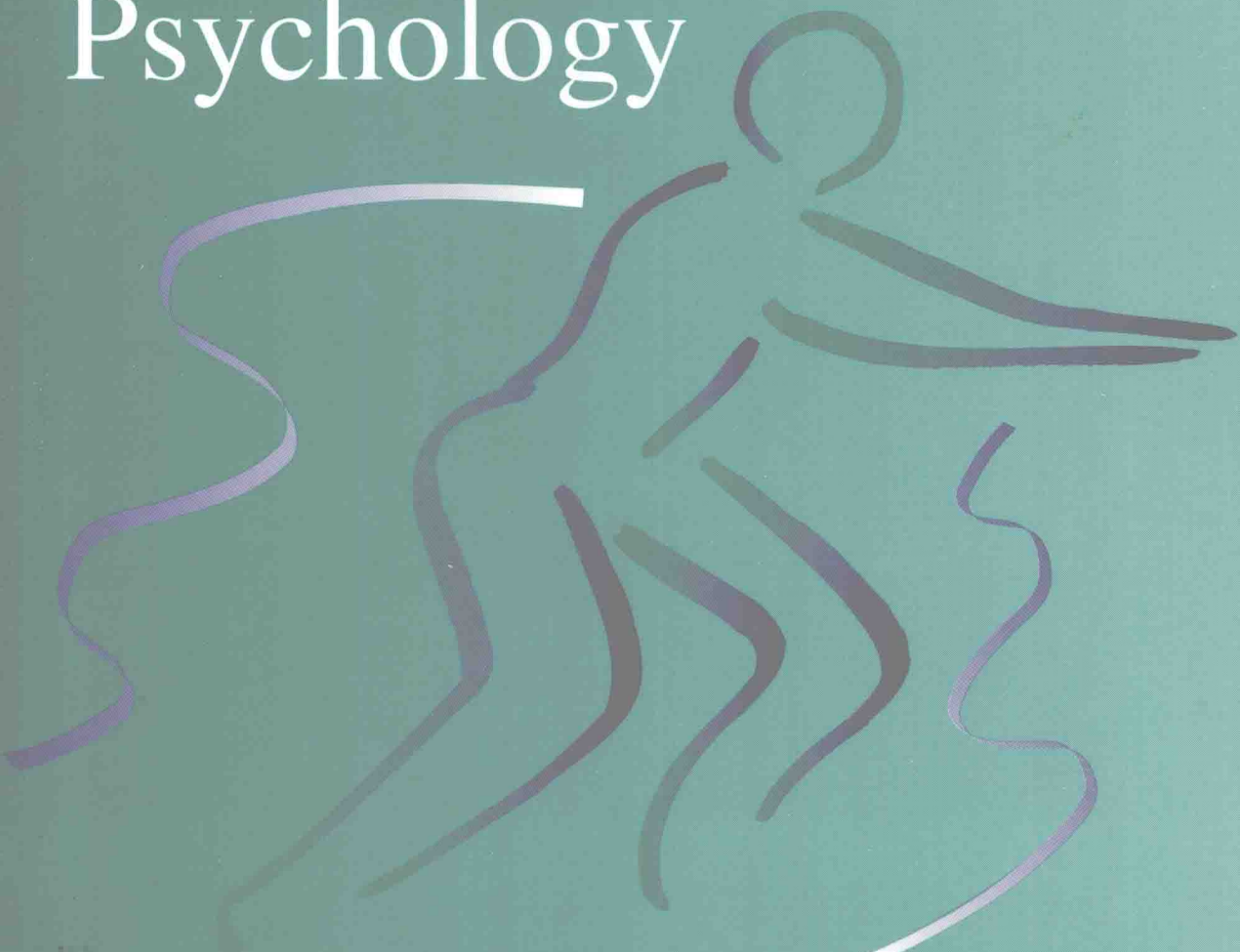


Exploring Sport and Exercise Psychology

Second
Edition

A stylized human figure is depicted in the center of the cover, composed of thick, flowing, wavy lines in shades of purple and blue. The figure is shown in a dynamic, forward-leaning posture, suggesting movement or exercise. The lines are thick and have a slight gradient, giving the figure a sense of motion and fluidity.

