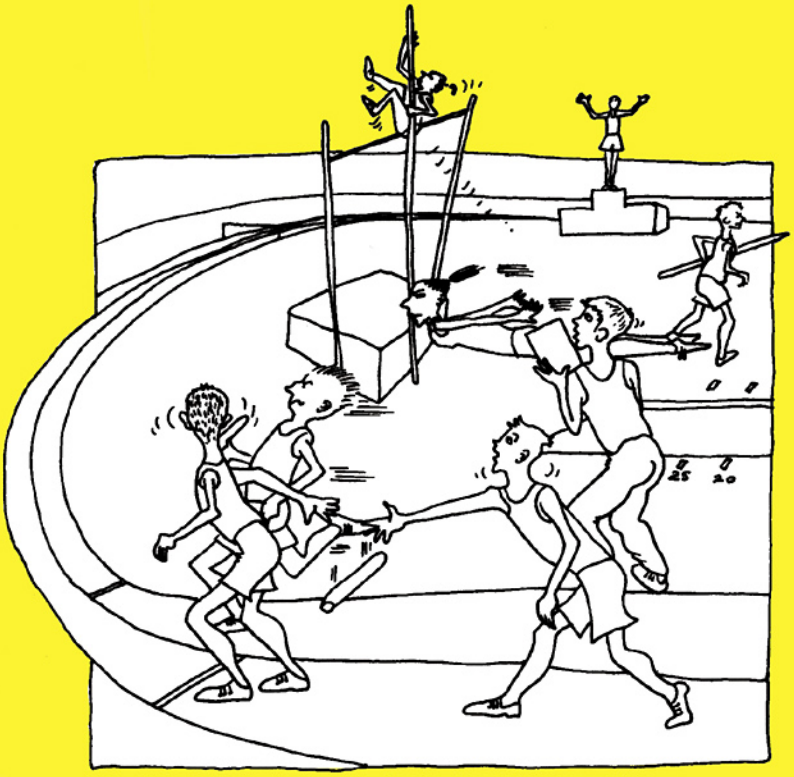
Psychology in Sport



John Kremer and Deirdre Scully

Psychology in Sport

Contemporary Psychology Series

Psychology in Sport

John MD Kremer
and
Deirdre M Scully

Psychology Press
a member of the Taylor & Francis group

UK Psychology Press Ltd., a member of the Taylor & Francis group, 27 Church Road, Hove, East Sussex, BN3 2FA

USA Psychology Press Ltd., a member of the Taylor & Francis group, 325 Chestnut Street, Suite 800, Philadelphia, PA 19106

First published 1994.

This edition published in the Taylor & Francis e-Library, 2005.

"To purchase your own copy of this or any of Taylor & Francis or Routledge's collection of thousands of eBooks please go to www.eBookstore.tandf.co.uk."

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

ISBN 0-203-21155-3 Master e-book ISBN

ISBN 0-203-26910-1 (Adobe eReader Format)
ISBN 0-7484-0181-4 (Print Edition)
ISBN 0-7484-0182-2 (pbk)

Library of Congress Cataloging-in-Publication Data are available on request

Contents

	List of Tables and Figures	viii
	Series Editor's Preface	ix
Chapter 1	Introduction	1
Chapter 2	What Makes an Athlete? *(Personality and Individual Differences)*	13
Chapter 3	Exercising Your Mind *(Cognitive Psychology)*	38
Chapter 4	Helping Athletes Help Themselves *(Clinical Psychology)*	62
Chapter 5	Moving in Sport *(Motor Behaviour)*	89
Chapter 6	Sport in Context *(Social Psychology)*	112
Chapter 7	Making Sport Work *(Occupational Psychology)*	139
Chapter 8	Growing through Sport *(Development Psychology)*	163
Chapter 9	Sport and Drugs and Runner's High *(Psychophysiology)* *Marie H.Murphy*	181
	Index	200

Contemporary Psychology Series

Series Editor: Professor Raymond Cochrane
School of Psychology
The University of Birmingham
Birmingham B15 2TT, UK

This series of books on contemporary psychological issues is aimed primarily at 'A' Level students and those beginning their undergraduate degree. All of these volumes are introductory in the sense that they assume no, or very little, previous acquaintance with the subject, while aiming to take the reader through to the end of his or her course on the topic they cover. For this reason the series will also appeal to those who encounter psychology in the course of their professional work: nurses, social workers, police and probation officers, speech therapists and medical students. Written in a clear and jargon-free style, each book generally includes a full (and in some cases annotated) bibliography and points the way explicitly to further reading on the subject covered.

