

Mental Toughness

Some thoughts on "Mental Toughness" and the implications for coaches and players in sport

"When the going gets tough the tough get going"

ABSTRACT

Mental toughness is a quality that is highly valued in sport. It is considered essential in those athletes who aspire to success in world-class sport. At present there is much debate on what it is and how to develop it. In this paper mental toughness is discussed in detail from a philosophical and practical perspective. The conclusion is that mental toughness is related to that degree of motivation a player possesses and is developed by good coaching, a well designed programme of preparation and appropriate competitive experiences.

PART 1. WHAT IS MENTAL TOUGHNESS

It is commonly assumed, owing to the nature of sport, that 'mental toughness' is a quality that all serious competitive players should possess. It appears to be a concept that most people are familiar with and use about people's behaviour in various contexts. It is a complex concept, particularly with respect to why some people appear to have it to varying degrees or not to have it. It will be of interest to coaches and players therefore to identify the specific characteristics of mental toughness and the different situations in which it is manifested. With this information it may become possible to provide some guidelines on how to develop mental toughness in players. The purpose of this paper is to examine the concept of "mental toughness", to consider whether or not mental toughness can be developed in players and, if so, how might this be done.

Distinction between mental and physical toughness

In order to avoid any possible confusion between physical and mental toughness it will help to distinguish between them. Initially this can be done quite easily by examining how the word 'tough' is used in both descriptions. The New Shorter Oxford Dictionary provides a variety of descriptions for 'tough', e.g.: "Able to resist hardship, pain fatigue, etc., having great physical and mental endurance. Difficult to influence or affect; persistent, stubborn, unyielding, uncompromising, hardened. Uncompromising or severe towards opposition. Resistant to setback or adversity." It also refers to tough in several other senses with reference, for example, to a tough guy as "a hard or uncompromising person; a person not easily thwarted, withstand or endure difficult conditions to the end without flinching". In another sense being tough minded is described as "realistic, sceptical, not sentimental". It is apparent that the dictionary provides examples of physical and mental toughness without distinguishing between them. Is there a distinction between physical and mental toughness or is the basis of all toughness mental? If there were a distinction then it would follow that a person could be tough physically but not mentally and vice versa.

Physical toughness

When we describe a player as physically tough we usually refer to his ability to withstand an external or internal physical force of sorts often in the context of dangerous and/or physical contact sports. We might describe him as strong, hard, robust and resilient to physical knocks. They do not have any physical effect and he obviously doesn't experience pain. It would be quite valid to describe him as physically tough if he doesn't feel any pain but not necessarily valid to describe him as mentally tough. To warrant the description of mentally tough we would expect him to experience physical pain but persevere in spite of it. A case of mind over matter. When we describe someone as physically tough only we simply imply that he is physically strong, hard and resilient just as other material objects are strong, hard and resilient, e.g. certain types of wood and metal; hence the descriptions, "built like a rock", "as hard as oak", "as tough as steel". Physical toughness is not the same as mental toughness, nor need mentally tough people be physically tough though they may be, as indeed they are in many sports.

Mental toughness

What is mental toughness? One way of finding out is to determine whether there are features common to the various situations in which we may describe some people as being mentally tough. This may illuminate the demands of such a situation on people and the mental qualities required to cope with the demands.

Common features

The dictionary definitions help to some extent to determine these features as they indicate that a person must experience *extreme adverse conditions* of the sort appropriate to the situation. If a person can cope easily with the existing conditions then it is unlikely that he or she will experience the sorts of demands that will require any particular mental qualities of the sort that we would expect mentally tough people to manifest. Obviously a person who does not perceive a situation as adverse will not need to be mentally tough in that situation. Alternatively an observer might see the same situation as extremely demanding, in that it requires certain qualities to cope with it, and consequently assess a person coping with it as mentally tough. People can and often do perceive situations differently and may classify them accordingly with respect to what they consider is required from a person to cope with the situation. Though mental toughness is a state relative to the individual in the situation, it can also be the subjective judgement of the observer of the mental state of the individual in the situation. Both judgements are relative to the perceptions of the people experiencing the situation directly or indirectly and, in the case of the observer, the judgement could be wrong as the observer is only perceiving the situation at third hand and not directly as a participant. For example, I believe that others and I would experience arctic conditions of cold, hunger etc. as extremely hard and demanding much mental toughness in the effort to survive. An Eskimo, however, who knows how to cope with the conditions, might do so easily and not experience the situation as demanding or consider himself mentally tough - though the observer might do so.

