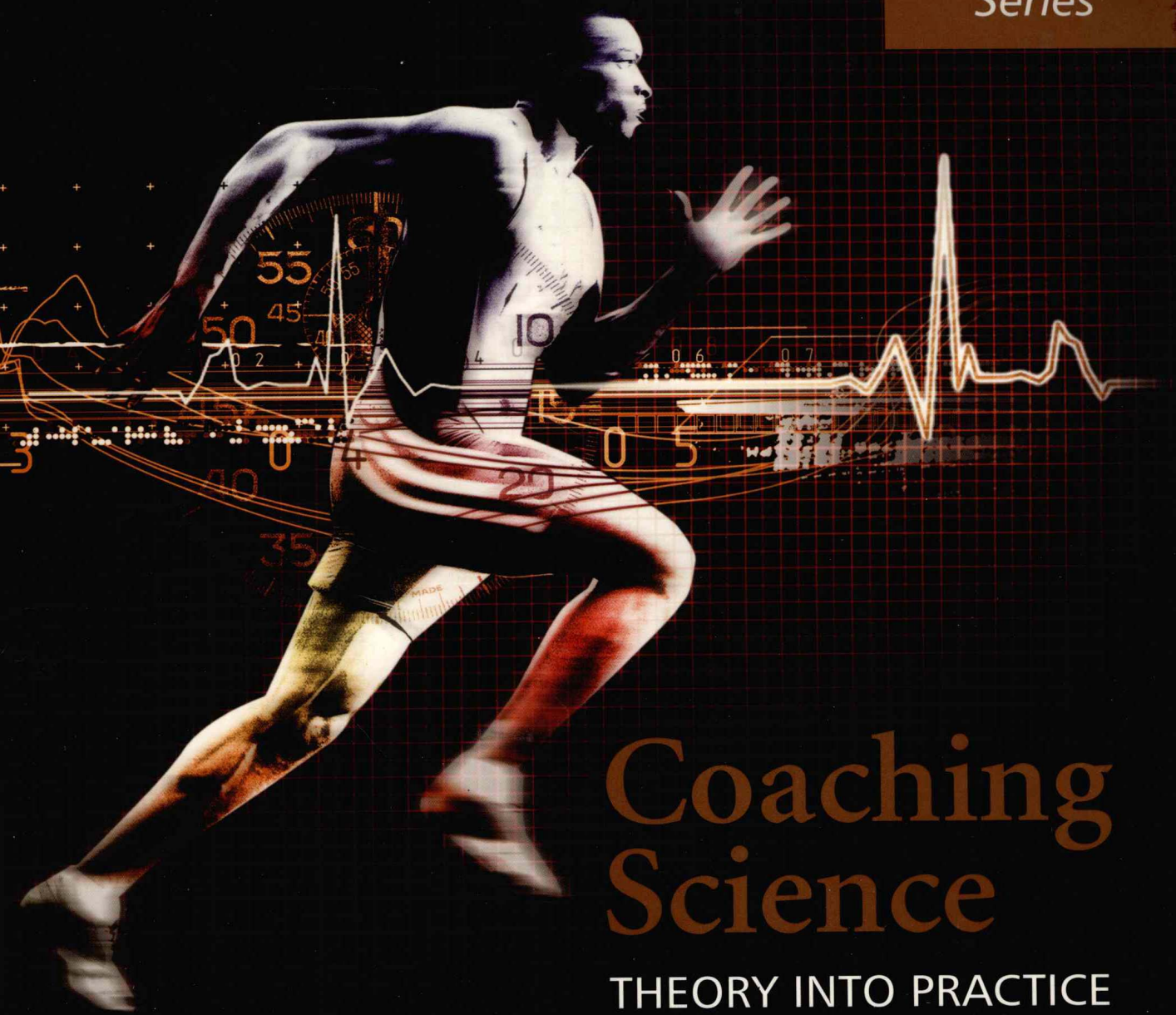


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Coaching Science

THEORY INTO PRACTICE

 WILEY

Terry McMorris
Tudor Hale



COACHING SCIENCE

THEORY INTO PRACTICE

Terry McMorris and Tudor Hale

University of Chichester



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Series Preface

One of the most astonishing cultural phenomena of the twentieth century has been the exponential growth in our knowledge and understanding of the importance of sport and exercise to human kind. At the beginning of that century, sport was principally a force for moral development, whilst strenuous exercise, though necessary to ensure military personnel were fit to engage in combat, was medically proscribed. The academic study of sport – what there was of it – was restricted largely to the history of the Olympic Games and philosophical arguments for the moral case for team games. A hundred years later, the picture is very different. 400 million people turn on their television sets to watch the Opening Ceremony of the Olympic Games and soccer's World Cup Final; millions of people jog, go to the gym, or work out in front of the television; and the academic study of sport embraces physics, chemistry, biology, biomechanics, physiology, psychology, politics, sociology, social anthropology, and business studies as well as history and philosophy. Over the last twenty years the number of degree courses in the academic study of sport and exercise has grown phenomenally, attracting students from a wide range of backgrounds. It is against this background that the new series *Wiley SportTexts* was conceived.