Edited by
Judy L. Van Raalte
Britton W. Brewer

Exploring
Sport
and
Exercise
Psychology

Second
Edition

Edited by
Judy L. Van Raalte
Britton W. Brewer

Copyright © 2002 by the American Psychological Association. All rights reserved. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

Published by
American Psychological Association
750 First Street, NE
Washington, DC 20002
www.apa.org

To order	Tel: (800) 374-2721; Direct: (202) 336-5510
APA Order Department	Fax: (202) 336-5502; TDD/TTY: (202) 336-6123
P.O. Box 92984	Online: www.apa.org/books/
Washington, DC 20090-2984	Email: order@apa.org

In the U.K., Europe, Africa, and the Middle East, copies may be ordered from
American Psychological Association
3 Henrietta Street
Covent Garden, London
WC2E 8LU England

Typeset in Futura and New Baskerville by EPS Group Inc., Easton, MD

Printer: Port City Press, Baltimore, MD
Cover Designer: Minker Design, Bethesda, MD
Technical/Production Editor: Casey Ann Reever

The opinions and statements published are the responsibility of the authors, and such opinions and statements do not necessarily represent the policies of the American Psychological Association.

Library of Congress Cataloging-in-Publication Data

Exploring sport and exercise psychology / edited by Judy L. Van Raalte, Britton W. Brewer.—2nd ed.

p. cm.

Includes bibliographical references and index.

ISBN 1-55798-886-2

1. Sports—Psychological aspects. 2. Exercise—Psychological aspects.

I. Van Raalte, Judy L. II. Brewer, Britton W.

[DNLM: 1. Sports—psychology. 2. Exercise—psychology. QT 260 E965 2002]

QV706.4.E96 2002

796'.01—dc21

2002020856

British Library Cataloguing-in-Publication Data

A CIP record is available from the British Library.

Printed in the United States of America
First Edition

In memory of Peter Van Raalte (1937–2000)

Contributors

Mark B. Andersen, PhD, School of Human Movement, Recreation, and Performance, Victoria University, Melbourne, Victoria, Australia

Patrick H. F. Baillie, PhD, Forensic Assessment and Outpatient Services, Calgary Health Region, Alberta, Canada

Beth C. Bock, PhD, Department of Psychiatry and Human Behavior, Miriam Hospital and Brown Medical School, Centers for Behavioral and Preventive Medicine, Providence, RI

Britton W. Brewer, PhD, Department of Psychology, Springfield College, Springfield, MA

Kevin L. Burke, PhD, Department of Health and Kinesiology, Georgia Southern University, Statesboro

Matthew M. Clark, PhD, ABPP, Department of Psychiatry and Psychology, Mayo Clinic, Rochester, MN

Karen D. Cogan, PhD, Center for Sport Psychology and Performance Excellence, Department of Psychology, University of North Texas, Denton

Nicole Damarjian, PhD, Department of Kinesiology, University of Connecticut, Storrs

Steven J. Danish, PhD, Life Skills Center, Department of Psychology, Virginia Commonwealth University, Richmond

David A. Dzewaltowski, PhD, Department of Kinesiology and Research and Extension Office of Community Health, Kansas State University, Manhattan

T. David Elkins, PhD, Department of Psychiatry and Human Behavior, University of Mississippi Medical Center, Jackson

Paul A. Estabrooks, PhD, Department of Kinesiology and Research and Extension Office of Community Health, Kansas State University, Manhattan

- Robert J. Fazio, PhD**, Department of Psychology, Virginia Commonwealth University, Richmond
- Daniel Gould, PhD**, Department of Exercise and Sport Sciences, University of North Carolina–Greensboro
- Christy Greenleaf, PhD**, Department of Kinesiology, Health Promotion, and Recreation, University of North Texas, Denton
- Nancy C. Gyurcsik, PhD**, Department of Kinesiology and Research and Extension Office of Community Health, Kansas State University, Manhattan
- Kate F. Hays, PhD**, The Performing Edge, Toronto, Ontario, Canada
- Judy A. Johnston, MS, RD/LD**, Department of Preventive Medicine, Research and Extension Office of Community Health, Kansas State University, School of Medicine, Wichita
- Douglas P. Jowdy, PhD**, Head, Sport and Exercise Psychology Program, Argosy University, Phoenix, AZ
- Thad R. Leffingwell, PhD**, Department of Psychology, Oklahoma State University, Stillwater
- Michael J. Mahoney, PhD**, Department of Psychology, University of North Texas, Denton, and Saybrook Graduate School and Research Center, San Francisco, CA
- Bess H. Marcus, PhD**, Psychiatry and Human Behavior, Centers for Behavioral and Preventive Medicine, Brown University, Providence, RI
- Sean C. McCann, PhD**, Head, Sport Psychology Department, Coaching and Sport Sciences Division, U.S. Olympic Committee, Colorado Springs, CO
- Penny McCullagh, PhD**, Department of Kinesiology and Physical Education, California State University, Hayward
- Andrew W. Meyers, PhD**, Department of Psychology, University of Memphis, TN
- William P. Morgan, EdD**, Department of Kinesiology, Exercise Psychology Laboratory, University of Wisconsin, Madison
- Melissa A. Napolitano, PhD**, Miriam Hospital and Brown Medical School, Behavioral and Preventive Medicine, Providence, RI
- Valerie C. Nellen, PhD**, Department of Psychology, Virginia Commonwealth University, Richmond
- John M. Noble, PhD**, School of Health, Physical Education, and Recreation, University of Nebraska, Omaha
- Bruce C. Ogilvie, PhD**, Professor Emeritus, Department of Psychology, San Jose State University, Los Gatos, CA

