

Sport Psychological Interventions in Competitive Sports

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By

Jürgen Beckmann and Anne-Marie Elbe

CAMBRIDGE
SCHOLARS

P U B L I S H I N G

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This book first published 2015

Cambridge Scholars Publishing

12 Back Chapman Street, Newcastle upon Tyne, NE6 2XX, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

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ISBN (10): 1-4438-6519-2, ISBN (13): 978-1-4438-6519-7

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ABOUT THE AUTHORS

Jürgen Beckmann is a full professor for sport psychology at the Technische Universität Munich, Germany, and was president of the German Association for Sport Psychology from 2005 to 2009 and editor-in-chief of the *Zeitschrift für Sportpsychologie* from 1998 to 2000. Besides his academic education as a psychologist, he completed training in clinical hypnosis. He is a certified coach in a number of different sports and, as a sport psychologist, has been consulted by numerous top athletes and national teams (among others, professional football, basketball, golf and alpine skiing) for more than 25 years.

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FOREWORD

Sport psychology has been receiving more and more interest over the past years, and it is almost common knowledge that being fully present mentally, when required, can give an athlete the final edge in competition. Still, there seem to be differing opinions about the role that the psyche plays and how important psychology in sports really is. Some people consider the use of psychological skills to be a pure waste of time or to simply be an excuse for poor performance. Coaches often say that they have sufficient psychological skills to influence their athletes and that all they really need to have is sympathy, willingness to listen and good communication skills.

These are indeed important abilities, which, to a large extent, have psychological significance. Modern psychology, however, extends itself well beyond these basic skills. Psychology can explain processes that occur during competitions and can be used to systematically derive measures and interventions that help athletes in dealing with challenging situations. Although psychology cannot turn a moderately talented athlete into a world champion, many coaches and athletes have realised that psychological skills in two equally talented and trained athletes might provide the advantage that decides victory over defeat.

In the past 30 years, much knowledge about psychological processes in sport has been produced. This knowledge can be used to develop measures to support individuals involved in sport. Sport psychologists can optimise the preparation of a competitive athlete so that he or she can achieve an optimal athletic performance.

Our book does not aim to present a directory of all mental skills that can be used in sport. Rather, our goal is to show that sport psychological support is a systematic process based on scientific knowledge. We provide a structure for conducting sport psychological interventions that can be followed not only by sport psychologists, but also by athletes and coaches. This structure has proven to be helpful in communicating what sport psychology is, and what it does, to coaches and officials who are not yet convinced about how it could enhance their professional practice. In addition, we present sport psychological measures that have proven their value in our applied work. Therefore, this book does not intend to be a textbook about sport psychology, but rather should be seen as a handbook on how to conduct sport psychological interventions. On the one hand, it is

important for us to state that the suggested interventions are not based on mere intuition, but are founded on solid scientific knowledge. On the other hand, however, it should become clear that standard interventions are the exception rather than the rule. Interventions must be customised for individual athletes. In this book, we would like to provide a basis and suggestions for specific sport psychological support. We have included a number of examples from our own practical work that should assist readers in finding solutions for psychological problems. For those who are beginning to apply sport psychological interventions and are looking for more specific orientation, we have included a mental toolbox as the last chapter of the book.

We have not overloaded the book with scientific details, since it is a book to be used in applied work. At the same time, however, it was important for us to make clear that the practical methods presented are grounded on verifiable scientific knowledge. We want to discriminate ourselves from unscientific or pseudo-scientific mental training. In addition, by including references, interested readers may be impelled to delve more deeply into this material. At the end of some of the chapters, you will also find literature for further reading.

The book primarily deals with the structure of basic sport psychological support. It is divided into two main parts: In part 1, the basic structure of sport psychological interventions is presented, whereas part 2 focusses on concrete interventions and training measures. Chapter 1 defines the main terms of the book and describes the model of sport psychological support that lays the foundation for all other chapters. Chapter 2 provides an overview of the topic of personality and personality development in sport, gives basic knowledge about diagnostic tools and also addresses the questions of talent selection and development. Chapter 3 deals with diagnostics in more detail, as diagnostics should lay the foundation for all sport psychological support measures.

The second part of the book begins with a practice-oriented presentation of basic training in Chapter 4, which mainly focusses on relaxation techniques. Chapter 5 describes the training of those skills that are essential for the stabilisation of athletic performance. Maintaining a balanced recovery-stress state is particularly important for the long-term stabilisation of athletic performance and the avoidance of overtraining. Chapter 6 is dedicated to this issue and describes how continuous monitoring of an athlete's stress and recovery levels is to be conducted. In the course of an athletic career, critical situations, as well as conflicts or longer term crises, can occur. Chapter 7 addresses these challenges, which are represented in the top part of the structural model of sport

psychological support presented in chapter 1. Sometimes psychological interventions may consist of aiding clients in understanding their problem situation and finding solutions themselves. Chapter 8 presents impact interventions, including clinical hypnosis, which have proven to be instrumental in this context. These interventions are provided by the sport psychologist rather than being skills learned by the athlete. The mental toolbox in chapter 9 gives the practitioner an overview that will help him or her to quickly identify a problem and its possible causes, and then to initiate suitable measures as a solution.

