

# Introduction

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*“Success is not final, failure is not fatal:  
it is the courage to continue that counts.”* WINSTON CHURCHILL

**T**he mental toughness concept has provided both of us with a truly remarkable journey and experience. What started as a small-scale academic exercise has blossomed into a truly global phenomenon. More about that a little later in this chapter.

Since publication of the first edition, we have seen a significant groundswell of interest in mental toughness as a reasonably complete concept which has a ready application in almost every sphere where individuals, groups and organization have a need to do something of value. It links closely to other concepts which are growing in importance – positive psychology, resilience, character, grit and mindset. Our model and our measure are widely used in the world of work, education, health, sports and, most recently, in social applications.

One pleasing aspect of almost all of this work is that it builds on what practitioners and academics already know and do. It doesn't require anyone to throw away what they know. Our ideas are increasingly being acknowledged as adding ideas, rigour and explanation to the important work that many do. The measure is emerging as a key for more effective diagnosis and, crucially, for more robust evaluation and research.

What has emerged is the identification of a personality trait which appears to be extremely important in considering individual and organizational performance, wellbeing and the development of positive behaviours. All crucially important in enabling people to deal with the pressures and challenge of modern day life.

The first question to answer is: 'What is mental toughness?'

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## The 4 Cs model

Our work is based on a scientific investigation of mental toughness. Science is all about data and evidence. Reassuringly, the vast majority of the data is supportive, some might appear less so. This is the nature of applied psychology; individuals are complex and no model can encapsulate everything. We define mental toughness as:

The personality trait which determines in large part how people deal effectively with challenge, stressors and pressure ... irrespective of circumstances.

In the 4 Cs model the overall mental toughness is a product of four pillars:

- 1 *Challenge*: seeing challenge as an opportunity.
- 2 *Confidence*: having high levels of self-belief.
- 3 *Commitment*: being able to stick to tasks.
- 4 *Control*: believing that you control your destiny.

The model is described in great detail later in this book.

It is useful to understand how we arrived at this model. We adopted what researchers should recognize as a four-step science modelling process: read, create, test, develop and evaluate.

### 1. Read, read and read some more

Initial work, mostly carried out with Dr Keith Earle, identified a major gap in the literature on mental toughness. Mental toughness was often referred to but rarely operationalized. It became a rather meaningless and empty truism. This type of 'need analysis' is the starting point of most research and development activity.

However, this earlier work was useful in that it provided an insight into what others had imagined mental toughness and similar notions to be. The phrase 'standing on the shoulders of giants' is very apt here. You learn from others and then develop their ideas based on your own knowledge and views. This is what happened here.

### 2. Create

This is the real joy of science. Creativity has two main strands:

**a** Convergent thinking – the structured approach:

Will it work?

Can we do it?

Have we got the resources?

Is the timing right?

**b** Divergent thinking – the intuitive and paradigm-shifting approach:

What if?

Why not?

What assumptions are at work?

Through these two strands a coherent and testable model emerges from the chaos.

### **3. Test and develop**

This is at the heart of scientific research. If something is not directly testable then it does not sit well in the world of science. It should be possible to develop clear and testable hypotheses. These are then actioned and the model developed according to the answers which emerge.

### **4. Evaluate**

When a final model is developed it needs to be evaluated. The key question here is: ‘Does it really work?’

Chapters 3 and 4 of this book, substantially written by Dr Keith Earle, put flesh on the bones of this process. They show the time and care that went into the development of the model. It is neither a whim nor an existing concept. It is distinct and built upon sound psychological principles.

Once we had a concept we could present with confidence to others – practitioners and academics – we found that we would consistently be asked the same four key questions. In a way they are the obvious questions to ask. There are many questions that can legitimately be asked about our work. We learned to call them the ‘four big questions’. Providing an answer to these largely determines the structure of this book:

The four big questions are:

- 1** Does mental toughness really exist?
- 2** Can it be measured?

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- 3 Is it useful?
- 4 Can mental toughness be developed?

## ***1 and 2. Does mental toughness exist and can it be measured?***

The early part of the book is devoted to these vital questions. The short answer is – we believe mental toughness exists and we have solid evidence to back up that view. Moreover, we have developed the capability to measure mental toughness is a useful way.

Too much popular psychology is merely predicated on an individual's subjective point of view – often emerging as some sort of 'guru'. There is a great deal of 'cod psychology' out there. Much of it faith-based – practitioners adopt these 'models' and 'approaches' on the basis of the flimsiest of evidence – and sometimes no evidence at all. Whilst our views have certainly created many of the hypotheses central to our work and have directed the research, it is important that they have been intertwined with the views and research findings of many others. We are committed to an evidence-based approach.

