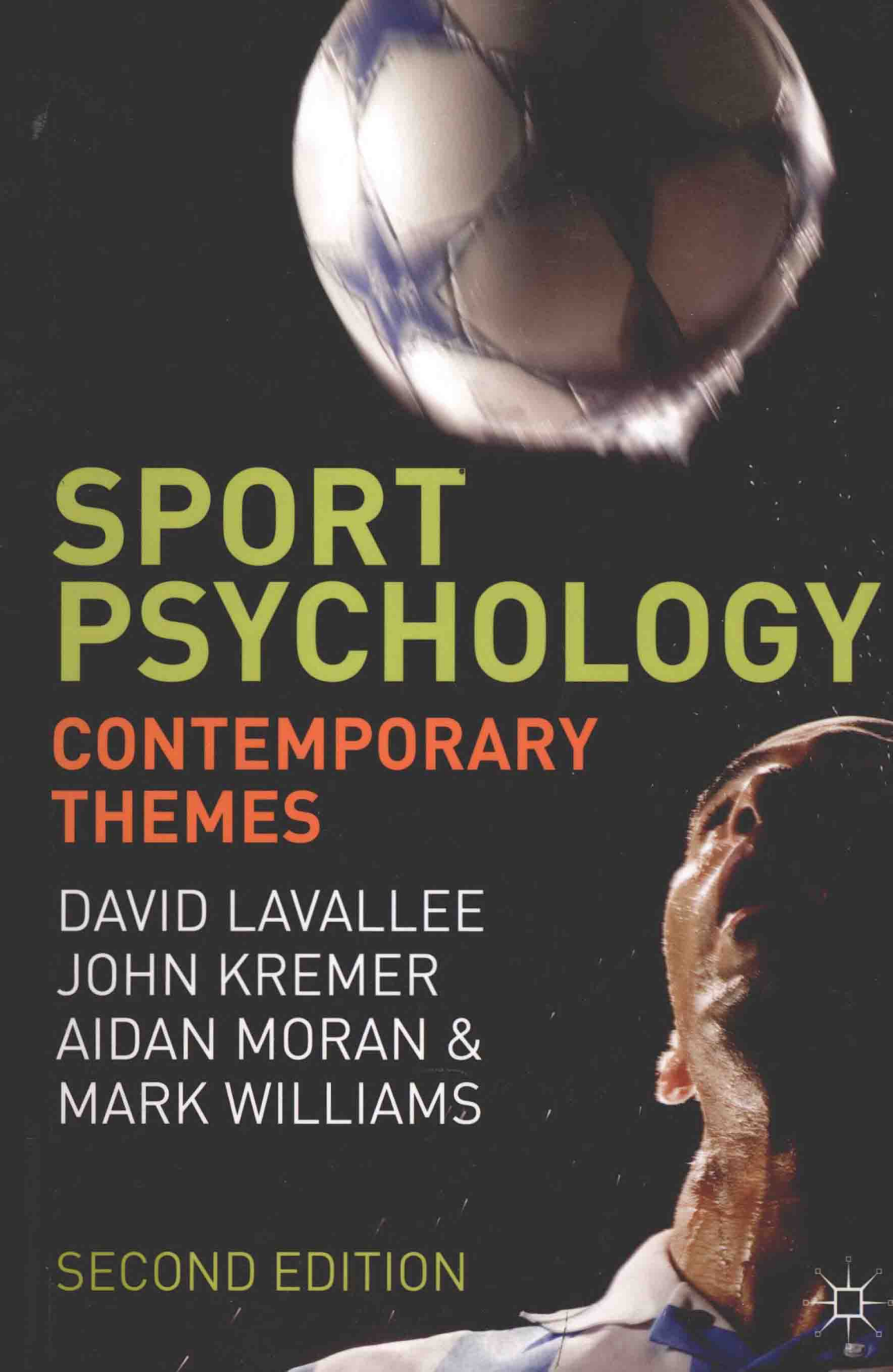

SPORT PSYCHOLOGY

CONTEMPORARY THEMES

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SECOND EDITION

Sport Psychology

Contemporary Themes

2nd Edition

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To our families, for all their support

Preface

Sport psychology continues to attract considerable attention, in both psychology and the sport sciences where an increasing number of students encounter the subject as part of their programme of study. Sport psychologists have also tended to concentrate their efforts on a limited number of themes, and it is the aim of this second edition of *Sport Psychology: Contemporary Themes* to draw together in one text the contemporary literature around these themes in an accessible and up-to-date manner. Each of the 11 chapters follows a consistent format with subheadings to assist the reader: Introduction, History and Development; Theories and Models; Methods and Measures; and Practical Issues and Interventions. Case Studies, Further Readings and Study Questions are also included with each chapter.