This book is based on the first two editions of our successful book published in 2008 and 2011 in German, *Praxis der Sportpsychologie im Wettkampf-und Leistungssport*. This new edition in English has been updated to include the most recent developments in the field; among other amendments, this includes the addition of the chapter on sport psychological impact techniques (chapter 8).

We would like to thank *Nils Bühring, Felix Ehrlenspiel, Christian Heiss, Josef Keller, Lena Lämmle and Denise Beckmann*, who critically read the German versions and provided invaluable feedback. We extend our particular thanks to *Petra Sollnberger* and *Marleen Eberle* for secretarial work in the completion of this manuscript, *Ed Beese* for assisting us in translating the German book into an English version and *Barbara Every of BioMedical Editor* for her excellent copy editing. We would also very much like to thank the numerous athletes with whom we have been working because they provided us with the opportunity to expand our experience and develop new insights into how psychology works in sports.

With this new edition of our book in English, we hope to provide basic scientific knowledge that can be applied directly and in a practical manner to an even larger audience.

Enjoy!

Munich and Copenhagen, Summer 2014
Jürgen Beckmann, Anne-Marie Elbe

CHAPTER ONE

SPORT PSYCHOLOGICAL PERSPECTIVES

Introduction

What is sport psychology? Who are sport psychologists and what do they do? Why do we need sport psychology? We are frequently confronted with these questions by athletes and coaches in our applied work and by students in the fields of sport sciences and psychology. The public's familiarity with and knowledge about sport psychology has increased over the last decades. Today, most athletes and coaches no longer expect to lie on a couch when consulting a sport psychologist. However, not long ago, when the first author became a sport psychologist of the German men's national alpine ski team in 1991, a tabloid claimed that the "ski team is working with a psychiatrist". Such a headline would be unlikely today. Ever since the Football World Cup in 2006 when Jürgen Klinsmann, as coach of the German national football team, brought in a sport psychologist, sport psychologists have no longer been mistaken as psychiatrists. But if not to treat psychological disorders, why should athletes and coaches seek the advice of a sport psychologist?

The authors of this book have received many different answers to this question in their applied sport psychological work. Sometimes rather specific issues are addressed, such as "to improve the team spirit of my club" or "to get control of my nerves before the start of a competition". At other times, the goals and objectives are more encompassing, such as "to win the championship" or "to avoid relegation". Goals or problems, however, are not always described so concretely. Furthermore, what coaches and athletes describe as reasons for deficient performance may not necessarily be the actual factors interfering with performance. Before a sport psychologist can set up a training programme for improving the mental skills of an athlete, he or she must first know where the problem actually lies. Sport psychologists will use diagnostic tools to get a clearer understanding of the problem situation. On the basis of this diagnosis, the sport psychologist will set up a systematic training programme focussing on the specific problem. This training programme will be based on

scientific sport psychological knowledge. However, athletes also approach a sport psychologist for reasons other than when they encounter a problem. After all, many sports have recognised that sport psychological training can serve to further optimise an already good performance. Sport psychology has become part of the spectrum of sport sciences that play a role in improving athletic performance. From a modern perspective, sport psychology complements, for example, training science in maximising athletes' performance capacities. An ideal answer to the question of why an individual came to see a sport psychologist was given by a young speed skater (who later became German champion), who said, "Because this is part of what I need. Mental strength must be trained in the same way as everything else".

Although most athletes believe "that a minimum of 50% of the course of a good game is the result of mental or psychological factors", according to an American sport psychologist (Loehr, 1995, p. 15), such mental skills are not practised nearly as often as the importance assigned to them in the statement above would suggest (Waldenmayer & Ziemainz, 2007). Most athletes use only 5%-10% of their entire training time to improve their mental skills (Loehr, 1995).

What is mental strength?

In the case of two equally trained and technically developed athletes, one often hears that the mentally stronger one is more likely to win. But what is mental strength or toughness? Loehr provides a short, simple definition of mental toughness: "Mental toughness is the ability to consistently perform toward the upper range of your talent and skill regardless of competitive circumstances" (Loehr, 1995, p. 20). This definition is not really satisfactory though, because it focusses on what is achieved through mental toughness rather than on its constituents. A more recent definition is given by Jones, Hanton & Connaughton (2007). According to these authors, mental toughness is "having the natural or developed psychological edge that enables you to: generally, cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on a performer; specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure."