- Susanna S. Owens, PhD**, Department of Psychology, Virginia Commonwealth University, Richmond
- Frank M. Perna, PhD**, Department of Psychiatry, Boston Medical Center, MA
- Albert J. Petitpas, EdD**, Psychology Department and Director of the National Football Foundation Center for Youth Development through Sport, Springfield College, Springfield, MA
- Trent A. Petrie, PhD**, Center for Sport Psychology and Performance Excellence, Department of Psychology, University of North Texas, Denton
- Bernadine M. Pinto, PhD**, Miriam Hospital and Brown Medical School, Centers for Behavioral and Preventive Medicine, Providence, RI
- Wes Sime, PhD**, Health and Human Performance, University of Nebraska, Lincoln
- Robert N. Singer, PhD**, Department of Exercise and Sport Sciences, University of Florida, Gainesville
- Robert J. Smith, PhD**, psychologist in private practice, Waltham, MA
- Ronald E. Smith, PhD**, Department of Psychology, University of Washington, Seattle
- Frank L. Smoll, PhD**, Department of Psychology, University of Washington, Seattle
- Jim Taylor, PhD**, Alpine Taylor Consulting, San Francisco, CA
- Judy L. Van Raalte, PhD**, Department of Psychology, Springfield College, Springfield, MA
- Robert S. Weinberg, PhD**, Department of Physical Education, Health and Sport Studies, Miami University, Oxford, OH
- Maureen R. Weiss, PhD**, Kinesiology Program, Curry School of Education, University of Virginia, Charlottesville
- James P. Whelan, PhD**, Department of Psychology, University of Memphis, TN
- Jean M. Williams, PhD**, Department of Psychology, University of Arizona, Tucson
- Gregory S. Wilson, PEd**, Department of Human Kinetics and Sport Studies, University of Evansville, IN
- Leonard Zaichkowsky, PhD**, School of Education, Boston University, MA
- Samuel Zizzi, EdD**, Department of Sport and Exercise Psychology, West Virginia University, Morgantown

Foreword

Future historians of psychology are likely to view the 20th century as a formative period during which some of the major themes in the profession were first developed. One of those themes has been the relationship between the mind and the body. That relationship has been a central issue in psychology since its emergence as a separate discipline. Indeed, it is not coincidental that psychology's conceptual parents—philosophy and physiology—represented the polar extremes of this contrast. The mind–body dichotomy became an issue primarily because of the difficulties in conceptualizing an interaction between metaphysical and physical realms. This separation, technically termed *dualism*, has been prevalent in Western civilization since the times of Pythagoras and became formalized and enshrined by René Descartes. Dualism became an intractable problem: How was it possible for a nonmaterial mind to influence the material substance of the body? And how did the experiences of that body make their way from the physical to the mental realm? Proposed answers to questions like these have taken a variety of forms, each of which has had its share of adherents and detractors in the history of psychology.

In the second half of the 19th century, influential pioneers in psychology defined their work and the field itself as studies of consciousness. The pendulum of focus was on the mind's side of the dichotomy. As Wilhelm Wundt's voluntarism and E. B. Titchener's structuralism gave way to the post-Darwinian tradition of functionalism, however, the pendulum moved toward the bodily side. The rise of behaviorism marked the beginning of an anti-mind era, and this was the dominant position in North American psychology for the first half of the 20th century. Private events were largely banished from experimental psychology, and the "black box" of mental life was deemed unimportant to the allegedly "real science" of studying functional relations be-

tween stimulus (input) and response (output). The pendulum began its return journey around 1955 and, in the 1970s, psychology and other disciplines were in the throes of a sweeping “cognitive revolution.” Beginning with studies in cybernetics and information processing, the cognitive sciences gained momentum and voice. The paradigms of connectionism and constructivism became second and third waves in the cognitive revolution, and the pendulum seemed destined toward the mind side again.