This new series provides a collection of textbooks in Sport and Exercise Science that is rooted in the student's practical experience of sport. Each book covers the theoretical foundations of the contributing disciplines from the natural, human, behavioural, and social sciences, and provides the theoretical, practical and conceptual tools needed for the rigorous academic study of sport. Individual texts focus on a specific learning stage from the various levels of under-graduate to post-graduate study.

The series adopts a student-centred, interactive, problem-solving approach to key issues, and encourages the student to develop autonomous learning strategies through self-assessment exercises. Each chapter begins with clear learning objectives and a concise summary of the key concepts covered. A glossary of important terms and symbols familiarises students with the language and conventions of the various academic communities studying sport. Worked examples and solutions to exercises together with a variety of formative and summative self-assessment tasks are also included, supported by

key references in book, journal and electronic forms. A website is planned for the series, containing specific information on individual titles, supplementary information for lecturers, important developments in the academic study of sport, and links to other sites of interest.

Eventually, it is intended that the series provides a complete coverage of the mainstream elements of under- and post-graduate degrees in the study of sport.

Tudor Hale
Jim Parry
Roger Bartlett

Preface

When we began coaching we had little knowledge of the underlying scientific theories involved. We soon became aware that, unless we spent some time finding out about them, we were always going to be limited as coaches. Studying theory and then applying it in practice was not as simple as we imagined. Sometimes it was difficult to see where and how what the scientists had to say was relevant to us as coaches. The more we studied and coached, however, the more we became able to see the relevance of coaching theory. Sometimes things worked in reverse. Coaching practice led us to explore areas of science other than those recommended in the literature. We could see that a practice worked but had to find out how and why. This leads us to the purpose of this book. We are writing it in the hope that we can help you to shortcut many of the processes through which we had to go. We hope, however, that you will not simply accept our explanations and applications of science but develop your own.

In our journeys through the theory and practice of coaching, both of us have received a great deal of help from many individuals and we are very grateful to them. We do not intend to try to name them as we are sure that we will miss someone out. What we would like to say to you is that you must talk to other coaches and to sports scientists and listen to what they have to say. It won't always be correct but you can still learn a great deal. We have learned a lot from watching other coaches; coaches from all different types of sport, and from talking to sports scientists. We have been able to use other people's ideas in our coaching. It is one area in which 'plagiarism' is acceptable.

The book is primarily aimed at first and second level students working towards coaching science/studies and physical education degrees. It should, however, be useful to practising coaches and those studying for national governing body awards. We hope that it is also of use to anyone interested in coaching. The chapters in Parts I–IV are divided into a theoretical and research based first part followed by a section on practical implications. We have also tried to include as much sports-specific applied work as possible even in the theoretical aspects of the book. Part V deals totally with application and draws on all of the theory covered earlier.

The book is divided into five parts. The first part covers some of the socio-psychological factors affecting coaching. There is an abundance of sports psychology texts that examine these factors from the point of view of the sports psychologist, but in this book, we have tried to examine these issues from the coach's perspective. Part II looks at the psychology of skill acquisition. Again we have examined it from a coaching point of view. Moreover, we have tried to avoid the inclusion of research and theory based on many of the esoteric, laboratory based experiments often used in motor learning texts. It is not possible to completely avoid these, however. This highlights the fact that the link between theory and practice is still comparatively in its infancy and we hope that this book inspires some of you to carry out research in this area using ecologically valid research designs. This part of the book, and Parts IV and V, are written by Terry McMorris, who has a wealth of coaching experience in many sports, especially football, which he coached at every level from school-boy to full-time professional. Terry is Professor of Motor Behaviour at the University of Chichester.

Part III examines what the exercise physiologist has to say to the coach. What are the factors that limit performance? How do we get athletes fit? This part of the book was written by Tudor Hale, Professor Emeritus at the University of Chichester. Tudor has a wide range of coaching experience and was responsible for setting up the Sport UK Sports Science Support Programmes for the British Olympic boxing, cycling and sailing teams. These have been among the most successful of the British Sports Science Support Programmes over the years, with many gold, silver and bronze medals among them.