Mental toughness is relative to the individual and the extent to which he can cope with an adverse situation.

The Eskimo example suggests another requirement of the situation for the manifestation of mental toughness. One might ask why anyone would voluntarily choose to experience adverse conditions. In the case of the Eskimo, who lives in environment in which adversity can be part of the survival of daily life, he would seem to have little choice in the matter providing that he continues to live in that environment. In sport however athletes do have a choice yet voluntarily experience adversity of varying degrees. Why? It is because they want to achieve something. There must be a **valued goal**, which the person wants to achieve regardless of the hardships that may arise in doing so. Indeed in extreme examples of mental toughness a person may consider the goal more important than himself - he may risk life and limb to achieve it. "I'll die first before I give up", or "you'll win over my dead body." It is unlikely that mental toughness will be required in a situation where the goal is not important to the person, as it is doubtful that the person would be prepared to suffer adversity to achieve it.

The common features in situations necessary for the manifestation of mental toughness are:

- adversity
- a valued goal

It has been suggested that from these two features arises the need for mental toughness behaviour. Before looking further into what this entails it will be helpful to make a few comments about the achievement or non-achievement of the valued goal. As stated above, mental toughness is relative to the individual and how he can cope with an adverse situation. It doesn't follow from this that a person who is mentally tough and has the skill, knowledge and experience to achieve his valued goal will necessarily be successful in doing so. He may fail. Alternatively it doesn't follow that a mentally tough person who lacks the necessary skill, knowledge and experience cannot achieve his goal though it is most likely he will not do so particularly in activities in which skill, knowledge and experience are essential. In climbing for example, a person lacking knowledge and skill would have to learn quickly by trial and error and may not achieve his goal because the going might be too difficult for him to cope with, not in terms of his mental attitude, but in terms of his lack of skill, knowledge and experience.

People can be mentally tough in ignorance of how to cope in a situation.

This notwithstanding, most people engaged in any activity, regardless of the degree of mental toughness which may be required, will be more likely to achieve their goals, if they possess the skill, knowledge and experience to do so and the converse if they do not. This is unquestionably the case in sport.

Sport - the valued goal and the demands of the adverse situation

The attraction of sport for many players in general and top players in particular

is that it offers numerous opportunities to stretch them physically. The higher the level of the sport the harder is the competition and the greater are the demands made on the players. Undoubtedly the ultimate goal in top class sport is to win, to gain a successful outcome in

whatever contest one is engaged in whether that is sailing in the 'Round the World' race, climbing a particular mountain for the first time, competing for an Olympic gold medal or a World or National championship.

Whenever an athlete engages in formal competition as distinct from in 'friendly' informal competition all his efforts should be directed towards trying to win. In saying this it is recognised that to aim to win is the logical point of any contest. In friendly competition, e.g. a social game at the local tennis club, the win, though the logical goal, may not be as important as having played an enjoyable game of tennis. The latter may be the valued goal. In formal competition the win is normally the valued goal. The adverse conditions are those obstacles which must be overcome in order to win, e.g. the climatic conditions of oceans and mountains, the opponents in sports, the players' own physical or mental limitations and negative thoughts.

The degree of mental toughness required by any player will be relative to the sport and to the player. There is not much one can do about the sport but there is much one can do about the player with respect to ensuring that he can cope with the general demands of the sport. As suggested above the higher the standard of the sport, when the going gets tough, the greater will be the requirement for the player to be mentally tough.