Principally the book is targeted towards psychology, sport science and sport studies students who are taking advanced undergraduate and graduate modules in sport and exercise psychology. The book has been written in a way that is suitable for recommendation either as a main text or as a supplementary reading, and can be used in association with projects and tutorial work dealing with applied topics such as sport and exercise. Beyond this primary audience, the text will be of interest to a wider readership across the sport sciences, social sciences and humanities, as it provides a concise overview of current research and debate on each topic. It is not expected that the book will necessarily be read from cover to cover. For this reason, each chapter has been written so that it may stand alone, but we have made every effort to ensure that the book as a whole is consistent and addresses all major theoretical perspectives and applied concerns in the field. For those who do read the entire book, it is hoped that they will have developed an appreciation of important advances, dialogues and debates in contemporary sport psychology, and the sort of issues that are raised when applying theories and methods in this field.

The book's introductory chapter describes the genesis and history of sport psychology, charting the development of professional structures, the ongoing tensions between pure and applied work and the distinctions between sport and exercise psychology as revealed over recent years. In Chapter 2 a brief history of the applied aspects of the field is provided, followed by a review of different models of practice within sport psychology. Practical issues associated with confidentiality, ethics, counselling, consultancy, competence and testing are also outlined.

Chapter 3 focuses on the topic of imagery, and examines how it is used by athletes, how effective it is in improving athletic performance and what theoretical and practical issues are raised by the study of imagery in action. In Chapter 4, Motivation, the antecedents, correlates and consequences of participation in physical activity are explored. The relationship between intrinsic and extrinsic factors is highlighted in this review of the contemporary literature, along with techniques for enhancing long-term motivation. Chapters 5 and 6, which focus on Concentration and Anxiety respectively, explore how each of these topics can be measured effectively, examine what research reveals about the relationship between these topics and sporting performance and reviews what strategies are most effective in competitive situations.

In Chapter 7, the essential attributes that distinguish experts from novices are reviewed and provide a principled basis for determining the types of practice that are most likely to be beneficial for enhancing the development of expertise. Chapter 8 reviews the extant literature on acquiring skill in sport and focuses on the emerging themes within this area. Chapter 9 considers the relationship between team dynamics and performance, in particular dealing with factors such as maturity, playing position, type of sport (interactive/co-active) and venue. Techniques for measuring team cohesion are also outlined, along with practical guidance on the development of appropriate team atmosphere. The athlete's career is the focus of Chapter 10, with a focus on the different transitions that they are presented with throughout their career. Finally, Chapter 11 deals with the relationship between physical activity and psychological well-being, and focuses on the particular circumstances in which exercise may or may not improve mental health.

Contents

List of Figures and Tables viii
Preface ix

1 Introduction 1
2 Practising Sport Psychology 19
3 Imagery 35
4 Motivation 58
5 Concentration 96
6 Anxiety 124
7 Sport Expertise 146
8 Acquiring Sport Skills 167
9 Teams 190
10 The Athlete's Career 221
11 Exercise and Mental Health 247

Bibliography 274
Index 337

List of Figures and Tables

Figures

4.1	Revised cognitive-behavioural process model of participation motivation	93
5.1	Concentration is vital for success in sport	98
5.2	Concentration principles	110
5.3	Concentration techniques	115
5.4	Pre-performance routines help athletes to concentrate effectively when performing self-paced skills	117
7.1	An example of the typical stimuli employed in a temporal occlusion study involving the tennis forehand drive shot. Three temporal occlusion periods are illustrated. TA = occlusion before ball-racket contact; TB = occlusion at the moment of ball-racket contact; TC = occlusion after ball-racket contact	154
7.2	A pictorial representation of the tennis forehand drive shot in point-light display format	156
7.3	An example of data being gathered using a head-mounted, corneal reflection system. a) The image from an external camera focusing on the shooter; b) an image of the eye picked up by the head-mounted camera; c) an image of the scene with the visual point-of-gaze highlighted	157
7.4	Hours per week spent in team practice, individual practice, match play and playful activities in soccer for elite (a) and sub-elite (b) soccer players	162
8.1	Some of the important factors underlying effective instruction	172
8.2	Mean absolute (AE) and variable error (VE) scores for the three groups of participants during acquisition and retention	174
8.3	The mean relative improvement in performance from pre- to post-test for participants on the juggling and ball control skill tests	186
10.1	Developmental model of transitions in sport	234