Titles in the Series:

Psychology and Social Issues:
A Tutorial Text
Edited by Raymond Cochrane,
University of Birmingham,
and Douglas Carroll,
University of Birmingham

Families:A Context for Development
David White and Anne Woollett,
University of East London

The Psychology of Childhood
Peter Mitchell,
University of Birmingham

On Being Old:
The Psychology of Later Life
Graham Stokes,
Gulson Hospital, Coventry

Health Psychology:
Stress, Behaviour, and Disease
Douglas Carroll,
University of Birmingham

Food and Drink:
The Psychology of Nutrition
David Booth,
University of Birmingham

Criminal Behaviour:
A Psychological Approach to Explanation and Prevention
Clive Hollin, *University of Leicester*

Adult Psychological Problems
L.A.Champion,
Institute of Psychiatry, London,
and M.J.Power,
Royal Holloway University of London

Psychology in Sport
John Kremer,
Queen's University of Belfast,
and Deirdre Scully,
University of Ulster

Psychology of Addiction
Mary McMurran,
Rampton Hospital, Retford

Gender, Sex and Sexuality
Gerda Siann, *University of Dundee*

Contemporary Psychology
Clive Hollin, *University of Leicester*

Environmental Psychology:
Behaviour and Experience in Context
Tony Cassidy,
Nene College, Northampton

This book is dedicated to
Jane, John and our families

List of Tables and Figures

Figure 2.1 CSAI-2 (Illinois Self Evaluation Questionnaire) 25
Figure 2.2 How much do you want to win? 28
Figure 3.1 Hypothetical Representation of the Information Processing System 42
Figure 4.1 The Inverted-U Hypothesis 66
Figure 4.2 Oxendine's Taxonomy of Sport 67
Figure 4.3 Catastrophe Model of the Effects of Anxiety upon Performance 69
Table 4.1 Intervention Packages Used in Sport 73
Figure 5.1 A Motor Performance Learning Curve 93
Figure 6.1 Weiner's Attribution Model 126
Figure 7.1 Chelladurai's Normative Model of Decision Making Styles in Coaching 144
Figure 7.2 Chelladurai's Multidimensional Model of Leadership 147
Table 7.1 Locke's Four Principles of Goal Setting 150
Table 7.2 Selecting a Hockey Player 156
Figure 7.3 An Expectancy-Value Model of Work Motivation 158

Series Editor's Preface

For reasons which are explored in *Psychology in Sport* the development of sports psychology has been somewhat distant from developments in 'mainstream' academic psychology. This has occurred despite a recognition by those involved in sport that psychological factors are of immense importance in determining sports performance, and a recognition by psychologists that sport (both through direct and vicarious participation) is an important aspect of human behaviour and experience. Much of the work that has been done in sports psychology until recently has been by keen sports men and women who have borrowed ideas and techniques from psychology (eg., personality tests) in order to investigate or explain performance. In chapter one of this book by John Kremer and Deidre Scully, the ground-breaking research of Norman Triplett is described which stemmed from his observations, as a cyclist, that even though cyclists pushed themselves as hard as they possibly could when racing against the clock, they went even faster when racing against each other. This is a very early (1898) example of a recognition, by a sportsman, of the importance of psychological factors in maximising performance. More recently, physiologists have shown that when athletes run on a treadmill until total exhaustion—so that they just cannot run another step, direct electrical stimulation of the leg muscles will still produce a vigourous contraction— hence exhaustion is a psychological state not a physical condition.

There have been any number of books written on sports psychology many of which are referred to in this volume. A large number of such books are practically orientated texts for coaches, trainers, athletes and sports educators which can be dismissed by 'pure' psychologists as superficial cook books. Such books may achieve wide circulation and admiration in sports circles but rarely, if ever, find their way on to reading lists for psychology courses. On the other hand, standard psychology textbooks aimed at undergraduate psychology students contain few, if any, references to sport even though they cover topics where sporting examples and applications would be directly relevant.

Kremer and Scully have, as is common throughout the Contemporary Psychology Series, written their book as psychologists and for psychologists but in a way that will be accessible for those who are commencing their encounter with psychology and for those who are mainly orientated towards sports science. As the title and the structure of the book makes clear this is an attempt, which I believe to be unique, to take fundamental research in nine key areas of psychology and to explore what each of these bodies of theory, data and methodology can offer in terms of insights into sporting endeavour.

Thus, the book is organised as an introductory psychology text with chapter subheadings that mirror those to be found in a large number of introductory texts, but with consideration of possible applications to sport being at the forefront of each chapter.

When you have finished reading this book you will know a lot more about sports psychology and, equally important, you will have encountered a great deal of basic psychology that is also relevant to other aspects of human behaviour.

Ray Cochrane,
Birmingham, January 1994

Chapter 1
Introduction

For a great many readers of this book, it is likely that sport psychology must be something of an enigma, part of the discipline of psychology yet also apart from it. With this in mind, we would like to begin with two very basic questions. First off, what is sport psychology and second, what is it for? Taking these questions one at a time, we would like to think that by the time you finish Chapter 9 you will have some grasp of the content and concerns of sport psychology—what it is. Put most simply, sport psychology can be any example of psychological knowledge, principles or methods as applied to the world of sport. As for who it is for then we immediately hit more troubled waters. According to two eminent sport psychologists there is little doubt as to who sport psychology is for, and who it is not for: 'Sport psychology is not for psychologists… Psychology is for sport and its participants' (Bunker and Maguire, 1985:3).

