

Mental Toughness in Sport

Developments in theory and research

Edited by

**Daniel F. Gucciardi and
Sandy Gordon**

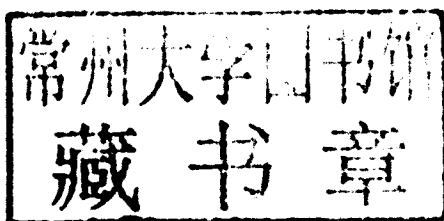


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Mental Toughness in Sport

The pursuit of excellence in sport depends on four key facets of performance, namely physical, technical, tactical and mental skills. However, when physical, technical and tactical skills are evenly matched, a common occurrence at elite level, it is the performer with greater levels of mental toughness that seems to prevail most often.

This book brings together the world's leading researchers and practitioners working on mental toughness to discuss this vital ingredient of performance excellence in sport, to survey the latest research and to present cutting-edge developments in theory and professional practice. It explores key conceptual, methodological and practical issues including:

- what mental toughness is and is not
- how to measure mental toughness in sport
- how to develop mental toughness in sport
- mental toughness in other human performance settings, from business to coping and life skills.

Also highlighting important avenues for future research, *Mental Toughness in Sport* is essential reading for all advanced students, researchers and practitioners with an interest in sport psychology or performance sport.

Daniel F. Gucciardi is a Postdoctoral Research Fellow in the School of Human Movement Studies, The University of Queensland, Australia.

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Daniel F. Gucciardi
Sandy Gordon

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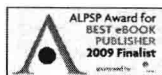
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Introduction

1 An introduction to mental toughness in sport

Developments in research and theory

Sandy Gordon and Daniel F. Gucciardi

Introduction

We welcome readers to the most up-to-date and comprehensive collection of articles that examine *mental toughness in sport* to appear in one book. Mental toughness has caught the attention of both the academic community and the general public. For example, a Google search for ‘mental toughness’ reveals 350,000+ hits. Compare this finding to ‘positive psychology’ which reveals over 588,000 hits (performed on 12 December 2010). Moreover, at the time of writing, the number of peer-reviewed articles focusing on mental toughness has nearly reached 50. Thus, given the recent interest in this ‘thing called mental toughness’, and the incidence of empirical examinations and theoretical contributions to a burgeoning literature, as co-editors we felt that the time was ripe for a seminal text devoted specifically to the topic.

Attention on our intention

The main intention of this book is to focus on optimal functioning under stress, both positively and negatively construed forms, which we believe general sport and exercise psychology approaches have not always been good at. So we ask questions related to furthering our understanding of mental toughness and how best to operationalize it, such as ‘Is mental toughness an outcome or a process of positive adaptation to stress?’ As an outcome, when we describe athletes as being mentally tough, we are probably talking about maintenance of functionality and overt competent behaviours despite the interference of emotionality. But does that mean winning? Are only winners mentally tough? Many might think so; we don’t think it is that simple. Or does it mean that mentally tough individuals have highly developed social competencies and mentally healthy perspectives? Again, we don’t necessarily think so because psychological well-being alone may provide a misleading impression. For example, we know athletes described as hi-copers who deal with stress best, often show higher levels of emotional stress compared to lo-copers (Gould et al., 1993, 2002). As a process, we ask *why* people are mentally tough and choose to adapt positively to stress and bounce back, not just *how* they do what they do. Clearly, to prevent unhealthy experiences we need to

remove or avoid factors implicated in problematic outcomes, but at the same time we want to build skills or capacities to deal with adversity and failure that act as protective processes. Such processes already exist and are informing resilience interventions in cancer survival (Hasse, 2004; Kupst, 2004) and resisting bullying (Luthar, 2006; Masten, 2007).

