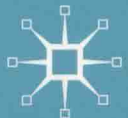


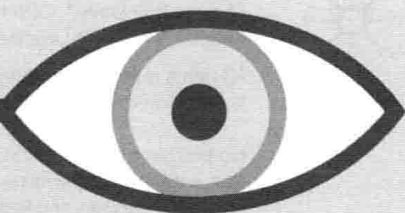
# Sport Psychology

David Tod,  
Joanne Thatcher  
and Rachel Rahman

**PALGRAVE  
INSIGHTS IN  
PSYCHOLOGY**

SERIES EDITORS:  
**NIGEL HOLT  
& ROB LEWIS**





# Sport Psychology

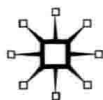
常州大学图书馆  
藏书章

David Tod,  
Joanne Thatcher  
and Rachel Rahman

**PALGRAVE  
INSIGHTS IN  
PSYCHOLOGY**

**SERIES EDITORS:  
NIGEL HOLT  
& ROB LEWIS**

palgrave  
macmillan



© David Tod, Joanne Thatcher, Rachel Rahman 2010  
Chapter 8 © Emily J. Oliver  
Chapter 9 © David Lavallee

All rights reserved. No reproduction, copy or transmission of this publication may be made without written permission.

No portion of this publication may be reproduced, copied or transmitted save with written permission or in accordance with the provisions of the Copyright, Designs and Patents Act 1988, or under the terms of any licence permitting limited copying issued by the Copyright Licensing Agency, Saffron House, 6–10 Kirby Street, London EC1N 8TS.

Any person who does any unauthorized act in relation to this publication may be liable to criminal prosecution and civil claims for damages.

The authors have asserted their rights to be identified as the authors of this work in accordance with the Copyright, Designs and Patents Act 1988.

First published 2010 by  
PALGRAVE MACMILLAN

Palgrave Macmillan in the UK is an imprint of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan in the US is a division of St Martin's Press LLC,  
175 Fifth Avenue, New York, NY 10010.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

Palgrave® and Macmillan® are registered trademarks in the United States, the United Kingdom, Europe and other countries.

ISBN: 978-0-230-24987-5

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.


A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

10 9 8 7 6 5 4 3 2 1  
19 18 17 16 15 14 13 12 11 10

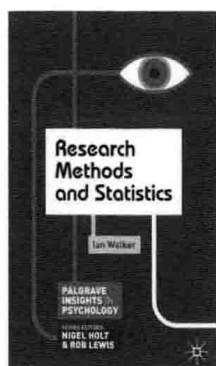
Printed and bound in Great Britain by  
CPI Antony Rowe, Chippenham and Eastbourne

# **Sport Psychology**

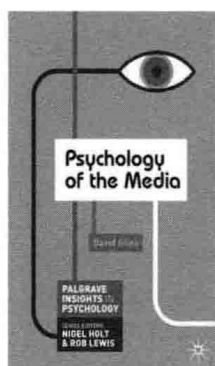


AIM HIGHER WITH *PALGRAVE INSIGHTS IN PSYCHOLOGY*

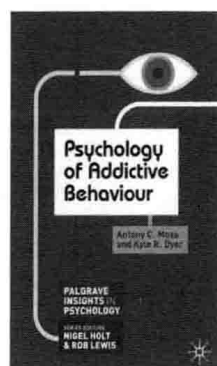
Also available in this series:



