

# UNIVERSITY GRANTS COMMISSION

## Physical Education Code: 47

### Unit–IV Psychology in Physical Education

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## Sub Unit – I

### Sports psychology - its importance in the field of physical education and sports.

#### 4.1.1 Definition of Psychology.

The scientific study of the human mind and its functions, especially those affecting behaviour in a given context is called psychology. The word *psychology* derives from Greek roots meaning study of the psyche, or soul. The Latin word *psychologia* was first used by the Croatian humanist and Latinist Marko Marulić in his book, *Psichiologia de ratione animae humanae* in the late 15th century or early 16th century. The earliest known reference to the word *psychology* in English was by Steven Blankaart in 1694 in *The Physical Dictionary* which refers to "Anatomy, which treats the Body, and Psychology, which treats of the Soul." In 1890, William James defined *psychology* as "the science of mental life, both of its phenomena and their conditions". This definition enjoyed widespread currency for decades. However, this meaning was contested, notably by radical behaviorists such as John B. Watson, who in his 1913 manifesto defined the discipline of psychology as the acquisition of information useful to the control of behavior. Also since James defined it, the term more strongly connotes techniques of scientific experimentation. Psychology is the science of mind and behavior. Psychology includes study of conscious and unconscious phenomena, as well as feeling and thought. According to N.L. Munn "Psychology today concerns itself with the scientific investigation of behavior, including from the point of behavior of what earlier psychologists dealt with as experience. In the last analysis it studies the overall adjustment of the organism".

#### 4.1.2 What is Sports Psychology?

Sports psychology is a relatively young discipline in psychology. In 1920, Carl Diem founded the world's first sports psychology laboratory at the Deutsche Sporthochschule in Berlin, Germany. In 1925, two more sports psychology labs were established-one by A.Z. Puni at the Institute of Physical Culture in Leningrad and the other by Coleman Griffith at the University of Illinois. Griffith began offering the first course in sports psychology in 1923 and later published the first book on the subject titled *The Psychology of Coaching* (1926). Unfortunately, Griffith's lab was closed in 1932 due to a lack of funds. After the lab was shut down, there was very little research on sports psychology until the subject experienced a revival of interest during the 1960s. Ferruccio Antonelli established the International Society of Sport Psychology (ISSP) in 1965 and by the 1970s sports psychology had been introduced to university course offerings throughout North America. The first academic journal, the *International Journal of Sport Psychology*, was introduced in 1970, which was then followed by the establishment of the *Journal of Sport Psychology* in 1979. By the 1980s, sports psychology became the subject of a more rigorous scientific focus as researchers began to explore how psychology could be used to improve athletic performance, as well as how exercise could be utilized to improve mental well-being and lower stress levels. Sports psychology is the study of how psychology influences sports, athletic performance, exercise, and physical activity. Some sports psychologists work with professional athletes and coaches to improve performance and increase motivation. Other professionals utilize exercise and sports to enhance people's lives and well-being throughout the entire lifespan. Professional sports psychologists often help athletes cope with the intense pressure that comes from competition and overcome problems with focus and motivation. They also work with athletes to improve performance and recover from injuries. But sports psychologists do not just work with elite and professional athletes. They also help regular people learn how to enjoy sports

and learn to stick to an exercise program. Contemporary sports psychology is a diverse field. While finding ways to help athletes is certainly an important part of sports psychology, the application of exercise and physical activity for improving the lives of non-athletes is also a major focus.

According to John Luther, "Sports psychology is an area which attempts to apply psychological facts and principles to learning performance and associated human behavior in whole field of sports."

According to K.M. Burns, "Sports psychology for physical education is that branch of psychology which deals with the physically fitness of an individual through his participation in games and sports."

According to Singer, "Sports psychology explores one's behavior in athletics."

Sport psychology is an interdisciplinary science that draws on knowledge from the fields of Kinesiology and Psychology. It involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors. In addition to instruction and training of psychological skills for performance improvement, applied sport psychology may include work with athletes, coaches, and parents regarding injury, rehabilitation, communication, team building, and career transitions. Sport psychology is commonly referred to as "sport and exercise psychology," as it is used for team sports as well as individual fitness endeavours. Sports psychology is the study of how psychology influences sports, athletic performance, exercise and physical activity.

### **4.1.3 Importance of Sports Psychology in the field of Physical Education and Sports.**

The increased stress of competitions can cause athletes to react both physically and mentally in a manner that can negatively affect their performance abilities. They may become tense, their heart rates race, they break into a cold sweat, they worry about the outcome of the competition, they find it hard to concentrate on the task in hand. This has led coaches to take an increasing interest in the field of sport psychology and in particular in the area of competitive anxiety. That interest has focused on techniques that athletes can use in the competitive situation to maintain control and optimize their performance. Once learned, these techniques allow the athlete to relax and to focus his/her attention in a positive manner on the task of preparing for and participating in competition. Psychology is another weapon in the athlete's armory in gaining the winning edge.

#### **Role of Sports Psychology:**

The importance of a sports psychologist as an integral member of the coaching and health care teams is widely recognized. Sports psychologists can teach skills to help athletes enhance their learning process and motor skills, cope with competitive pressures, fine-tune the level of awareness needed for optimal performance, and stay focused amid the many distractions of team travel and in the competitive environment. Psychological training should be an integral part of an athlete's holistic training process, carried out in conjunction with other training elements. This is best accomplished by a collaborative effort among the coach, the sport psychologist, and the athlete; however, a knowledgeable and interested coach can learn basic psychological skills and impart them to the athlete, especially during actual practice to help the parties' air and resolve differences. Preparing for Competition Simple psychological skills to help the athlete manage the competitive performance environment include:

1. Learning relaxation skills (e.g. Progressive relaxation, slow, controlled, deep abdominal breathing or autogenic training).
2. Mastering all of the attentional styles (types of concentration)
3. Imagery (both visualization and kinesthetic)
4. Self talk

5. Developing a pre-computations mental routine to be employed immediately prior to competition on game day.

The Injured Athlete Injured athletes commonly experience at least three emotional responses: **isolation, frustration and disturbances of mood**. The Sports Psychologist in consultation with the medical team must make ready the injured athlete to participate in sports and games. The following points the importance of sports psychology:

#### 1. **Enhancement of Physiological Capacities:**

Sports psychology plays a very unique role in the enhancement of physiological capacities such as strength, speed and flexibility etc., Motivation plays a major role in the enhancement of physical capacity of sport persons. It is wellknown as well as an established fact that psychological capacities or powers can increase physiological capacities of individuals.

#### 2. **Learning the Motor Skills:**

Sports psychology plays its major role in the learning of motor skills. Motor skills learning depend on the individual's level of readiness, i.e., physiological readiness and psychological readiness. Physiological readiness in children is development of the necessary strength, flexibility and endurance as well as the development of various organ systems so that they may perform motor skills required in the activity. Psychological readiness is related to the learner's state of mind. It means the desire and willingness to learn the particular skill. In psychological readiness, sports psychology plays an important role. Sports psychology is also helpful in the cognitive stage, the social-active stage and the autonomous stage of motor skill learning.

#### 3. **Understanding the behavior:**

Sports psychology helps in understanding the behavior of athletes or sportpersons engaged in competitive sports. Coaches also come to know the interest, attitude towards physical activity, instincts, drives and personality of sportpersons. It does not play its role only in understanding of behavior but it also plays its role in medication of behavior in various sports situations.

#### 4. **Controlling the emotions:**

Sports psychology plays a very important role in controlling the emotions of sportpersons during practice as well as competition. Generally, these emotions may bring spontaneous changes in the behavior of sportpersons. These are anger, disgust, gear, negative self-thinking and feeling of ownership, etc. If these emotions are not controlled well in time, the performance may be decreased. Sports psychology plays a vital role at such juncture. It helps in balancing the arousal of emotions which further improves the performance.

#### 5. **Preparation of athletes psycho-logically for competitions:**

Sports psychology also plays its role in preparation of athletes psychologically for competitions. Intact, it has become a trend to give psychological tips to athletes or team players before and after the competitions. That is why, sports psychologists' services are required with a national level and international level terms. They create the will 'to win' in the players.

#### 6. **Role in the emotional problems of sports persons:**

Stress, tension and anxiety are natural during practice period and competitions or tournaments. There may be some other emotional problems such as depression, frustration, anorexia and panic etc. The knowledge of sports psychology may be helpful in such situations. Techniques of relaxation and concentration for stress management can be applied on sportpersons who are under such problems.

Conclusively, it can be said that sports psychology plays a very vital role in enhancing the performance of sportpersons. It deals with the various mental qualities such as concentration,

confidence, emotional control and commitment etc., which are important for successful performance in sports and games.

### **Motivational techniques for coaches and athletes:**

#### **1. Goal setting:**

Goal setting is the process of systematically planning ways to achieve specific accomplishments within a certain amount of time. Research suggests that goals should be specific, measurable, difficult but attainable, time-based, written down, and a combination of short-term and long-term goals. A meta-analysis of goal setting in sport suggests that when compared to setting no goals or "do your best" goals, setting the above types of goals is an effective method for improving performance. According to Dr. Eva V. Monsma, short-term goals should be used to help achieve long-term goals. Dr. Monsma also states that it is important to "set goals in positive terms by focusing on behaviors that should be present rather than those that should be absent." Each long-term goal should also have a series of short-term goals that progress in difficulty. For instance, short-term goals should progress from those that are easy to achieve to those that are more challenging. Having challenging short-term goals will remove the repetitiveness of easy goals and will give one an edge when striving for their long-term goals.

#### **2. Imagery:**

Imagery (or motor imagery) can be defined as using multiple senses to create or recreate experiences in one's mind. Additionally, the more vivid images are, the more likely they are to be interpreted by the brain as identical to the actual event, which increases the effectiveness of mental practice with imagery. Good imagery, therefore, attempts to create as lifelike an image as possible through the use of multiple senses (e.g., sight, smell), proper timing, perspective, and accurate portrayal of the task. Both anecdotal evidence from athletes and research findings suggest imagery is an effective tool to enhance performance and psychological states relevant to performance (e.g., confidence). This is a concept commonly used by coaches and athletes the day before an event.

#### **3. Pre-performance routines:**

Pre-performance routines refer to the actions and behaviors athletes use to prepare for a game or performance. This includes pregame routines, warm up routines, and actions an athlete will regularly do, mentally and physically, before they execute the performance. Frequently, these will incorporate other commonly used techniques, such as imagery or self-talk. Examples would be visualizations done by skiers, dribbling by basketball players at the foul line, and pre shot routines golfers or baseball players use prior to a shot or pitch. These routines help to develop consistency and predictability for the player. This allows the muscles and mind to develop better motor control.

#### **4. Self-talk:**

Self-talk refers to the thoughts and words athletes and performers say to themselves, usually in their minds. Self-talk phrases are used to direct attention towards a particular thing in order to improve focus or are used alongside other techniques to facilitate their effectiveness. For example, a softball player may think "release point" when at bat to direct her attention to the point where the pitcher releases the ball, while a golfer may say "smooth stroke" before putting to stay relaxed. Research suggests either positive or negative self-talk may improve performance, suggesting the effectiveness of self-talk phrases depends on how the phrase is interpreted by the individual. However, the use of positive self-talk is considered to be more efficacious and is consistent with the associative network theory of Gordon Bower and the self efficacy tenet within the broader Social Cognitive Theory of Albert Bandura. The use of words in sport has been widely utilized. The ability to bombard the unconscious mind with one single positive phrase is one of the most effective and easy to use psychological skills available to any athlete.



### **5. Using extrinsic rewards:**

The key aspect in using extrinsic rewards effectively is that they reinforce an athlete's sense of competence and self worth. Thus, a reward should be informational in nature rather than controlling. If a reward comes to be controlling, it can significantly undermine intrinsic motivation. For a reward to be informational, it is advisable that it has relatively little monetary worth (i.e. it is a token reward), such as a 'woman of the match' or 'athlete of the tour' title. Also, the reward should be presented to an athlete in front of all potential recipients with some emphasis placed on the prestige associated with it. Other popular ways of using token rewards include etching athletes' names on annual honors boards for their contributions, or awarding a special item of clothing.

### **6. Motivational music:**

A particularly good way to motivate athletes in training and prior to competition is through the use of music they perceive to be inspirational. Let's take a look at the field of sport psychology and discover how it can help you as an athlete, parent of an athlete, or as a coach.

#### **1. Sport Psychology Helps You Understand Yourself:**

As An Athlete you need to have mental strategies for learning, practice and performance factors. Sport psychology gives you the methods and approaches to become aware of what you need so you and your coach can craft custom interventions.

#### **2. Sport Psychology Helps You Work Better With Your Parents:**

Your parents should be part of your success team, at least at some level. It does not necessarily mean they should coach you, but it would be nice to have a solid relationship with them, and excellent communication skills so they can assist you in your career.

#### **3. Sport Psychology Helps You Work Better With Your Coaches:**

Your coach is perhaps the most important person on your team. You need a great working relationship with this person. Sport psychology can help you create this relationship, and nurture it.

#### **4. Sport Psychology Helps You Navigate Your Sport Career:**

There are many blind alleys, pitfalls and false paths in a sport career. Sport psychology helps you create a vision for success, and goals and objectives, so you can execute that master plan.

#### **5. Sport Psychology Helps You Prepare Your Mind:**

It is critical that you know how to prepare mentally and emotionally for lessons, practices and performances. Sport psychology helps you devise a customized mental readiness process that helps you transition from your normal work, school or social worlds into the special world of competition.

#### **6. Sport Psychology Helps You Concentrate:**

So You Can Enter the Zone Attention control is psychologist-speak for concentration or focus. Sport psychology helps you create strong control over where and how you place your attention so you can concentrate on the proper attention cues, and you are able to block out unwanted, distracting cues.

#### **7. Sport Psychology Helps You Bounce Back from Set Backs:**

It is critical that you become resilient to the inevitable problems and set-backs that competitive sport brings. You need solid mental toughness that helps you refocus, reset and re-energize for what is to come.

#### **8. Sport Psychology Helps You Increase Motivation and Drive:**

Successful athletes who have long careers fuel them with exciting goals, a vision for the legacy they want to leave, and dreams of how they want to play. Sport psychology helps you craft engaging goals that create positive energy within you, so you have huge amounts of drive and determination to achieve your potential.



**9. Sport Psychology Helps You Handle Stress and Pressure:**

One of the major ways sport psychology helps you is through stress reduction in learning and performance. While some stress is inevitable and natural, levels of stress that are excessive damage performance. Sport psychology helps you manage stress and turn it into success.

**10. Sport Psychology Helps You Handle the Paradox of Success:**

An issue that every athlete faces at some time is the paradox of success. As you become more successful, there are more pressures and more distractions pulling at you. Sport psychology helps you address these; stay focused, and helps you continue to sustain your best performances.