To say that personally we find it hard to support this proposition would be an understatement, yet in writing this book we have tried to look upon such sentiments not as a barrier to progress but as a source of inspiration and motivation. Indeed one explicit aim of this book is to challenge this type of bunker *(sic)* mentality within sport psychology and show that the subdiscipline does not have to plough a lonely furrow. Instead, and with a little imagination, sport psychology can be for psychologists, just as it can be for sports scientists, managers, teachers, administrators, coaches and last but by no means least, the athletes themselves.

To those already steeped in the culture of sport psychology, given the number of texts which are already on the market it is unlikely that the publication of another introductory sport psychology text will precipitate a stampede to the local bookstore. Fortunately for us, sport scientists are not identified as the primary target for this book. Instead this introductory text has been compiled for those who have an interest in sport but who come to regard their parent discipline as psychology itself. To this population, the world of sport psychology has often remained uncharted territory. It is rarely mentioned in general undergraduate psychology textbooks and until recently was almost never identified as a topic for separate study within a typical psychology curriculum. When contemplating this gaping hole in our knowledge, any psychologist with even a passing interest in sport may have pondered the same question which we have posed ourselves (Kremer and Scully, 1991). Put simply, why is it that general psychology degrees, textbooks and courses include so few references to sport? One temptation which psychologists must avoid right away is somehow to blame themselves. They may think

that during their training they have inadvertently ignored or missed relevant material but it is nevertheless ready and waiting to be picked up. In one sense this is actually true for there is a huge literature available on sport psychology. At the same time, working as a psychologist (but not a sport psychologist) it is more than likely that students will not have had the opportunity to encounter this material, for sport psychology simply has not formed a natural part of the common stock of psychological knowledge. For example, which of the following journals would the average psychology student refer to in the course of her or his studies?

British Journal of Sports Medicine
International Journal of Sport Psychology
Journal of Applied Sport Psychology
Journal of Human Movement Studies
Journal of Leisure Research
Journal of Sport and Exercise Psychology
Journal of Sport Behavior
Journal of Sports Sciences
Quest
Research Quarterly for Exercise and Sport
The Sport Psychologist

Without a shadow of a doubt, sport psychology has and does stand apart from the discipline of psychology as a whole. Its history is different, its concerns are often different, its centres of learning and teaching are different, and its professional training is different. Yet despite this, at the end of the day it remains permanently bonded to psychology through its common interest in the bedrock of psychology, human behaviour and experience. Through all the discourse, debate and discussion of academe, we should strive never to lose sight of this fundamental tenet.

It would probably not be stretching a point too far to describe the separate development of sport psychology as a prime example of academic apartheid. It is debatable as to why and how the situation has developed but clearly guilt does not reside solely with one party or the other. One possibility which cannot be ignored is that within psychology the study of sport and exercise is taken to be somewhat trivial when set alongside the weighty, longstanding preoccupations of academic and professional psychologists. Put very bluntly, separate development reflects upon a form of academic snobbery but in turn as we all know this snobbery bears no relation to the day to day concerns of our primary focus, men and women in their social and sport oriented worlds. No one could possibly deny the significant role which sport and recreation plays in every culture and society across the globe. In the western and eastern worlds alike, sport and leisure continue to support huge industries and take up massive amounts of individual time, effort, money, energy and emotion. Within the media, competitive sport is afforded enormous attention and despite this the public's appetite for yet more sport never appears to be sated. For example, it has been estimated that around two thirds of all newspaper readers in Great Britain first turn to the sports pages when they pick up their daily paper.

Beyond this, when one considers the number of people who actually engage in sport or even take regular exercise then the significance of sport to all our lives cannot be denied.

To blame the current state of academic affairs on mainstream psychology would be to tell only half the story. Sport psychologists, normally coming from a background in physical education and sport sciences, have certainly never been slow to draw selectively on psychological theories and methods in order to advance their understanding. At the same time there may have been an element of what is best described as protectionism from within the ranks of sport psychologists. For some, the zone of demarcation which separates sport psychology from the discipline as a whole could be regarded as a welcome safety buffer, with breaches to the protective shield not always greeted warmly. This defensive mentality sees its natural end-product in the encouragement of theories and methods which are unique to sport psychology (Feltz, 1987), an approach which we believe can do nothing other than drive the wedge between sport psychology and sport ever deeper. It could be that this defensiveness reflects upon a general anxiety that sport psychology may not stand close scrutiny from the wider psychological community. Sport psychologists can rest assured that this anxiety is not well founded. Indeed, the scientific rigour which characterizes so much empirical research within sport psychology is extremely commendable and could often serve as a good example for many other branches of professional and applied psychology which choose to adhere closely to the scientific method.