The general demands of sport

All players must acquire a knowledge of the sport, technical and tactical skill, fitness and develop appropriate attitudes in order to improve their performances and so become competent 'players' of their sport. Mental toughness falls within that aspect of performance known as 'attitude'.⁽¹⁾ Attitude is used here to refer to players' behaviour with the purpose of making clear what is entailed in 'mental toughness' behaviour. It is assumed that mental toughness is not only an appropriate attitude to adopt in certain situations but is also highly desirable. Appropriate attitudes in sport derive from several sources. As one normally takes up a sport voluntarily as being worthwhile to play such attitudes arise as love of the sport, care about how one plays it, pride in how one plays and a commitment to the standards inherent in the sport. From the notion that sport is a social construct initially played for people's enjoyment and satisfaction derive such moral attitudes such as fairness and consideration of others interests. Mental toughness falls into that group of attitudes that derive from sport as competition - to engage in it is to engage in a contest. As stated above the point of a contest is to try to win. It is assumed therefore, that if the players seriously engage in a contest they will be **committed** to the task of trying to win.

Presupposed in such a commitment is the **belief** that the goal of winning is **realistic** and can be achieved. It is unlikely that any player of a sport will make a serious commitment to try to win if he did not believe that he could do so. Such a belief presupposes that the player is **confident** to sufficient extent that he can achieve the goal. The effort of trying to win is expressed in **determination** behaviour that the player should **persevere** with until the contest is ended. To apply oneself in this way requires **concentration**, the focus of attention, on the task of winning. These four attitudes: commitment, determination, perseverance and concentration are necessary in any activity in which individuals want to achieve a successful outcome. They are fundamental to mental toughness behaviour in sport or any other activity. If players of a sport do not manifest such attitudes in competition it would be quite valid to ask them if they understand the point of

the contest and if they do then perhaps some thought might be given as to what their actual purpose is.

Though these four attitudes are necessary to mental toughness they are not sufficient. Mental toughness behaviour requires rather more. Reference to the Eskimo may help to make this clear. The Eskimo who knows how to cope to achieve his goal and adopts the appropriate attitudes to do so may find that under very extreme conditions even he has to drive himself beyond his known limits to survive. He has to dig deep into his mental and physical reserves to the full extent that he is capable of and hang on simply to endure the hardship until he achieves his goal. If he cannot he will not survive. In such a situation it is quite reasonable to assume that he may experience an unacceptable degree of mental stress, e.g. a state of panic. If so he may require that degree of **self control** necessary to keep calm in order to make decisions about what actions to take to achieve the goal regardless of the adversity. *To keep cool under pressure*. Failure to do so may result in poor decisions about what actions to take; so increasing the chances of failure to achieve the goal. This is when either **stoicism** or **strength of will**, the two means of self-control, may be required. The stoic will maintain his self control by disregarding or acting indifferently to any suffering that he may be experiencing. He will not complain about it or feel sorry for himself (2). The practised stoic will adopt such an attitude as a matter of habit when faced with adversity. The question does arise as to whether the stoic would experience a state of panic but being human I assume that it is possible. Alternatively, or in conjunction with the stoical attitude, a person may apply *strength of will* to control his emotions, to keep calm and try to make decisions about what action(s) to take to face up to and cope with the adversity in order to achieve his goal. Strength of will would be more likely with those people who have not learned to adopt a stoical attitude. It is a feature of the stoic that his disregard of the adversity allows him to get on calmly with the job. It is a feature of the person who requires a strong will that they will try hard to face up to, and get on with, the task at hand. In addition, relative to the difficulties presented by an extremely adverse situation, both stoic and non-stoic may also need certain other qualities to achieve their goal. It is unlikely that the going will be smooth; there may be setbacks and failures as is the case in sport when confronted with an opponent who is both an obstacle and a creator of obstacles in the contest.

Consequently the qualities of **tenacity** and **resilience** may be necessary in negotiating obstacles and recovering from any setbacks. Because of the nature of a contest in sport a player may need to be **adventurous**, to take a risk in trying to seize those opportunities that may arise which further the possibility of winning.

These three qualities and others, e.g. being **obstinate** and **unyielding**, derive from the attitudes of determination and perseverance in that they are ways of describing players' determination and perseverance behaviour.