Tables

2.1	Behaviours identified as controversial in the AAASP Ethics Survey	28
2.2	Criteria for standard AAASP certification	31
7.1	Mean performance scores and standard deviations on the pre- and post-tests for the three groups of participants	164
10.1	Athlete career intervention programmes	241

1 Introduction

INTRODUCTION, HISTORY AND DEVELOPMENT

To begin at the beginning, what do we mean by the term 'sport and exercise psychology'? Sounds straightforward but the term can mean many different things to different people. To a coach or athlete it may mean the actions of a 'Mr Motivator' who is brought in to help the team or individual 'psych up' for an important game. To a sport scientist it may describe that branch of the discipline that focuses on the brain and central nervous system and their influence on sports' performance. To a health psychologist it may be defined as the psychology of physical activity in general. To a clinical psychologist it may mean particular therapeutic interventions associated with physical activity. To a sport and exercise psychologist the term may describe a subdiscipline of psychology that applies psychological theories and methods to an understanding of physical exercise in general and competitive sport in particular. Each working definition is appropriate for its own target audience. Some focus on practical application, some highlight professional concerns while others consider the subdiscipline in its entirety. At the very least the diversity of interpretations should immediately alert us to an appreciation of the disparate sources of influence and the broad church which is now known as sport and exercise psychology.

A related question which then springs to mind is who is it for? Again, the answer you find will depend entirely on whom you ask. According to some, its primary audience should be those who actually take part in sport. To others, sport and exercise psychology should feed the disciplines and professions associated with sport and exercise science or perhaps applied psychology. Others would argue it should not be 'for' anyone in particular but should aim to advance scientific knowledge as a noble end in itself. Once more, there is no simple answer to the question posed, but to restrict ownership to any single constituency is not likely to help the subdiscipline develop. Instead there may be a need to adopt a more flexible and pragmatic approach, arguing that work, whether applied or academic, can be tailored to meet the needs of a variety of potential users both inside and outside the world of sport.

As to where this enterprise first began, it is often said that there is nothing new under the sun and undoubtedly this sentiment can be applied to sport and

exercise psychology. From the earliest descriptions of sport we encounter discussion of associations between the physical and the psychological, whether in terms of competitive sport itself ('the psychology of sport') or physical activity and psychological functioning ('the psychology of exercise'). In this respect, this book represents a culmination of a long and noble history, stretching back over many centuries. In another respect, it is the case that the history of sport psychology as a distinct and defined entity or subdiscipline is regrettably brief, spanning only a few decades. In succeeding chapters the spotlight will fall on the more recent history of research but it is always worthwhile revisiting the past to see what lessons can be learnt and what pitfalls can be avoided in the future as this exciting field of scientific endeavour continues to unfold and evolve.

The story of sport psychology began in earnest with the writings of the ancient Greeks, a civilisation which vigorously extolled the virtues of physical prowess, celebrated male and female athleticism and had no hesitation in associating the ongoing health of the nation state with the personal health of its citizens. From Homer onwards, Greek literature is peppered with references not only to the significance of sport but also to the psychology of sport. Greek historians vividly illustrate how training methods of ancient Greek athletes owed as much to psychology as to any other science, and indeed how organised and professional that training became over time (see Gardiner, 1930; Sweet, 1987). Even as early as the fourth century BC, Aristotle was able to write, in his work *Nicomachean Ethics*: 'We argue more about the navigation of ships than about the training of athletes, because it has been less well organised as a science.' Six hundred years later, in his book *Gymnastic*, Philostratus challenges this 'traditional' science, railing against the rigidity of what had become the gold standard of athletic training, known as the 'tetrad' or four-day system, a system guided by psychological as well as physiological principles (day one, preparation; day two, concentration; day three, moderation; day four, relaxation). From these writings it is clear that trainers were acting as sport psychologists as well as physiologists, dieticians and life coaches and, what is more, nothing was left to chance in terms of 'total preparation' for the Greek games.