Loehr goes into more detail in describing mental toughness. According to him, mental toughness is composed of four emotional markers (Loehr, 1995, p. 19):

- *Emotional flexibility*: The ability to handle different situations in a balanced or non-defensive manner. Emotional flexibility also speaks to the skill of drawing on a wide range of positive emotions—humor, fighting spirit, pleasure.
- *Emotional responsiveness*: The ability to remain emotionally alert and committed, even if one is under pressure, and to stay engaged in the competitive situation rather than withdrawing.
- *Emotional strength*: The ability to handle great emotional force and sustain one's fighting spirit no matter the circumstances, to mediate one's own strength and ignore that of one's adversary even when under pressure, and to express an unyielding fighting spirit even in hopeless situations.
- *Emotional resiliency*: The ability to handle setbacks and recover quickly from them; to suffer a blow from one's opponent and to immediately get into action again; to quickly disregard disappointments, errors and chances that have been missed; and to continue in the competition with full power and concentration.

According to Loehr's definition, emotions are core elements of mental toughness that strongly impact an individual's mental strength. Emotions are the organisational nuclei of motivation, as one must be enthusiastic about what one wants to do. Emotions are not everything, though. The so-called cognitive processes, which deal with information processing, are also important. Being able to control one's thoughts is an important mental skill with several facets. Modern psychology refers to the control of thoughts, emotions and motivation as self-regulation. Self-regulation is another important element of sport psychological training.

Clough and Earle address mental toughness more like a personality trait. Their model contains four components: confidence, challenge, control and commitment. Because of these components, it is referred to as the 4 C model (see Clough & Strycharczyk, 2012). These components are certainly elements that are necessary for effective self-regulation. They will therefore be addressed in several chapters of this book.

Generally, we refer to mental strength as the ability to effectively apply self-regulatory skills, which make it possible for individuals to achieve their full performance potential even under unfavourable conditions (see chapter 5 for more details).

Definition and content of sport psychology

But first, back to the basic question: What is sport psychology? According to the European Federation of Sport Psychology (FEPSAC, 1995), sport psychology is concerned with the psychological foundations, processes and consequences of the psychological regulation of sport-related activities of one or several persons acting as the subject(s) of the activity. The focus may be on behaviour or on different psychological dimensions of human behaviour, that is, affective, cognitive, motivational or sensory-motor dimensions.

This definition clearly lacks an applied perspective, namely, the practical application of sport psychological knowledge. As a consequence, a relatively large number of books deal with the subject of "sport psychology" but surprisingly few illustrate concretely how sport psychological knowledge can be applied in practice. This is precisely what our book attempts to do.

Gabler (1986) defines sport psychological applications as psychologically reflected practice. Considering the continually growing knowledge in sport psychology, however, this definition can no longer be considered adequate. We therefore prefer to speak of a scientifically grounded practice and also see this as a clear distinction from so-called mental trainers, who demonstrate no basic professional training. Today's applied sport psychologist involved in competitive and high-performance sports provides psychological skills training support to both athletic training and practice and also serves to improve and stabilise the performance potential of athletes in competitive situations. All these interventions are based on scientific knowledge. Psychological training supplies these skills and gives direction on how to effectively practise them.

Coaches in particular, when asked why they are consulting a sport psychologist, frequently answer that they want to avoid "going into relegation". In general, sport psychologists try to avoid such assignments, especially if contacted when time is already running out, meaning that the team has already reached relegation or is in last place shortly before the end of the season. Of course, some mental skills can be learned easily and will show effects rather quickly. However, respectable sport psychologists will make it clear that long-term acquisition and mastery of mental skills is necessary, just as it is for technique and condition training. The first thing that a sport psychologist always needs to know is where the exact need for sport psychological intervention lies. This requires systematic diagnosis. Targeted training measures are then developed on the basis of the knowledge attained through the diagnosis. Emergency jobs or "quick

fixes" are not generally crowned with enduring success and consequently not a tool used by sport psychologists. When a "mental guru" lets a team walk over glowing coals, this may have a short-term, team-building effect and also strengthen the self-confidence of the individual players on a short-term basis. These measures, however, can be likened to a flash in the pan, which flares up only in the short term. Skills that benefit players on a long-term basis are not learned through a quick fix.

Reputable sport psychological interventions involve the acquisition of specific mental skills, and this requires long-term training, just as other elements of athletic performance do. One seeks the sport psychologist's advice because she or he applies scientifically grounded sport psychological knowledge in order to help individuals acquire "mental strength".

Sport psychology is a scientific field at the crossing between psychology, sport sciences and medicine. The field of sport psychology involves research on basic psychological knowledge, on the psychological processes in sports and on the effects of these processes on the sport. This knowledge is used to derive scientifically grounded training and practice for optimising behaviour in the specific sport.

What can sport psychology provide?

When athletes, coaches or sport officials seek sport psychological support, the sport psychologist will frequently be confronted with high expectations, creating a dilemma: On the one hand, it is encouraging to see that the necessity of seeking the support of a sport psychologist has been recognised, while, on the other hand, the sport psychologist needs to dampen unrealistic expectations. Even if mental strength can provide the winning edge in elite sport, not even the most well-engineered sport psychological training tools will make a below-average football team win the European Cup. Right from the start, one must be sure to set and communicate realistic goals. The authors of this book have furthermore been confronted with the following claim: "It is not actually proven that sport psychology can improve performance." In response, we always point out that athletic performance is an extremely complex phenomenon involving many different components—both physical and psychological. The goal of practice must be to optimise all components; the optimisation of an individual component is by no means a guarantee for achieving a top performance. Although there is ample evidence that psychological training works, we would not restrict sport psychological counselling to

performance effects alone, but rather to a more general psychological growth of athletes and coaches.