But something else happened. It was an unexpected and, in many ways, unprecedented something. The pendulum of focus broke out of its fixed path of alternations between mind and body. Instead of swinging in a straight line of separation between these two poles, the pendulum began swinging toward a circle that connected mind and body in an integrative way. Signs of this new development were popping up everywhere. The “dry look” in neurobiology, which had likened the brain and nervous system to an electronic circuit board, began to give way to the “wet look” of a nervous system literally bathed in fluids that connected it with the body. Respected brain scientists like Roger Sperry, who had previously endorsed an interactionist position on mind–body relations, began to encourage a new position that moved beyond the Cartesian assumption of dualism. The tradition of rationalist supremacy, which had placed reason above and in control of the body and its passions, was challenged by research emphasizing the power and pervasiveness of emotion in attention, perception, learning, and memory.

George Lakoff, Mark Johnson, and Antonio Damasio were among a creative group of theorists and researchers who documented that the body is in the mind no less than the mind is in the body. Developmental psychologists showed that infants used their bodily movements to establish communicative channels with their caregivers long before their development of language. Esther Thelen introduced the “new look” in motor development, showing how children display complex and dynamic self-organizing processes that defy any meaningful segregation of brain and body. The doctrine of cerebral primacy, which assumed that development and evolution were led by the head, receded in the face of evidence that body and brain development are integrated phenomena. Health psychology and sport psychology came to be recognized as legitimate and promising specializations that reflected this more integrative view.

The body is back, and so is the mind. They are not separate realms. They never were. It may be a long time before people develop a more

adequate vocabulary and language habits to address the complexity of body–brain processes, but I believe it is promising that recently steps have been taken toward liberating ourselves from the chains of dualism that have enslaved philosophy for more than two millennia and psychology for more than a century. There is still a long way to go, of course, but this should be an inspiring rather than daunting realization. Psychology is at the beginning of a new era, which promises to be filled with exciting insights that cannot be anticipated. To use the terminology now popular in the sciences of complexity, psychology is in the midst of a phase transition, in which old patterns of order are in the process of being incorporated (literally, embodied) into new patterns.

Dualistic notions about mind and body will not go away quickly or easily, and it is important that we realize the likelihood that dualistic conceptualizations probably served valuable functions in the early stages of reflective inquiry and psychological science. As tempting and popular as it may be to engage in “Descartes bashing,” it is wise to respect the roles that traditions play in all evolutions of our thinking. Philosopher Thomas Kuhn is best known for his work on the structure of scientific revolutions, but he was equally emphatic about the role of essential tensions in the development of knowledge. Revolutions require traditions as the targets of their revolts. Changes require enduring stabilities to define them. Recognizing this is central to the appreciation that all development is fundamentally dialectical—that is, that it emerges out of the interaction of contrasts. The embodiment of mind and the return of the body to psychology are developments that have emerged out of a series of long-standing contrasts regarding mind, body, and their possible relationships. New paradigms are now appearing that integrate and elaborate in ways that will break new ground in theory, research, and practice. And one of the areas in which such integrations and elaborations are particularly apparent is that of exercise and sport psychology. This volume represents a major contribution to that area, and I am honored to contribute to it.

To appreciate the significance of this volume, one must realize what it represents in the context of the emerging specializations of exercise and sport psychology. One does not have to go too far back to see why the range and depth of this volume are a welcome and timely contribution. The pioneering works of Norman Triplett in the 1890s and of Coleman Roberts Griffith in the 1920s have been around for close to a century, and yet the field of sport psychology has remained—until very recently—an undernourished specialization. For the first

three quarters of the 20th century, psychological studies of exercise and sport were rarely undertaken and even less frequently reported. Things began to change in the 1970s, however, and have continued accelerating since then. A popular rise in health consciousness among the public has encouraged that development. The “movement movement” placed new demands on psychologists interested in incorporating the body into their services.