At the present time, as sport becomes increasingly professional in every sense of the word, it is worthwhile reflecting on the history of these games and in particular the reason for their ultimate demise. According to Harris (1964), the root of the problem lay with professionalism that spawned the 'stiltifying aim, "At all costs avoid losing"' (p. 190). The deleterious effects of extrinsic rewards on motivation will be explored in greater detail in Chapter 4, but for now it is interesting to reflect on Harris's analysis of how things started to go awry:

> It was in the heavyweight events of the Greek athletic programme that the professional's desire to avoid taking risks and to avoid defeat at all costs showed its deadly results. We have seen the great increase in the number of drawn matches in these events as time went on, and the situation reached

the height of absurdity in the ability of the boxer Melancomas to go on skipping round his opponent for two days without exchanging a blow.

The world of professional sport should take note – we skip history at our cost!

In a more positive vein, to the ancient Greek and also the later Roman civilisations, sport and physical prowess occupied a pivotal role. Their games were not only a source of community entertainment, but also represented a celebration and confirmation of the vitality of their cultures and burgeoning empires. Of all the ancient Mediterranean city states, the one that elevated the celebration of physical prowess to its ultimate pitch was the Spartan. In the seventh century BC, and following a brutal war with Messenia which left the Spartans victorious (but outnumbered ten to one by those they had vanquished), Sparta set about developing a city state which was as harsh as it was efficient. From the moment of birth, boys and girls faced tests of physical endurance literally designed to cull the weakest so as to ensure a fit and healthy population. For example, the state demanded that young children should be left exposed on an open hillside for several days to determine who was physically capable of survival. The Duke of Wellington is said to have remarked that the Battle of Waterloo was won on the playing fields of Eton. More than two thousand years earlier, Sparta had in place an education system which the Iron Duke doubtless would have envied. By the age of seven, every Spartan boy was sent to military and athletic boarding school to be taught toughness, discipline, endurance of severe pain and survival skills. At the age of twenty, Spartan men then moved to the army barracks where they continued to live out their 'Spartan' existence, away from unmanly distractions including their wives and families.

Leaving aside the brutal excesses of this particular regime, it is interesting that many of the early beliefs concerning sport and exercise psychology continue to stand the test of time so well. For example, today's exercise psychologists constantly extol the motto, *Mens sana in corpore sano* [A healthy mind in a healthy body]. The phrase actually derives from the Roman author Juvenal and his 10th Satire, written in the first century AD. This satire ponders a number of topics and especially the onset of old age, which was the focus of the original quotation, *Orandum est ut mens sana in corpore sano* [Your prayer must be that you may have a sound mind in a sound body].

While the lessons of history are powerful, we must not become slaves to history. As Chapter 11 hopes to demonstrate, contemporary research highlights that the relationship between health, physical exercise and psychological well-being is far from straightforward, but praying for a sound mind and body in old age is no bad thing.

From these early days of sport and exercise psychology, charting a history of work through to the beginning of the twentieth century is well nigh impossible. Instead, it is fair to say that sport in its many guises has always provided fertile opportunities for both participants and spectators to reflect on psychological

RESEARCH BOX

Unlike the other studies highlighted in the Research Boxes throughout this book, the study selected for this chapter is the oldest experimental paradigm in social psychology and the first to look at what we now perceive as a sport psychology phenomenon. The research by Norman Triplett (1898) attempted to explain the subject of pacemaking and competition. A keen amateur cyclist himself, Triplett initially gained access to the official records of the *Racing Board of the League of American Wheelmen* at the end of the 1887 season. These data included the times of three types of professional races; actual race times (against either other paced or timed competitors), paced races against time and unpaced races. Consistently Triplett found that times in the unpaced races were slower and this archival research provided the impetus for a follow-up study involving an experiment in which children wound a length of silk on to a reel, either working alongside a co-actor performing an identical task or alone. Those winding line while sitting alongside another who was also reeling recorded significantly faster times than those reeling alone. This led Triplett to conclude that the presence of others in competition served as a stimulus to arouse the competitive instinct and this, in turn, led to the release of energy stores ('dynamogism') that could not be released when competing alone.