Success or failure on the field often depends on mental factors as much as physical ones. Sport psychologists recognize the dramatic impact of the athlete's mindset, and focus on preparing the mind to overcome obstacles on the field while boosting confidence for optimal performance. Each and every one of us has an untapped energy source that can be drawn upon to bring about superior results. Enhancing motivation is fundamentally about a change of attitude, developing a positive 'can do' mindset and engaging in systematic behaviors – the short-term process goals – that facilitate improvement. If you have a leadership role in sport you will have considerable influence on how motivated your athletes or team might feel. You can instill a good work ethic, recognize individual effort and instigate transparent reward structures that reinforce people's sense of competence.

## Sub Unit – II

### Motivation in sports- types, theories and dynamics.

#### 4.2.1 Definition of Motivation

According to W. P. Swift - “Motivation is a dynamic process initiating and directing behavior, continuous but fluctuating in intensities, and aimed at satisfaction of the individuals’ needs.”

#### 4.2.2 Types of Motivation

On the basis of source motivation may be two types: 1. Intrinsic motivation and 2. Extrinsic motivation.

##### 1. Intrinsic Motivation

Intrinsic motivation represents all the things that motivate you based on internal rewards like self-improvement or helping a friend in need. For example, you may be motivated to get a promotion because you’ll learn valuable skills. Conversely, you might be motivated to succeed because you want to positively affect the lives of the people around you. However, while the above examples are positive, intrinsic motivation can also have negative drivers. For example, you can motivate yourself to learn new things because otherwise you’ll feel unfulfilled. The outcome of your actions is positive, but the specific type of motivation you used was focused on stopping a negative outcome rather than creating a positive outcome. For this reason and more, there are many types of intrinsic motivation that all focus on a specific motivational reward or driver. Regardless of positive or negative, intrinsic motivation is typically more sustainable than extrinsic motivation because it usually focuses on positive or altruistic things you can control. Conversely, extrinsic motivation typically focuses on things that are given to you by someone else and therefore is not directly within your control to achieve.

##### 2. Extrinsic Motivation

Extrinsic motivation represents all the things that motivate you based on external rewards like money or praise. These types of motivation are more common than intrinsic motivators and include achieving things due to a tangible incentive, fear, or expectation, all of which depend on external factors. For example, people want to get a promotion because of the expected raise. Like intrinsic motivation, extrinsic motivation can sometimes be negative. For example, you can be motivated to perform better at your job due to fear of being fired. This shows that extrinsic motivation, like its high-level counterpart, has many different motivational-types that highlight a specific external motivational driver and explains how effective it is at motivation. As you can see, motivation is more complex than simply categorizing it as either an internal or external incentive. For more information on general intrinsic and extrinsic rewards and how they compare and contrast, check out my article on intrinsic vs extrinsic motivation. Otherwise, keep reading for specific types of motivation that leverage these reward systems on a granular level and can help you excel in life.

#### Types of intrinsic motivation:

##### 1. Competence & Learning Motivation

Competence motivation, also known as learning motivation, states that people are motivated more by the process itself rather than by the reward at the end. The reason is that people who are motivated by competence motivation are literally motivated by the act of learning or getting better as they move towards the completion of a goal or task instead of the destination itself. For example, if you want a promotion because you’ll learn valuable skills and not because of the higher expected salary, you’re motivated by competence or learning motivation. This is an

extremely valuable motivator and should be used in almost any motivational strategy. This is because new, relevant skills are often more valuable than even money because, unlike material things, they're assets that no one can take away from you.

## **2. Attitude Motivation**

Attitude motivation refers to the type of motivation that's cultivated through the desire to change the way you or other people think and feel. While it has some similarities to the externally-focused social motivation below, people who are motivated by attitude engage in actions and interactions with the express intent of making themselves and the people around them feel better in a positive and uplifting way. For example, if you're motivated to work for a non-profit or volunteer in a soup kitchen because making people feel good makes you feel good, you're motivated by a change in attitude. Similarly, if you're a manager at a company and you get joy out of helping your direct reports grow and succeed, you're also taking part in attitude motivation.

## **4. Achievement Motivation**

Achievement motivation states that people are driven by the desire to pursue and achieve specific goals. People who are driven by this type of motivation desire the achievement of a task or goal itself, and not necessarily because of the reward that's attached. For example, an entrepreneur might build a business for the goal of building a world-class organization, and not necessarily because there's money involved. If you're driven by achievement motivation, you are typically self-motivated and process-oriented, meaning that you value the process of getting better more than the end result itself. While the achievement of a goal might seem like an external reward, in actuality this type of motivation is largely internal. This is because you aren't enamored by the glitz and glamour of a reward like money, but rather the feeling of accomplishment you get when you complete a worthy task.

## **5. Creative Motivation**

Many people are motivated by creativity or the innate drive for creative expression. When you're motivated by the desire to express yourself, you are tapping into creative motivation. Examples of creative motivation include things in which you feel compelled to create, such as the motivation to write a book, act in a movie, play the guitar, build a product, or start a business. Creative motivation typically manifests itself as an internal feeling that you have something to say that needs to get out. Whether you want the entire world to see your art or just a few people, anything you create in an attempt at self-expression is driven by creative motivation. While the things you create can be tangible they can also be intangible or ephemeral.

## **6. Physiological Motivation**

Often, humans are driven by some internal force beyond their explanation. For example, this is sometimes the case when you pursue someone out of love. Your actions are motivated by deep physiological feelings that are primal and cannot be ignored, regardless of how hard we try. This represents the physiological motivational factors that are both internal and outside of our control. Consider Maslow's Hierarchy of Needs. All humans are motivated by basic needs such as food and shelter, as well as higher-level psychological needs and self-fulfillment. These needs are innate in all of us and we are internally-motivated to achieve them at all costs, making it helpful when trying to understand the thought process of yourself or others.

## Types of extrinsic motivation:

### 1. Incentive Motivation

Incentive motivation, unlike achievement motivation, says that people are motivated more by the reward than by the achievement of the goal itself. Instead of being motivated by the pursuit of a task, those who are motivated by incentives are driven to take action because of an expected (and often specific) reward. For example, if you want a promotion because of the higher salary and not because the new responsibility makes you feel fulfilled, you are motivated by incentives over achievement. However, incentive motivation isn't a bad thing. In fact, while it seems like the opposite of achievement motivation, the two can actually be used together. For example, if you want a promotion, you can be motivated both by the higher salary as well as the more complex and fulfilling work. In scenarios like this, it's a win-win, because you are externally rewarded as well as internally fulfilled. Seek goals or tasks that have incentives as well as elements of achievement motivation.

### 2. Fear Motivation

Fear motivation is a motivational type that uses consequences to drive people into action. Fear motivation can be thought of as a “negative motivator” in that you aren't motivated by a reward but by the avoidance of pain or consequences. Rather than incentivizing yourself or others with positive motivators, fear motivation uses punishment or negative motivators—like getting fired—as a way to keep you productively moving towards specific goals, tasks, or deliverables. While fear motivation sounds bad, it can actually be used as a positive. For example, if you need to get in shape, you can plan a summer pool party at your house or apartment complex, and use the fear of showing up out of shape as motivation to stick with the gym and your diet. Think of fear motivation as positive stressors or positive constraints that help you outsmart your future self, overcome bad habits, and live the life you want (but might be too afraid to go after).

### 3. Power Motivation

Power motivation is a motivational factor that says people are motivated by control over their own lives and the lives of others. Everyone wants choices, and people are often motivated to increase their overall life-options and control the environment around them. For this reason, power motivation manifests itself in the desire to affect the direction of our lives and the lives of those around us. Power motivation, taken to its extreme, can be seen in real-world horrors like Nazi Germany and other scenarios where the hunger to control others outweighs any moral obligation or code. However, when scaled back, power motivation can actually be positive. For example, while it might be bad to control others, trying to place control over your own life can be a good thing. Power motivation, then, motivates you to be intentional in your thoughts and actions so you manifest the life you want.

### 4. Affiliation & Social Motivation

Humans are social creatures, and social motivation—also known as affiliation motivation—states that people are motivated by social factors like belonging and acceptance. Humans have an innate desire to connect with others, and social motivation causes us to seek connections by contributing to a social group. While it may seem internally motivating, *acceptance* is often the motivating factor, which isn't something you can give yourself within a group. Evolutionary psychology tells us that all humans are motivated by these social factors. For this reason, it's important to always seek new connections as well as continue to grow the connections you already have. Finding a group of people who love and accept you can motivate you to new heights and result in true happiness.

Motivation in sports can refer to either the team or the individual. For individual athletes, both intrinsic motivation and extrinsic motivation can be powerful drivers. For example, an athlete might be motivated by their desire to get better and increase their competence as well as a bonus check for winning a big game. For teams, the most common motivator is extrinsic and often centred around the shared goal of winning or imposing their will on someone else. However, teams with high chemistry can be motivated intrinsically, for example by the shared desire to help each other succeed.

Here are some specific types of motivation for sports:

- **Achievement motivation**
- **Incentive motivation**
- **Fear motivation**
- **Power motivation**
- **Competence motivation**

### 4.2.3 Theories of Motivation

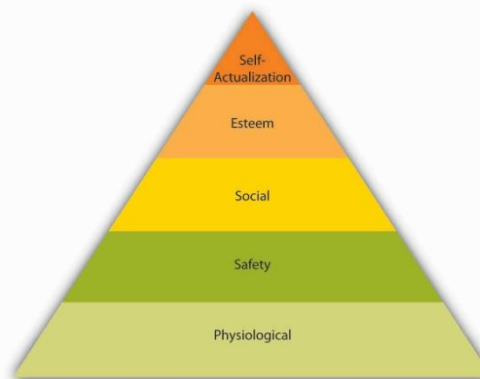
Motivation is one of the forces that lead to performance. Motivation is defined as the desire to achieve a goal or a certain performance level, leading to goal-directed behavior. When we refer to someone as being motivated, we mean that the person is trying hard to accomplish a certain task. Motivation is clearly important if someone is to perform well; however, it is not sufficient. Ability—or having the skills and knowledge required to perform the job—is also important and is sometimes the key determinant of effectiveness. Finally, environmental factors such as having the resources, information, and support one needs to perform well are critical to determine performance. At different times, one of these three factors may be the key to high performance. For example, for an employee sweeping the floor, motivation may be the most important factor that determines performance. In contrast, even the most motivated individual would not be able to successfully design a house without the necessary talent involved in building quality homes. Being motivated is not the same as being a high performer and is not the sole reason why people perform well, but it is nevertheless a key influence over our performance level.

The earliest studies of motivation involved an examination of individual needs. Specifically, early researchers thought that employees try hard and demonstrate goal-driven behavior in order to satisfy needs. For example, an employee who is always walking around the office talking to people may have a need for companionship, and his behavior may be a way of satisfying this need. At the time, researchers developed theories to understand what people need. Four theories may be placed under this category: Maslow's hierarchy of needs, ERG theory, Herzberg's two-factor theory, and McClelland's acquired-needs theory.

#### **Maslow's Hierarchy of Needs**

Abraham Maslow is among the most prominent psychologists of the twentieth century. His hierarchy of needs is an image familiar to most business students and managers. The theory is based on a simple premise: Human beings have needs that are hierarchically ranked. Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50, 370–396; Maslow, A. H. (1954). *Motivation and personality*. New York: Harper. There are some needs that are basic to all human beings, and in their absence nothing else matters. As we satisfy these basic needs, we start looking to satisfy higher order needs. In other words, once a lower level need is satisfied, it no longer serves as a motivator.

### ***Maslow's Hierarchy of Needs***

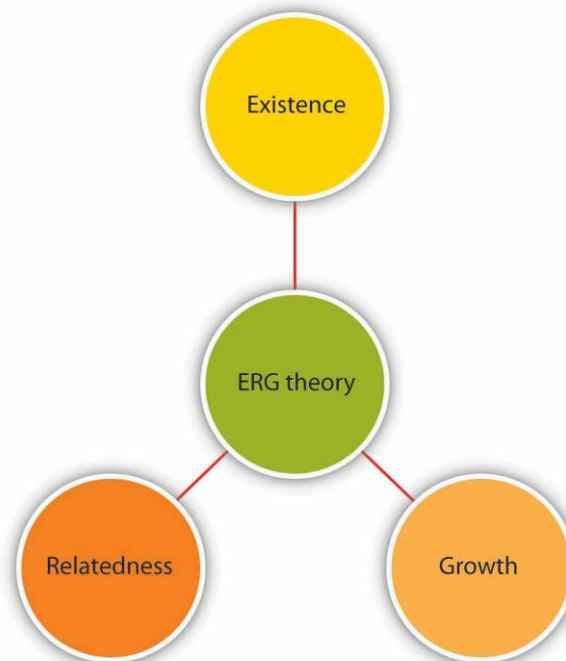


The most basic of Maslow's needs are physiological needs. Physiological needs refer to the need for food, water, and other biological needs. These needs are basic because when they are lacking, the search for them may overpower all other urges. Imagine being very hungry. At that point, all your behavior may be directed at finding food. Once you eat, though, the search for food ceases and the promise of food no longer serves as a motivator. Once physiological needs are satisfied, people tend to become concerned about safety needs. Are they free from the threat of danger, pain, or an uncertain future? On the next level up, social needs refer to the need to bond with other human beings, be loved, and form lasting attachments with others. In fact, attachments, or lack of them, are associated with our health and well-being. Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529. The satisfaction of social needs makes esteem needs more salient. Esteem need refers to the desire to be respected by one's peers, feel important, and be appreciated. Finally, at the highest level of the hierarchy, the need for self-actualization refers to "becoming all you are capable of becoming." This need manifests itself by the desire to acquire new skills, take on new challenges, and behave in a way that will lead to the attainment of one's life goals. Maslow was a clinical psychologist, and his theory was not originally designed for work settings. In fact, his theory was based on his observations of individuals in clinical settings; some of the individual components of the theory found little empirical support. One criticism relates to the order in which the needs are ranked. It is possible to imagine that individuals who go hungry and are in fear of their lives might retain strong bonds to others, suggesting a different order of needs. Moreover, researchers failed to support the arguments that once a need is satisfied it no longer serves as a motivator and that only one need is dominant at a given time. Neher, A. (1991). Maslow's theory of motivation: A critique. *Journal of Humanistic Psychology*, 31, 89–112; Rauschenberger, J., Schmitt, N., & Hunter, J. E. (1980). A test of the need hierarchy concept by a Markov model of change in need strength. *Administrative Science Quarterly*, 25, 654–670. Despite the lack of strong research support, Maslow's theory found obvious applications in business settings. Understanding what people need gives us clues to understanding them. The hierarchy is a systematic way of thinking about the different needs employees may have at any given point and explains different reactions they may have to similar treatment. An employee who is trying to satisfy esteem needs may feel gratified when her supervisor praises an accomplishment. However, another employee who is trying to satisfy social needs may resent being praised by upper management in front of peers if the praise sets the individual apart from the rest of the group. How can an organization satisfy its employees' various needs? In the long run, physiological needs may be satisfied by the person's paycheck, but it is important to remember that pay may satisfy other needs such as safety and esteem as well.