A more common problem with sport psychology research lies not in its scientific rigour but in its somewhat myopic, or short-sighted, appreciation of present day accumulated psychological knowledge. Scanning across sport psychology, you are confronted by a landscape of knowledge which rises and falls often suddenly and dramatically. At certain times, massive peaks of understanding rise up before our eyes yet at other times huge tracts of psychology remain untouched to the horizon. In this respect at least, it is to be hoped that some sport scientists may find this text useful for opening new vistas and charting the full range of psychological territory more thoroughly.

To trace the history of sport psychology is not an easy task and is beyond the scope of this book. Most historical accounts record significant landmarks in sport psychology throughout this century but truthfully these cannot be regarded as milestones which chart a smooth and natural development of the subject. Instead, they serve to demonstrate the opportunities which sport has always afforded to psychological study but far too often they now appear as wasted opportunities, episodic enterprises with a beginning and, regrettably, an end. This is not to deny the valuable work carried out by early explorers in sport psychology but in terms of the history of the subject they are probably best regarded as adventurers rather than genuine 'fathers' of sport psychology (the sexism is deliberate given that they were all men!), given that the line of descent was extremely fragmented until at least the 1960s. It was at this time that scientific traditions, institutions and publications which prosper to this day first came into being and it was this era which truly marked the structural genesis of modern day sport psychology.

Before that time, psychology departments and occasionally physical education departments may have included on their staff certain individuals with an interest in the psychology of sport but unfortunately it was rarely possible for these individuals to

develop permanent facilities or centres of academic excellence. The one exception to this general rule was the area of motor skills which has continued to bridge the gap between sport and psychology over the years (see Chapter 5).

From the turn of this century, there were examples of sport-related research, probably the most famous early example being Norman Triplett's archival and experimental work on 'dynamogenic factors' involving cycling and reeling fishing line (1898; see Chapter 6). Leaving aside these early forays, almost without exception sport psychologists regard the mid-1920s as the most significant formative landmark in sport psychology and this is due almost entirely to the work of one man, Dr Coleman Roberts Griffith. Griffith taught psychology at the University of Illinois, introducing a course entitled 'Psychology and Athletics' in 1923, and later, in 1925, establishing and subsequently directing the Athletic Research Laboratory. It would be reassuring to describe Griffith's work as marking the launching pad for contemporary sport psychology. Sadly the truth is more depressing for in 1932, due to lack of funds, Griffith felt obliged to resign his post and the Athletic Research Laboratory closed.

In the USA, the decades which followed (between the 1930s and the 1960s) represented something of a hiatus, filled only partially by motor learning research. Similarly, in eastern Europe this was a period of stagnation, although by the 1960 Melbourne Olympics it is probably true that sport psychologists were accompanying eastern European teams (Salmela, 1984) and certainly by 1972, it was the case that Olympic competitors from East Germany and the Soviet Union were using sport psychologists as a matter of routine (Roberts and Kiiecik, 1989).

In the western world, the mid-1960s marked the true watershed in the history of sport psychology (Wiggins, 1984). It was at this time that there was a rapid growth of the subject within physical education departments in the United States, and the dominant themes which still concern practising sport psychologists came to the fore. These included individual differences and personality in sport, mental rehearsal and practice, stress, motivation, team spirit, audience effects and motor development. Throughout these early stages of growth, the parent discipline of psychology maintained a discreet distance. This distance between psychology and the fledgeling subject of sport psychology is perhaps revealed most starkly by the fact that it was not until 1986 that the American Psychological Association (APA) finally took official cognizance of sport psychology as a subdiscipline within psychology.

Generally speaking, developments in other western countries have followed the early lead taken by the USA. For example, in the United Kingdom, the road to recognition and respectability has been considerably longer. The players involved have also been far fewer in number but in essence the story line remains remarkably similar. This story began in 1984 with the formation of the British Association of Sports Sciences (BASS; since 1993 known as the British Association of Sport and Exercise Sciences or BASES), and moved forward apace in 1988 when BASS implemented a register of sport psychologists, a final draft of which became available in 1992. To gain accreditation, BASES members must normally have either a primary degree in sport science together with a postgraduate degree (by course or research) in sport psychology, or a primary degree in psychology plus

a postgraduate degree (by course or research) in sport science. In addition applicants must have gained at least three years of supervised experience in the field.

The professional body which oversees psychology in general in the UK, the British Psychological Society (BPS), has mirrored the caution of the APA in taking its time to recognize sport psychology. Indeed, it was only in 1992 that the BPS finally agreed in principle to the establishment of a sport and exercise psychology interest group, a decision followed by the formation of a separate BPS Sport and Exercise Section in 1993.