This pioneering study paved the way for later social psychological research on social facilitation. What is more, and predating the extensive literature on competitive anxiety in sport (see Chapter 6), Triplett acknowledged that individuals, whether professional cyclists or children, often responded very differently to the rigours of competition. Some rose to the challenge and performed better ('the arousal of their competitive instincts and the idea of a faster movement') while others were overstimulated by the prospect and actually performed worse in the presence of others ('going to pieces'). Trying to untangle the complex relationship between arousal and performance remains a problem which sport psychologists wrestle with over one hundred years later, and a recent replication of Triplett's work (Strube, 2005) employing contemporary analyses critiques the original conclusions. However, Davis, Huss and Becker (2009) acknowledge that regardless of the results, Triplett made a perceptive observation of a real-world phenomenon.

issues. However, despite this long-standing preoccupation with the psychology of sport, it was only in the 1960s that people began to describe themselves as sport psychologists. Before that time there were a number of significant pioneers who legitimately could be labelled as sport psychologists but whose endeavours were rarely supported by the normal dedicated infrastructures associated with academia and scientific discovery. For example, from the 1890s, various psychology departments included staff with an interest in the psychology of sport but these individuals rarely fostered structures which withstood the test of time. The one exception to this rule relates to work on motor skills and motor development (see Chapter 7) which has long featured as a significant component of most psychology degrees and from the 1890s onwards has often based analyses of motor skills on sport-related activities (Wiggins, 1984).

Across the discipline as a whole, psychological research with a sporting dimension began to appear around the turn of the nineteenth century. The most famous early example of a systematic research programme was Norman Triplett's archival and experimental work on 'dynamogenic factors' (1898) in the United States.

Other writers in this period were offering less systematic and empirical appraisals of sporting behaviour than Triplett's. For example, at roughly the same time as LeBon and Freud were describing the psychodynamics of crowd behaviour in general, articles dealing with spectator psychology were beginning to appear. These included papers by Patrick (1903) on the psychology of American football and Howard (1912) on the cathartic effects associated with watching sport. However, calls for further spectator research (Howard, 1912) went unheeded, at least until the 1950s (Hastorf and Cantril, 1954).

Leaving these early contributions to one side, almost without exception sport psychologists identify the mid-1920s as the watershed in the development of sport psychology and this is due almost entirely to the work of one man, Dr Coleman Roberts Griffith. Griffith's interest in sport psychology began informally during his time as a PhD student at the University of Illinois but continued in earnest following his appointment to the teaching staff at the same university under the watchful eye of Professor George Huff, head of the department of physical education and director of physical welfare for men. An educational psychologist by training, Griffith taught within both the psychology department and the department of physical welfare. In 1923 he introduced a course titled 'Psychology and athletics', and two years later, in 1925 was instrumental, along with Huff, in establishing and subsequently directing the Athletic Research Laboratory. His research interests were wide-ranging and included work dealing with motor skills, motor learning, perception, personality and individual differences, but always with a primary emphasis on practical application. This orientation is reflected in the content of Griffith's

two celebrated texts, The Psychology of Coaching (1926) and Psychology and Athletics (1928), especially the former which outlines guiding principles for successful coaching.

It would be reassuring to describe Griffith's work as marking the launching pad for sport psychology, particularly as the University of Illinois continues to be regarded as a centre of excellence in this field; a great many eminent sport psychologists having completed postgraduate study there, including Schmidt, Martens, Gould, Roberts and Duda. Sadly the truth is more depressing. In 1932, through economic necessity, the Athletic Association was forced to withdraw funding from the laboratory. Griffith subsequently resigned his post and the Athletic Research Laboratory closed. Disillusioned, Griffith then turned his considerable energies back towards his original area of interest, educational psychology, publishing four texts in this area while making only occasional forays back into the world of sport psychology (Green, 2009). This included a chapter on psychology and athletics in his *Introduction to Applied Psychology*, published in 1941, and his work as a consultant sport psychologist with the Chicago Cubs baseball team in 1938.