It is interesting to reflect on exercise and sport psychology only a quarter of a century ago. Exercise was the domain of exercise scientists, and it was considered an esoteric interest. Neighborhood health clubs were rare and little used. Those exercise facilities that did exist were neither high-tech nor fashionable, and their clientele were few and predominantly male. Bicycle lanes, running and walking paths, and fitness equipment were very difficult to find. Shopping malls did not abound with stores selling athletic apparel, running shoes, and home gyms. In North America, at least, sport was largely ignored by psychology. There were no trained specialists in sport psychology, no training programs, and relatively few researchers or practitioners. There were a few psychologists, however, who found themselves focusing more and more on sport. They began to write about the multiple roles of sport in society and the impact of an audience or competitor on athletic performance, the contributions of sports involvement to children’s personality development, the existence of biases and preconceptions about women’s involvement in exercise and sport, and the effects of hypnosis on athletic training and sports performance. In those days there was precious little literature—either experimental or case study—to inform and assist practitioners interested in offering psychological services to athletes or in recommending exercise or movement to their clients. Practitioners were essentially on their own in shaping their services. Many important lessons were learned and, fortunately, many were conveyed in forms that eventually made them more accessible to the growing numbers of practicing exercise and sport psychologists.

Today there are a growing number of training programs that incorporate exercise and sport psychology as important elements in the preparation of mental health professionals. The era of “talking heads” psychotherapy is evolving to reflect a deep and working appreciation of embodiment in all human experiencing. How does the practitioner do this? How do psychologists help their clients to appreciate the significance of their bodies in their psychological lives? How do we assess their attitudes toward their bodies, eating, exercise, dance, touch, and so on?

How do we individualize recommendations for healthy activities that bring joy as well as fitness into their lives? How do we teach children to develop a relationship with sports, movement, and themselves that sings with a sense of sublime delight at their capacities for “being bodily?” How do we help athletes to enjoy and optimally express their gifts and their hard work in their performances? What are the needs of special populations that may be challenged? And how do we encourage and participate in research and the training of psychologists who are interested in questions such as these?

These are among the issues addressed in this second edition of the present volume. Here the reader has a well-balanced range of chapters on basic themes and contemporary issues in exercise and sport psychology. The authors are highly respected specialists, including some of the pioneers in the field, and all share invaluable knowledge and experience. The topics addressed are core themes, such as assessment, motivation, imagery, cognitive strategies, intensity regulation, hypnosis, exercise therapy, assessment, psychological problems, referral practices, work with children and special populations, professional training, certification, clinical practice, and ethics. This volume represents a wealth of expertise and information that will be invaluable to anyone interested in serving athletes or clients who choose to explore exercise as a path toward well-being. This is a contemporary classic, and it deserves wide readership and practical application.

Michael J. Mahoney

Preface

In preparing the first edition of this book, we attempted to survey the broad and ever-expanding field of sport and exercise psychology. We wanted to develop a highly readable text that would serve as a resource for professionals and students who were interested in learning more about the theoretical, empirical, and applied aspects of the field. To accomplish our goal, we enlisted experts across the diverse array of essential topics in sport and exercise psychology to write chapters.

For the second edition, we have made an effort to update the book with developments in the field that have occurred in the years since the first edition was published, to provide coverage of emerging areas of sport and exercise psychology, and to address important topics that were not included in the first edition. To guide our efforts in revising the book, we read reviews of the first edition, consulted with colleagues, and obtained feedback and suggestions from members of SPORTPSY, an online sport psychology discussion group. The input from these sources, as well as the thoughtful work of the chapter authors, has resulted in a significantly updated and revised book. Specifically, the second edition features an abundance of new references and case examples and three new chapters addressing implementation of comprehensive sport psychology interventions, modeling, and promotion of physical activity through community development.

The second edition retains the focus of the first edition on providing an overview of the field of sport and exercise psychology, connecting theory and practice, and discussing important practical issues related to credentialing and training. We hope that this new edition will provide readers with a strong foundation in sport and exercise psychology and serve as a springboard for further exploration of the field.

Acknowledgments

We undertook the editing of this second edition with high expectations. Through the efforts of a large group of talented people, our aspirations were fulfilled. We are indebted to the chapter authors, who worked diligently to ensure that they included the most current information available, met deadlines, made revisions, made further revisions, and produced outstanding chapters. Preparing this second edition was simplified by the invaluable advice and words of wisdom we received from several experienced authors and colleagues. Jean Williams and Kate Hays were particularly helpful in this regard.

We would again like to thank our mentors, Darwyn Linder and Paul Karoly, who taught us the basics and continue to support and inspire us. Our appreciation extends to our colleagues and students at Springfield College, especially Al Petitpas, who has been unflagging in his advocacy for our scholarly endeavors over the past decade, and Ruth Brennan, Bryan Gross, and Miki Oyler, who managed a mountain of information and facilitated communication with chapter authors.