In sport the non-stoic may also need **courage** if he perceives the situation as fear making in some way, e.g. if he is scared of being hurt, to overcome the fear and to maintain his efforts to win. If the non-stoic is not scared then obviously courage will not be required. The mention of fear suggests that the need for mental toughness may also be required in situations involving mental hardship. For example, a player in competition can experience self doubt, a loss of confidence, fear of losing and suffer mentally at the thought of the possible consequences of losing, e.g. a

loss of status at failing to meet others' expectations that he ought to win. Such players may also require courage and strength of will to overcome their doubts and to fight through.

It would appear therefore that self-control is a necessary condition of mental toughness and this is obtained by stoicism or strength of will. Where a person must apply strength of will, courage may or may not be a necessary feature of mental toughness depending on whether or not a person perceives the situation as fear making.

This discussion has illuminated several necessary mental attitudes and related attitudes, which are inherent in mental toughness behaviour. These are:

- commitment: - self belief and confidence
- determination: - tenacity, resilience, adventurousness
- perseverance: - obstinate, unyielding
- self control: - stoicism or strength of will

PART 2. WHAT ARE THE IMPLICATIONS OF THIS ANALYSIS FOR PLAYERS AND COACHES?

The main questions here are:

- (a) Why does a player need mental toughness?
- (b) Can mental toughness be developed in players?
- (c) How can it be developed?
- (d) How do we know if a player has the potential for mental toughness?

Why does a player need to develop mental toughness?

It is a necessary feature of competitive sport that players must compete. Competitive sport at the highest levels provides a context in which players are often confronted with degrees of adversity that demands from them not only high level skill and fitness but also the mental attitudes which are inherent in mental toughness. To increase the possibility of winning when confronted with such adversity players would benefit from being mentally tough.

Can mental toughness be developed?

There is evidence to indicate that those features I have suggested make up mental toughness can be developed. For example in certain sections of the armed forces, the SAS and the Royal Marines, they would claim that they have demonstrated that they do train men to become mentally tough; just as there are coaches who would claim that they have helped players to

become mentally tough. It will be apparent to any experienced national level coach that the need for particular mental attitudes arise because of the demands of sport as competition and so coaches try to develop them in players who may already possess them to varying degrees. It would seem on reflection that the difference between the mentally

tough players and the others is simply one of degree - the ability to cope successfully with that degree of adversity which [PC1] the players may have to endure

Though it is part of the training of coaches to learn how to develop the performance of players, i.e. skill, fitness and appropriate attitudes in general (which include all the mental qualities that make up mental toughness), it is not normally part of the training of coaches to learn how to develop mental toughness. Perhaps it is not necessary to do so. It could be that players will develop the qualities necessary for mental toughness simply by learning to play and to operate at a high level in their sports and those that have the potential will become mentally tough. Alternatively it may be that all players have the potential and it is possible to develop their mental qualities to that extra degree that will raise them to the ranks of the mentally tough. At present, although some coaches may use methods that succeed in helping players to develop mental toughness there do not appear to be any publicly established coaching methods for doing so. One would rule out on moral and practical grounds the 'make them or break them' school of coaching which as it implies may or may not work.

How do we develop mental toughness?

As stated above most committed and successful players would claim that they already satisfy most of the criteria for mental toughness. They have a valued goal, a belief that they can attain it and consider it important enough to commit them to striving to achieve it. This is quite normal in any sport. As having a valued goal is of fundamental importance in the development of mental toughness it is worth considering the different sorts of goal that athletes might want to achieve. Goals are usually divided into intrinsic and extrinsic goals. Extrinsic goals are those goals (ends) to which the activity is a means, e.g. status, prestige, money. Intrinsic goals are those that are inherent within the activities.

They include:

(a) personal performance goals i.e. the content that the player must learn to become a competent player of the sport e.g. fitness, technical and tactical skill, appropriate attitudes including, determination, adventurousness and fairness and the standards of excellence he should attain in each of these areas.

(b) competition goals: to win contests of various sorts, to get on the team.