A longer and more thoughtful answer to these questions is provided in the early chapters in this book. The first two chapters deal with the work's fundamental theoretical beginnings and the design and development of the MTQ48 measure. The following four chapters go into more detail about the 4 Cs, relating them to relevant psychological models. The 4 Cs model does not in any way negate these, it simply builds upon them.

### ***3. Is it useful?***

Doug trained as an economist and found his calling in the world of business and Peter as an applied psychologist. What binds our philosophies together is the belief that things we do can and should impact on performance. It is therefore a driving mission that we show that knowing about and measuring mental toughness is more than simply an academic exercise. When answering the question of whether or not it works there are two main approaches.

First, there are the technical aspects. Is it reliable, valid and robust? Information about these aspects is included in the first two chapters. Another way of looking at this question is to think about how the measure and model have been used and whether or not this has helped us understand why some people perform better than others.

Secondly, an equally important consideration has been whether using the instrument has been effective in applied settings. A number of diverse case studies have been included in the book to provide an answer to some of these points. We hope you find these interesting and useful. They include a review of research findings in peer-reviewed journals. The peer-review process is the bedrock of true research. Papers accepted are published solely on their merits, not by grace and favour.

Other case studies focus on education and learning. They raise an important point. Our offering of mental toughness is a developmental concept. It is there to help people progress. The evidence overwhelmingly suggests that it does just that.

#### **4. *Can mental toughness be developed?***

We believe it can. A good deal of practice in the sports world suggests that this is the case.

Is it nature or nurture? Evidence in this book shows that there is a clear genetic link in mental toughness. As everybody suspects: some people are born tough. This nature element is supported by recent findings relating to brain structure. Again this cutting-edge research is described here. Nevertheless, mental toughness levels can be changed. A case study is included in the occupational section of this book showing an organizational case study that demonstrates that formal mental toughness training can work.

The majority of the final third of the book is given over to techniques that can aid in mental toughness development. They are drawn from many areas of applied psychology and we have asked experts in areas such as relaxation, attention control and fatigue to provide chapters that help explain the processes involved.

### **Four fallacies about mental toughness**

In our many contacts with people, we find we are regularly asked many more questions than the big four addressed earlier. These too are all good questions and must have an answer if the questioner is to be confident about mental toughness. We will attempt to address some of the more popular directly in this chapter. They all address what seem to us to be emerging fallacies. However, we cannot answer every question that has ever been raised, or will be raised, in this book.

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We have sought to provide enough information throughout this book for readers to make their own informed choice. When teaching first-year undergraduate psychology students at the University of Hull, Peter continually stresses the importance of a questioning approach to psychological models. Just because someone says it with conviction does not mean it is true. They need to provide evidence that is verifiable. We are confident we can do this for this concept.

### ***Fallacy 1: Implicit in the model is the suggestion that everyone should be mentally tough***

It is obvious that some people are tougher than others. We would also argue that mentally tough individuals are better able to deal with high-pressure environments. Consequently they tend to do better at school, at work, at competitive sports etc, and are likely to excel in work assessment systems.

However, it should be clearly noted that the opposite of mental toughness is mental sensitivity *not* mental weakness. A mentally tough person will deal with stress, pressure and challenge by not letting it ‘get to them’. Colloquially it is ‘water off a duck’s back’. A mentally sensitive person will feel the impact of stress, pressure and challenge and it will ‘get to them’ and they will feel some consequent response. They will be uncomfortable in some way.

A balanced society needs a mix of the sensitive and the tough. It is quite difficult to identify a highly successful yet sensitive elite sports-person just as it can be equally hard to identify a tough-minded artist.

Please note that this does not mean that the mentally tough are not emotionally intelligent, whatever that may mean. Emotional intelligence (EI) describes a different kind of sensitivity – EI people are sensitive to what is happening around them and how others are responding to what they do. Emerging evidence suggests that mental toughness and emotional intelligence can, and often do, go hand in hand!

Whereas it might be generally true that the mentally tough seem to get a better deal in life – for instance, they often earn more, they are more likely to get promoted, they are more likely to be materially successful – all we are saying here is that sensitive people find it harder to cope with the stressors and pressures of life. They are more likely to show some of the negative consequences of not being able to deal with life’s changes and will often suffer from conditions such as depression and anxiety.