In Part IV, we look at some of the developmental factors affecting coaching. The emphasis is on coaching young people but we have not forgotten older athletes. As older people become fitter they are continuing to play sport for much longer than previous generations. Part V is a very practical based examination of how to integrate physical, technical, tactical and psychological training and practice. Much of it is based on Terry's experiences of having to coach a variety of sports with limited time and facilities. This is the reality for most coaches. However, our experiences, even when we have had more than adequate facilities and plenty of time, have led us to believe that there is a need to develop more and more integrated practices. After all, when you compete you do so as a complete individual. Your physical, motor and mental components interact with one another; therefore, why not practise like that?

In line with the other books in the Wiley SportText series, this book is written in a 'user friendly' way. It does not follow the conventions of academic texts. We have only used citations of authors' names when absolutely

necessary. In most cases we have resorted to the phrase 'research has shown'. Those of you studying for degrees in physical education, sports coaching and sports science and/or studies will probably be expected to use a formal academic style of writing when completing assignments. You will need to be aware of your university's rules and regulations. It is normal practice to actually cite the names of the authors who have carried out the research. While academically this is correct, it can be 'off-putting' when reading a book and often spoils the flow. The editors of the Wiley series believe that, for beginners, a more friendly approach is necessary.

Also within the text we have introduced a number of tasks for you to complete. These vary greatly from the practical to actually just sitting down and thinking. They can be used by individuals but can also form the basis of discussions either formally, in a seminar, or informally among friends. You can go down the pub for a discussion and tell your tutors or parents that you are studying. In fact, you would be as long as you kept the alcohol consumption in check.

There are many people whom we would like to thank for their help in writing this book, in particular Celia Carden from Wiley. Both of us are more than grateful to Celia for her help, encouragement and patience. We would also like to thank colleagues in the School of Sport, Exercise and Health Sciences and the School of Physical Education at the University of Chichester, in particular Steve Fitzsimons for information about basketball and also for his photography skills; Paul Robinson for help and advice on hockey; Neal Smith and Mike Lauder for their comments on the biomechanical aspects of the book and John Kelly for help with photography. Thanks to the students who acted as models for the photographs. Finally, thanks to the many people whom we have coached over the years and the coaches whose ideas and practices we have 'stolen'. Without them we could never have written this book.

Terry McMorris
Tudor Hale

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I

Socio-Psychological Factors

Introduction

This part of the book is concerned with some of the major socio-psychological factors that affect coaching. I have not, by any means, covered all of the factors. My aim is to highlight the major areas of concern to coaches. In the chapter on motivation, we examine not only athletes' motivations but also the motivation of coaches. The interaction between the athletes' motivation and the coach's in terms of intensity and direction may be very important in developing coach-athlete relations. Coach-athlete and athlete-athlete relationships are examined in Chapter 2. The importance of team cohesion is discussed in that chapter.

Chapter 3 examines the effect of anxiety on athlete performance. In particular, we look at how the coach can help the performer to overcome problems of anxiety. I have approached this problem from a coach's point of view rather than one of a sports psychologist. The inter-relationship between a coach and a sports psychologist is also discussed. While coaches' leadership styles are examined in Chapter 2, in Chapter 4 we look at the interaction between coaching and learning styles. I have seen few attempts to examine this interaction but I feel that it is an important one. In particular, we discuss whether or not it is possible for coaches to change their styles in order to accommodate the athletes.

Additional reading

- Carron, A. V. and Hausenblas, H. A. (1998). *Group dynamics in sport*, 2nd edn. Fitness Information Technology: Morgantown, WV.
- Weinberg, R. S. and Gould, D. (2003). *Foundations of sport and exercise psychology*, 3rd edn. Human Kinetics: Champaign, IL.

1

Motivation

Learning objectives

At the end of this chapter, you should

- know the difference between intrinsic and extrinsic motivation
- understand achievement motivation theory
- understand achievement goal theory
- know how coaches can develop their athletes' motivation.

Before discussing motivation, we need to provide a working definition. It is generally accepted that motivation describes the *direction, intensity and persistence of behaviour*. Direction refers to the types of activity that we choose to undertake. Intensity describes how hard we are willing to work at these activities or how much effort we are willing to put in. The length of time that we are willing to work at the task is termed persistence. Although intensity and persistence are related they do not refer to exactly the same process. Some individuals will work very intensely at a task but lack persistence – if things start to go badly they will give in, while others will continue to practise tasks for long periods of time but the intensity of the practice may be limited. Obviously the ideal is to have both intensity and persistence. Examples of this abound in the world of sport. One of the best examples is Sir Steve