Even though sport psychological training is no more a guarantee for athletic success than is physical training, the effectiveness of sport psychological interventions has been repeatedly verified. This is the case for individual aspects (e.g. imagery) as well as for systematic consultancy. Some investigations, for example, show that imagery has fundamental effects on the neural programming of movements (as summarised by Jeannerod, 2001). Positive effects on individual parameters of performance (e.g. muscular growth; Reiser, 2005), motoric learning (Schlicht, 1992) and simple motor performance (e.g. Driskell, Copper & Moran, 1994) have also been empirically documented. Some studies even show that the increase in performance through imagery alone can be larger than that through physical exercise (Minas, 1980). This can be explained by the fact that a complex movement can be executed and consequently programmed more perfectly in one's mind than through actual performance of the movement itself. Actual performance will almost never be perfect, but can be perfect in mental rehearsal. Ultimately, Eberspächer et al. (2005) found a positive relationship between participation in sport psychological training in preparation for the 2004 Summer Olympic Games and actual performance in Athens. Athletes who had participated in sport psychological training prior to the Games were significantly more successful than those who had not.

What contributions can the neurosciences make to sport psychological practice?

In recent years, everything related to the neurosciences has received an enormous amount of attention. "Neuro" sells well, especially for those who still tend to be sceptical towards psychology. However, "not everything labelled neuro actually contains neuro." Many advertising offers with the neuro label can be found, but most of them do not actually involve the application of knowledge developed in the neurosciences. In many cases, pseudoscientific explanations are used that do not have anything to do with modern neuroscientific research. Here, once again, the difference between "mental trainers" of questionable competency, who see their marketing chances improved through the use of the term "neuro," and fundamentally trained sport psychologists becomes apparent. The latter make an attempt to conscientiously use the perspectives provided through neuroscientific research in an appropriate practice.

The neuroscientific movement (Hollmann, Strüder & Tagarakis, 2005) is still in its infancy. Viewed scientifically, a series of neuroscientific findings support the assumptions of older psychological theories. For example, it has been found that the levels of the neurotransmitter dopamine are highest when the success of the athletic activity is more or less unexpected. No dopamine is released, on the other hand, if the success (or even the failure) appears to be certain (Beck & Beckmann, 2010). Naturally, this has practical consequences for the design of practice. In principle, however, these results correspond to Atkinson's achievement motivation theory from 1957. According to this theory, at least in individuals who are confident of being successful, the highest level of motivation is instigated by tasks with the greatest insecurity regarding the result (either success or failure). This is the case when the likelihood of success is about 50%. In agreement with the older motivational theories, current neuroscientific results also show that after longer phases of practice, an onset of dopamine release occurs when activity-related stimuli merely involve reward cues. Thus, motivational incentives are perceived.

Self-regulation plays a fundamental role in competitive and professional sport. In competition, for example, it is important to stick to one's competition plan and not give up when it gets tough but rather to mobilise additional energy. Self-regulation is also a necessary condition for maintaining practice during long and exhausting periods of training. This is especially essential if the training in itself is not very stimulating, but nevertheless strenuous. According to current research, the neurotransmitter dopamine is also involved in this kind of self-regulation. The forefront of the cerebrum, the prefrontal cortex, is responsible for executive functions such as self-regulation. However, a greater supply of dopamine in this part of the brain has more than just positive effects, as research has shown. An increase in dopamine levels also increases motivation, which simultaneously increases susceptibility to stress. One can regard this as a neurophysiological explanation for the so-called phenomenon of over-motivation. Interestingly, genetic differences also determine how susceptible an athlete is to this over-motivation (Diamond, 2007).

The effectiveness of mental training is also confirmed by neuroscientific research. Various studies report that imagining previously learned movements also leads to increased activation in the brain areas that are relevant for these particular movements. In addition, mental training improves the implementation and planning of previously practised and new tasks (Cross, Hamilton & Grafton, 2006).

Over the last decades, neuroscience research has increased our knowledge of brain functions related to athletic performance. From these

findings, new interventions are being developed in sport psychology, such as pre-activation (priming) of brain regions involved in the implementation of athletic activity (e.g. spatial orientation), or inhibition of brain regions that interfere with optimal performance (see the section "Embodiment" in chapter 5).

It is still a vision of the future that the optimal activation of athletic activity can be implemented through biofeedback by registering brain waves in different brain regions through an electroencephalogram (EEG feedback training). However, the research in this area shows that the Yerkes-Dodson law of arousal and performance, which is popular in sport psychology, is far too simple to allow for effective interventions (in regard to this, see the section "Motivation and Activation" in chapter 5).