We must also thank the dedicated professionals at APA Books who made this book possible. In particular, we are grateful to Gary VandenBos, whose strong support fueled the second edition, and to Susan Reynolds, Vanessa Downing, and Casey Reeve, whose vision and editorial expertise kept the project on a steady course. We also appreciate the thoughtful feedback we received from the anonymous reviews.

Finally, we thank our families, who remained supportive throughout the preparation of this volume.

Contents

	Contributors	xi
	Foreword	xv
	<i>Michael J. Mahoney</i>	
	Preface	xxi
	Acknowledgments	xxiii
Chapter 1	Introduction to Sport and Exercise Psychology	3
	<i>Britton W. Brewer and Judy L. Van Raalte</i>	
	Part I: Performance Enhancement	11
Chapter 2	Comprehensive Sport Psychology Services	13
	<i>Mark B. Andersen</i>	
Chapter 3	Goal Setting in Sport and Exercise: Research to Practice	25
	<i>Robert S. Weinberg</i>	
Chapter 4	Imagery Training for Peak Performance	49
	<i>Daniel Gould, Nicole Damarjian, and Christy Greenleaf</i>	
Chapter 5	Cognitive Strategies in Sport and Exercise Psychology	75
	<i>Jean M. Williams and Thad R. Leffingwell</i>	
Chapter 6	Intensity Regulation and Sport Performance	99
	<i>Jim Taylor and Gregory S. Wilson</i>	
Chapter 7	Observational Learning: The Forgotten Psychological Method in Sport Psychology	131
	<i>Penny McCullagh and Maureen R. Weiss</i>	

Chapter 8	Hypnosis in Sport and Exercise Psychology <i>William P. Morgan</i>	151
Part II: Promoting Well-Being		183
Chapter 9	Exercise Initiation, Adoption, and Maintenance in Adults: Theoretical Models and Empirical Support <i>Bess H. Marcus, Beth C. Bock, Bernadine M. Pinto, Melissa A. Napolitano, and Matthew M. Clark</i>	185
Chapter 10	Promotion of Physical Activity Through Community Development <i>David A. Dzewaltowski, Paul A. Estabrooks, Nancy C. Gyurcsik, and Judy A. Johnston</i>	209
Chapter 11	Guidelines for Clinical Application of Exercise Therapy for Mental Health Case Studies <i>Wes Sime</i>	225
Chapter 12	Counseling Interventions in Applied Sport Psychology <i>Albert J. Petitpas</i>	253
Chapter 13	Teaching Life Skills Through Sport: Community-Based Programs to Enhance Adolescent Development <i>Steven J. Danish, Robert J. Fazio, Valerie C. Nellen, and Susanna S. Owens</i>	269
Part III: Clinical Issues		289
Chapter 14	Assessment in Sport and Exercise Psychology <i>Sean C. McCann, Douglas P. Jowdy, and Judy L. Van Raalte</i>	291
Chapter 15	Psychopathology in Sport and Exercise <i>Britton W. Brewer and Trent A. Petrie</i>	307
Chapter 16	Referral Processes in Sport Psychology <i>Judy L. Van Raalte and Mark B. Andersen</i>	325

Part IV: Working With Specific Populations	339
Chapter 17 Youth Sports as a Behavior Setting for Psychosocial Interventions <i>Ronald E. Smith and Frank L. Smoll</i>	341
Chapter 18 Helping College Student–Athletes In and Out of Sport <i>Mark B. Andersen</i>	373
Chapter 19 Working With Elite Athletes <i>Patrick H. F. Baillie and Bruce C. Ogilvie</i>	395
Chapter 20 Diversity in Sport <i>Karen D. Cogan and Trent A. Petrie</i>	417
Part V: Professional Issues	437
Chapter 21 Education for Becoming a Sport Psychologist <i>Penny McCullagh and John M. Noble</i>	439
Chapter 22 Certification in Sport and Exercise Psychology <i>Samuel Zizzi, Leonard Zaichkowsky, and Frank M. Perna</i>	459
Chapter 23 Incorporating Sport and Exercise Psychology Into Clinical Practice <i>Kate F. Hays and Robert J. Smith</i>	479
Chapter 24 Ethics in Sport and Exercise Psychology <i>James P. Whelan, Andrew W. Meyers, and T. David Elkins</i>	503
Chapter 25 Sport and Exercise Psychology: A Positive Force in the New Millennium <i>Robert N. Singer and Kevin L. Burke</i>	525
Index	541
About the Editors	561