But it is also clear to us that the techniques in this book can be helpful for everyone – the mentally sensitive as well as the mentally tough – in dealing with the world as they find it. Some people want to be tough. Others want

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to stay as they are, but they would also like to have a toolkit of skills to deal with some situations which prove difficult for them. And there are also many people who are successful in life on their own terms but who are mentally sensitive and not mentally tough.

In education mental toughness does provide an advantage – but it's certainly not the only, or even necessarily the most important thing for everyone. Measuring mental toughness allows teaching staff to provide the appropriate support for different types of individuals.

What is wrong in being sensitive? Our short answer is 'Nothing at all', but being mentally sensitive does make life a bit harder. At the same time we know that mentally tough people are far from perfect – there are potential downsides to being mentally tough too. These are covered in the chapters describing the 4 Cs (Chapters 6, 7, 8 and 9). Everyone has development needs.

A mentally tough individual may accidentally bruise others by not fully recognizing the needs of a more sensitive individual and, through that, may adversely affect their own performance if that relies in part on the co-operation of others. Knowledge of what you are will always allow people to make better choices.

As ever, there are many ways of looking at this issue. In economics there is an interesting approach that sometimes enables us to ask the same question and get two different but helpful answers. Economists will talk about macroeconomics (the big picture) and microeconomics (the specific). So we can ask a global question: 'Should we have a more mentally tough society?' We might conclude that, as stated above, we would prefer a balanced society but we might argue for a small shift generally in one direction or another to secure a desirable benefit.

A more specific question might be about our children or our work colleagues. Would I like them to be more mentally tough? We might, because we know they are likely to get a better deal in life and they are likely to achieve more. However, we also know that they can lead a satisfactory and fulfilling life whilst remaining comparatively mentally sensitive and we know that we can support them in this.

## ***Fallacy 2: We are only interested in success at work or in sports***

We are both drawn to performance enhancement and it can be easy to believe this is only related to things like output, sales, promotions, salaries and qualifications. In many situations these are very important but we are concerned with a much broader understanding of performance.

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When an economist talks about creating and distributing wealth, they generally talk about wealth in its widest sense. Wealth is the sum of everything that adds up to wellbeing and contentment. In our mental toughness training programmes one emphasis is on the importance of goal setting. This could relate equally well to being the best parent or the happiest person in your town.

Mental toughness does, of course, relate to achievement orientation, meaning that many mentally tough people are driven to rise to the top of their careers. However, this is not for everyone. As an example, Peter was working with an elite swimmer on the fringes of international success. They worked together to develop her mental toughness with a good deal of success. The outcome? She decided to stop swimming and do something she wanted to do more instead! Just because you are good at something does not mean you want to do it. Through developing her mental toughness she was able to make better life choices for herself!

### ***Fallacy 3: Mental toughness is a macho, male-dominated concept***

At first sight this might appear to be true. However, when you consider this statement in the light of fallacy 2 it seems less true.

Mental toughness is all about being all you can be. Whilst competitive by nature, mentally tough individuals are often simply competitive with themselves. They are internally referenced. There is very clear evidence from the many studies we have carried out that men and women are equally tough. There may be some differences in the coping systems adopted and the willingness to express their feelings but the underlying core toughness emerges from study after study as being identical.

### ***Fallacy 4: Mentally tough people are uncaring and individualistic***

This obviously relates to some extent to fallacy 3. Mentally tough individuals can function well in teams. Many elite sports-people play in very cohesive team settings and they are undoubtedly mentally tough.

The idea that tough individuals are always domineering and unsupportive is simply not the case. Much bullying behaviour and petty sniping is a result of low self-esteem and insecurity. If you are tough, secure in your own skin, there is little need to prove your superiority by 'proving' the inferiority of others.

## Defining and describing mental toughness

The first step is to begin the process of defining and describing mental toughness. In our work we now run hundreds of workshops around mental toughness and, between us, make at least 80 major presentations each year at conferences around the world. Quite often we will open a discussion about mental toughness without explaining to anyone precisely what we mean by the term. This is deliberate. We do it to make a point.

What we consistently find is that you can actually have a sensible discussion about mental toughness without a pre-agreed definition. The term is reasonably accessible and self-explanatory. Most people guess correctly that it is to do with mindset and on that basis can usefully contribute to a discussion. However, there will nearly always come a point where the participants recognize that they may also be describing slightly different ideas. It will emerge that some will in fact be speaking about resilience. Others will be talking about commitment and tenacity. Yet others will be describing confidence in some form.