Almost since sport psychology first came into existence, a fundamental divide was apparent in the work carried out by sport psychologists. In its crudest form, a distinction exists between academic or pure sport psychology and applied sport psychology. The former is the concern of those sport psychologists who busy themselves with basic research and teaching while the latter forms the hunting ground for those who use their skills, wit and knowledge to aid directly the world of sport. Often there has been friction between those who are reluctant to practise or offer professional advice without a sound theoretical grounding and those who are attracted by the practical results, and rewards, which they are able to realize through immediate action or intervention. This is not a new problem for sport psychology, indeed Coleman Griffith combined his research with consultancy work, for example with the Chicago Cubs baseball team and the University of Illinois football team (Furlong, 1976). However, the more recent seeds of conflict between theory and practice can be traced back to the mid-1960s, highlighted by the publication of *Problem Athletes and How to Handle Them* by Bruce Ogilvie and Thomas Tutko (1966). Despite the considerable criticism and hostility which the book provoked from within academic sport psychology, it quickly gained popularity within the world of sport. Indeed, their Athletic Motivation Inventory (AMI) became established as the most commonly used inventory for measuring personality dimensions which were believed to be associated with sporting success (see Chapter 2 for further details), and Bruce Ogilvie duly took on the somewhat controversial mantle of the father of applied sport psychology.

Over recent years, the heat of this pure/applied debate has cooled somewhat, perhaps as it has become obvious that the lines of demarcation between the different brands of sport psychology are difficult to draw and the whole labelling process increasingly has been seen as rather sterile and unproductive. Given the time lag between developments in sport psychology on either side of the Atlantic it is to be hoped that the history of conflict in the US is not replayed in the UK. Certainly the number of British self-help and popular sport psychology publications has mushroomed during the 1980s while at the same time the BASES accreditation process for registration as a sport psychologist can appear irrelevant to many applied sport psychologists working directly in the field (Anshel, 1992). These practitioners regard accreditation with a degree of scepticism and particularly as they often have not the time, resources or the inclination to further their academic careers or maintain a healthy publication count because they are so busy doing what they do best, working with athletes. Are we already witnessing the first murmurings of discontent from practitioners, or has the potential for conflict been successfully avoided? Time alone will tell but it is to be hoped that the quest for professional rigour does not serve to marginalize further those who may already feel that they are working alone.

From these diverse roots and structural machinations, what is the current state of play? In the first instance it is important to recognize that the term sport psychology now encompasses a wide range of institutions and individuals with different backgrounds, goals and approaches to the subject. In the UK as elsewhere, the demand for sport psychology has never been greater. Coverage of the Barcelona Olympics in 1992 and the emphasis which commentators and competitors alike placed on the 'mental' side of sport bears ample testimony to this demand. However, this popular interest in itself can be beguiling and dangerous, and caution must be exercised in promoting and developing the subject with due regard to its limitations and weaknesses, alongside its strengths. To many laypeople and sports coaches, professional sport psychologists are already viewed with a degree of suspicion. At times they have failed to deliver the goods which they over-optimistically promised, or have packaged the goods in a way that clients have found unappealing. At other times sport psychologists have been regarded as manipulators or puppet masters who attempt to pull athletes' strings with one goal in mind, performance enhancement, at whatever price and with little regard to the sensitivities or wishes of the individual or team concerned (Patmore, 1986).

The reality of professional sport psychology is somewhat different. Increasingly sport psychologists would work hand in glove with athletes, coaches, administrators, dieticians, physiotherapists, physiologists, biomechanists and other technical specialists as part of a team devising packages and programmes which the athlete feels will be of benefit to him or her. There is little cloak and dagger or behind-the-scenes manoeuvring, and it is to be hoped that the continuance of this 'up front' approach will help to sweep away any lingering worries and apprehensions.

Undoubtedly, lurking on the fringes of the subject there may be those whose professional conduct leaves a great deal to be desired but as professional and amateur sport continues to become ever more systematic, and athletes become increasingly sophisticated and knowledgable in their approach to their chosen sport then the scope for sharp or poor practice becomes that much more limited. Professional bodies may feel that it is their sole responsibility to oversee standards in their disciplines but make no mistake, the customers themselves, working and playing out there in the sporting community, are equally capable of maintaining quality control and should be actively encouraged to continue to do so.

Presenting Sport Psychology

As an introductory sport psychology book it would have been very tempting, and much easier, for us to adopt the format which most sport psychology texts follow. These books are primarily geared to the needs of students of physical education or sport science, or those with a direct interest in practising sport psychology. As a consequence they often assume little background knowledge across psychology. We do not intend to denigrate these texts but it is important to signpost the way in which they put across sport psychology, and thereby make understandable the selection and categorization processes which authors and editors employ. Inevitably certain fields are given prominence while others are largely ignored, and the selection process may appear strange to those with little knowledge in

the area itself. To start to provide some guidance to the available literature, a list of the more popular sport psychology texts which have appeared since 1988 is presented at the end of this chapter.