One might ask why a player should take on challenges that necessitate a degree of mental toughness in order to achieve these goals. The reasons provided usually fall within the areas intrinsic and extrinsic motivation. Intrinsic motivation is solely to do with oneself and is directly related to the intrinsic goals of the activity as an end in itself. In this context motivating factors may include: enjoyment, satisfaction, interest, the challenge, pride in performance, to test self,

develop self, to be the best one can, to achieve mastery of the activity, to be the best in the world.

Extrinsic motivation includes those external factors that influence players to strive to achieve his intrinsic or extrinsic goals. Such factors may include the typical 'carrot and the stick' rewards and punishments type of motivation and other factors, e.g. not wanting to let others down, to please others, to prove a point to others.

Players can be motivated to pursue intrinsic goals for both intrinsic and extrinsic reasons; whereas in the case of extrinsic goals, to which the activity is simply a means and may have no logical connection with the extrinsic goal, they are motivated by extrinsic reasons only. Often the extrinsic goal serves as the extrinsic motivation. There is nothing new in this observation but it is useful to make it as it raises a pertinent question about mental toughness. To what extent will a player pursue a particular goal, i.e. intrinsic or extrinsic, when faced with extreme adversity? Is it the intrinsic or extrinsic motivation or both that drives him on?

For example, within the activity of family life, a parent might risk his life to try to save the life of his drowning child in the face of extreme adversity, e.g. a river in flood. Saving the child's life would be the intrinsic goal attempted from the intrinsic motivation of love of the child and the extrinsic motivation of moral duty. There would be one type of goal and two types of motivation. In similar circumstances, an adult may try to save the life of a non-related child, the extrinsic goal, from the extrinsic motivation of moral duty to others. It would seem that, regardless of the type of goal and the type of motivation, the goal has to be highly valued and of sufficient importance that a person will undergo adversity of varying degrees which will require a degree of mental toughness to attain it. At some stage therefore it will be necessary to identify the sorts of intrinsic and extrinsic goals that any player wants to achieve and the type of motivation for doing so. We know from experience that in general young players when they first begin to participate in a sport, do so to achieve the intrinsic goals mainly for intrinsic reasons: interest, enjoyment, satisfactions, to learn the sport, to develop skill and fitness and become a competent performer, to experience the challenges, to do well in competition.⁽³⁾ It is also recognised that, in the case of some young successful players, the goals and the motivation may become extrinsic as they achieve prestige and a status amongst their peer group and begin to play for status or to please parents and others who may place the pressure of expectations on them.

The inter-change between intrinsic and extrinsic goals, and intrinsic and extrinsic motivation is a common occurrence in sport and one which good coaches are aware of as they try to keep their players focused on the intrinsic goals while promoting the appropriate sort of intrinsic or extrinsic motivation to do. The intrinsic goals are logically prior to any extrinsic goals that the player might have. Unless he attains the intrinsic goals within a sport, it is logically impossible that he will achieve the standards necessary to be successful in the sport and to achieve the usual extrinsic goals of status, prestige and wealth that success might bring.

The general assumption made by sports psychologists and coaches is that unless players are intrinsically motivated to play for intrinsic goals then they will not give of their best. This does not necessarily follow. For example, there is no reason why a player, who plays tennis mainly for the extrinsic goal of earning great wealth for the extrinsic motivation that he wants to provide for his family and have a wealthy life style in the future, should not give the same quantity and

quality of performance and effort as a player who is intrinsically motivated to play for intrinsic goals only. In fact it is possible he might be more motivated. The same would apply to anyone in professional work. One might not even like the job but gives of one's best because one believes that it is morally right to do so as that is what the employer is paying for. Alternatively one works to achieve the intrinsic goals because if one does not and lowers the standard of work then one loses the means to achieving the extrinsic goals, i.e. one might get the sack. In these circumstances one has always the choice of leaving the job but as long as one remains in it one gives one's best for positive or negative reasons.