Providing generous benefits that include health insurance and company-sponsored retirement plans, as well as offering a measure of job security, will help satisfy safety needs. Social needs may be satisfied by having a friendly environment and providing a workplace conducive to collaboration and communication with others. Company picnics and other social get-togethers may also be helpful if the majority of employees are motivated primarily by social needs (but may cause resentment if they are not and if they have to sacrifice a Sunday afternoon for a company picnic). Providing promotion opportunities at work, recognizing a person's accomplishments verbally or through more formal reward systems, and conferring job titles that communicate to the employee that one has achieved high status within the organization are among the ways of satisfying esteem needs. Finally, self-actualization needs may be satisfied by the provision of development and growth opportunities on or off the job, as well as by work that is interesting and challenging. By making the effort to satisfy the different needs of each employee, organizations may ensure a highly motivated workforce.

### ERG Theory



ERG theory, developed by Clayton Alderfer, is a modification of Maslow's hierarchy of needs. Alderfer, C. P. (1969). An empirical test of a new theory of human needs. *Organizational Behavior and Human Performance*, 4, 142–175. Instead of the five needs that are hierarchically organized, Alderfer proposed that basic human needs may be grouped under three categories, namely, existence, relatedness, and growth. Existence corresponds to Maslow's physiological and safety needs, relatedness corresponds to social needs, and growth refers to Maslow's esteem and self-actualization. ERG theory's main contribution to the literature is its relaxation of Maslow's assumptions. For example, ERG theory does not rank needs in any particular order and explicitly recognizes that more than one need may operate at a given time. Moreover, the theory has a "frustration-regression" hypothesis suggesting that individuals who are frustrated in their attempts to satisfy one need may regress to another. For example, someone who is frustrated by the growth opportunities in his job and progress toward career goals may regress to relatedness need and start spending more time socializing with co-workers. The implication of this theory is that we need to recognize the multiple needs that may be driving individuals at a given point to understand their behaviour and properly motivate them.

### Two-Factor Theory

Frederick Herzberg approached the question of motivation in a different way. By asking individuals what satisfies them on the job and what dissatisfies them, Herzberg came to the conclusion that aspects of the work environment that satisfy employees are very different from aspects that dissatisfy them. Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work*. New York: John Wiley; Herzberg, F. (1965). The motivation to work among Finnish supervisors. *Personnel Psychology*, 18, 393–402. Herzberg labeled factors causing dissatisfaction of workers as “hygiene” factors because these factors were part of the context in which the job was performed, as opposed to the job itself. Hygiene factors included company policies, supervision, working conditions, salary, safety, and security on the job. To illustrate, imagine that you are working in an unpleasant work environment. Your office is too hot in the summer and too cold in the winter. You are being harassed and mistreated. You would certainly be miserable in such a work environment. However, if these problems were solved (your office temperature is just right and you are not harassed at all), would you be motivated? Most likely, you would take the situation for granted. In fact, many factors in our work environment are things that we miss when they are absent but take for granted if they are present.

### Acquired-Needs Theory

Among the need-based approaches to motivation, David McClelland’s acquired-needs theory is the one that has received the greatest amount of support. According to this theory, individuals acquire three types of needs as a result of their life experiences. These needs are the need for achievement, the need for affiliation, and the need for power. All individuals possess a combination of these needs, and the dominant needs are thought to drive employee behavior.

McClelland used a unique method called the Thematic Apperception Test (TAT) to assess the dominant need. Spangler, W. D. (1992). Validity of questionnaire and TAT measures of need for achievement: Two meta-analyses. *Psychological Bulletin*, 112, 140–154. This method entails presenting research subjects an ambiguous picture asking them to write a story based on it. Take a look at the following picture. Who is this person? What is she doing? Why is she doing it? The story you tell about the woman in the picture would then be analyzed by trained experts. The idea is that the stories the photo evokes would reflect how the mind works and what motivates the person.

If the story you come up with contains themes of success, meeting deadlines, or coming up with brilliant ideas, you may be high in need for achievement. Those who have high need for achievement have a strong need to be successful. As children, they may be praised for their hard work, which forms the foundations of their persistence. Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children’s motivation and performance. *Journal of Personality and Social Psychology*, 75, 33–52. As adults, they are preoccupied with doing things better than they did in the past. These individuals are constantly striving to improve their performance. They relentlessly focus on goals, particularly stretch goals that are challenging in nature. Campbell, D. J. (1982). Determinants of choice of goal difficulty level: A review of situational and personality influences. *Journal of Occupational Psychology*, 55, 79–95. They are particularly suited to positions such as sales, where there are explicit goals, feedback is immediately available, and their effort often leads to success. In fact, they are more attracted to organizations that are merit-based and reward performance rather than seniority. They also do particularly well as entrepreneurs, scientists, and engineers. Harrell, A. M., & Stahl, M. J. (1981). A behavioral decision theory approach for measuring McClelland’s trichotomy of needs. *Journal of Applied Psychology*, 66, 242–247; Trevis, C. S., & Certo, S. C. (2005).

Spotlight on entrepreneurship. *Business Horizons*, 48, 271–274; Turban, D. B., & Keon, T. L. (1993). Organizational attractiveness: An interactionist perspective. *Journal of Applied Psychology*, 78, 184–193.

Are individuals who are high in need for achievement effective managers? Because of their success in lower level jobs where their individual contributions matter the most, those with high need for achievement are often promoted to higher level positions. McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of Applied Psychology*, 67, 737–743. However, a high need for achievement has significant disadvantages in management positions. Management involves getting work done by motivating others. When a salesperson is promoted to be a sales manager, the job description changes from actively selling to recruiting, motivating, and training salespeople. Those who are high in need for achievement may view managerial activities such as coaching, communicating, and meeting with subordinates as a waste of time and may neglect these aspects of their jobs. Moreover, those high in need for achievement enjoy doing things themselves and may find it difficult to delegate any meaningful authority to their subordinates. These individuals often micromanage, expecting others to approach tasks a particular way, and may become overbearing bosses by expecting everyone to display high levels of dedication. McClelland, D. C., & Burnham, D. H. (1976). Power is the great motivator. *Harvard Business Review*, 25, 159–166.

If the story you created in relation to the picture you are analyzing contains elements of making plans to be with friends or family, you may have a high need for affiliation. Individuals who have a high need for affiliation want to be liked and accepted by others. When given a choice, they prefer to interact with others and be with friends. Wong, M. M., & Csikszentmihalyi, M. (1991). Affiliation motivation and daily experience: Some issues on gender differences. *Journal of Personality and Social Psychology*, 60, 154–164. Their emphasis on harmonious interpersonal relationships may be an advantage in jobs and occupations requiring frequent interpersonal interaction, such as a social worker or teacher. In managerial positions, a high need for affiliation may again serve as a disadvantage because these individuals tend to be overly concerned about how they are perceived by others. They may find it difficult to perform some aspects of a manager's job such as giving employees critical feedback or disciplining poor performers. Thus, the work environment may be characterized by mediocrity and may even lead to high performers leaving the team.

Finally, if your story contains elements of getting work done by influencing other people or desiring to make an impact on the organization, you may have a high need for power. Those with a high need for power want to influence others and control their environment. A need for power may in fact be a destructive element in relationships with colleagues if it takes the form of seeking and using power for one's own good and prestige. However, when it manifests itself in more altruistic forms such as changing the way things are done so that the work environment is more positive, or negotiating more resources for one's department, it tends to lead to positive outcomes. In fact, the need for power is viewed as an important trait for effectiveness in managerial and leadership positions. McClelland, D. C., & Burnham, D. H. (1976). Power is the great motivator. *Harvard Business Review*, 25, 159–166; Spangler, W. D., & House, R. J. (1991). Presidential effectiveness and the leadership motive profile. *Journal of Personality and Social Psychology*, 60, 439–455; Spreier, S. W. (2006). Leadership run amok. *Harvard Business Review*, 84, 72–82.

McClelland's theory of acquired needs has important implications for the motivation of employees. Managers need to understand the dominant needs of their employees to be able to motivate them. While people who have a high need for achievement may respond to goals, those with a high need for power may attempt to gain influence over those they work with, and individuals high in their need for affiliation may be motivated to gain the approval of their peers and supervisors. Finally, those who have a high drive for success may experience difficulties in managerial positions, and making them aware of common pitfalls may increase their effectiveness.

A separate stream of research views motivation as something more than action aimed at satisfying a need. Instead, process-based theories view motivation as a rational process. Individuals analyze their environment, develop thoughts and feelings, and react in certain ways. Process theories attempt to explain the thought processes of individuals who demonstrate motivated behavior. Under this category, we will review equity theory, expectancy theory, and reinforcement theory.

### **Equity Theory**

Imagine that you are paid \$10 an hour working as an office assistant. You have held this job for 6 months. You are very good at what you do, you come up with creative ways to make things easier around you, and you are a good colleague who is willing to help others. You stay late when necessary and are flexible if requested to change hours. Now imagine that you found out they are hiring another employee who is going to work with you, who will hold the same job title, and who will perform the same type of tasks. This particular person has more advanced computer skills, but it is unclear whether these will be used on the job. The starting pay for this person will be \$14 an hour. How would you feel? Would you be as motivated as before, going above and beyond your duties? How would you describe what you would be feeling?

If your reaction to this scenario is along the lines of "this would be unfair," your behavior may be explained using equity theory. Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267–299). New York: Academic Press. According to this theory, individuals are motivated by a sense of fairness in their interactions. Moreover, our sense of fairness is a result of the social comparisons we make. Specifically, we compare our inputs and outcomes with other people's inputs and outcomes. We perceive fairness if we believe that the input-to-outcome ratio we are bringing into the situation is similar to the input-to-outcome ratio of a comparison person, or a referent. Perceptions of inequity create tension within us and drive us to action that will reduce perceived inequity.

### **What Are Inputs and Outcomes?**

Inputs are the contributions people feel they are making to the environment. In the previous example, the person's hard work; loyalty to the organization; amount of time with the organization; and level of education, training, and skills may have been relevant inputs. Outcomes are the perceived rewards someone can receive from the situation. For the hourly wage employee in our example, the \$10 an hour pay rate was a core outcome. There may also be other, more peripheral outcomes, such as acknowledgment or preferential treatment from a manager. In the prior example, however, the person may reason as follows: I have been working here for 6 months. I am loyal, and I perform well (inputs). I am paid \$10 an hour for this (outcomes). The new person does not have any experience here (referent's inputs) but will be paid \$14 an hour. This situation is unfair.

We should emphasize that equity perceptions develop as a result of a subjective process. Different people may look at the same situation and perceive different levels of equity. For example, another person may look at the same scenario and decide that the situation is fair because the newcomer has computer skills and the company is paying extra for those skills.

### Who Is the Referent?

The referent other may be a specific person as well as a category of people. Referents should be comparable to us—otherwise the comparison is not meaningful. It would be pointless for a student worker to compare himself to the CEO of the company, given the differences in the nature of inputs and outcomes. Instead, individuals may compare themselves to someone performing similar tasks within the same organization or, in the case of a CEO, a different organization.

### Reactions to Unfairness

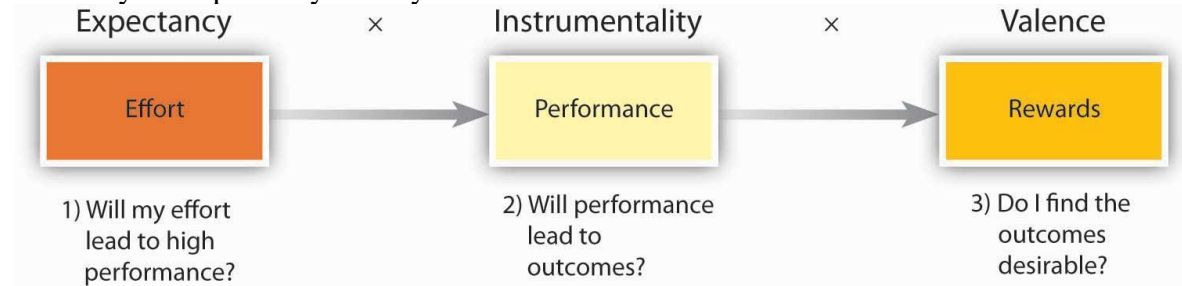
The theory outlines several potential reactions to perceived inequity. Oftentimes, the situation may be dealt with perceptually by *altering our perceptions of our own or the referent's inputs and outcomes*. For example, we may justify the situation by downplaying our own inputs (I don't really work very hard on this job), valuing our outcomes more highly (I am gaining valuable work experience, so the situation is not that bad), distorting the other person's inputs (the new hire really is more competent than I am and deserves to be paid more), or distorting the other person's outcomes (she gets \$14 an hour but will have to work with a lousy manager, so the situation is not unfair). Another option would be to *have the referent increase inputs*. If the other person brings more to the situation, getting more out of the situation would be fair. If that person can be made to work harder or work on more complicated tasks, equity would be achieved. The person experiencing a perceived inequity may also *reduce inputs or attempt to increase outcomes*. If the lower paid person puts forth less effort, the perceived inequity would be reduced. Research shows that people who perceive inequity reduce their work performance or reduce the quality of their inputs. Carrell, M. R., & Dittrich, J. E. (1978). Equity theory: The recent literature, methodological considerations, and new directions. *Academy of Management Review*, 3, 202–210; Goodman, P. S., & Friedman, A. (1971). An examination of Adams' theory of inequity. *Administrative Science Quarterly*, 16, 271–288. Increasing one's outcomes can be achieved through legitimate means such as negotiating a pay raise. At the same time, research shows that those feeling inequity sometimes resort to stealing to balance the scales. Greenberg, J. (1993). Stealing in the name of justice: Informational and interpersonal moderators of theft reactions to underpayment inequity. *Organizational Behavior and Human Decision Processes*, 54, 81–103. Other options include *changing the comparison person* (e.g., others doing similar work in different organizations are paid only minimum wage) and *leaving the situation* by quitting. Schmidt, D. R., & Marwell, G. (1972). Withdrawal and reward reallocation as responses to inequity. *Journal of Experimental Social Psychology*, 8, 207–211. Sometimes it may be necessary to consider taking legal action as a potential outcome of perceived inequity. For example, if an employee finds out the main reason behind a pay gap is gender related, the person may react to the situation by taking legal action because sex discrimination in pay is illegal in the United States.

### Expectancy Theory

According to expectancy theory, individual motivation to put forth more or less effort is determined by a rational calculation in which individuals evaluate their situation. Porter, L. W., & Lawler, E. E. (1968). *Managerial attitudes and performance*. Homewood, IL: Irwin; Vroom, V. H. (1964). *Work and motivation*. New York: Wiley. According to this theory, individuals ask themselves three questions.