Clearly there is no shortage of choice from a list which contains both general introductory texts and more specialist books, some written exclusively for the academic market, others for the expert practitioner. Unfortunately the psychological insight which is offered in some, but certainly not all, may be somewhat disappointing to anyone who is other than a complete newcomer to psychology. The depth of analysis is therefore one dimension along which these books differ. A further but equally significant dimension is the relative importance which is attached to either pure research or applied work. This distinction can be clearly seen in the contrast between teaching texts prepared for general sport psychology students and those written with the more lucrative applied sport psychology market in mind. To highlight this distinction, a list of contemporary applied sport psychology texts which have appeared since 1988 appears at the end of this chapter, a list developed from the earlier work of Sachs (1991).

As can be seen immediately, there is little overlap between the two book lists, a stark reminder of the two faces of sport psychology. In the subsequent chapters, while aiming to cover a broad range of material, our main focus has been on the pure or academic sport psychology research, with examples of applied techniques discussed if and when appropriate. In terms of the sport psychology texts geared towards an academic audience, a survey amongst BASS members was designed to discover which texts were most popular amongst those who organize or teach sport psychology courses in the UK (Biddle, 1992). The most cited general introductory texts (in order of citation) were those by Silva and Weinberg (1984), Schmidt (1988), Cox (1990), Carron (1980, 1984, 1988), Gill (1986), and Williams (1986). Unless you are familiar with these books, obviously this list tells you little of the content of existing sport psychology courses. Therefore to give you a greater feel for the primary areas of interest, we have listed the chapter headings from one of the most popular and up-to-date single author texts below (Cox, 1990):

Introduction
Personality and the Athlete
Attention in Sport
Arousal in Sport
Anxiety in Sport
Intervention Strategies
Achievement Motivation
Causal Attribution Theory
Aggression in Sport
Audience Effects
Team Cohesion
Leadership in Sport

To condense the key areas of primary interest yet further, it would be fair to say that sport psychology (which is that version not defined exclusively as motor skills and motor learning, see Schmidt, 1988) would still tend to focus on six primary issues. These are motivation, personality, aggression, arousal/stress/anxiety, psychological skills training/intervention practices, and finally, team processes. Depending upon your point of view, it is either reassuring as a sign of continuity or it is alarming as an indication of inertia that this is a list which would not have been unfamiliar to Coleman Griffith almost 70 years ago!

To help foster links between psychology and sport psychology we felt that it would be helpful to reframe this literature using categories which were familiar to psychologists from many diverse backgrounds. This may help psychologists feel comfortable with this material while at the same time it may also give sport scientists the opportunity to incorporate more recent research from within and beyond sport psychology into an expanded framework or mental set. In addition this framework may show professional psychologists where opportunities for further work may lie and at the same time inevitably shows the constraints imposed by existing knowledge frameworks. To move forward effectively, sometimes it is necessary to break with tradition and partially deconstruct certain 'topics' which may have formed the core of traditional sport psychology but which now inhibit rather than facilitate research intiatives. One prime example is motivation in sport which we have deliberately not treated as an isolated topic but have broken down into smaller and more manageable themes, themes which are then set in the context of relevant literatures from across psychology. Thus motivational themes emerge and are discussed in relation to individual differences and achievement motivation (Chapter 2), cognitive styles (Chapter 3), precompetition arousal (Chapter 4), work motivation and job satisfaction (Chapter 7), participation motivation and drop out (Chapter 8), and the psychophysiology of emotion and arousal (Chapter 9). The same is true for issues such as stress, anxiety and arousal in sport, topics which appear in many guises in many chapters. We make no excuse for this approach; instead we see it as a positive step which may help towards breaking free from traditional labels and outmoded research constraints and which eventually may encourage the development of models which can genuinely accommodate multiple perspectives.

Taken as a whole, the book represents an interchange between sport, sport psychology and the discipline of psychology, presenting current research in sport psychology and seeing how this fits within the wider frame of mainstream psychology. Lines of demarcation between subdisciplines within psychology are never clear cut and there are bound to be occasions where material does not fit tidily under one label, or it could be argued is more appropriate elsewhere. Where there are overlaps then it is important not to ignore these territorial disputes and we certainly do not regard the boundaries between the branches of psychology as set in stone. Instead, the book's structure represents a heuristic framework which is permeable and amenable to change but which also provides some convenient and readily identifiable categories with which to segment the array of material which now constitutes sport psychology.