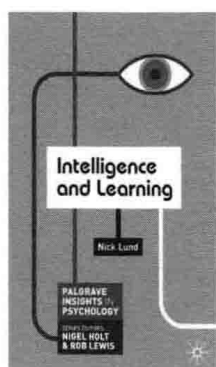
978-0-230-24988-2



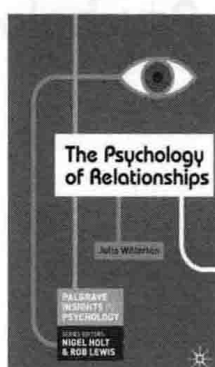
978-0-230-24986-8



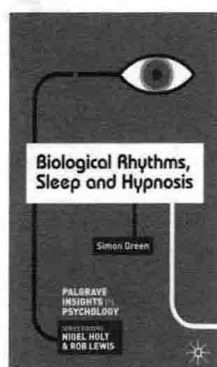
978-0-230-27222-4



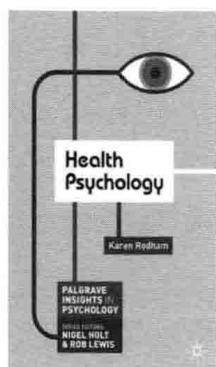
978-0-230-24944-8



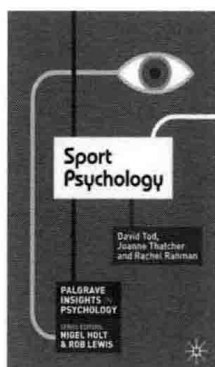
978-0-230-24941-7



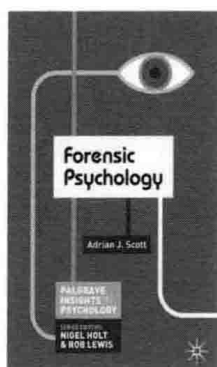
978-0-230-25265-3



978-0-230-24945-5



978-0-230-24987-5



978-0-230-24942-4

To find out more visit  
[www.palgrave.com/insights](http://www.palgrave.com/insights)

## Note from series editors

The psychology of sport and exercise has an interesting history and has its origins in biological sciences and the psychology of motivation. You can see from a quick glance at the contents page of this book that the topic has matured significantly from these beginnings. It is extremely unusual now to find a sportsperson who is not connected professionally with a sport and exercise psychologist, and those who prepare professionals and amateur sportspeople will find the psychology of sport and exercise to be an important part of their own training.

David Tod, Jo Thatcher and Rachel Rahman are a formidable writing team and have put together a book that manages to be interesting and engaging while remaining well informed and carefully considered. We approached them to write for this series because of their strong reputation, and their drive and passion for their subject. Where there is passion for a subject there is motivation and an interested and interesting perspective and we certainly see these in this book.

- *Some of you will be reading this book in preparation for a university course.* It may be that you have chosen to study psychology, sport science, physiology or perhaps sports therapy. The writing team develop and deliver courses such as these and are aware of the existing literature and the pressures faced by students. They have produced a book to meet your needs.
- *Some of you will be reading this book while at university.* By now you will have realized that reading lists are never terribly brief and you will find other books identified as being worthy of your attention. This book should certainly be one of the books you read. It is more

than a gentle introduction to the topic and will form an invaluable addition to your collection that we are certain you will return to time and again.

- *Some of you will be reading this book as part of a pre-university course such as A-level.* We know from experience that A-levels place unique demands upon a student and those preparing students for the examinations. Students should use this book to develop their understanding and really stretch and challenge themselves to aim for the highest marks possible. Teachers can use this book to better develop the material available in their chosen course textbooks and to encourage their students to really understand the topic with up-to-date research and theory. The Reading Guide at the end of the book tells you where different A-level specifications appear.

The courses upon which the material here is relevant are numerous and growing, both in number and popularity. Psychologists, sociologists, sport scientists, medics, sports therapists, physiologists and physiotherapists will all find useful information here. If reading because of an interest in sport, either as an amateur or a professional, we are sure you will find the approach interesting and instructive. We commend this book to you strongly and are pleased to have it in this series.

NIGEL HOLT AND ROB LEWIS  
*Series Editors*

# Contents

<i>List of figures</i>	vi
<i>List of tables</i>	vii
<i>Note from series editors</i>	ix
<b>1</b> Introduction	1
<b>2</b> Personality	13
<b>3</b> Motivation	30
<b>4</b> Aggression	44
<b>5</b> Arousal	58
<b>6</b> Anxiety	75
<b>7</b> Self-confidence	92
<b>8</b> Group cohesion <i>by Emily J. Oliver</i>	105
<b>9</b> Audience effects <i>by David Lavalley</i>	119
<b>10</b> Leadership	129
<b>11</b> Mental health	144
<b>12</b> Physical health	160
<b>13</b> Current issues	174
<i>Glossary</i>	194
<i>References</i>	201
<i>Index</i>	230
<i>Reading guide</i>	237