Instead, according to Hanin (2000), one may assume that there is an individual zone of optimal functioning (IZOF). IZOF refers to an individually optimised activation of specific areas of the brain. In an initial step, the IZOF must be determined by using EEG. After that, an athlete's IZOF could be trained with EEG biofeedback to generate the IZOF prior to a competition. Several sport psychological laboratories are already working on making this vision come true. Nonetheless, it will probably be some time before this "science fiction" can be implemented in practice. The authors are convinced that the neurosciences not only provide explanations for already known issues, but that they can also contribute to newer solutions for older practical sport psychological issues. We believe that the rapid development of neuroscientific research in the field of sport and physical activity will provide deeper insights regarding processes in the brain that are crucial for athletic performance. Further impetus for sport psychological practice can be expected from the neurosciences.

Sport psychological interventions

Basic prerequisites

Some prerequisites must be met for effective and successful sport psychological coaching. Before beginning a working relationship, all participants should ensure that these requirements are fulfilled.

Basic prerequisites for sport psychological interventions

- Every sport psychological intervention begins with a trust-building phase, in which the athletes and the coach get to know the sport psychologist and learn to trust him or her.
- Each sport psychological procedure should be supported by the team's top management and by the head coach.
- The sport psychological interventions should be integrated into the regular training schedule.

Sport psychological support needs to be conducted with a great deal of responsibility and care and underlies professional ethical principles. These principles guarantee the welfare of all participants and can be found, for example, on the FEPSAC homepage (www.fepsac.eu), or on the Association for Applied Sport Psychology (www.appliedsportpsych.org) website. These ethical principles include the following:

Sport psychologists strive to maintain high competency in all areas of their work. This aim, among other things, demands continuous further education and training. It also means being aware of the limitations of one's expertise. If necessary, clients with specific problems beyond the expertise of the sport psychologist who was first consulted need to be referred to specialists.

- Sport psychologists should only begin with their work if they have informed all participants and obtained their consent.
- Sport psychologists are subject to confidentiality and cannot pass on any information to third parties without first receiving written consent.
- Sport psychologists are upright, which means that they are honest and fair, and are respectful of other colleagues, clients and the general public.
- Sport psychologists behave in a befitting manner and promote their profession. They have an obligation to their profession and to the public to protect others from unethical behaviour.

Basic orientation and self-image of the sport psychologist

Since no international uniform course of education for becoming a sport psychologist is currently available, various sport psychologists may have quite different basic orientations. One sport psychologist, for

example, may take a behavioural-therapeutic approach, while another may apply systemic therapy and a third may have a background in teaching training sciences. With all these different backgrounds, it is crucial that an alignment be made with the client concerning his or her individual personality and needs.

The mindfulness-based approach: Recently, a mindfulness-based approach has been introduced in sport psychology as an alternative to skill-oriented sport psychology. This approach does not need to be seen as contradictory to the other approaches. Rather, the specific challenges in competitive and high-performance sports require diverse and flexible intervention approaches.

The basic orientation of mindfulness is to eliminate "disturbances in here-and-now experiences". Over the last 10 years, mindfulness has proven to be a successful therapeutic measure for stress and fear (Evans, Baer & Segerstrom, 2009). The main focus is to learn not to react to what is happening inside oneself (be non-reactive) and, more important, not to judge this (be non-judgemental), but to merely notice and to accept it. A mindful approach can be helpful in sport psychology, but it cannot cover the entire spectrum of necessary or requested forms of support. Often sport psychological interventions need to be conducted under time pressure when the client demands rapid solutions. The expectations towards sport psychologists are often clear: Concrete help and training measures are expected to solve problems prior to an upcoming competition. Of course, sport psychologists must always ask themselves whether or not they want to accept such job requests. Such requests are nonetheless common in initial contacts with a sport psychologist. If one does not accept the job, those asking for support might develop the impression that sport psychology cannot provide help where it is needed.

Athletes and coaches who request sport psychological support are primarily looking for orientation and security. A non-committal, non-goal-oriented, mindfulness-oriented approach often does not meet needs or satisfy expectations. In addition, athletes can find it strange and unpleasant to take over responsibility for the content of interventions at such an early stage in the working relationship. We therefore do not find the mindfulness-based approach to be suitable when initiating a working relationship with an athlete or when concrete problem situations need to be resolved. Nonetheless, this approach is valuable and can be well integrated into a more extensive concept. A systemic approach, for example, delivers a good framework for this.

The systemic approach: In the systemic approach (see, e.g. Nicholls & Schwartz, 2004), athletes are considered to be relationship-oriented individuals. Each individual lives in a context with diverse psychosocial conditions and interaction patterns. According to the systemic approach, every action of an athlete constitutes action and reaction in the athlete's own system of personal experiences, as well as the basic conditions of participating in the athlete's sport. This involves people who are significant for the athlete, such as coaches, officials, friends and acquaintances.