If nothing else, *Psychology in Sport* should help you appreciate the diversity and the dynamism of sport psychology. The scene continues to change rapidly, and there are many significant research initiatives which point the way towards a very healthy future for the

subject as a whole. Boundaries between disciplines and between interest areas no longer seem quite so daunting and the distance between psychology and sport psychology shrinks perceptibly by the day. These are all positive signs but at the same time there are a number of old chestnuts which continue to roast away in the fire. Professional issues still occupy a great deal of time and energy, centring most recently around the question of certification or chartering. At least sport psychologists can take comfort from the fact that they are not alone here, with many branches of psychology wrestling with similar sorts of professional problems. In a broader sense, the relationship between theory and practice, and between pure and applied research is a long way from being resolved. However, this conflict or tension may not always be counterproductive, and in some ways it may be a useful source of both energy and checks and balances. One very good example is the work on stress, arousal and anxiety, highlighted in Chapter 4, where empirical research and practical interventions seem to be converging yet from entirely different directions.

For those encountering the sport psychology literature for the very first time, the diversity of interests of sport psychologists must be bewildering. It is no longer possible to call yourself a general sport psychologist and be capable of keeping abreast of all developments across all these areas. The era of the research specialist is dawning, yet it is to be hoped that with an expanding student demand and with a growing market in sport itself that the corporate identity of sport psychology is not lost. At the present time, the field is showing definite signs of bifurcation, with sport psychology continuing to concentrate most heavily on competitive sport while a newer and extremely vigorous offshoot, exercise psychology, now focuses on the psychology of physical exercise and activity. We have tried to keep our focus on competitive sport but at the same time we have included signposts towards the exercise psychology literature, and have delved into that material in greater depth when we felt it was important. The split between exercise and sport psychology was inevitable and represents yet one more saga in an ongoing story of development for the subject area. It is likely that this division will become more and more obvious over the coming years and particularly given the speed with which exercise psychology has developed during the late 1980s, and the good relationships which have already been established with other health related branches of psychology. This distinction between sport and exercise psychology is entirely understandable yet the original links are also so important to both areas that it is to be hoped that a state of peaceful coexistence and cooperation prevails for the foreseeable future.

At the end of the day, whether or not we have been successful in first of all pulling apart and then weaving together the strands which go to make up contemporary sport psychology will eventually be left to you to decide. We remain convinced that the enterprise has been worthwhile, if for nothing else as a way of encouraging yet closer cooperation between psychology and sport psychology and through this to help develop a deeper understanding of sport research within the wider psychological community. Separate development rarely leads to long term happiness; more often it is a step on a long road to acrimony. A healthier alternative is to encourage open and frank communication, to recognize strengths and weaknesses, similarities and differences, and through this process to help to marry good theory with good practice. Whether you call yourself a psychologist, a sport scientist, a coach, an athlete or merely someone with a

general interest in sport, it is in this spirit of 'sport psychology for all' that *Psychology in Sport* is presented.

References

ANSHEL, M.H. (1992) 'The case against the certification of sport psychologists: In search of the phantom expert', *The Sport Psychologist, 6,* pp. 265–86.

BIDDLE, S. (1992) 'Psychology on sport science/sport studies degrees', *British Association of Sports Sciences Newsletter,* 2, 1, pp. 12–13.

BUNKER, L.K. and MAGUIRE, N. (1985) 'Give sport psychology to sport', in BUNKER, L.K. *et al.* (Eds) *Sport Psychology: Psychological Considerations in Maximizing Sport Performance,* Ithaca, NY: Movement Publications, pp. 3–14.

CARRON A.V. (1980) *Social Psychology of Sport,* Ithaca, NY: Movement Publications.

CARRON, A.V. (1984) *Motivation: Implications for Coaching and Teaching,* London, Ontario: Sports Dynamics.

CARRON, A.V. (1988) *Group Dynamics in Sport,* London, Ontario: Spodym.

Cox, R.H. (1990) *Sport Psychology: Concepts and Applications,* Dubuque, IA: Wm Brown.

FELTZ D.L. (1987) 'Advancing knowledge in sport psychology: Strategies for expanding our conceptual frameworks', *Quest,* 39, pp. 243–54.

FURLONG, W.B. (1976) 'Psychology of the playing fields', *Psychology Today, July*.

GILL, D.L. (1986) *Psychological Dynamics of Sport,* Champaign, IL: Human Kinetics.

KREMER, J. and SCULLY, D. (1991) 'Psychology and sport: Past, present...and future?' *The Psychologist: Bulletin of the British Psychological Society,* 4, pp. 147–51.

OGILVIE, B.C. and TUTKO, T. (1966) *Problem Athletes and How to Handle Them,* London: Pelham Books.

PATMORE, A. (1986) *Sportsmen under Stress,* London: Stanley Paul.

ROBERTS, G.C. and KIIECIK, J.C. (1989) 'Sport Psychology in the German Democratic Republic: An interview with Dr Gerd Kanzag', *The Sport Psychologist,* 3, pp. 72–77.

SACHS, M. L. (1991) 'Reading list in applied sport psychology: Psychological skills training', *The Sport Psychologist,* 5, 1, pp. 88–91.