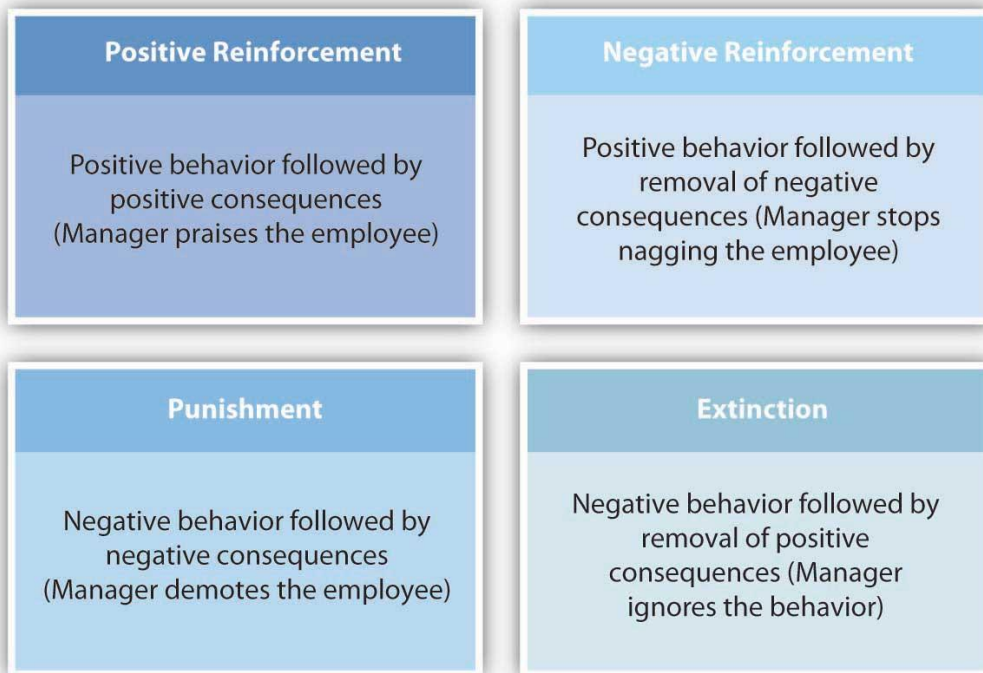


## Summary of Expectancy Theory

**Reinforcement Theory**

Reinforcement theory is based on the work of Ivan Pavlov on behavioural conditioning and the later work of B. F. Skinner on operant conditioning. Skinner, B. F. (1953). *Science and human behaviour*. New York: Free Press. According to reinforcement theory, behaviour is a function of its outcomes. Imagine that even though no one asked you to, you stayed late and drafted a report. When the manager found out, she was ecstatic and took you out to lunch and thanked you genuinely. The consequences following your good deed were favourable, and therefore you are more likely to demonstrate similar behaviours in the future. In other words, your taking initiative was reinforced. Instead, if your manager had said nothing about it and everyone ignored the sacrifice you made, you are less likely to demonstrate similar behaviours in the future. Reinforcement theory is based on a simple idea that may be viewed as common sense. Beginning at infancy we learn through reinforcement. If you have observed a small child discovering the environment, you will see reinforcement theory in action. When the child discovers manipulating a faucet leads to water coming out and finds this outcome pleasant, he is more likely to repeat the behaviour. If he burns his hand while playing with hot water, the child is likely to stay away from the faucet in the future. Despite the simplicity of reinforcement, how many times have you seen positive behaviour ignored, or worse, negative behaviour rewarded? In many organizations, this is a familiar scenario. People go above and beyond the call of duty, yet their actions are ignored or criticized. People with disruptive habits may receive no punishments because the manager is afraid of the reaction the person will give when confronted. Problem employees may even receive rewards such as promotions so they will be transferred to a different location and become someone else's problem. Moreover, it is common for people to be rewarded for the wrong kind of behaviour. Steven Kerr has labelled this phenomenon "the folly of rewarding A while hoping for B." Kerr, S. (1995). On the folly of rewarding A while hoping for B. *Academy of Management Executive*, 9, 7–14. For example, a company may make public statements about the importance of quality. Yet, if they choose to reward shipments on time regardless of the amount of defects contained in the shipments, employees are more likely to ignore quality and focus on hurrying the delivery process. Because people learn to repeat their behaviours based on the consequences following their prior activities, managers will need to systematically examine the consequences of employee behaviour and make interventions when needed.



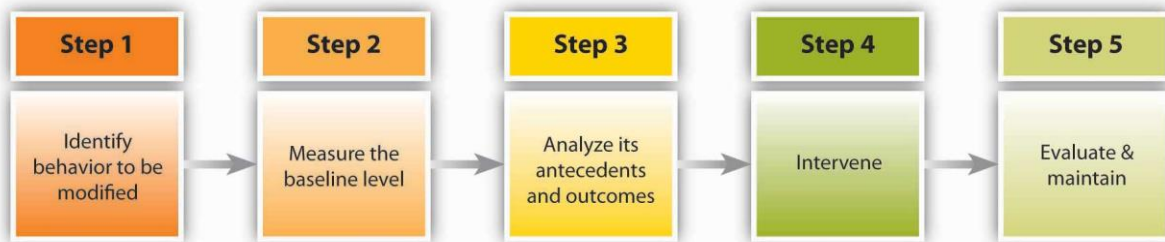


Positive reinforcement is a method of increasing the desired behaviour. Beatty, R. W., & Schneier, C. E. (1975). A case for positive reinforcement. *Business Horizons*, 18, 57–66. Positive reinforcement involves making sure that behaviour is met with positive consequences. For example, praising an employee for treating a customer respectfully is an example of positive reinforcement. If the praise immediately follows the positive behaviour, the employee will see a link between the behaviour and positive consequences and will be motivated to repeat similar behaviours.

Negative reinforcement is also used to increase the desired behaviour. Negative reinforcement involves removal of unpleasant outcomes once desired behaviour is demonstrated. Nagging an employee to complete a report is an example of negative reinforcement. The negative stimulus in the environment will remain present until positive behaviour is demonstrated. The problem with negative reinforcement is that the negative stimulus may lead to unexpected behaviours and may fail to stimulate the desired behaviour. For example, the person may start avoiding the manager to avoid being nagged.

Extinction is used to decrease the frequency of negative behaviors. Extinction is the removal of rewards following negative behaviour. Sometimes, negative behaviours are demonstrated because they are being inadvertently rewarded. For example, it has been shown that when people are rewarded for their unethical behaviours, they tend to demonstrate higher levels of unethical behaviours. Harvey, H. W., & Sims, H. P. (1978). Some determinants of unethical decision behaviour: An experiment. *Journal of Applied Psychology*, 63, 451–457. Thus, when the rewards following unwanted behaviours are removed, the frequency of future negative behaviours may be reduced. For example, if a co-worker is forwarding unsolicited e-mail messages containing jokes, commenting and laughing at these jokes may be encouraging the person to keep forwarding these messages. Completely ignoring such messages may reduce their frequency.

Punishment is another method of reducing the frequency of undesirable behaviours. Punishment involves presenting negative consequences following unwanted behaviours. Giving an employee a warning for consistently being late to work is an example of punishment.



### Behavior modification theory

#### McClelland's achievement motivation theory

McClelland took a different approach to conceptualize needs and argued that needs are developed and learned, and focused his research away from satisfaction. He was also adamant that only one dominant motive can be present in our behavior at a time. McClelland categorized the needs or motives into achievement, affiliation, and power and saw them as being influenced by either internal drivers or extrinsic factors.

*Among all the prospects which man can have, the most comforting is, on the basis of his present moral condition, to look forward to something permanent and to further progress toward a still better prospect.*

Immanuel Kant

The drive for achievement arises out of the psychological need for competence and is defined as a striving for excellence against a standard that can originate from three sources of competition: the task itself, the competition with the self, and the competition against others. High need for achievement can come from one's social environment and socialization influences, like parents who promote and value pursuit and standards of excellence, but it can also be developed throughout life as a need for personal growth towards complexity (Reeve, 2018).

#### Herzberg's motivation-hygiene theory

Herzberg's two-factor theory, also known as motivation-hygiene theory, was originally intended to address employee motivation and recognized two sources of job satisfaction. He argued that motivating factors influence job satisfaction because they are based on an individual's need for personal growth: achievement, recognition, work itself, responsibility, and advancement.

On the other hand, hygiene factors, which represented deficiency needs, defined the job context and could make individuals unhappy with their job: company policy and administration, supervision, salary, interpersonal relationships, and working conditions.

#### Process Theories of Motivation

Process theories like Skinner's reinforcement theory, Victor Vroom's expectancy theory, Adam's equity theory, and **Locke's goal-setting theory** set out to explain how motivation occurs and how our motives change over time.

#### Reinforcement theory

The most well-known process theory of motivation is the reinforcement theory, which focused on the consequences of human behavior as a motivating factor.

Based on Skinner's **operant conditioning theory**, it identifies positive reinforcements as promoters that increased the possibility of the desired behavior's repetition: praise, appreciation, a good grade, trophy, money, promotion, or any other reward (Gordon, 1987). It distinguished positive reinforcements from negative reinforcement and punishment, where the former gives a person only what they need in exchange for desired behavior, and the latter tries to stop the undesired behavior by inflicting unwanted consequences.

See our articles on **Positive Reinforcement in the Workplace** and **Parenting Children with Positive Reinforcement**.

Other process motivation theories combine aspects of reinforcement theory with other theories, sometimes from adjacent fields, to shine a light on what drives human behavior.

### **Adam's equity theory of motivation**

For example, Adam's equity theory of motivation (1965), based on Social Exchange theory, states that we are motivated when treated equitably, and we receive what we consider fair for our efforts.

It suggests that we not only compare our contributions to the amount of rewards we receive but also compare them to what others receive for the same amount of input. Although equity is essential to motivation, it does not take into account the differences in individual needs, values, and personalities, which influence our perception of inequity.

### **Vroom's expectancy theory**

Victor Vroom's expectancy theory (1964), on the other hand, integrates needs, equity, and reinforcement theories to explain how we choose from alternative forms of voluntary behavior based on the belief that decisions will have desired outcomes. Vroom suggests that we are motivated to pursue an activity by appraising three factors:

- Expectancy that assumes more effort will result in success
- Instrumentality that sees a connection between activity and goal
- Valence which represents the degree to which we value the reward or the results of success.

### **Locke's goal-setting theory**

Finally, Locke's (1990) goal-setting theory, an integrative model of motivation, sees goals as key determinants of behavior. Possibly the most widely applied, the goal-setting theory stresses goal specificity, difficulty, and acceptance and provides guidelines for how to incorporate them into incentive programs and management by objectives (MBO) techniques in many areas.

Lock's recipe for effective goal setting includes:

- Setting of challenging but attainable goals. Too easy or too difficult or unrealistic goals don't motivate us.
- Setting goals that are specific and measurable. These can focus us toward what we want and can help us measure the progress toward the goal.
- Goal commitment should be obtained. If we don't commit to the goals, then we will not put adequate effort toward reaching them, regardless of how specific or challenging they are.
- Strategies to achieve this could include participation in the goal-setting process, the use of extrinsic rewards (bonuses), and encouraging intrinsic motivation through providing feedback about goal attainment. It is important to mention here that pressure to achieve goals is not useful because it can result in dishonesty and superficial performance.

- Support elements should be provided. For example, encouragement, needed materials and resources, and moral support.
- Knowledge of results is essential. Goals need to be quantifiable, and there needs to be feedback.

There are several articles on effective goal setting in our blog series that cover **Locke's theory** and its many applications.

### Cognitive Theories of Motivation

Some cognitive theories inform our understanding of motivation. They address specific cognitive phenomena that can influence motivation, represent a particular factor of motivation, describe a form of expression of motivation, or explain a process through which it can occur or be enhanced.

The list of cognitive phenomena is by no means comprehensive, but it does give us a taste of the complexity of human motivation and includes references for those who want to read further into more nuanced topics:

- Plans (Carver & Scheier, 1998)
- Goals (Locke & Latham, 2002)
- Implementation intentions (Gollwitzer, 1999)
- Deliberative versus implementation mindsets (Gollwitzer & Kinney, 1989)
- Promotion versus prevention orientations (Higgins, 1997)
- **Growth versus fixed mindsets** (Dweck, 2006)
- Dissonance (Festinger, 1957; Harmon-Jones & Mills, 1999)
- Self-efficacy (Bandura, 1986)
- Perceived control (Skinner, 1996)
- Reactance theory (Brehm, 1966)
- Learned helplessness theory (Seligman, 1975)
- Mastery beliefs (Diener & Dweck, 1978)
- Attributions (Weiner, 1986)
- Expectancy (Peterson, Maier, & Seligman, 1993)
- Values (Eccles & Wigfield, 2002)
- Self-concept (Markus, 1977)
- Possible selves (Oyserman, Bybee, & Terry, 2006)
- Identity (Eccles, 2009)
- Self-regulation (Zimmerman, 2000)
- Self-control (Baumeister & Tierney, 2011)

There are also several different approaches to understanding human motivation which we have discussed in greater detail in our article on **Benefits and Importance of Motivation** which amass a large body of motivational studies and are currently attracting a lot of attention in contemporary research in motivational science, namely intrinsic motivation (Deci, 1975) and the flow theory (Csíkszentmihályi, 1975).

### Motivational Theories in Business

There are many theories developed for the purpose of application to the organizational setting and motivation of employees. In addition to the Two Factor theory and equity theory, some theories focus on autonomy, wellbeing, and feedback as core motivational aspects of employees' performance; theories X, Y and Z, and the Hawthorne effect, respectively.

### Theory X and Theory Y

Douglas McGregor proposed two theories, Theory X and Theory Y, to explain employee motivation and its implications for management. He divided employees into Theory X

employees who avoid work and dislike responsibility and Theory Y employees who enjoy work and exert effort when they have control in the workplace.

He postulated that to motivate Theory X employees, the company needs to enforce rules and implement punishments. For Theory Y employees, management must develop opportunities for employees to take on responsibility and show creativity as a way of motivating. Theory X is heavily informed by what we know about intrinsic motivation, and the role satisfaction of basic psychological needs plays in effective employee motivation.

### Theory Z

In response to this theory, a third theory, Theory Z, was developed by Dr. William Ouchi. Ouchi's theory focuses on increasing employee loyalty to the company by providing a job for life and focusing on the employee's well-being. It encourages group work and social interaction to motivate employees in the workplace.

### The Hawthorne Effect

Elton Mayo developed an explanation known as the Hawthorne Effect that suggested that employees are more productive when they know their work is being measured and studied.

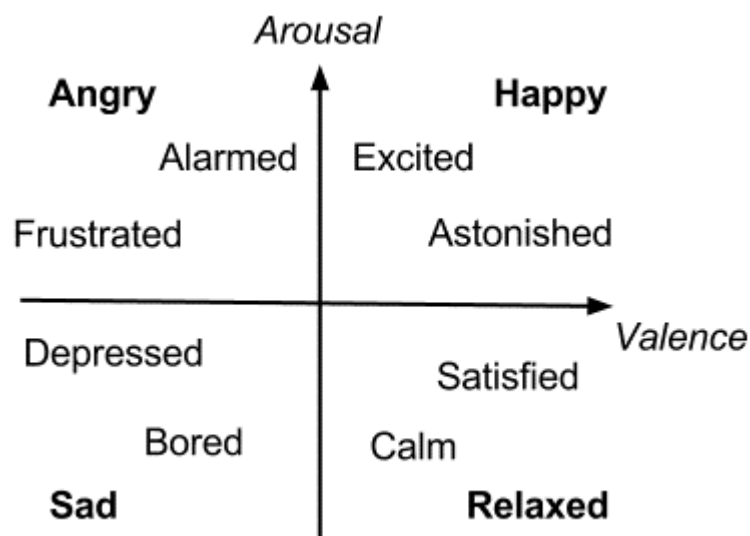
He recognized that employees need recognition for a job well done and reassurance that their opinion matters in the workplace to be motivated to perform. Mayo noticed that employees were more productive when provided with feedback and allowed to provide input into the work process.