The systemic approach assumes that there is no objective appraisal of a problem situation, since the sport psychologist can never know for sure what is truly or "objectively" good for the client. Consequently, a sport psychologist with a systemic background will consider an athlete to be the best expert for him- or herself. The sport psychologist assumes the role of a neutral process companion and does not decide for the client. If, for example, the athlete has concentration problems prior to competitions, the sport psychologist will present different interventions (after targeted discussions), or so-called invitations, from which the individual can select those that seem best suited. These suggestions are based on scientific knowledge and can thus be categorised as an interdisciplinary intervention. Consequently, a pre-start routine is derived not only from scientific knowledge involving the problem, but also from the athlete's own wealth of experience. The athlete's autonomy is maintained and strengthened, the athlete's competence is supported, and the athlete's own resources are activated. The advice given is determined from an individual context, and the process steps and results are open. The sport psychologist will always try to achieve a balance between stimulating helpful search processes and respecting autonomy.

The systemic approach is solution and resource oriented. The resources lie within the individuals themselves. The sport psychologist does not search an individual's past to look for the solution, in contrast to the approach used in many other psychotherapeutic procedures. Professionals instead work systemically by concentrating on the present and how changes for the future can be brought about. The causes for a problem only become relevant in exceptional situations. The following question is characteristic of this approach: "Which option do you prefer—discovering the cause of the problem but not being able to solve it, or finding the solution but not knowing the cause"?

In the systemic approach, the athlete is not viewed in an isolated way; rather, the entire system that the athlete is involved in is considered. A systemic process analysis attempts to unfold a habit-driven system that

might have produced the problematic pattern. In particular, the thought and action patterns of the athlete should be disclosed in order for him or her to gain autonomous goal regulation and to improve communication patterns. With the aid of questions and by pointing out inconsistencies, the psychologist tries to disturb the balance of the system to instigate the evolution of a new, more appropriate, balance through the development of new behavioural patterns and perceptions.

As outlined above regarding mindfulness, sport psychologists can also work in a not purely systemic manner, since the expectations of athletes and coaches, as well as the frequently present time pressure, will not always permit this. However, the systemic approach is suitable for creating the foundation that shapes the contact with clients. Preserving neutrality (in relation to clients, problems and solutions), as well as being appreciative, lays the foundation for trustful cooperation. This also means that the sport psychologist accepts the coaches and athletes as experts and communicates this to them.

The hypnosis approach: Another approach that has proven useful in recent years is hypnosis. Through the induction of a state of trance, a gateway to unconscious processes can be opened. With trance, a change of the hitherto dominating unconscious handling of problem situations, stress and pressure can be achieved. Self-confidence can also be increased and pain treatment is possible. Cases from the first author's experience with hypnosis are reported in chapter 8 of this book.

The hybrid approach: We believe that modern sport psychologists—given that they have the professional background—should not be exclusively focussed on just one approach, but that they should be flexible in applying the approach that best fits the problem and the individual. Even though an athlete might expect to be taught specific psychological skills, no basis for a trustful relationship can be created if the athlete does not feel understood and is not taken seriously, but merely provided with standard solutions. A modern sport psychologist needs to adapt his or her role to the specific situation. In some cases, an expert for mental skills is needed and in other cases, a process-oriented companion is called for. Depending on the existing motives, potentials and deficits, sport psychologists contribute to the development of alternatives in an appreciative manner. "Sport-psychologists provide as much security as necessary and as few prefabricated solutions as possible. Sport psychologists are custom tailors with partial standardisations" (Liesenfeld,

2009). As the discussion in this section has shown, modern sport psychologists, like modern psychotherapists, make use of different intervention approaches. It is essential for professional sport psychological work to always proceed in a problem- and client-oriented manner and to use whichever tools appear to be appropriate in the given situation.

Structure

Quality management and training plan

An essential feature of the quality of sport psychological support, both for the athlete and for the coach, is the transparency of the programme being undertaken regarding content, time demands and costs.

One should always strive to apply quality management while conducting sport psychological services. By providing a clear structure and transparent characteristics for these services, one can create an obvious distinction between a high-quality, scientifically grounded practice of sport psychology and that practised by so-called mental trainers, who demonstrate no relevant qualifications.

Applied sport psychology has been described as being a scientifically reflected practice (Gabler, 1986). However, sufficiently reliable sport psychological research has been conducted to allow applied sport psychology to be carried out as a scientifically grounded practice (Beckmann & Kellmann, 2008a). This means that interventions in sport psychology can be systematically derived from existing scientific knowledge. Scientifically educated, licensed sport psychologists, who can be found in almost every Western country, differ from so-called mental trainers through their systematic mode of approach in implementing sport psychological training. When a request for sport psychological services is accepted, the sport psychologist clarifies at the very beginning that the intervention consists of clearly defined, successive steps that build on each other. From these steps, a training plan can be derived that defines the time frame for the sport psychological programme. This training plan should adhere to the periodisation principle, which is well-known in training sciences.