It is ultimately important to have a clear definition of mental toughness around which everyone can examine the concept from their own standpoint. One of the earliest steps in the development of the model and presenting it to the outside world was the development of a clear, accessible and sensible definition of mental toughness. From that solid base most of the rest can follow.

Incidentally, there are still some who do not like the term ‘mental toughness’ although as the term becomes better understood and used more frequently this is beginning to diminish. For better or for worse, for the present time, psychologists and practitioners in the various fields in which we work have accepted that mental toughness is the correct and proper term for what we are about to describe.

The remainder of this chapter provides another perspective to the mental toughness story. It explains how we came to work on the concept and what provoked our interest. If you are impatient to get into the meat of the matter, skip these sections and move straight on to Chapter 2. You can return to this later.

The remainder of the book explains and brings up to date everything that has emerged through research and application of the model and the measure. It is written with two audiences in mind. One consists of students of psychology who want to know about the concept, how it works, the evidence, and how it relates to the rest of psychological thinking. The other consists of practitioners who are concerned with understanding it well enough to be able to use it effectively in their work. As far as we can we have written it to be accessible to both audiences.

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## How and why we became engaged with mental toughness

In September 1996 we were running, at a hotel in Newport in South Wales, the first of a series of development centres designed for Her Majesty's Customs & Excise which will eventually embrace over 700 senior managers.

In the evening, when relaxing before reflecting on their day's work, Peter began to describe enthusiastically some work he had been carrying out in sports psychology. It revolved around a concept he calls 'mental toughness' and it seemed to provide an explanation for a number of interesting things.

For instance, he suggested that this is why, often, very talented athletes, sports-people and teams lose out to less able but apparently more successful opponents. This is not that uncommon. It is one of the elements that make sporting contests so interesting – it's not always the favourite who wins. There seemed to be factors involved in success and performance other than talent and raw ability. Peter spoke about confidence, challenge, emotional control and commitment and how these too play a part in sports success.

He and a colleague, Keith Earle, had developed a simple 18-item questionnaire to measure some of this, which had delivered some promising results. Later that evening they got down to the business of the day and began to analyse what they had observed with the dozen or so managers who had participated in the development centre exercises. Amongst those observations were things like:

- some of the managers were clearly very able and exceptionally well qualified but didn't achieve as much as others;
- some who were less knowledgeable were able to be surprisingly effective;
- some appeared happy to be on the programme and were using every minute for their own benefit, whilst others were reluctant attendees;
- some approached the events in the programme with real determination to achieve something, whilst others seemed to be fearful about their attendance.

As the review proceeded, both of us experienced a sense of *déjà-vu*. A great deal of the observations about managerial behaviour echoed what had been described for the behaviour of athletes earlier. And they appeared to have similar implications.

One immediate consequence was that Doug approached the organizers of the development centre programme with an idea. They agreed that we

could introduce, into the battery of tests already being used in the centre, a short ‘mental toughness’ questionnaire purely for research purposes. Thus began a remarkable journey which has since taken a concept which was ‘trapped’ in one domain and steadily developed it into a concept which has universal application and real significance for the performance, wellbeing and behaviour of most people in all walks of life.

By 2002 research had enabled Peter and Keith to pin down a robust definition of mental toughness and in 2003 Doug and AQR took the concept to the occupational market. In 2008 it was being used in the educational market at secondary, further and higher education levels in Switzerland and the UK and by 2015 it was being used in more than 80 countries worldwide. In 2010 the first pilots in health and social applications had begun. And of course the sports sector had consistently shown an interest – mostly supportive, sometimes challenging.

Doug has described it as the ‘penicillin of the people development business.’ Like Fleming’s work, the discovery was almost accidental, the impact enormous.

We have both found ourselves ‘making a genuine difference’ for a lot of people and organizations. We now work regularly in areas that we would never have guessed we would, or could. This includes working with the disadvantaged and the underprivileged as well as the more usual applications in the worlds of work, education and sports.

The mental toughness model we have developed and its associated measure (the MTQ48) are nowadays discussed globally and hardly a week passes without us receiving comments and ideas about our work from around the world. We have had the genuine privilege of being involved with outstanding researchers, business people, educators, sports-people and many others. This constant interaction has both consolidated and developed the model.

We have welcomed enquiry, comment and criticism – it has helped us to develop a better concept. We are especially interested to hear from readers who are interested in using the concept and the measure in some way.

Mental toughness provides an answer and solutions to many issues, but obviously not all. It is simply another tool to help enhance our understanding of behaviour and performance.