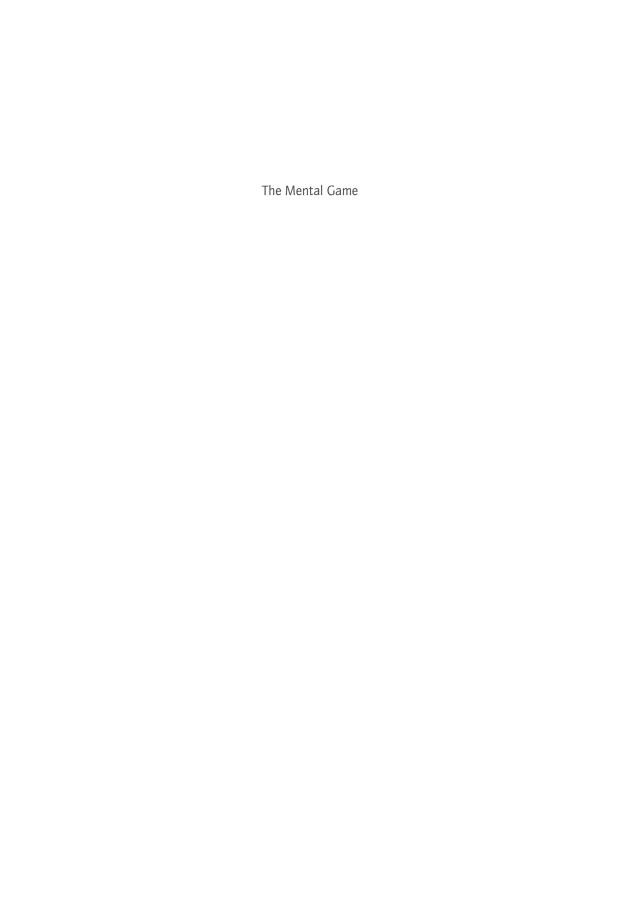


Cognitive Training, Creativity, and Game Intelligence in Tennis





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### The Mental Game

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# CONTENTS

Fore	word–From	a Trainer's Point of View	9		
Acknowledgements					
1	Tennis Matches Are Decided in the Head 20				
2	Definition and Relevance of Cognitions				
3	Cognitions in Tennis				
3.1	Anticipation				
3.2	Perception		40		
	3.2.1	Conscious Perception Processes Based on Correct Information	42		
	3.2.2	Conscious Perception Processes Based on Incorrect Information (Deceptions)	44		
	3.2.3	Unconscious Perception Processes Based on Correct Information	45		
	3.2.4	Unconscious Perception Processes Based on Incorrect Information (Deceptions)	. 47		
3.3	Atten	tion	47		
	3.3.1	Selective Attention	50		
	3.3.2	Divided Attention	. 51		
3.4	Game	Intelligence	55		

3.5	Game	Creativity	. 58		
	3.5.1	Deliberate Play	61		
	3.5.2	One-Dimensional Games	62		
	3.5.3	Diversification	62		
	3.5.4	Deliberate Coaching	62		
	3.5.5	Deliberate Motivation	63		
	3.5.6	Deliberate Practice	63		
3.6	Worki	ng Memory	. 63		
4	Diagnostics	s of Cognitions	. 68		
4.1	Labor	atory Tests	. 68		
	4.1.1	Attention Window Test	70		
	4.1.2	Working Memory Span Test	71		
	4.1.3	Perceptual Load Test	72		
	4.1.4	Multiple Object Tracking Test	73		
4.2	Field Tests		. 74		
	4.2.1	Game Test Situation: Moving the Ball to the Goal	74		
	4.2.2	Game Test Situation: Interplay	77		
	4.2.3	Game Test Situation: Using Gaps	79		
	4.2.4	Game Test Situation: Creating a Majority	81		
5	Games for	Cognitive Training	. 84		
5.1	Antic	Anticipation Games			
5.2	Perce	Perception Games			
5.3	Atten	Attention Games 10			
5.4	Game	Game Intelligence Games			
5.5	Metho	Methodical Notes on Game Creativity 13			
5.6	Worki	ng Memory Games	138		
Refe	rences		164		



### **FOREWORD**

### FROM A TRAINER'S POINT OF VIEW

"There is no replacement for practice and a good teacher."

-Richard Strozzi-Heckler

"Practise is the thing we do to be faithful, not successful."

-Jeff Salzman, Daily Evolver podcast

Success is what we all strive for. Whether we are working with children and young people, whether we are involved in popular sports, whether we train professional athletes, or whether we are athletes ourselves, the thing that unites us is the intention to succeed.