# List of figures

<b>1.1</b>	The scientific method	10
<b>2.1</b>	Eysenck's (1988) Trait Theory	17
<b>2.2</b>	The Sport Psychology Attitudes – Revised Form questionnaire	22
<b>2.3</b>	Morgan's (1980) iceberg profile	27
<b>3.1</b>	Summary of Need for Achievement Theory	34
<b>3.2</b>	Continuum of motivation according to Self-determination Theory	38
<b>5.1</b>	Drive Theory	60
<b>5.2</b>	Inverted-U hypothesis	61
<b>5.3</b>	Factors affecting optimal arousal in the inverted-U hypothesis	62
<b>5.4</b>	Individualized zones of optimal functioning (IZOF) hypothesis	66
<b>5.5</b>	Reversal Theory states and arousal	69
<b>6.1</b>	Multidimensional Anxiety Theory	77
<b>6.2</b>	Catastrophe Model	80
<b>6.3</b>	Relationships between anxiety, arousal and performance in the Catastrophe Model	82
<b>7.1</b>	Vealey's Sport Confidence Model	96
<b>8.1</b>	A conceptual model of cohesion	109
<b>10.1</b>	Multidimensional Model of Leadership	136
<b>10.2</b>	Leadership Behaviour Model	137
<b>10.3</b>	Summary of leadership types	139
<b>10.4</b>	Coaching Behavioural Assessment System (CBAS)	141
<b>13.1</b>	Richardson et al.'s Overtraining Model	176

# List of tables

<b>1.1</b>	Subdisciplines in the sport and exercise sciences and psychology, influencing sport and exercise psychology	3
<b>2.1</b>	Some cognitive strategies used by elite and successful athletes	28
<b>3.1</b>	Summary of motivational strategies	42
<b>4.1</b>	Metamotivational state definitions	50
<b>4.2</b>	Situations when athletes may be more likely to act aggressively or believe aggressive behaviour is acceptable	50
<b>6.1</b>	Example items from the CSAI-2	78
<b>6.2</b>	Factors that increase motivation to impression manage and some sporting examples	86
<b>7.1</b>	Sources of sport confidence	97
<b>7.2</b>	Suggestions for enhancing self-efficacy	102
<b>8.1</b>	Negative consequences of cohesion	116
<b>8.2</b>	Examples of interventions or activities linked to team cohesion	117
<b>11.1</b>	The relationship between exercise intensity and mood response	146
<b>11.2</b>	Brief descriptions of major depression, dysthymia, bipolar disorder and cyclothymia	148
<b>11.3</b>	Brief descriptions of major anxiety disorders	153
<b>11.4</b>	Grove and Eklund's (2004) exercise recommendations for reducing anxiety	155

<b>13.1</b>	Strategies for preventing and treating overtraining and burnout	178
<b>13.2</b>	Overview of the major eating disorders	183
<b>13.3</b>	Some signs of eating disorders	187
<b>13.4</b>	Major categories of performance-enhancing drugs according to their purpose	189
<b>13.5</b>	Strategies for reducing performance-enhancing drug use	191

## Chapter 1

# Introduction

*Jane* is a coach for a secondary school female netball team. The team has won its last five games. The players are talking about how they must surely win the competition and they are the best team around. Jane is wondering if the players are overconfident and how she might change the players' attitudes, especially as next month they will be playing some of the better teams in the competition, against whom her team have struggled in previous years.

*Tom* is in his early forties, and he has noticed he is putting on weight and getting tired and out of breath each time he walks up a hill to the building where he works. Although he played a lot of sport until his mid-thirties, in the past few years he hasn't played much or exercised regularly because his job keeps him busy. He finds it hard to motivate himself and believes that other people will think he looks silly if he gets into workout clothes because of his weight. He isn't sure how he can overcome his lack of motivation and worries about his appearance.

*Gillian* is an exercise instructor who organizes a community walking programme for a local county council. Gillian notices that the majority of walkers who come along each week are retired females. She would like to find ways to attract a greater variety of individuals including men and people of different ages and ethnicities to the weekly walks.