We have heard coaches and athletes complain that sport psychology books are either too theoretical or that they mainly contain a more or less random collection of different mental training exercises. We believe that it is necessary to define a structure of coaching and to systematise sport psychological interventions. In order to do so, we have integrated the different skills and methods into one spatial-temporal, structural model of

sport psychological intervention. This model is presented in Fig. 1-1. It describes sport psychological practice as being a systematic procedure, which, on the one hand, serves to teach and to train basic mental skills. On the other hand, after strengths and weaknesses are diagnosed, specific interventions can be determined. This procedure can be used to solve a problem, for instance, in order to determine why a "practice champion" demonstrates outstanding performance in practice, but is unable to attain his or her potential when competing. In addition, athletes without any current issues can optimise their situation by training mental skills in order to be best prepared for critical situations that might arise in future. This means that applied sport psychology includes *preventive, training and intervention aspects*.

This systematisation and structuring is by no means an indication that sport psychologists approach each individual case according to a specific rule book. Although we are presenting here a general structure of sport psychological training, it must not be forgotten that athletes are individuals who demonstrate specific characteristics. These individual features are determined in the diagnostic process.

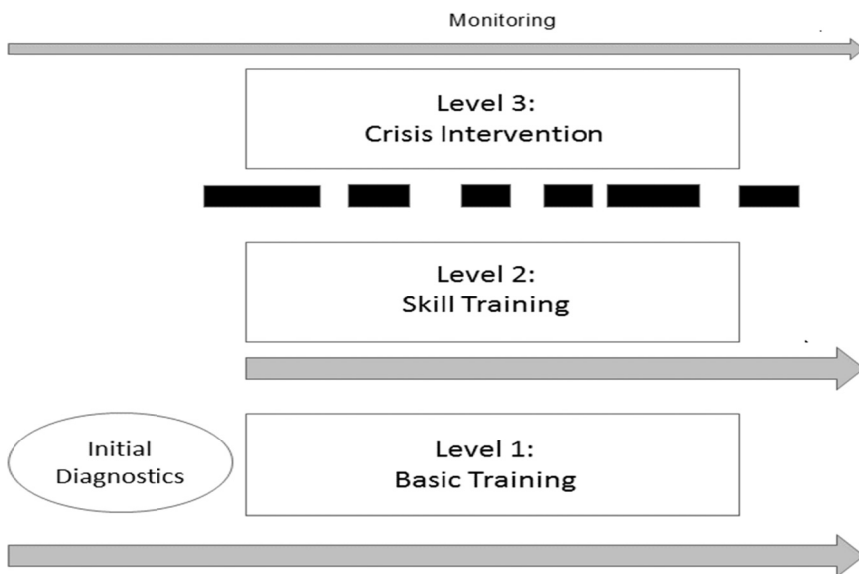


Fig. 1-1: Structure of sport psychological support, presented from both a content and temporal point of view. The top level, "monitoring", represents a temporal continuum that should accompany all three levels throughout the entire intervention process.

The structure described herein provides the general framework for systematic, high-quality sport psychological support. This framework needs to be adapted, however, on the basis of the diagnostic process and includes an interventional or training programme that is tailor-made for each individual athlete. More precisely, as shown in Fig. 1-2, this even involves a continued process of custom tailoring. In Fig. 1-1, the basic structure of sport psychological interventions is presented from a content and temporal point of view.

Diagnostics

By diagnostics, we mean sport psychological or psychological interviews; systematic observations of athletes, coaches and group behaviour; and sport psychological or psychological tests (questionnaires and computer-based tests, e.g. to measure attention).

Systematic diagnostics in applied sport psychology should be conducted in two steps. At the beginning of sport psychological coaching, a collection of a few basic individual difference measures is helpful. Even if the athlete does not approach the sport psychologist with a specific problem, it is useful to analyse the athlete's general orientations and experiences (e.g. routine slumps in performance during the second set of a tennis match). Sport psychologists communicate these diagnostics as an analysis of current strengths and weaknesses. Rather than focussing on specific problems, this diagnostic process aims to produce a first view of the individual personalities of the athletes that the sport psychologist is going to work with. Usually, this initial diagnostic process includes the Achievement Motives Scale (AMS-Sport), the Sport Orientation Questionnaire (SOQ), the Action Control Scale-Sport (ACS-Sport) and the Volitional Components Questionnaire-Sport (VCQ-Sport), which are described in chapter 3 ("Diagnostics"). In addition, some biographical information about the athlete is collected. The second step should be a problem-centred diagnosis that provides reliable information on a given problem and thus establishes a basis for the deduction of a sport psychological intervention (Beckmann & Kellmann, 2008b). Generally, the diagnostic process deals with ascertaining the athlete's individual need to undergo training of specific skills. Fig. 1-2, for instance, shows a golfer's profile of strengths and weaknesses, as assessed by the Mental Golf Profile (MGP; Beckmann, in press). The MGP assesses personality characteristics that are especially relevant for playing golf.