I've been closely involved with professional tennis for 30 years, playing on the tour in the 1990s and having a few matches against the big names of that time. I also played in the national tennis league for a good 10 years. When my motivation and inspiration waned and I developed other interests, I changed sides and worked as a trainer and coach from then on. Among other things, I was the national coach and team manager of the German Davis Cup team.

My heart was attached to international professional tennis from the very beginning. And so, I have now been working in this field for 20 years. I train professionals, traveling with them from tournament to tournament around the world. I have also advised and coached people in the middle third of their lives, who are professionally active in performance contexts, on health-related topics for a good 10 years.

In the last 20 years on tour, I have been at about 90% of all Grand Slam tournaments. I have been able to observe many tennis legends up close as a coach, often as a neutral observer in the stands and sometimes as the coach of an athlete who was competing against one of the greats. All of this has contributed to a wealth of experience that has developed in me over the last 30 years in elite tennis.

A lot has changed! One major difference between my time as a professional in the 1990s and today is the specialization and professionalization of the training process. There is much more detail and precision. The differences between the best in the world are minimal, which a look at the statistical evaluations always proves.

Science has been taken more seriously and consulted more often in three essential areas: technical/tactical, athletic, and mental. New ways and more effective methods are continually sought. While in the 1990s there was usually one coach for everything, today it is necessary and natural to work with a team. Physiotherapists and athletic coaches are essential companions to the professionals and provide feedback for the coaches. External IT providers now produce technical and tactics analyses and make coaching work much more accessible.

In the mental/psychological field, cooperation with sports psychologists and performance coaches has long been socially acceptable, with the pointed comment that the coaches themselves are not yet so comfortable with making use of these opportunities to reflect on their actions.

To increase the probability of succeeding—and there is nothing we can do other than try to influence probabilities—it is important to keep turning to sports science. And it is precisely the mental, cognitive area—which is constantly pointed to by so many coaches and athletes as a crucial success factor in top-level sport—that needs our increased attention.

- What are the findings in cognitive science?
- What do the studies say? What don't they say?
- Do they support the intuitive and often not rationally explainable trainer action?
- Is there anything new and valuable here for sports?
- Does it remain a difficult-to-understand theory or is it possible and realistic to implement in daily coaching work?

This is exactly where this excellent, in-depth book by Daniel Memmert and Stefan Leiner steps in.

But before I turn to the substantive part of the book, I would like to make some personal comments and put the concept of success into a larger context.

In the beginning, I said that we are all united by the pursuit of success. Seen in this light, that is the lowest common denominator. However, if we think about how we define success for ourselves and what meaning it has for us, we will sometimes differ significantly in these descriptions.

Our definition of success depends on many factors: our view of the world; what being human means to us; what is fundamentally important to us; where our aspirations take us; what values guide us; how we can distance ourselves from ourselves and turn to our counterpart, whether individual athlete or team; whether we have the good of the whole in mind. Our responses to these ideas will lead to different definitions of success in sport. First, the simple step of differentiating perspectives can be helpful and useful here.

*I, we, it.* These are basic perspectives we can take toward any event or aspect of reality. We find these pronouns in all major languages. They mark the perspective from which perception is formulated. The more consciously I can adopt them, the more differentiated my perception will become and the more information can be gathered to solve questions concerning the training and tournament process.

In our time, we still tend quite strongly towards a benefit-oriented, materialistic, external world view. While this is often helpful, it remains only a partial truth. Every trainer can easily understand this scenario: You have planned a training session systematically, according to scientific knowledge. And then you meet with the athlete and you sense that something is not right. There is something in the air, an atmosphere that, if we are sensitive to it, demands something different from us. If I only have my expert knowledge at my disposal on these days, I won't get very far.

Being able to take the "I" perspective means being able to switch from external perception to my inner space, my inner experience: Anger about the training session planned in vain might become palpable. A resistance to hearing the athlete's old stories again, an unwillingness to react flexibly to them. Many buttons could be pushed in me and lead to inappropriate reactions. Developing self-awareness for this and having rituals and routines available to bring me into a present, centered, calm state are qualities that the "me" perspective would be about. This cultivation of presence as a coach is inextricably linked to my effectiveness.

And very basic questions also have their place here:

- What sustains and nourishes stress, failure?
- How do I manage stress and recovery?
- Where are the moments of exuberance, joy, and serenity in my life?
- Where do I need development?
- Where are my blind spots?
- Am I aware of my life principles and virtues?
- What are the deep-seated premises that underlie my decisions?