*John* plays football each week for a local club team. He is the team's centre forward and for the last few weeks hasn't been scoring many goals. He has started to get nervous before games and finds himself getting tense. He is worried that if he doesn't start scoring more goals, the coach will replace him with another player.

The situations above are examples of the types of issues that people involved in sports, exercise or physical activity face in their personal and

professional lives. The field of sport and exercise psychology provides knowledge and strategies that may help the people above and others resolve their issues and help themselves and others perform better, get fitter and have more fun. In this chapter, you will learn a definition of sport and exercise psychology, its scope and application, and how it is underpinned by scientific knowledge.

**In this chapter, we will examine:**

- A definition of sport and exercise psychology
- The scope of the discipline
- The people who use sport and exercise psychology knowledge
- The scientific basis of sport and exercise psychology



## What is sport and exercise psychology?

A common theme in the situations above involved the way people's behaviours, thoughts and feelings influenced their sport and exercise participation. For example, John wanted to improve his performance (behaviour), reduce his worries and negative thoughts (his thinking), and lower his anxiety (feelings). Understanding people's behaviours, thoughts and feelings in sport and exercise contexts is one central focus of **sport and exercise psychology**, which may be defined as the study of people and their behaviour in sport and exercise settings (Gill and Williams, 2008). We use the term 'sport and exercise' in this book broadly and embrace all forms of physical activity, not just competitive sport or fitness programmes at leisure centres. Other forms of physical activity are included, such as informal non-competitive sports, outdoor pursuits, and school physical education (PE) classes.

The discipline is an applied science, and a second central focus is the application of sport and exercise psychology knowledge to help people. Learning about people and their behaviour in sport and exercise, and then applying that knowledge, can yield many benefits for various individuals. As examples, athletes might learn ways to improve their performances, enjoy their sports more, and live happier lives. Exercise participants can use strategies to ensure they have more fun, stick to their exercise programmes, and improve their physical and mental health. PE teachers can use sport and exercise psychology knowledge to help their students learn sports skills quicker, develop positive attitudes towards physical activity, and learn life skills.

When sport and exercise psychology is discussed in the newspapers, on the television and the radio, it is often in relation to elite athletes, such as people talking about why the English football team won or lost a recent game, or explaining why British athletes have done so well at the latest Olympics. Sport and exercise psychology knowledge, however, can assist many people involved in sport and exercise, not just elite athletes. Male and female athletes and exercise participants of all ages, abilities, ethnicities and sexual orientations can benefit from sport and exercise psychology knowledge.

The history of sport and exercise psychology can be traced back over 100 years, with the publication of the first recognized study exploring the influence of other riders on individuals' cycling times (Triplett, 1898). Its emergence as a scientific discipline, however, occurred in the 1960s and 70s, when it became a separate topic within the sport and exercise sciences, typically called physical education at that time (Weinberg and Gould, 2007). Since the 1960s and 70s, the sport and exercise sciences and mainstream psychology have been the two major disciplines that have influenced sport and exercise psychology. Table 1.1 lists some of the areas in the sport and exercise sciences and psychology that have influenced and continue to influence sport and exercise psychology. Knowledge from both parent disciplines helps sport and exercise psychologists to understand and help their clients in the most effective ways.

Sport and exercise science subdisciplines	Psychology subdisciplines
Exercise physiology	Clinical and counselling psychology
Biomechanics	Organizational psychology
Sports medicine	Developmental psychology
Motor learning	Personality psychology
Sport and exercise sociology	Psychophysiology
Sport and exercise pedagogy	Abnormal psychology
Coaching science	Health psychology

**Table 1.1** Subdisciplines in the sport and exercise sciences and psychology, influencing sport and exercise psychology

## Summary

Sport and exercise psychology involves the study of people and their behaviour in sport and exercise settings. As an applied science, the discipline also involves the application of knowledge to help people. The two parent disciplines influencing sport and exercise psychology include

mainstream psychology and the sport and exercise sciences. The benefits of sport and exercise psychology are available for a range of people, not just elite athletes.