There are also several theories on motivation that are used in sports and performance psychology. The core concept in understanding motivation from the performance perspective is how physiological and psychological arousal accompanies behavior.

Arousal is basically a form of mobilization of energy and activation either before or while engaged in the behavior. Arousal occurs in different modes. Physiological arousal refers to the excitement of the body, while psychological arousal is about how subjectively aroused an individual feels.

When we say that our palms are sweaty or our heart is pounding, it implies physiological arousal. When we feel tense and anxious, it signifies psychological arousal.

Robert Thayer (1989) evolved the theory of psychological arousal into two dimensions: energetic arousal and tense arousal, composed of energetic and tense dimensions. Energetic arousal is associated with positive affect, while tense arousal is associated with anxiety and fearfulness.



Tense arousal can be divided further into two types of anxiety: trait anxiety and state anxiety. One refers to the degree we respond to the environment in general negatively and with worry, while state anxiety refers to feelings of apprehension that occur in response to a particular situation.

Arousal originates from several sources. It can be generated by a stimulus that has an arousing function and a cue function. But background stimuli that do not capture our attention also increase arousal.

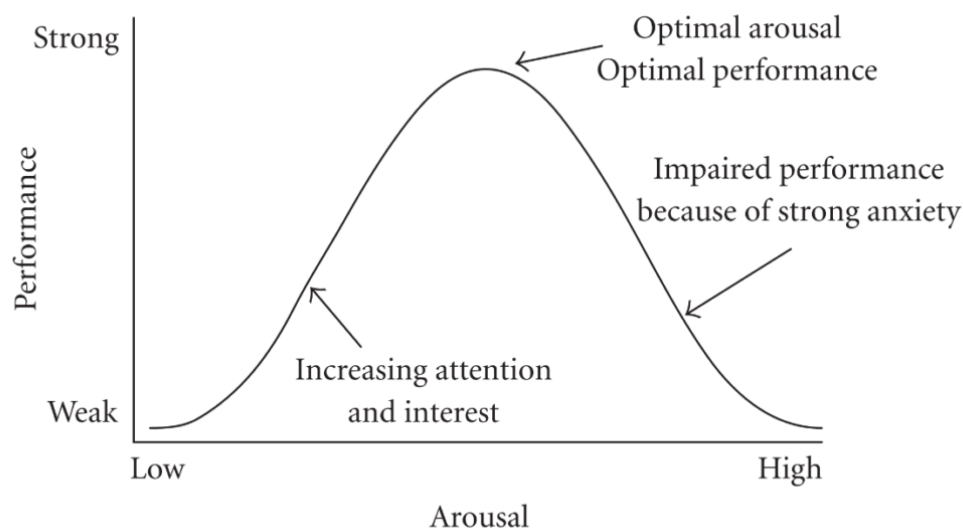
Thayer found that arousal varies with time of day, for many of us being highest around noon and lower in the morning and evening. Coffee, for example, can boost arousal, as can an instance of being evaluated during exams, music performance, or sports competitions.

Arousal also depends on more complex variables like novelty, complexity, and incongruity. The interaction of various stimuli explains why sometimes arousal increases behavioral efficiency and in other instances, decreases it.

### Optimal functioning hypothesis

The zone of optimal functioning hypothesis in sports psychology identifies a zone of optimal arousal where an athlete performs best (Hanin, 1989). As arousal increases, performance on a task increases and then decreases, as can be seen on the inverted-U arousal–performance relationship diagram below.

According to the zone of optimal functioning hypothesis, each individual has her preferred area of arousal based on cognitive or somatic anxiety. The Yerkes–Dodson law explains further that the high point of the inverted-U or arousal–performance relationship depends on the complexity of the task being performed.



Several theories have been proposed to explain the relationship between the inverted-U nature of the arousal–performance relationship.

### Hull–Spence drive theory

The classic Hull–Spence drive theory emphasizes how arousal affects performance with little regard for any cognitive awareness by the individual. Also known as drive reduction theory, it postulates that human behavior could be explained by conditioning and reinforcement.

This oversimplification is part of the reason why more nuanced and complex cognitive theories have largely replaced the theory. The cusp catastrophe model in sports psychology, arousal-



biased competition theory, processing efficiency theory, and attentional control theory are more concerned with the cognitive aspects of arousal and how this affects behavioral efficiency.

### **Arousal-biased competition theory**

Mather and Sutherland (2011) developed an arousal-biased competition theory to explain the inverted-U arousal–performance relationship. It suggests that arousal exhibits biases toward information that is the focus of our attention.

Arousal effects and therefore increases the priority of processing important information and decrease the priority of processing less critical information. The presence of arousal improves the efficiency of behavior that concerns a crucial stimulus, but it is done at the expense of the background stimuli.

### **Two memory systems theory**

Metcalf and Jacobs (1998) postulated the existence of two memory systems that influence the level of arousal we experience: a cool memory system and a hot memory system, each in a different area of the brain. The cool system, located in the hippocampus, serves the memory of events occurring in space and time and would allow us to remember where we parked our car this morning.

The hot system in the amygdala serves as the memory of events that occur under high arousal. Metcalfe and Jacobs theorized that the hot system remembers the details of stimuli that predict the onset of highly stressful or arousing events, such as events that predict danger and is responsible for the intrusive memories of individuals who have experienced extremely traumatic events.

### **Processing efficiency theory**

The processing efficiency theory of Eysenck & Calvo theorized on how anxiety, expressed as worry, can influence performance. Preoccupation with being evaluated and being concerned about one's performance turns to worry, which takes up working memory capacity and causes performance on cognitive tasks to decline (Eysenck & Calvo, 1992).

## **4.2.4 Dynamics**

In order to promote life-long participation in sport, it is important that scholars create ways to maximize enjoyment for participants (Kirk, 2005). In order to do this, researchers need to identify the factors that influence enjoyment levels and manipulate those. Behavioral engagement is a psychological construct that is associated with enjoyment (Curran et al., 2013). Further, behavioural engagement is the key construct within Skinner and Pitzer's (2012) Model of Motivational Dynamics (MMD), which infers that peers influence behavioural engagement levels, and that behavioural engagement is associated with both coping and resilience. In non-sport domains, Wentzel (1998) reported that behavioural engagement is influenced by peers. That is, peers can have a positive or negative influence on engagement levels. If peers are disruptive, they can negatively influence their friends, resulting in others becoming disaffected. Although scholars identified relationships between the aforementioned constructs, these were not explored among athletic populations and nor within the same model. Understanding more about the relationship between peer influence and engagement levels is important and may have important consequences for the organization of sports practice and competition, especially if peer influence is associated with engagement levels. Although, Skinner and Pitzer (2012) theorized an association between peers and behavioural engagement, along with both coping and resilience, scholars are yet to test the accuracy the MMD (Skinner and Pitzer, 2012) among athletes. The purpose of this paper was to assess the relevance of the MMD among an athletic population.

The MMD (Skinner and Pitzer, 2012) is grounded in self-determination theory and a model of positive motivational development. The central tenet of the MMD is that people will be engaged when their basic psychological needs are met. When a person's basic psychological needs are not met, he or she will be behaviourally disaffected. Therefore, people need to feel connected to other people within the group and feel cared for, in control of their actions, and feel competent to be engaged (Ryan et al., 1996). A factor that influences whether a person will be behaviourally engaged or disaffected is peers, and thus the interactions a person has with his or friends and the pressure exerted by friends to influence behaviour (Wentzel, 1998).

Indeed, peer pressure represents an important reason why people engage in delinquent or risky behaviour (Simons-Morton et al., 2005). It is accepted that the main reason people engage in such delinquency is to impress their friends (Moffitt, 1993). One such mechanism that influences whether an individual will succumb to pressure to engage in delinquent behaviour from peers is a person's level of resistance to peer influence. This refers to the degree in which a person acts autonomously in interactions with their peers or friends (Steinberg and Monahan, 2007). Researchers from other domains of psychology suggested that resistance to peer influence is negatively associated with anti-social behaviour (Monahan et al., 2009). Furthermore, the behaviour of peers within a group may also influence behavioural engagement levels (Wentzel, 1998; Li et al., 2011). Indeed, Li et al. (2011) reported that negative peer relations detrimentally impacted upon behavioural engagement, and thus demonstrating the extent to which peers may influence behavioural engagement.

According to Curran et al. (2013), an individual is behaviourally engaged when he or she exhibits maximum effort and attention whilst performing an activity. Conversely, when an individual exerts little effort, he or she is behaviourally disaffected. Behavioural engagement and disaffection are important psychological constructs, because they predict learning, attendance, resilience, and achievement in school settings (Connell et al., 1994; Skinner et al., 1998). Furthermore, Shen et al. (2012) reported a positive association between behavioural engagement and relatedness to the teacher, within a physical education setting. That is, pupils who were more engaged felt more acceptance, belonging, and support from their teacher. It is important that psychologists understand more about the factors that influence engagement in order to maximize the likelihood of athletes having positive experiences whilst training or competing. One construct that might be affected by behavioural engagement is coping (Skinner and Pitzer, 2012).

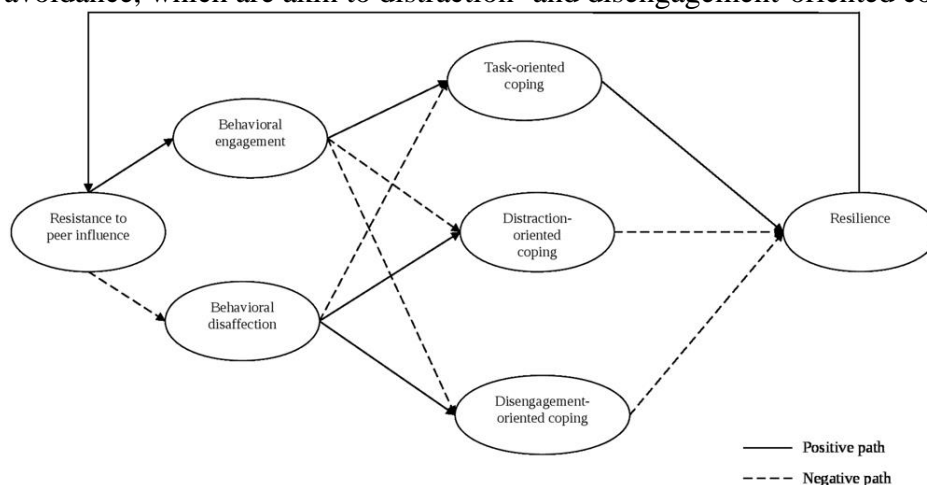
Coping refers cognitive and behavioural efforts to manage internal or external demands (Lazarus and Folkman, 1984), and can be classified within task-, distraction-, and disengagement-oriented coping (Gaudreau and Blondin, 2004). During task-oriented coping the person attempts to change or master stressful situations, whereas distraction-oriented coping involves a person directing his or her attention onto unrelated aspects. Disengagement-oriented coping occurs when a person ceases efforts to attain his or her personal goals. Coping is a construct that appears to be related to many constructs such as performance (Doron and Gaudreau, 2014), goal attainment (Schellenberg et al., 2013), and choking under pressure (Balk et al., 2013). Skinner and Pitzer (2012) postulated that coping is related to behavioural engagement, suggesting that behavioural engagement acts as an energizing resource that enables people to cope more effectively with daily stressors. Disaffection, on the other hand, is associated with less effective coping.

Previous scholarly activity indicated that peers may impact upon on how an athlete copes. In particular, Nicholls et al. (2013) reported a negative path between peer-influence on behaviour and distraction-oriented coping and a negative correlation between disengagement-oriented coping and peer influence on behaviour. The negative path between peer influence on behaviour and distraction-oriented coping could indicate that the athletes were too distracted by their peers to deploy task-oriented coping strategies. Although Nicholls et al. (2013) did not

explore the relationship between coping and resistance to peer influence, their findings indicate that peers have an association with coping. Another construct that is thought to be related to coping is resilience (Fredrickson and Joiner, 2002).

Resilience represents a person's ability to positively adapt to stressful situations and thereby function normally despite being exposed to stressful stimuli (Bonanno, 2004). Skinner and Pitzer (2012) suggested that repeated episodes of coping may influence a person's mindset regarding perceptions of mastery and therefore resilience, given that mastery is a component of resilience (Yi-Frazier et al., 2009). Indeed, Yi-Frazier et al. (2009) found that maladaptive coping was associated with individuals who were not resilient. Understanding more about the relationship between coping and resilience will help scholars identify the strategies that are associated with resilience. This is important, given that coping is thought to enhance resilience (Skinner and Pitzer, 2012). Furthermore, resilience may also be related resistance to peer influence, as resilient individuals have been found to be less effected by peer victimizations (Overbeek et al., 2010).

The aim of this study was to examine the relevance of Skinner and Pitzer's (2012) MMD among an athletic population. An illustrated version of our predicted paths is portrayed in Figure 1. A broken line infers a negative path, whereas an unbroken line infers a positive path. We predicted a positive path between resistance to peer influence and behavioural engagement, but a negative path between resistance to peer influence and behavioural disaffection. This is because researchers reported positive peer behaviours were associated with increased behavioural engagement, whereas negative peer behaviours were associated with behavioural disaffection (Wentzel, 1998). Indeed, Li et al. (2011) reported negative peer behaviours in school (i.e., bullying and being disruptive) caused behavioural disaffection in their longitudinal study. The ability to resist the temptation to engage in negative behaviours appears important in influencing whether an athlete is behavioural engaged or disaffected. We also hypothesized positive path between behavioural engagement and task-oriented coping, along with negative paths between behavioural engagement and both distraction- and disengagement-oriented coping. Positive paths between behavioural disaffection and both distraction- and disengagement-oriented coping in addition to a negative path between behavioural disaffection and task-oriented coping were also predicted. These paths are in accordance with Skinner and Pitzer's (2012) MMD. These authors suggested that those who are behaviourally engaged are more likely to be focused, work hard, exert effort, search for strategies, and attempt to master challenging situations. Essentially, these behaviours are similar to those classified as task-oriented coping, but the antithesis of the behaviours and cognitions associated with distraction- or disengagement-oriented coping (Fredrickson and Joiner, 2002). Conversely, Skinner and Pitzer (2012) suggested that behavioural disaffection is associated with giving up and avoidance, which are akin to distraction- and disengagement-oriented coping strategies.