Another intention of this book, which we wish to clarify from the outset, is to investigate responses to significant challenges, stresses, threats and *not* typical everyday reactions to demands that athletes face regularly. In the same way that muscle physiology distinguishes between tonic activity (baseline electrical activity when muscles are idle) and phasic activity (the burst of electrical activity that occurs when muscles are challenged and contract), contributions in this book attempt to explain when, why and how 'mentally tough' individuals rise to the occasion and appear to thrive under pressure. Tonic measures and studies of typical behaviour can predict phasic action to some extent, but most applied practitioners would admit that they fail to explain individual differences and, specifically, what is exceptional about some performers under fire but not everyone. Furthermore, contributors to this book understand that phasic traits require different research approaches and strategies than investigations of tonic traits. They also understand that, besides some work on resilience, general psychology has failed to account for how certain individuals respond the way they do when their typical (tonic) responses are challenged.

We also intend to describe the lineage of mental toughness research and provide some common language in terms of definitions. The contributors have drawn on different psychological traditions that have examined optimal human functioning, and while these research trajectories have typically been diverse, and will likely remain so, some sort of conceptual integration, which we discuss in more detail in the final chapter, appears possible. Finally, we deliberately intend to situate our focus exclusively on the individual. While mental toughness is relevant for groups, teams, tribes, federations, organizations, communities and societies, contributions to this book will only address the individual as the level of analysis and application.

Planning

In planning this book our general aims were twofold. First, we wanted to draw together the existing expertise of international specialists on mental toughness. We invited every colleague who had ever written anything on the topic, or a related area, to consider how best they could contribute to the book. Second, because we wanted to create a resource for practitioners as well as advanced students and researchers, we invited contributions dedicated to applied issues as well as empirical, methodological and conceptual matters. Courtesy of the professionalism, discipline and competence of both our international reviewers ($n = 20$) and authors ($n = 20$) we believe we have delivered what we initially planned to produce, and we hope you agree.

Peer-review process

Unlike existing books on mental toughness, contributions to this text were subjected to a rigorous peer-review process in which at least two anonymous scholars as well as ourselves reviewed manuscripts against standard criteria for publication in academic journals. We felt that this process was important, as did our contributors, and that this scientific approach distinguishes this book from all others. Specifically, each chapter was first reviewed by us as co-editors and then by at least two independent scholars. However, rather than have only publication standards in mind, reviewers were asked to present their comments as suggestions on how to improve each manuscript. Subsequently, authors were encouraged to discuss and debate reviewers' comments in their revised submissions so as to facilitate the conceptual evolution of this construct.

Organization of the book

From the contributions we received three themes were identifiable and, subsequently, the ten chapters were grouped into three sections on understanding, measuring and developing mental toughness.

Part 1, 'Understanding mental toughness', is comprised of four chapters. First, Tom Fawcett introduces a phenomenological perspective and presents case studies illustrating the usefulness of this particular qualitative approach. Next, Adam Nicholls critiques research supporting a relationship between mental toughness and coping, and concludes with recommendations on how to develop mental toughness as well as future research directions for examining these two separate constructs. Robert Harmison investigates the utility of a social-cognitive model of personality functioning, namely the Cognitive-Affective Processing System (Mischel and Shoda, 1995; Shoda and Mischel, 1996) for understanding and developing mental toughness. And finally, Mark Andersen adopts a sceptic's view and questions whether or not mental toughness as a distinct psychological construct actually exists, and if it isn't simply a reified popular phrase.

Part 2 has two chapters on 'Measuring mental toughness'. Using a construct validation approach Cory Middleton, Andrew Martin and Herb Marsh review key findings from their own research and then present a general mental toughness in sport measure. In the other chapter, Cliff Mallett and Stephanie Hanrahan join us in reviewing and assessing the extant literature on mental toughness measurement, and offering recommendations specifically related to measurement research issues for the future.

Part 3, 'Developing mental toughness', has four chapters. First, in addition to reviewing the literature on the development and maintenance of mental toughness, Declan Connaughton, Richard Thelwell and Sheldon Hanton report recent investigations of the themes, experiences and strategies that appear critical to the development and maintenance of mental toughness. Next, Dan Gould and his colleagues present an overview of general life skills theory and research, and discuss potential links and applications to the development of mental toughness