## **The scope of sport and exercise psychology**

Broadly, sport and exercise psychologists are interested in two key questions:

- How do psychological factors influence participation and performance in sport and exercise?
- What are the psychological effects from participating in sport and exercise (Williams and Straub, 2010)?

Examples of specific topics associated with the first question include:

- Do recreational runners improve their fitness levels quicker when they set goals?
- Does self-confidence help weightlifters learn correct technique?
- Are any personality traits associated with sporting success?

Answers to these types of specific questions allow sport and exercise psychologists to develop knowledge, strategies and interventions to help people gain more benefits from their participation.

Examples of specific topics associated with the second question include:

- Does participating in weekly aerobic classes reduce levels of depression?
- Can sports like football, basketball and cricket teach people how to work in teams?
- Do sports like rugby union and boxing teach people to be aggressive?

Answers to these specific questions help sport and exercise psychologists discuss the value of sport and exercise for individuals, communities and society.

To help appreciate the scope of the discipline further, it is useful to discuss the three focus areas of the Association of Applied Sport Psychology, one of the largest international professional organizations in

the field. The three focus areas are health and exercise psychology, performance psychology, and social psychology:

- Professionals in the *health and exercise psychology focus area* are interested in applying psychological principles to the development and maintenance of health-enhancing behaviours over the lifespan, including play, physical activity and structured exercise, and the psychological and emotional consequences of those activities. Professionals are also interested in the role of exercise in disease remediation, injury rehabilitation and stress reduction. Topics in this book that might be related to this focus area include mental health, physical health and drugs.
- Professionals interested in the *performance psychology focus area* are interested in the research and practice related to performance enhancement in exercise and sport. These individuals are also interested in the effects of sport and exercise psychology interventions on athletes' and exercise participants' wellbeing, for example the influence of imagery on basketball free throw percentages or the role of positive feedback on cardiac rehabilitation patients' exercise adherence. Examples of topics covered in this book include self-talk, imagery and anxiety management.
- In the *social psychology focus area*, professionals are interested in the individual and group processes involved in sport and exercise settings. They also focus on the application of social psychological principles in examining factors related to the sport participant, coach, team and spectator. Examples of topics from the social psychology focus area covered in this book include group cohesion and leadership.

## Summary

Sport and exercise psychologists are interested in two key questions:

- 1 How do psychological factors influence sport and exercise participation and performance?
- 2 What are the psychological effects of sport and exercise participation?

The three focus areas of the Association of Applied Sport Psychology include performance psychology, health and exercise psychology, and social psychology.



## Who uses sport and exercise psychology knowledge?

Sport and exercise psychologists use their knowledge of the discipline to perform three major roles in their professional lives: research, teaching and consulting. For sport and exercise psychology to be viewed as a credible applied scientific discipline, professionals need to conduct good quality research and develop a body of knowledge that people in the teaching and consulting roles can share with students and athletes (Anderson et al., 2002). For example, professionals have conducted many studies on the influence of imagery on motor skill learning and performance, and from these studies, theories describing why imagery can improve motor skill execution and guidelines for helping people make effective use of the technique have emerged (Murphy et al., 2008).

University lecturers, tutors at further education colleges and PE teachers are examples of individuals who perform the teaching role. In addition to helping people learn about sport and exercise psychology knowledge, teachers motivate and inspire individuals to become involved in the discipline and become the professionals of the future. For example, a PE teacher might design a class to help students learn about the influence of imagery on motor skill execution.

Many individuals involved in sport and exercise have specific issues and problems with which they need assistance, such as athletes who want help managing anxiety or fitness instructors who wish to help clients adhere to exercise programmes. Sport and exercise psychology professionals performing the consulting role provide assistance to help others with their issues and problems. For example, a sport and exercise psychologist might assist a beginning cricket player to use imagery to help learn the forward defensive shot.

Sport and exercise psychologists may play each of the three roles during the course of their professional lives. Being involved in one of the roles might help people when they undertake another role. For example, a person who conducts research on group cohesion in hockey may then have the knowledge to help teams in that sport play together better and develop camaraderie. As another example, people who consult with exercise participants might understand what types of research are worth doing.

There are other people who also use sport and exercise psychology knowledge to help them in different ways. Examples include coaches,