In this paper we assessed the relevance of the MMD (Skinner and Pitzer, 2012) within a sporting context. As such, we tested a model that included resistance to peer influence, behavioural engagement and disaffection, dispositional coping, and resilience among a sample of athletes. Overall, many of our hypotheses were supported and there was a strong model fit, thus illustrating the relevance of the MMD in sport settings. In particular, there were positive paths between resistance to peer influence and behavioural engagement, behavioural engagement and task-oriented coping, task-oriented coping and resilience, and resilience with resistance to peer influence. There was also a negative path between resistance to peer influence and behavioural disaffection.

In accordance with the MMD (Skinner and Pitzer, 2012), we found a positive path between resistance to peer influence and behavioural engagement, but a negative path between resistance to peer influence and behavioural disaffection. In other sporting contexts, scholars revealed the importance of athletes being able to resist social influences from peers as a key factor that determines whether an athlete intends to take performance enhancing drugs (i.e., Lucidi et al., 2008). In addition to impacting upon doping, findings from the present study also indicate that resistance peer influence may impact upon whether an athlete is behaviourally engaged or disaffected, although experimental research is required to infer causality between these constructs. Nevertheless, the influence of peers appears to be strong and can affect an athlete either positively or negatively, so coaches and sport psychologists could be aware of peer influence. Enhancing an athlete's resistance to negative peer behaviours may be important in promoting positive behaviours such as enhancing behavioural engagement or reducing intentions to dope, particularly among lower skilled athletes who are less able to resist negative peer influence.

The positive path between behavioural engagement and task-oriented coping provides support for Skinner and Pitzer's (2012), who outlined the behaviours and cognitive orientations of those who are behaviourally engaged in their MMD. There are potentially important implications of this finding. Fostering behavioural engagement in the sporting environment may result in athletes employing task-oriented coping strategies, which linked to more adaptive performance outcomes (Gaudreau et al., 2010; Doron and Gaudreau, 2014), goal attainment Schellenberg et al. (2013), and coping effectiveness (Nicholls et al., 2010). However, interventions specifically designed to maximize behavioural engagement among athletes are non-existent.

Based on our findings, the MMD (Skinner and Pitzer, 2012) may be a useful theoretical framework to enhance behavioural engagement among athletes. An MMD guided intervention to enhance behavioural engagement would be concerned with enhancing autonomy, competence, and relatedness among athletes and thus meeting an athlete's psychological needs. In addition to enhancing behavioural engagement, an indirect benefit of such an intervention may be enhanced mental toughness. Mahoney et al. (2014) recently found a positive association between the extent to which a person's basic psychological needs are met and mental toughness (Mahoney et al., 2014). Experimental research and theory guided interventions, based on the MMD (Skinner and Pitzer, 2012), are warranted to establish causality and the efficacy of such an intervention in sport. This will enable scholars to understand whether behavioural engagement can be enhanced and whether this results in enhanced behavioural engagement and other related constructs such as more frequent positive experiences (Skinner and Pitzer, 2012) and enhanced mental toughness (Mahoney et al., 2014). Alternatively, scholars could also examine the effects of shaping the motivational climate to enhance behavioural engagement. It is plausible that peer influence may shaped by the motivational climate. In task-oriented climates, individuals are praised for effort and improvement, so athletes are less likely to be influenced by peers in comparison with ego-oriented climates, because success is not judged in relation to peers (Nicholls, 1989). In support

of this idea, Skinner and Pitzer (2012) suggested that behavioural engagement could be enhanced via promoting mastery climates, where hard work and improvement are encouraged. Scholars such as Hogue et al. (2013) demonstrated that mastery climates can be developed in a sport setting, so it would therefore be interesting to see if such an intervention could enhance behavioural engagement.

The hypothesized significant and positive path between task-oriented coping and resilience occurred, but the predicted paths between resilience and both distraction- and disengagement-oriented coping were insignificant. The positive path between task-oriented coping and resilience is in agreement with Yi-Frazier et al. (2009), in that adaptive coping strategies were associated with resilience. Enhancing resilience may have a positive impact on performance following any adversity that athletes encounter, because Seligman et al. (1990) found that swimmers who coaches rated as being more resilient performed better after adversity. Increasing resilience through coping interventions may also positively impact resistance to peer influence too. The results from this study, which were in support of our hypothesis, yielded a positive path between resilience and resistance to peer influence. Increasing resistance to peer influence could potentially have desirable effects, such as minimizing the negative effects that peers have on development (Altermatt and Pomerantz, 2003) and achievement (Chen et al., 2003). Further, Nicholls et al. (2013) revealed a negative path between peer influence on behaviour and distraction-oriented coping. This form of coping has been associated negatively with goal attainment (Schellenberg et al., 2013). Minimizing the effects that peers may have on other individuals may decrease the use of distraction-oriented coping, which could have a positive impact on goal attainment.

A hypothesis not supported was the path between behavioural disaffection and disengagement-oriented coping. We hypothesized a positive path between these constructs. There was, however, a significant negative path between behavioural disaffection and disengagement-oriented coping. It could be that the most disaffected athletes did not report using disengagement-oriented coping strategies, because they did not have any goals to disengage from in the first place or that they were resigned to not achieving their goals, so have already disengaged before competition or training starts. In support of this idea, Skinner and Pitzer (2012) suggested that behaviourally disaffected individuals can be aimless and resigned, which infers these people do not have any goals or have accepted defeat in attempts to achieve their goals. Although psychologists have an important role in maximizing behavioural engagement, they are also required to minimize behavioural disaffection, given that this is construct is negatively associated with basic needs satisfaction (Curran et al., 2013) and a range of unpleasant emotions such as sadness, anxiety, shame, and boredom (Skinner and Pitzer, 2012). Indeed, Skinner and Pitzer provided some ideas regarding how behavioural disaffection can be reduced or eliminated, such as, tracking people and monitoring disaffection levels. If disaffection levels are high among certain individuals, high scores should be seen as cues to increase warmth, involvement, autonomy support, and structure toward particular individuals. A possible limitation of this research is that three of the four questionnaires used in this study have not been validated among athletic samples. This might be a limitation, as Nicholls et al. (2014) found problems with reliability when using non sport-specific measures with an athletic sample. However, the constructs measured in this study have important implications for athlete well-being, so we thought it was acceptable to use these questionnaires. We also used a cross-sectional design, which means we cannot infer causality.



### 4.2.5 Motivation in Sports

Motivation is the process in which the learner's internal energies or needs are directed towards various goal objects in his environment. In other words, motivation is the condition which increases the desire to perform better. There are certain basic motives or needs that every person, whether he is a child or an adult, tries to satisfy. So long as one's present behavior and knowledge are adequate to satisfy all his needs, he will not try to change his behavior or acquire new knowledge. We modify our attitudes, interest and personalities and we acquire new knowledge only when our present behavior and knowledge do not satisfy our motives. To learn something new, firstly there must be a goal that attracts us and secondly there must be some obstacle that keeps us away from attaining that goal. The reason is simple, because if there is no obstacle in our way, our present behavior and the knowledge that we have already acquired would lead us directly to our goals, and in such a situation there would be no need to learn. We modify our behavior only when it is necessary to do so, enabling us to reach the goals that our unsatisfied motives create. The most effective learning will take place only when there is maximum of mental activity, which is attained through strong motivation. Motivation works on these facts which are kept in our mind while facing any event of Games and Sports:

- a. Can I do this Task?
- b. What do I have to do to succeed in this task?
- c. What do I have to do to succeed in this task?

Methods Of Motivation:

a. Reinforcement: Reinforcement is an important motivational tool. It refers to any type of event that increases or decreases the likelihood of a similar response occurring in the future. Positive reinforcements inform the athlete when he is doing something right and encourage the continuation of the activity in the specific direction. Negative reinforcement is generally, of little value because it merely indicates that the behavior is incorrect without providing information with respect to the correct response of behavior.

b. For motivating and initiating young athletes to any activity, the length of practice must be in good planning according to the interest of the participants.

c. Knowing your Athlete/ Student is very important to know that each athlete comes from a different background with varied experiences and have different degree of maturation. They have different attitudes and options towards sports event and people in the sports environment. Each will have different interest and desires. Thus obviously what motivates one athlete may not motivate another. Knowing all these individual differences will enable a teacher or coach to motivate the athlete through suitable ways, and in appropriate manner.

d. A teacher or a coach is one of the most important personalities which guides his students to a particular direction for the attainment of desire result in a particular event, which he impart to the students while training. For this a teacher should have a quality of good motivator.

Facilities And Equipment is one of the most important motivational features which attracts /motivates players towards a particular event which he wants to learn according to his choice. For this facilities and equipments plays an important role because without these, a player is unable to motivate to his event.

Following are the techniques of motivation:

a. Reward And Punishment: Student endeavors to do the best in order to get reward. He becomes pleased when he is given reward and greater enthusiasm on the part of the student is shown. Following things must be kept in mind while giving reward is always fatal for the future progress of an individual. The nature or amount of reward should be according to the level of performance. Additional reward is always fatal for the future progress of an individual. Individual must know the importance of reward. If reward is given to so many individuals at a time, the reward loses its validity. Reward should not be traditional or a routine activity.



Different types of rewards should be given at different occasions. Reward should have some monetary or social value.

As far as punishment is concerned its fear leads an individual not to do unwanted jobs. The child comes to the class with full preparation in order to avoid punishment.

1. Punishment should not be regular. Such punishment can make the children habitual to them.
2. Punishment should not be so severe. Such punishment can create hatred in the minds of children towards the whole system.
3. Punishment should be given keeping in view the mental and physical resistance of children.
4. Punishment should be judiciously distributed to all guilty people. Researchers have made it clear that reward is better technique of motivation than punishment. Punishment is fatal to the psychological development of the organism also. So, punishment should be avoided as much as possible.

Success creates self confidence among individuals and possibility of more successes increases. Teacher/coach creates such an environment in the class in which all the barriers in the way of success are removed. Failure can also work as a source of motivation especially the talented students accept the failure as a challenge for them. In order to use this technique in the class rooms/ ground situation, the teacher presents such problems in the class which students are unable to perform the skill which his teacher/coach given to them. The bright students accept this challenge for future and thus they are motivated for work. a. Praise and blame When child is praised at his successes, he is overjoyed. As a result he works better than before.

b. Competition and cooperation: The feeling of competition is universal in humans. In the ground/field situations weak students compare themselves with their own group and bright students compare their achievements with that of bright group students. In this way the whole class is motivated. In games and sports too competition works as the best motivator. Every sports person does harder and harder efforts to raise his performance level. Such type of competition is called individual competition. Team competition also works as a good motivating force.

c. Knowledge of Progress It is a traditional method of motivating the student that they are regular told about their progress in the basis of formative evaluation. When they come to know about their achievements, they work harder to raise this level due to the feedback obtained from the knowledge of the progress. Sports teacher should regularly evaluate the achievement of students and students should be informed immediately about this. For the attainment of good result the knowledge of progress is very important in between a coach and student.

a. Good cooperation among the team mates With the help of motivation there is a healthy environment in the team, team mates easily understand the problems of his colleagues and motivate them in a proper way to learn new skills of a particular game/ sports. This helps the players towards the attainment of fruitful performance in games and sports.

b. Skill/technique development Another vital objective of motivation in sports training is the development of skills or techniques in a particular sport or event in which sports person intend to perform or execute. Good skill or technique helps the sports person to make economical and optimum use of his physical abilities or physical prowess. The sports person learns the skills or techniques and gets a mastery over it under condition specific to their sport or event. As the sports person develops his/her level of physical fitness he/she must also keep improving the standard of his/her skills or technique. Motivation may be simple to complex, because in motivation we motivate the players to a particular event according their endurance, stamina, vital capacity etc.

Healthy and constructive discussion is very essential in motivation. It ensures the proper motivation to a player for attainment of specified goal or objective. It also reveals what type of motivation should be given to a team or players to attain desired performance.

Motivation serves to energize, select and direct performance. It helps in setting tough goals and directing the energy and effort to achieve those goals. Intrinsically motivated athletes strive hard to master the skill and are propelled by the inward drive to accomplish the task. While at the same time they do enjoy the challenging situations encountered during competition. Optimum level of motivation is essential for performance enhancement. Such optimum level would differ from an athlete to athlete, and is also influenced by the nature of activity. Effective application of motivation techniques does have tremendous impact upon the athletic performance. Even athletes, who are fairly well motivated already, also need systematic programme to direct their motivation. Willingness to participate in activity, and readiness to overcome the obstacles there in can be induced through different motivational techniques. Motivation thus has important implications for teachers, coaches, trainers, leaders and physical education programme administrators.

Motivation is the foundation of all athletic effort and accomplishment. Without your desire and determination to improve your sports performances, all of the other mental factors, confidence, intensity, focus, and emotions, are meaningless. To become the best athlete you can be, you must be motivated to do what it takes to maximize your ability and achieve your goals.

Motivation, simply defined, is the ability to initiate and persist at a task. To perform your best, you must want to begin the process of developing as an athlete and you must be willing to maintain your efforts until you have achieved your goals. Motivation in sports is so important because you must be willing to work hard in the face of fatigue, boredom, pain, and the desire to do other things. Motivation will impact everything that influences your sports performance: physical conditioning, technical and tactical training, mental preparation, and general lifestyle including sleep, diet, school or work, and relationships.

The reason motivation is so important is that it is the only contributor to sports performance over which you have control. There are three things that affect how well you perform. First, your ability, which includes your physical, technical, tactical, and mental capabilities. Because ability is something you are born with, you can't change your ability so it is outside of your control.

Second, the difficulty of the competition influences performance. Contributors to difficulty include the ability of the opponent and external factors such as an "away game" crowd and weather such as temperature, wind, and sun. You have no control over these factors.

Finally, motivation will impact performance. It is also the only factor over which you have control. Motivation will directly impact the level of success that you ultimately achieve. If you are highly motivated to improve your performances, then you will put in the time and effort necessary. Motivation will also influence the level of performance when you begin a competition. If they're competing against someone of nearly equal skill, it will not be ability that will determine the outcome. Rather, it will be the athlete who works the hardest, who doesn't give up, and who performs his or her best when it counts. In other words, the athlete who is most motivated to win.

#### The Grind

In training and competitions, you arrive at a point at which it is no longer fun. I call this the Grind, which starts when it gets tiring, painful, and tedious. The Grind is also the point at which it really counts. The Grind is what separates successful athletes from those who don't achieve their goals. Many athletes when they reach this point either ease up or give up because it's just too darned hard. But truly motivated athletes reach the Grind and keep on going.

Many sports psychologists will say that you have to love the Grind. I say that, except for a very few hyper-motivated athletes, love isn't in the cards because there's not much to love. But how you respond to the Grind lies along a continuum. As I just mentioned, loving the Grind is rare. At the other end of the continuum is "I hate the Grind." If you feel this way, you are not likely to stay motivated. I suggest that you neither love nor hate the Grind; you just accept it as part

of the deal in striving toward your goals. The Grind may not be very enjoyable, but what does feel good is seeing your hard work pay off with success.