In North America, the 1940s and 1950s are now characterised as a period of stagnation, with the exception of motor learning research that flourished in the post-war years through the work of John Lawther (Pennsylvania State University), Franklin Henry (University of California) and Arthur Slater-Hammel (Indiana University) (see Chapter 9). According to Salmela (1981), in Eastern Europe this period was also relatively quiet, although as early as 1926 Coleman Griffith had visited two newly established sport psychology laboratories in Berlin, run under the auspices of Sippel and Schulte, while other European universities, including Leipzig, had at least some sport psychology on their curricula. In addition, there is evidence, dating back to the early part of the twentieth century, of Soviet sport scientists looking at the psychological benefits of physical activity.

Although historical evidence is incomplete, it would appear that these initiatives survived in some form through World War II, but it was the period between 1945 and 1957 that marked the true emergence of sport psychology in the former Soviet Union, under the guidance, in particular, of Peter Roudik and A. C. Puni (Hanin and Martens, 1978). Some of this work ran in parallel with the Soviet space programme, for example yoga techniques were used to train cosmonauts and these same self-regulation skills were later employed with Eastern bloc athletes during preparation for the 1976 Olympics (Garfield and Bennett, 1984).

By the time of the 1956 Olympics in Melbourne, sport psychologists were accompanying Eastern European teams, although at that time, it is more likely that they were passive observers rather than active consultants. From the 1970s onwards Olympic competitors from East Germany and the Soviet Union were using sport psychologists as a matter of routine (Roberts and Kiiecik, 1989) and Eastern bloc countries in general had come to accept the benefits to be gained

from psychological interventions, for example in relation to self-regulation, mental practice and imagery. Even as early as the 1968 Mexico Olympics, Dr Miroslav Vanek had put in place a large-scale psychological and psychomotor screening and interview programme involving the 124 Czechoslovakian athletes at the games, a programme which subsequently met with mixed success (Vanek and Cratty, 1970). Indeed it was Vanek who became the driving force behind the establishment of the International Society of Sport Psychology (ISSP) that met for the first time in Rome in 1965.

The long-standing relationship between sport and 'psychology' in Eastern European countries revealed itself from behind the Iron Curtain, albeit bizarrely, during the course of the World Chess Championships in the Philippines in 1978 (Patmore, 1986, pp. 231–2), at the same time maybe debunking some of the aura which had come to surround Soviet sport psychology. In an early round of the championship, when playing a fellow Soviet player Boris Spassky, Korchnoi had become paranoid over Spassky gaining access to his biorhythm chart. He went on to accuse Spassky of deliberately directing 'psi' waves against him during games, waves that he then employed a team of Swiss parapsychologists to intercept. In the grand final, his opponent Anatoly Karpov was accompanied by the renowned Soviet parapsychologist Dr Vladimir Zukhar, who sat pointedly in the front row of the stalls 'psyching out' Korchnoi. In desperation, Korchnoi retaliated by hiring two Americans to help him meditate and 'psych out' Zukhar. The story then moves from the sublime to the ridiculous as the American meditators were exposed as alleged criminals who were actually out on bail for attempted murder! Their banishment from the hall was followed swiftly by Korchnoi's resignation in game 32.

Returning closer to home, without doubt the mid-1960s marked the genesis of organised sport psychology in the Western world (although it was not until 1988 that a sport psychologist actually accompanied the US Olympic team in an official capacity). The late 1960s witnessed a rapid growth of the subject within physical education departments in the United States, reflected in terms of both the size of teaching classes and the volume of published research. On some occasions the subject evolved with support from previous links with psychology and motor learning, but more often the impetus for growth came from sport scientists whose background was primarily in physical education but whose interests lay in the field of psychology. It was at this time that the broad themes which still concern many sport psychologists to this day were defined, namely motivation, competitive anxiety, individual differences, motor skills, motor learning, aggression, psychological skills training/interventions, social cognition and team dynamics.