The idea of 'development' does suggest that mental toughness is a state that is developed over time even though genetically it may be the case that some people may have a greater capacity for mental toughness than others as is generally believed by players and coaches. (4) It may also be the case that there are many people who have no capacity for mental toughness, though we can never know for we cannot judge how a person will react in a situation when the chips are really down and a valued goal is at stake. There may be situations in life when people who have never showed any signs of mental toughness may do in situations of extreme mental hardship, e.g. the political hostages, parents whose child may be dying of cancer, a mother who has to spend a lifetime caring for a child with a disability, an innocent person wrongly imprisoned for a crime.

In the case of sport there are many people who will never require the need for mental toughness in their sport, perhaps because of the nature of the sport or because for them, no matter how talented, success as a goal in sport is not important enough to suffer for. Such people are not likely to get themselves in adverse situations or, if they do, they will opt out quite quickly and therefore will not require to be mentally tough. This being the case, if we want to try to develop mental toughness, we should focus on the serious competitive player for whom success is presumed to be important.

Most of the work that goes on in preparation and competition while the player is learning his particular sport will be common to all players. If the intention is to develop the mentally tough player then realistic and attainable intrinsic performance and competition goals, relative both to the sport and the players ability, must be carefully selected in order to present the player with constant challenges in adverse situations which progressively increase in complexity and difficulty. If players are to learn to cope with adversity then they must experience adversity. They learn by doing. They become mentally tough by doing mentally tough acts. (5)

There is a further consideration. If it is a necessary condition that there has to be a valued goal it will be essential to determine the genuine goal seeker from the non-genuine goal seeker in a sport. To what extent will a player commit himself to achieving a realistic and valued goal particularly if in doing so he must experience a high degree of adversity? The answer to this question will provide an answer to a question posed previously, "How do we know if a player has the potential for mental toughness?"

It has been suggested that recreational players may not have sufficient interest in a sport to pursue demanding goals. The same might apply, though further on in the journey, to the serious competitive player. At some point he also may draw the line beyond which he will not stretch himself any further. Just where that line is time will tell. For example a player claims to want to

achieve X. X being a goal that is estimated to be realistic but one that presents a difficult challenge for the player. It will be recognised that the attempt to achieve X will place extra demands on the player and entail a certain degree of hardship. It will require the player to achieve many other preliminary goals on the journey to achieve X. The player must then do that amount and intensity of work both in preparation and competition to achieve the preliminary goals which he and/or his coach perceive as meaningful and as necessary to achieve X. In doing so he should experience varying degrees of hardship, relative to the sport, in the work required in the preparation and competition to attempt to achieve X. This work is the test of the player's commitment to the goal. At some point it must be sufficiently demanding that the player has to decide whether he really wants X, whether X is that important. This is a ***moment of truth*** - the test of whether the player wants to or can meet the challenges inherent in the work required to achieve X. If the player shows the qualities required to do the work and achieve his performance and/or competition goals, if he passes this test, he will have provided evidence that he has got what it takes to cope with the demands of the work necessary to achieve the performance or competition goals at that level. Subsequently it would be quite realistic for him to believe that he could cope with similar demands in similar situations. He has proved to himself that he has got what it takes. He has developed his mental toughness to some extent. Now he must progress to more demanding work. This he can do with the confidence that he is capable of coping with adverse situations up to and including that stage in his journey. It makes sense however that the next challenge, in demanding more from him and putting him to a greater test, will be attainable only with greater effort. His success at the previous level will have provided him with the knowledge that he can cope with adverse situations which will give him the confidence necessary to tackle more difficult situations. "*In times of difficulty we must not lose sight of our achievements, must see the bright future and must pluck up our courage*" (6).

The development of mental toughness in the player is a process of continuous progress in which he is confronted by *moments of truth*, which serve as tests of his progress at various points in his development. Increasingly difficult challenges, regular testing and assessment of progress are essential in the development of mental toughness; and all tests to be meaningful must be relevant to a specific goal.