Effort = Goals?

When I speak to groups of young athletes, I always ask how many have big goals, like going to the Olympics or playing pro ball. About 90 percent raise their hands. I then ask how many are doing everything they can to achieve their goals. Only one or two tentative hands go up. What this tells me is that there is often a big gap between the goals athletes have and the effort they are putting into those goals. It's easy to say that you want to be a successful athlete. It is much more difficult to actually make it happen. If you have this kind of disconnect, you have two choices. You can either lower goals to match your effort or you can raise your effort to match your goals. There is no right answer. But if you're truly motivated to be successful, you better make sure you're doing the work necessary to achieve your goals.

Signs of Low Motivation

There are several signs of low motivation:

- A lack of desire to practice as much as you should.
- Less than 100 percent effort in training.
- Skipping or shortening training.
- Effort that is inconsistent with your goals.

Three D's

Prime motivation means putting 100 percent of your time, effort, energy, and focus into all aspects of your sport. It involves doing everything possible to become the best athlete you can be.

Prime motivation begins with what I call the three D's. The first D stands for *direction*. Before you can attain prime motivation, you must first consider the different directions you can go in your sport. You have three choices: stop participating completely, continue at your current level, or strive to be the best athlete you can be.

The second D represents *decision*. With these three choices of direction, you must select one direction in which to go. None of these directions are necessarily right or wrong, better or worse, they're simply your options. Your choice will dictate the amount of time and effort you will put into your sport and how good an athlete you will ultimately become.

The third D stands for *dedication*. Once you've made your decision, you must dedicate yourself to it. If your decision is to become the best athlete you can be, then this last step, dedication, will determine whether you have prime motivation. Your decision to be your best and your dedication to your sport must be top priorities. Only by being completely dedicated to your direction and decision will you ensure that you have prime motivation.

### Developing Prime Motivation

**Focus on your long-term goals:** To be your best, you have to put a lot of time and effort into your sport. But, as I noted above, there are going to be times, the Grind, when you don't feel that motivated.

When you feel this way, focus on your long-term goals. Remind yourself why you're working so hard. Imagine exactly what you want to accomplish and tell yourself that the only way you'll be able to reach your goals is to continue to work hard.

Try to generate feelings of inspiration and pride that you will experience when you reach your goals. This technique will distract you from the discomfort of the Grind, focus you on what you want to achieve, and generate positive thoughts and emotions that will get you through the Grind.

**Have a training partner:** It's difficult to be highly motivated all of the time on your own. There are going to be some days when you just don't feel like getting out there. Also, no matter how hard you push yourself, you will work that much harder if you have someone pushing you. That someone can be a coach, personal trainer, or parent. But the best person to have is a regular

training partner, someone at about your level of ability and with similar goals. You can work together to accomplish your goals. The chances are on any given day that one of you will be motivated. Even if you're not very psyched to practice on a particular day, you will still put in the time and effort because your partner is counting on you.

**Focus on the greatest competitor:** Another way to keep yourself motivated is to focus on your greatest competitor. Identify who your biggest competition is and put his or her name or photo where you can see it every day. Ask yourself, "Am I working as hard as him/her?" Remember that only by working your hardest will you have a chance to overcome your greatest competitor.

**Motivational cues:** A big part of staying motivated involves generating positive emotions associated with your efforts and achieving your goals. A way to keep those feelings is with motivational cues such as inspirational phrases and photographs. If you come across a quote or a picture that moves you, place it where you can see it regularly such as in your bedroom, on your refrigerator door, or in your locker. Look at it periodically and allow yourself to experience the emotions it creates in you. These reminders and the emotions associated with them will inspire and motivate you to continue to work hard toward your goals.

**Set goals:** There are few things more rewarding and motivating than setting a goal, putting effort toward the goal and achieving the goal. The sense of accomplishment and validation of the effort makes you feel good and motivates you to strive higher. It's valuable to establish clear goals of what you want to accomplish in your sport and how you will achieve those goals. Seeing that your hard work leads to progress and results should motivate you further to realize your goals.

**Daily questions:** Every day, you should ask yourself two questions. When you get up in the morning, ask, "What can I do today to become the best athlete I can be?" And before you go to sleep, ask, "Did I do everything possible today to become the best athlete I can be?" These two questions will remind you daily of what your goals are and will challenge you to be motivated to do your best.

### Sub Unit – III

#### **Psychological factors affecting sports performance- Emotions, Anxiety aggression, stress, self confidence, concentration, mental practice and goal setting.**

##### **4.3.1 What is Emotion?**

Emotion, a complex experience of consciousness, bodily sensation, and behavior that reflects the personal significance of a thing, an event, or a state of affairs. “Emotions,” wrote Aristotle (384–322 BCE), “are all those feelings that so change men as to affect their judgements, and that are also attended by pain or pleasure. Such are anger, pity, fear and the like, with their opposites.” Emotion is indeed a heterogeneous category that encompasses a wide variety of important psychological phenomena. Some emotions are very specific, insofar as they concern a particular person, object, or situation. Others, such as distress, joy, or depression, are very general. Some emotions are very brief and barely conscious, such as a sudden flush of embarrassment or a burst of anger. Others, such as long-lasting love or simmering resentment, are protracted, lasting hours, months, or even years (in which case they can become a durable feature of an individual’s personality). An emotion may have pronounced physical accompaniments, such as a facial expression, or it may be invisible to observers. An emotion may involve conscious experience and reflection, as when one “wallows” in it, or it may pass virtually unnoticed and unacknowledged by the subject. An emotion may be profound, in the sense that it is essential to one’s physical survival or mental health, or it may be trivial or dysfunctional. An emotion may be socially appropriate or inappropriate. It may even be socially obligatory—e.g., feeling remorse after committing a crime or feeling grief at a funeral. Accordingly, there is an enormous range of emotions, and even within the same “emotion families” there is considerable variation. Panic and fear, for example, are often thought to be kindred emotions, but there is a significant difference between the panic that is manifested in an irrational fear or a phobia and an intelligent fear—such as the fear of nuclear war—which requires a good deal of information and analysis. Terror and horror, two other kindred emotions, are nevertheless distinct from fear. Or consider the huge family of hostile emotions akin to anger: rage, fury, hatred, resentment, contempt, loathing, and scorn, to name just a few. All of those emotions are interestingly different in their structure and in their appropriate contexts, as are members of the “self-critical family,” which includes shame, embarrassment, guilt, remorse, and regret. The great variety and abundance of emotions suggest that the category of emotion may not be a single class of psychological phenomena but a large family of loosely related mental states and processes. For the sake of simplicity, researchers and laypeople alike often divide the emotions into those that are “positive” and those that are “negative.” (Scientific researchers call those qualities of an emotion its “affective valence.”) But the complexity of emotions renders such oppositions suspect. Although love and hate, for example, are often conceived of as polar opposites, it is worth noting (as the plots of so many novels and dramas have made clear) that they frequently coexist not as opposites but as complements. Moreover, love is often painful and destructive, and hatred, sometimes, can be positive. (As the American psychologist Shula Sommers asked, “Is hatred of evil a negative emotion?”) But an emotion like anger, another so-called negative emotion, shows the futility of such a classification. Anger is indeed a negative feeling (if not a hostile one) directed toward another person, but it can be edifying for the person who is angry, and, in the appropriate context—a context in which one ought to be angry—it can have beneficial effects on a situation or a relationship. Thus, the feminist movement took a major step forward when women realized that they had a right to be angry and much to be angry about. It may be, as Aristotle noted, that emotions are accompanied by pleasure or pain (often both), but they are too complex and often too subtle to be classified on that basis alone. The study of emotions



was long the province of ethics. Emotions were central to Aristotle's ethics of virtue and part and parcel of the medieval Scholastics' concern with vices, virtues, and sin. For Aristotle, having the right amount of the right emotion in the right circumstances is the key to virtuous behaviour. St. Thomas Aquinas (c. 1224–74) distinguished between “higher” and “lower” emotions, the former exemplified by faith and love, the latter by anger and envy. Although moral thinking about emotions has always been concerned with emotional extremes and malformations, as in psychopathology and madness, those phenomena have never been the primary reason for interest in the emotions. As Aristotle and the medieval moralists understood quite well, emotions are essential to a healthy human existence, and it is for that reason that their malfunction is so serious. The proper development and functioning of emotions allow people to live well and to be happy. Love, respect, and compassion, for example, are the essential emotional ingredients of interpersonal relations and concerns. Emotions motivate moral (as well as immoral) behaviour, and they play an essential role in creativity and in scientific curiosity. For many people, emotions are stimulated and provoked by beauty in the arts and nature, and there is no aesthetic sensibility without emotion. Emotions as well as the physical senses shape the basic processes of perception and memory and influence the ways in which people conceive and interpret the world around them (psychologists have long known that what one notices and remembers depends to a great extent on what one cares about). While some emotions can get out of control and damage one's personal well-being and social relationships, most emotions are functional and adaptive. Nevertheless, the fact that so many people suffer from “emotional problems” during their lives makes understanding the pathology of emotions an abiding social concern.

#### **4.3.2 Factor of Emotion.**

#### **4.3.3 Positive and Negative Emotion**

##### **What Are Positive Emotions?**

Positive emotions are emotions that we typically find pleasurable to experience. The Oxford Handbook of Positive Psychology defines them as “*pleasant or desirable situational responses... distinct from pleasurable sensation and undifferentiated positive affect*” (Cohn & Fredrickson, 2009).

Basically, this definition is stating that positive emotions are pleasant responses to our environment (or our own internal dialogue) that are more complex and targeted than simple sensations.

##### **What Are Negative Emotions?**

On the other hand, negative emotions are those that we typically *do not* find pleasurable to experience. Negative emotions can be defined as “as an unpleasant or unhappy emotion which is evoked in individuals to express a negative effect towards an event or person” (Pam, 2013). If an emotion discourages and drags you down, then it's most likely a negative emotion.

##### **Examples: A List of Positive and Negative Emotions**

Examples of positive and negative emotions will vary based on who you ask; even the definition of an emotion can vary based on who answers the question. However you define emotion, discerning between the two is an intuitive process—we seem to “just know” which emotions are positive and which are negative.

Some common positive emotions include:

- Love
- Joy
- Satisfaction
- Contentment



- Interest
- Amusement
- Happiness
- Serenity
- Awe

A few of the most commonly felt negative emotions are:

- Fear
- Anger
- Disgust
- Sadness
- Rage
- Loneliness
- Melancholy
- Annoyance

#### 4.3.4 Effect of Emotion in Sports.

Human beings are emotional creatures. Our emotions can drive our behavior, our thinking patterns and our ability to perform in everyday life. Strong emotions can push us to perform beyond our limits or they leave us completely inhibited. They can even lead us to destructive behavior.

In sports, our emotions can make or break our performance. **To succeed as a contender, we have to respect the power of our emotions.** We have to learn to understand them and to be able to control them and use them to our advantage, instead of letting them get the better of us.

##### **The Effect That Emotions Can Have On Your Body**

It is no secret that emotions have physiological effects. We have all felt our heart beat faster when we are nervous and excited, and our eyes well up with tears when we feel overwhelmed. Emotions can affect our bodies in more ways than we realize. Both positive and negative emotions have short and long-term effect on the body and our minds.

##### **Short-Term Physiological Effects of Negative Emotions**

Negative Emotions, like fear and anxiety, actually prepare the body for dealing with a possible crisis or danger. The “Fight or Flight” response has many physiological reactions, which are meant to make the body and mind more alert and to provide us with the strength we need to fight or flee. However, sometimes its effects can be counter-productive and undesirable.

The immediate effects of negative emotions like anxiety are:

- Lightheadedness
- Muscle tension
- Elevated heart and breathing rates
- Increased blood flow to the brain and away from other organs
- Nausea
- Frequent urination and diarrhea

Positive emotions, on the other hand, can have the opposite effect. Laughter, for example, can:

- Relieve tension throughout the body and within organs
- Relieve the subsequent side effects of depression and anxiety
- Lower blood pressure

### **Long-Term Physiological Effects of Negative Emotions**

While the physiological effects of some negative emotions can help us to cope initially, the strain of these emotions can have long-term effects. This is especially true if we continually harbor these emotions over time.

The Longer-term physiological effects of emotions include:

- Insomnia
- Damage to kidneys
- Digestive and gastrointestinal problems
- Chronic respiratory disorders
- Damage to cardiovascular system

Obviously, we all want to be happier as people! It is beneficial to our health, it uplifts those around us and not to mention it feels great! An upbeat mental attitude, sustained long-term, can lead to improved overall health.

People with sustained upbeat mental states tend to experience:

- Sustained lower blood pressure
- Reduced risk of heart disease and stroke
- Healthier weight
- Better blood sugar levels
- Longer life expectancy
- Improve the immune system

### **Negative Emotions and How They Impact Our Performance**

When things go bad in the ring, it is natural to feel frustration, anxiety, despair and low self-esteem. However, these emotions do more than just make us feel terrible. They can affect our physical and mental ability to perform at our best.

#### **How Negative Emotions Affect Your Physical Performance**

Negative emotions such as frustration, anger and anxiety can affect your athletic ability by:

- o Causing unwanted muscular tension, which can affect form, speed and agility
- o Draining you of your physical energy needed to perform
- o Causing breathing difficulties
- o Leading to loss of coordination

#### **How Negative Emotions Affect You Mentally**

In the ring, you need to be as mentally prepared as you are physically. You need focus, willpower and sheer wit to compete. While some argue that anger can spur you on, negative emotions have proven to do more harm than good to an athlete's mental faculties. These emotions can:

- o Weaken focus and confidence in the ring
- o Bring about hostile behavior toward teammates, opponents, coaches and others
- o Damage motivation

### **Positive Emotions and How They Impact Our Performance**

For a boxer, nothing beats the euphoria of thriving in the ring. That is the feeling we work for every day.

**How Positive Emotions Affect Your Physical Performance**

Even when we are not winning, maintaining a positive attitude in the ring can vastly improve our performance. Staying calm, confident and optimistic can:

- o Provide energy and help you to push through pain
- o Keep your muscles and body more relaxed
- o Help your physical endurance as your energy is not being zapped by negative emotions like anxiety and despair

**How Positive Emotions Affect You Mentally**

- o Keep you motivated to win
- o Help your confidence
- o Keep you calm, centered and focused on the task, rather than getting flustered.
- o Help you maintain a positive, pleasant attitude towards opponents, referees and coaches, instead of getting hostile when things do not go your way

**4.3.5 What is Anxiety?**

Anxiety is your body's natural response to stress. It's a feeling of fear or apprehension about what's to come. The first day of school, going to a job interview, or giving a speech may cause most people to feel fearful and nervous.

But if your feelings of anxiety are extreme, last for longer than six months, and are interfering with your life, you may have an anxiety disorder.

**What are anxiety disorders?**

It's normal to feel anxious about moving to a new place, starting a new job, or taking a test. This type of anxiety is unpleasant, but it may motivate you to work harder and to do a better job. Ordinary anxiety is a feeling that comes and goes, but does not interfere with your everyday life.