In the "we" perspective, it's less about my inner experience and more about turning toward my counterpart and creating empathy and goodwill towards the athletes. Empathy for what the situation needs answers to the following questions:

- · Clarity of address?
- Can I take myself back and listen empathetically?
- Can I allow conflicts, which are necessary for development?
- Can I deal with them constructively and benevolently?
- Do I communicate clearly what I demand as a trainer and where my limits are?
- What are no-gos in a collaboration?
- Can I distinguish between my interpretations and projections in my perception of the other?

- Can I inspire and convey hope and confidence to the athlete? In the sense that it will be a difficult road, but we'll get there!
- Do we create an atmosphere in which we would like to have trained?
- Would we commit ourselves as coaches?

The "it" perspective is that this is the field of (sports) science, technical literature, externally oriented, measurable facts, intelligent match analyses that explain through differ-entiated statistics why someone won a tennis match and what can be derived from this for the training process.

The qualities of "me" and "we" are crucial success factors, and we should definitely develop these as trainers. These are skills that I consider to be equally important in us trainers, compared to externally oriented expertise. Well-trained in these skills, I will be able to use my trainer know-how much more effectively. Ultimately, it should be clear that change can only be achieved through certain states of consciousness. To be able to create these in me and to promote them in others is very helpful in trainer work. In the training of coaches, at least in tennis, much more emphasis could be placed on this.

For me, the ability to be able to take these different perspectives in a situationally appropriate way, to practice and play with them, is part of the basic equipment of every coach. If we want to work successfully, we need to be deeply anchored in our intentions and visions, we need sustainable routines for our own resilience and the ability to inspire others, and we should act out of a deep goodwill towards our athletes. It goes without saying that we should be contemporary and consider the latest findings in our daily work.

And here is the bridge to the book by Daniel Memmert and Stefan Leiner. It is precisely this kind of communication of scientific findings, in this case coming from the cognitive sciences, that is helpful for us trainers. Well-founded statements based on research and studies are important. Because let's speak frankly: Who of us is not also stuck in unquestioned training routines or shies away from discussions with athletes about new methods and fears failure with them?

And since we trainers often work in teams where science doesn't really have a voice, where there is little to no exchange between theory and practice, the old routines remain. But we have to move with the times and have the courage to experiment more. To try things out, to refine them, to discard them, and to look at them anew. Science itself does nothing else. This is how quality develops in the training process.

Daniel Memmert and Stefan Leiner first introduce the topic. They make it very clear how important it is to understand and consider the processes in the mind, the cognitive processes, and their high relevance for successful performance and the development of game intelligence in sports. What models and evidence are there on this? The call to coaches is clear: we need to start training cognitive skills systematically in practice.

Furthermore, they present a process model they developed, which describes the central cognitive performance factors. These underlie our actions and attempted solutions in the various match situations.

- How does a given situation in a tennis match actually lead to a solution?
- What phases does the mind go through in any given situation?

The more understanding we gain of this process, the more effectively we can influence it. We can better recognize strengths and weaknesses in an athlete, make them understandable to him, and improve, stabilize, and develop them specifically through supportive forms of training. Terms like *anticipation*, *perception*, *attention*, *creativity*, and *game intelligence* appear here. And since these terms are part of the daily vocabulary in the training process, it is easy to dock here and get involved with the findings, which are presented in an interesting and understandable way.

In this way, game situations may also appear in front of the inner eye. Our perception in our work with our athletes is given more depth and explanation, so to speak. This is helpful for ourselves and for the argumentation situation in the communication with our athletes.

Daniel Memmert and Stefan Leiner present diagnostic tools that can help identify strengths and potential for improvement in our athletes. They transfer the findings into a detailed practical section. Here every trainer will find what he is looking for. Training monotony can be broken. In addition to the forms of exercise presented, one's creativity can be given free rein. Once the principles are understood, there are many more exercise variations that can be developed experimentally.

Cognition is a key performance factor if we want to succeed in sports. This is made crystal clear in this book. I have seen this in top tennis for 30 years. The top players have better-developed skills here. This book combines the latest scientific findings with tools that can be put into practice to specifically improve the cognitive skills that are so important. The exercise forms can be used regardless of age and are transferable to any level of play.

It can help us to integrate new aspects into the training, to question old routines, and to establish ourselves as trainers who are up to date and work according to the latest scientific findings and methods.

If all this is conveyed in an atmosphere of humor, lightness, and openness, the probability of success will increase considerably. We will only find new, more effective ways and approaches if we try them out. Only courage to do so! Let us anchor ourselves in current, scientific knowledge and act more and more from a comprehensive, integral consciousness. That is what I wish for all of us. The book is a beautiful contribution to this.

### -Carsten Arriens

Former Davis Cup team captain, Germany; current coach of Jan-Lennard Struff

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