With so much emphasis on and provision for junior sport nowadays it is inevitable that this is where one might expect the development of mental toughness to begin. The development of growing children, however, is a complex enough matter as it is without considering how to develop their potential for mental toughness. Fortunately it is not necessary to try to develop it as it will develop naturally to some extent through the normal experiences children will have during the learning process providing, of course, that the potential for developing mental toughness and any other appropriate attitudes is not hindered by negative coaching (which is another discussion). As most players will travel a similar journey in their progress from learning a sport to top class performance then I would suggest that some basic guidelines, which will apply to all players in general and potentially mentally tough ones in particular, should ensure that this does not occur and would be the most appropriate means of proposing some ways of developing mental toughness for those coaches and players who want to make a conscious effort to do so.

PART 3. GUIDELINES

The following guidelines are presented under various headings for the coach and player to discuss, consider and agree together, if it is first agreed that developing mental toughness is an aim of the coaching programme.

Goals

- Find out which goals the player wants to achieve (7). If long-term intrinsic and/or extrinsic goals then tell the player what this presupposes in achieving the necessary short-term intrinsic goals.
- Analyse the sport and try to identify the actual situations that may be considered adverse in general regardless of different player's individual perceptions, e.g. the discipline of regular hard training and practice.
- Find out which situations in a particular sport are perceived by the player as adverse and likely to cause an almost unacceptable degree of physical or mental hardship, e.g. doing work he dislikes intensely and causes him to suffer in some way.
- Provide increasingly challenging goals relative to the player's capabilities.

Motivation

- Find out why the player wants to achieve his intrinsic or extrinsic goals (8). Is his motivation intrinsic or extrinsic?
- If the motivation is extrinsic then also emphasise the importance and benefits of the intrinsic motivation.
- Focus on the intrinsic reasons as much as possible whatever the type of motivation.

Procedure

- Set realistic and meaningful intrinsic goals.
- Direct and keep the focus on the intrinsic goals.
- Test regularly with challenges to assess progress and the desire to achieve.
- Monitor regularly and reset goals as necessary.

The coach and the athlete

Provide a learning programme in which the player develops interest in the sport, skill, fitness and appropriate attitudes, and gains the necessary experience in preparation and competition.

- Tell the player what is expected of him at all times.

- Encourage and praise the effort regardless of the outcome (unless of course there is inadequate effort).
- Analyse and provide constructive positive criticism of the outcome (9). Give praise and encouragement where due. Discuss his work and progress with the player.
- Keep the player fully informed about his progress.
- Nurture the player's self image, esteem, confidence and belief by providing challenging and achievable targets in preparation and competition and praising the effort and outcome.
- Nurture the will to win by emphasising the importance of each target in achieving his goals. Make use of intrinsic and extrinsic motivation as appropriate (10), while recognising that the thrust should be towards the intrinsic motivation.
- Develop self-control by training the player to focus on the task and reflect on the situation when under pressure in order to make intelligent decisions about future actions - intelligent thought not emotion solves problems.
- Develop strength of will by encouraging the player to be positive and get stuck into the task regardless of any difficulty and hardship.
- Promote a stoical attitude by encouraging the player to focus on the job, disregard his feelings and to keep calm under pressure.
- Encourage players who give maximum effort but fail to achieve a particular outcome. Either reset the target or help the players to do the work required to achieve the target.
- Promote the autonomy of the player by providing him with the skill, knowledge and confidence to make and to be responsible for his decisions and their outcomes.

The Programme

The programme includes both the preparation and the competition.

(a) Preparation:

- plan thoroughly to maximise the development of the player's skill, fitness and knowledge.
- provide work that is meaningful and progressively harder over time.
- simulate competition, i.e. develop the player's mental and physical toughness in progressively more demanding situations designed to be as identical to the actual competition as possible.

(b) Competition

- provide carefully selected and graded competition to enable the players to gain experience, knowledge and skill; achieve some success; to build up self-confidence and self esteem.
- encourage the player to try his best at all times as only then will he gain an accurate assessment of his performance in competition and learn how he is progressing.
- what he can do without any expectations; to try to improve on his previous performance; to try to get closer to or defeat a particular opponent, to win a contest.