SALMELA, J.H. (1984) 'Comparative sport psychology', in SILVA, J.M. and WEINBERG, R.S. (Eds) *Psychological Foundations of Sport,* Champaign, IL: Human Kinetics, pp. 23–34.

SCHMIDT, R. (1988) *Motor Control and Learning,* Champaign, IL: Human Kinetics.

SILVA, J.M. and WEINBERG, R.S. (Eds) (1984) *Psychological Foundations of Sport,* Champaign, IL: Human Kinetics.

TRIPLETT, N. (1898) The dynamogenic factors in pacemaking and competition', *American Journal of Psychology,* 9, pp. 505–23.

WIGGINS, D.K. (1984) The history of sport psychology in North America', in SILVA, J.M. and WEINBERG, R.S. (Eds) *Psychological Foundations of Sport,* Champaign, IL: Human Kinetics.

WILLIAMS, J. (1986) *Applied Sport Psychology: Personal Growth to Peak Performance,* Palo Alto, CA: Mayfield.

Further Reading

Basic Sport Psychology Texts (1989–1993)

BAKKER, F.C., WHITING, H.T.A. and VAN DER BRUG, H. (1990) *Sport Psychology: Concepts and Applications,* Chichester: John Wiley and Sons.

BIDDLE, S. and MUTRIE, N. (1991) *Psychology of Physical Activity and Exercise,* London: Springer-Verlag.

CARRON, A.V. (1988) *Group Dynamics in Sport,* London, Ontario: Spodym.

Cox, R.H. (1990) *Sport Psychology: Concepts and Applications;* 2nd edn, Dubuque, IA: Wm C. Brown.

DAVIES, D. (1989) *Psychological Factors in Competitive Sport,* London: Falmer Press.

DIAMANT, L. (Ed.) (1991) *The Psychology of Sports, Exercise and Fitness: Social and Personal Issues,* New York: Hemisphere.

DIAMANT, L. (Ed.) (1991) *Mind-Body Maturity: Psychological Approaches to Sports, Exercise and Fitness,* New York: Hemisphere.

DISHMAN, R.K. (Ed.) (1988) *Exercise Adherence: Its Impact on Mental Health,* Champaign, IL: Human Kinetics.

HEIL, J. (1993) *Psychology of Sport Injury,* Champaign, IL: Human Kinetics.

HORN, T.S. (Ed.) (1992) *Advances in Sport Psychology,* Champaign, IL: Human Kinetics.

LE UNES, A. and NATION, T. (1989) *Sport Psycbology,* Chicago, IL: Nelson-Hall.

MARTENS, R., VEALEY, R.S. and BURTON, D. (1990) *Competitive Anxiety in Sport,* Champaign, IL: Human Kinetics.

OSTROW, A.C. (1990) *Directory of Psychological Tests in the Sport and Exercise Sciences,* Morgantown, WV: Fitness Information Technology.

REJESKl, W.J. and KENNEY, E.A. (1988) *Fitness Motivation: Preventing Participation Dropout,* Champaign, IL: Human Kinetics.

ROBERTS, G.C. (Ed.) (1992) *Motivation in Sport and Exercise,* Champaign, IL: Human Kinetics.

SCHILLING, G. (Ed.) (1992) *Sport Science Review: Volume 1(2), Sport Psychology,* Champaign, IL: Human Kinetics.

SALMELA, J.H. (1992) *The World's Sport Psychology Sourcebook,* 2nd edn, Champaign, IL : Human Kinetics.

SINGER, R.N., MURPHEY, M. and TENNANT, L K. (Eds) (1993) *Handbook of Research on Sport Psychology,* New York: Macmillan.

THOMPSON, R.A. and TRATTNER-SHERMAN, R. (1993) *Helping Athletes with Eating Disorders,* Champaign, IL: Human Kinetics.

WEINBERG, R.S. and RICHARDSON, P.A. (1990) *Psychology of Officiating,* Champaign, IL: Human Kinetics.

WILLIS, J.D. and CAMPBELL, L.F. (1992) *Exercise Psychology,* Champaign, IL: Human Kinetics.

Applied Sport Psychology Texts (1989–1993)

ALBINSON, J.G. and BULL, S.J. (1988) *The Mental Game Plan,* London, Ontario: Spodym.

BULL, S.J. (Ed.) (1991) *Sport Psychology: A Self-help Guide,* Wiltshire: The Crowood Press.

BUMP, L. (1989) *Sport Psychology Study Guide (and Workbook),* Champaign, IL: Human Kinetics.

CURTIS, J.D. (1989) *The Mindset for Winning,* La Crosse, WI: Coulee Press.

HARDY, L. and FAZEY, J. (1990) *Mental Training,* Leeds: The National Coaching Foundation.

HEMERY, D. (1991) *Sporting Excellence: What Makes a Champion?* London: Harper Collins.