The stage was now set for the subdiscipline to develop the structures normally associated with any academic discipline. As mentioned above, the First International Congress of Sport Psychology was organised in Rome by the newly formed ISSP in 1965, and in the same year preliminary meetings were

held which by 1968 had led to the development of the European Federation of Sport Psychology (FEPSAC) as well as the official recognition of the North American Society for the Psychology of Sport and Physical Activity (NASPSPA), as distinct from its parent body, the American Association of Health, Physical Education and Recreation (AAHPER). Over time the NASPSPA has gone on to form three divisions, namely motor learning/control, motor development and sport psychology. Throughout the early stages of growth, the parent discipline of psychology maintained a discreet distance. It was not until 1986, a further twenty years later, that the American Psychological Association (APA) finally took official cognisance of sport psychology with the formation of a new section, Division 47, concerned with exercise and sport psychology.

The 1970s saw a consolidation of the subject, with the launching of the *International Journal of Sport Psychology* in 1970 and the *Journal of Sport Psychology* in 1979. Since then numerous other journals have also come to provide outlets for sport psychology research, including *Journal of Applied Sport Psychology, Journal of Sport & Exercise Psychology, Journal of Sport Behavior, Journal of Sport Sciences, Psychology of Sport and Exercise, Journal of Clinical Sport Psychology* and *The Sport Psychologist*.

Developments in other Western countries have followed the lead taken by the United States. For example, the Canadian Society for Psychomotor Learning and Sport Psychology (CSPLSP) became independent from its parent body, the Canadian Association for Health, Physical Education and Recreation, in 1977. Elsewhere documented evidence is less easy to find, although it is interesting to note that the Brazilian soccer team that won the World Cup in Sweden in 1958 brought a sport psychologist to help foster team spirit and cohesiveness through post-hypnotic suggestion – much to the amusement of the assembled soccer pundits (Patmore, 1986, p. 229).

In comparison with North America, the road to recognition and respectability in the United Kingdom has been considerably longer. The players involved have also been far fewer in number but the basic storyline is remarkably similar. The story begins with the formation of the British Association of Sports Sciences (BASS), which held its inaugural meeting in 1984. This general forum for sports scientists soon divided into different sections, namely biomechanics, physiology and psychology, together with an open section, and changed its title to the British Association of Sport and Exercise Sciences (BASES) during the 1990s. In 1988 BASS (later BASES) took the first step towards implementing a register of sport psychologists, a final draft of which became available in 1992. Only those members who are accredited by BASES are eligible to be recommended as professional sport psychologists by the Sports Council, or to be employed by sports' governing bodies under the auspices of the National Coaching Foundation. 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 British Psychological Society (BPS), the representative body for psychology and psychologists in the United Kingdom, has mirrored the caution of the APA in taking its time to become professionally acquainted with sport psychology. In 1992 the Scientific Affairs Committee of the BPS agreed in principle to the establishment of a sport and exercise psychology interest group in the BPS, a decision endorsed by the formation of a separate BPS Sport and Exercise Psychology Section at the annual conference in April 1993. A Division of Sport and Exercise Psychology was subsequently formed in 2004 in response to the increase in academic status and public recognition of sport and exercise psychology and ensures that members who practise and offer services within sport and exercise psychology are qualified and trained according to the Charter, Statutes and Rules of the BPS.

These professional developments may at first glance appear relatively trivial but they will be vital in determining the direction in which sport and exercise psychology heads over coming years, the priorities which will occupy centre stage and the degree of regulation over those who operate as sport and exercise psychologists. For example, recent years have witnessed ever clearer lines of demarcation being drawn between sport psychology and exercise psychology, the former focusing on 'healthy' athletes and their engagement with competitive sport, the latter dealing with the psychological effects of physical exercise in both clinical and non-clinical settings. Many exercise psychologists would see themselves as being more closely aligned with health and clinical psychology than sport psychology, and it will be interesting to see how relationships continue to develop over time, and whether existing structures will be able to accommodate their different priorities. Furthermore, the necessary tensions between pure and applied sport psychology will continue to provide a dynamic which may be common to applied psychology in general but which nevertheless requires constant attention. Certainly, the history of sport and exercise psychology has been intriguing and its future looks no less interesting.

THEORIES AND MODELS

The contemporary theories and models associated with particular sport and exercise domains will be elaborated in subsequent chapters. At a more general level, the early years of sport psychology tended to be characterised by the adoption and subsequent application of theories, which had originated elsewhere in psychology. The pioneers of sport psychology in the 1960s and 1970s, normally coming from an academic background in physical education and the sport sciences, drew heavily on existing psychological theories and models