CONCLUSION

It is apparent from the foregoing discussion that the steps taken to develop mental toughness differ little, if at all, from those taken by good positive, caring coaches when coaching any player. Ultimately, mental toughness is a quality required and expressed by those players to whom the goal is all important and who want to achieve it to the extent that they will make an extra effort, i.e. 'dig deeper' and if necessary endure extreme adversity to do so. The coach can play a significant role stimulating and encouraging the desire to achieve intrinsic goals in a sport, by praising the player when he does achieve, and by providing the appropriate skill, knowledge and experiences that enable the player to develop the mental toughness to do so.

The paradox of mental toughness

As the player become more skilled, knowledgeable and mentally tougher it would seem that he reduces the need to be mentally tough. Will the mentally tough player perceive a familiar situation as adverse? It is unlikely, as he will be equipped to cope with it and consequently he will see it as normal and not demanding any special effort or act of will in the situation. In this respect it may seem as if there is a paradox. In many sports the demands of the situations can remain quite constant within the parameters of the rules. Once a player has developed the necessary mental toughness to cope with the adverse situations in such sports he sees them as normal. As players in these sports develop mental toughness they require it less. The player has learned how to cope with the situation and doesn't need to be mentally tough. When the tough get going the going gets easier.

However, I have argued that the development of mental toughness is a progressive process in which the player is confronted with increasingly demanding situations as yet beyond his experience. In which case he must keep putting himself to the test of his ability to cope yet again. He must experience more moments of truth. The advantage of having completed previous tests successfully should provide him with the belief and the confidence that he can cope with difficult situations. He is more able to dig deeper when the going gets tough even though he has not tested himself in the new situation. If he succeeds it should follow that he gains more confidence and belief in his ability to cope, that he is becoming mentally tougher. The further the player progresses successfully in his journey to achieve his goals in spite of the adversity the more will he develop his mental toughness and such other contributory qualities as self belief, confidence and esteem. It is this progression that rules out the possible paradox. Perhaps that is why in some sports players seek even greater challenges that place greater demands on their mental toughness

to cope with them. Extreme outdoor sports players are typical in this respect as they seek more difficult and challenging goals. Then it really is a case of "*When the going gets tough the tough get going*."

Footnotes

(1) J. Downey (1982), 'Winning Badminton Singles', EP publishing.

(2) The Royal Marines try to promote an additional quality to stoicism in their training of recruits. This is the notion of 'cheerfulness' in the face of adversity. Because a marine must operate in a commando team with others such negative behaviour as complaining and grumbling about the situation may have a detrimental effect on the others and their performance as a team, and is therefore to be avoided. To promote this quality of cheerfulness, humour is used extensively in their training. See section of motivation.

(3) See 'Sport Parent: American Sport Education Programme. Human Kinetics (1994). See "Why are you coaching lchildren", p36, Martin Lee, in "Coaching Children in Sport". Martin Lee (Ed) E&FNSpon; (1994). See "Psychology and Performance, p37, NCF 1996.

(4) Experience in coaching and in discussions with coaches as well as anecdotal evidence from stories of the development of the SAS and the Royal Marines. Read John Wiseman "The SAS Survival Handbook", Collins Harvell (1986). Read "Bravo Two Zero", Andy McNab, Corgi Books (1994)

(5) Aristotle, Nichomachean Ethics, II,1.

(6) Mao Tsetung, "Quotations of Chairman Mao Tsetung", p199, Foreign Languages Press, Peking (1972)

(7) At the beginning it doesn't matter if the long-term goals are intrinsic or extrinsic. To achieve long-term goals the player must necessarily achieve short-term performance and competition goals.

(8) At the start it does not matter what the motivation is. If external the player might enjoy learning the sport so much that the motivation changes to intrinsic. If not it is unlikely that the athlete will continue when faced with, what he considers to be, an unacceptable moment of truth.

(9) In the case of young players negative criticism may affect their self confidence and self esteem and deter them from taking on difficult challenges so as to avoid criticism if they fail to achieve. Such players usually end up as mediocre players.

(10) For example, if the player plays for a football team, the coach may motivate him for the good of the team.