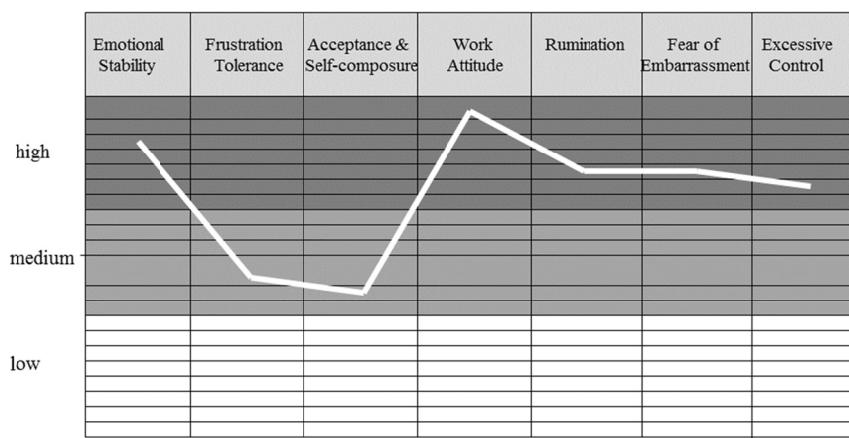


Fig. 1-2: A golfer's strengths and weaknesses, as determined through the use of the Mental Golf Profile (MGP; Beckmann, in press).

Psychological diagnostics have multiple functions in sport, for instance, identifying problems regarding concentration or motivation. Furthermore, planning the interventions profits from the use of psychological instruments, for example, the "Test of Attentional and Interpersonal Style" (Nideffer, 1976), or the "Psychological Skills Inventory" (Mahoney, Gabriel & Perkins, 1987) to mention two. In some countries, a database is available that lists sport-related assessment tools, along with psychometric data on these tools (quality criteria). For example, in Germany, a diagnostic portal can be found on the Internet that makes these sport-specific psychological questionnaires easily accessible (www.bisp-sportpsychologie.de). An advantage of these instruments is that they include norms. This means that the sport psychologist can compare an individual athlete's result with the norms for a specific sample of elite athletes and come to a conclusion on the basis of this comparison.

The model of systematic sport psychological intervention, as shown in Fig. 1-1, describes three levels:

- Basic training
- Skill training
- Crisis intervention

The content of these three levels is described in Table 1-1.

Basic training	Skill training	Crisis intervention
Breathing exercises	Goal setting	Rehabilitation following injuries
Progressive muscle relaxation	Self-regulation	Dealing with failure
Autogenous training	Mental training of specific movements	Psychotherapy
Team building	Self-confidence	Career termination
	Attention regulation	Conflicts within the team
	Imagery	

Table 1-1 Content of the different levels of sport psychological intervention.

Basic training

Basic training entails different relaxation techniques that build on one another step by step (see chapter 4) (cf. Kellmann & Beckmann, 2004). The first element is breathing relaxation, the easiest relaxation technique to learn. Because applying breathing relaxation does not result in a loss of the necessary competitive tension, it can also be applied in competitions for short-term calming, stopping disruptive thoughts and regaining concentration. The next step is *progressive muscle relaxation*, which, by way of "cultivating one's muscle senses", also has an influence on the development of one's sensitivity to movement. Only after these techniques are mastered well should the athlete learn a more difficult relaxation procedure, namely, *autogenous training*. Since this technique has the strongest psychotropic effects of the three, it can potentially contribute to the long-term development of a balanced personality.

Basic training does not require a preceding diagnosis. It is assumed that basic training deals with the basics that each athlete should be able to perform. A further important element of basic training is team building, a process that is explained in more detail in chapter 4.

Skill training

In contrast to basic training, the second level, namely, the training of specific mental skills, is closely connected to the diagnostic process. Diagnostics serve to define the athlete's mental strengths and weaknesses. From this, one can determine which mental skills need to be trained in order to enhance performance. If one neglects to assess the athlete's strengths and weaknesses, psychological skills training may end up being done in areas in which the athlete already has effective skills. This may lead to interferences such that competing skills can block one another. The resulting confusion could subsequently affect self-regulation and performance. In general, athletes—especially so-called action-oriented athletes (assessed through the ACS-Sport)—have good self-regulatory skills. If one tries to teach these athletes other skills, this may provoke reactance or lead to complete withdrawal (Elbe, Beckmann & Szymanski, 2003a). Skill training is described in more detail in chapters 5 and 8.

Crisis intervention

The first two levels continuously extend throughout the entire intervention process. The third level, crisis intervention, however, is geared at situations requiring immediate intervention. Crisis intervention, for instance, is applied in the event of conflicts within a team, or between an athlete and the coach, as well as in cases involving injuries. This third level uses both the relaxation techniques of basic training and the skills learned in advanced training. Different forms of crisis intervention are presented in chapter 7.

Monitoring

In addition, the entire intervention process should be accompanied by continuous monitoring of the athlete's stress and recovery levels. In this way, recovery and stress imbalances can be recognised in time and conflicts can be identified. Monitoring may serve yet another important function. By applying Kellmann and Kallus' (2000) Recovery-Stress Questionnaire for Athletes (RESTQ-Sport), it is possible to evaluate the effectiveness of the sport psychological interventions that are used (see the process model in Fig. 1-3).