In the case of an anxiety disorder, the feeling of fear may be with you all the time. It is intense and sometimes debilitating.

This type of anxiety may cause you to stop doing things you enjoy. In extreme cases, it may prevent you from entering an elevator, crossing the street, or even leaving your home. If left untreated, the anxiety will keep getting worse.

Anxiety disorders are the most common form of emotional disorder and can affect anyone at any age. According to the American Psychiatric Association, women are more likely than men to be diagnosed with an anxiety disorder.

**What are the types of anxiety disorders?**

Anxiety is a key part of several different disorders. These include:

- panic disorder: experiencing recurring panic attacks at unexpected times. A person with panic disorder may live in fear of the next panic attack.
- phobia: excessive fear of a specific object, situation, or activity
- social anxiety disorder: extreme fear of being judged by others in social situations
- obsessive-compulsive disorder: recurring irrational thoughts that lead you to perform specific, repeated behaviors
- separation anxiety disorder: fear of being away from home or loved ones
- illness anxiety disorder: anxiety about your health (formerly called hypochondria)
- post-traumatic stress disorder (PTSD): anxiety following a traumatic event

**What are the symptoms of anxiety?**

Anxiety feels different depending on the person experiencing it. Feelings can range from butterflies in your stomach to a racing heart. You might feel out of control, like there's a disconnect between your mind and body.

Other ways people experience anxiety include nightmares, panic attacks, and painful thoughts or memories that you can't control. You may have a general feeling of fear and worry, or you may fear a specific place or event.

Symptoms of general anxiety include:

- increased heart rate
- rapid breathing
- restlessness
- trouble concentrating
- difficulty falling asleep

Your anxiety symptoms might be totally different from someone else's. That's why it's important to know all the ways anxiety can present itself.

**What is an anxiety attack?**

An anxiety attack is a feeling of overwhelming apprehension, worry, distress, or fear. For many people, an anxiety attack builds slowly. It may worsen as a stressful event approaches.

Anxiety attacks can vary greatly, and symptoms may differ among individuals. That's because the many symptoms of anxiety don't happen to everyone, and they can change over time.

Common symptoms of an anxiety attack include:

- feeling faint or dizzy
- shortness of breath
- dry mouth
- sweating
- chills or hot flashes
- apprehension and worry
- restlessness
- distress
- fear
- numbness or tingling

A panic attack and an anxiety attack share some common symptoms, but they're not the same.

**What causes anxiety?**

Researchers are not sure of the exact cause of anxiety. But, it's likely a combination of factors play a role. These include genetic and environmental factors, as well as brain chemistry.

In addition, researchers believe that the areas of the brain responsible for controlling fear may be impacted.

Current research of anxiety is taking a deeper look at the parts of the brain that are involved with anxiety.

**Are there tests that diagnose anxiety?**

A single test can't diagnose anxiety. Instead, an anxiety diagnosis requires a lengthy process of physical examinations, mental health evaluations, and psychological questionnaires.

Some doctors may conduct a physical exam, including blood or urine tests to rule out underlying medical conditions that could contribute to symptoms you're experiencing.

Several anxiety tests and scales are also used to help your doctor assess the level of anxiety you're experiencing.

**What are treatments for anxiety?**

Once you've been diagnosed with anxiety, you can explore treatment options with your doctor. For some people, medical treatment isn't necessary. Lifestyle changes may be enough to cope with the symptoms.

In moderate or severe cases, however, treatment can help you overcome the symptoms and lead a more manageable day-to-day life.

Treatment for anxiety falls into two categories: psychotherapy and medication. Meeting with a therapist or psychologist can help you learn tools to use and strategies to cope with anxiety when it occurs.

Medications typically used to treat anxiety include antidepressants and sedatives. They work to balance brain chemistry, prevent episodes of anxiety, and ward off the most severe symptoms of the disorder.

#### **What natural remedies are used for anxiety?**

Lifestyle changes can be an effective way to relieve some of the stress and anxiety you may cope with every day. Most of the natural “remedies” consist of caring for your body, participating in healthy activities, and eliminating unhealthy ones.

These include:

- getting enough sleep
- meditating
- staying active and exercising
- eating a healthy diet
- staying active and working out
- avoiding alcohol
- avoiding caffeine
- quitting smoking cigarettes

### **4.3.6 Effect of Anxiety on Sports**

Anxiety is a concept that is widely discussed in sport psychology. Practitioners involved in sports performance need to be aware of anxiety-related symptoms. Once awareness is built it would be prudent to deal with anxiety-related issues.

There are two distinct aspects of anxiety. One aspect emanates towards trait anxiety. Trait anxiety relates to innate characteristics that humans are born with. For example, having a tendency to throw up before important competition. The second form of anxiety is related to the state, which is situation-specific. For example, a performer may feel anxious when free-throwing in basketball. Related to these aspects there are also two types that are identified as somatic anxiety and cognitive anxiety. People can suffer from both types of types or predominantly from one over the other. Common symptoms of somatic anxiety include experiencing butterflies, sweating, heavy breathing or an elevated heart rate. Common symptoms of cognitive anxiety include negative thoughts, feelings of apprehension or nervousness. Dealing with anxiety-related symptoms could be difficult because what works for one person may not work with another. Therefore, practitioners need to be flexible in their approach and utilize a range of different strategies.

To help people overcome, or at least limit somatic symptoms, a range of strategies can be put forward. Through experience, people could develop their own individual strategies. However, novices should be guided and supported.

#### **Relaxation training**

This training involves teaching people a range of routines to help support the body to relax. The purpose of relaxation training is to enable performers to feel relaxed in both mind and body. Feeling relaxed can help in focusing effectively on performance aspects. There are two forms of relaxation that people could conduct. One form relates to practices beyond the training

pitch and competition settings. This form of relaxation can relate to listening to music or participating in yoga classes. The other form of relaxation can involve changing room environment before the competition.

Within this environment, they can use positive intent statements, use calming breathing techniques or listening to music.

**Deep breathing**

Deep breathing is a strategy that needs to be practiced over time for it to become effective. Therefore, people need to start focusing on their own breathing and also focus on different parts of the body. A simple but effective deep breathing simply involves inhaling through the nose and exhaling out the mouth.

People are encouraged that through deep breathing they get in tune with different parts of their body and in particular where they can feel the tension. To enable performers to overcome cognitive symptoms, a range of strategies can also be put forward.

**Goal setting**

This is a simple but useful technique. Goal setting allows people to attain purposeful direction and focus on tasks in hand. Practitioners must set process-related goals and not merely outcome goals. Goal setting must be a mechanism through which people develop a process in order to achieve set targets.

**Positive self-talk**

People should practice positive self-talk on a regular basis. Positive self-talk supports the cognition within our own minds. A positive mind will be more balanced and provides a better chance of success. Thus, positive self-talk is about channeling your brain and directing that thinking to support performance.

**Emotional control**

An excellent practitioner should instruct people to understand their own performance levels. People need to identify feelings during a good performance and compare these to feelings following poor performance. This will enable them to understand how they react and the way they feel during contrasting emotional states.

The key to anxiety is that practitioners need to work on ways to combat symptoms. Through combating symptoms people will have greater opportunities for performance improvement.

For a lot of athletes anxiety can be a very unpleasant feeling with physiological symptoms including a racing heartbeat, sweaty palms and muscle tension. In fact Ray and Weise-Bjornstal (1999) outlined seven possible categories in which an athlete can experience stress including affective, cognitive and behavioural. So how can it be managed?

Sport psychologists can teach techniques one can use to control anxiety. One technique involves the athlete “labelling” these thoughts and feelings described above as a way of priming them for competition. Through the process of labelling the athlete can learn to associate those former negative thoughts and feelings with preparing to compete. For example a cyclist can learn to recognise his/her increased heart rate as a positive indication that they are well prepared for competition.

Green and Green (1977) studied Indian yoga practitioners and discovered they were able to control various physiological functions voluntarily including brain waves, body temperature and blood pressure. It was also relatively simple to teach others how to control their physiological feelings too. The study was able to demonstrate how the mind and body are linked which brings us to the next technique. Performing a simple exercise such as breathing effectively can enable an athlete to relax and prepare for competition as more oxygen gets carried in the blood which in turn facilitates the working muscle. Diaphragmatic breathing involves a muscle in the abdomen called the diaphragm. A simple way to learn this technique



is to place your left hand on your abdomen and the right on your upper chest. As you breathe in your left hand should move out and your right hand should remain relatively still. This is a sign you are breathing effectively using your full lung capacity. Try to exhale for twice as long as you have inhaled. This helps to slow the heart rate and in turn aids relaxation.

By performing these simple techniques during training or when you have some free time can help to calm those nerves and also view them in a different way so that they do not interfere with your performance.

- Be prepared: practice, practice, practice.
- Limit caffeine and sugar intake the day of the performance. Eat a sensible meal a few hours before you are to perform so that you have energy and don't get hungry. A low-fat meal including complex carbohydrates -- whole-grain pasta, lentil soup, yogurt, or a bean and rice burrito -- is a good choice.
- Shift the focus off of yourself and your fear to the enjoyment you are providing to the spectators. Close your eyes and imagine the audience laughing and cheering, and you feeling good.
- Don't focus on what *could* go wrong. Instead focus on the positive. Visualize your success.
- Avoid thoughts that produce self-doubt.
- Practice controlled breathing, meditation, biofeedback, and other strategies to help you relax and redirect your thoughts when they turn negative. It is best to practice some type of relaxation technique every day, regardless of whether you have a performance, so that the skill is there for you when you need it.
- Take a walk, jump up and down, shake out your muscles, or do whatever feels right to ease your anxious feelings before the performance.
- Connect with your audience -- smile, make eye contact, and think of them as friends.
- Act natural and be yourself.
- Exercise, eat a healthy diet, get adequate sleep, and live a healthy lifestyle.

Keep in mind that stage fright is usually worse before the performance and often goes away once you get started.

### 4.3.7 What is Aggression?

The term aggression comes from the Latin word *aggressio*, meaning attack. The Latin was itself a joining of *ad-* and *gradi-*, which meant step at. The first known use dates back to 1611, in the sense of an unprovoked attack. A psychological sense of "hostile or destructive behavior" dates back to a 1912 English translation of Sigmund Freud's writing. Alfred Adler theorized about an "aggressive drive" in 1908. Child raising experts began to refer to aggression, rather than anger, from the 1930s. **Aggression** is overt or covert, often harmful, social interaction with the intention of inflicting damage or other unpleasantness upon another individual. It may occur either reactively or without provocation. In humans, aggression can be caused by various triggers, from frustration due to blocked goals to feeling disrespected.<sup>[1]</sup> Human aggression can be classified into direct and indirect aggression; whilst the former is characterized by physical or verbal behavior intended to cause harm to someone, the latter is characterized by behavior intended to harm the social relations of an individual or group.

### 4.3.8 Effect of Aggression on Sports

In sport, aggression is a characteristic that can have many negative as well as positive effects on performance. Aggression is defined as "any form of behaviour directed toward the goal of harming or injuring another live being who is motivated to avoid such treatment" (Baron & Richardson, 1994). Most people view aggression as a negative psychological characteristic,

however some sport psychologists agree that aggression can improve performance (Widmeyer & Birch, 1984). This is called an assertive behaviour (Bredemeier, 1994), where a player will play within the rules of the sport at a very high intensity, but will have no intention to harm an opponent. In sport, aggression has been defined into two categories: hostile aggression and instrumental aggression (Silva, 1983). Hostile aggression is when the main aim is to cause harm or injury to your opponent. Instrumental aggression is when the main aim is achieve a goal by using aggression. For example a rugby player using aggression to tackle his opponent to win the ball. The player is not using his aggression to hurt the opponent but rather to win the ball back. Coulomb and Pfister (1998) conducted a study looking at aggression in high-level sport. They found that experienced athletes used more instrumental aggression in which they used to their advantage and that hostile aggression was less frequently used. Experienced athletes used self-control to help them with their aggression.

A question that can be asked is where does this aggression come from? The frustration aggression theory (Dollard, Doob, Miller, Mowrer, & Sears, 1939) states that aggression occurs because frustration arises due to a goal blockage. However this theory states that every time a player becomes frustrated this will always cause aggression. This theory does not take into account any other intrinsic or extrinsic factors.

On the other hand the general aggression model (Anderson & Bushman, 2002) argues that situational and personal factors play a role in causing a person to behave aggressively. Therefore, a player's personality will play a large role in determining whether they are aggressive or not in certain situations. This model also takes into account socially learnt cues and therefore if a player has been taught not to be aggressive in certain situation then he will not use aggression.

It can be seen that aggression comes from a variety of sources and it is important to understand where these sources stem from. Sport stressors allow us to understand what causes an athlete to become frustrated which can lead to aggression and a decline in performance.

In a player's career they will come across a number of high-pressured situations where they will have to deal with many stressors. These can range from personal stressors such as worry and anxiety, to situational stressors such as team-related problems. Much research on stress in sport has been focused on golf and figure skaters, therefore identifying stressors in a team environment is very important (Gould, Jackson & Finch, 1993). Stress can have a negative impact on performance and has been shown to even increase the likelihood of injury (Blackwell & McCullagh, 1990). Noblet and Gifford (2002) studied Australian football players, looking at the different stressors that they experience. They found that the pressure to perform constantly, poor form and high expectations were all key stressors that affected the players. As well as this, players also found it hard to balance their sport and other commitments. This research can prove very important for psychologists and how they help these players deal with these stressors. In elite sport the main type of stress that has been studied is organisational stress. Shirom (1982) defined organisational stress as "work related social psychological stress". Woodman and Hardy (2001) investigated organisational stress in elite athletes and they found that there were four main stress issues, which were personal, team, leadership and environmental. Within team issues a large factor that caused stress was tension among athletes. Fletcher and Hanton (2003) conducted a similar study looking at organisational stress and they found that the coach athlete tension was a large contributing factor. Therefore strict coaching and negative feedback can affect performance in many ways.

Learning how to deal with stress is key as players must find ways to overcome these problems. In sport psychology, little research has been focused on the coping processes of elite players. It has only just recently been of interest to sport psychologists and is something which needs to be addressed in more detail to improve our understanding (Hardy, Jones & Gould,

1996). Looking at the coping processes of young elite players will allow us to understand how the players deal with stressful situations.

Aggression has a long history in both sport and non sport contexts. There is some variation in the definitions of aggression employed by different people. However, it is commonly agreed that *aggression* is a verbal or physical behavior that is directed intentionally toward another individual and has the potential to cause psychological or physical harm. In addition, the target of the behavior should be motivated to avoid such treatment. Typically, definitions of aggression incorporate the notion of *intent to cause harm*; that is, for behavior to be classified as aggressive, the perpetrator must have the intent to harm the victim. However, strict behavioral definitions of aggression exclude the term *intent* because it refers to an internal state, which cannot be observed.

Aggression has been distinguished between *instrumental and hostile*. Instrumental aggression is a behavior directed at the target as a means to an end, for example, injuring a player to gain a competitive advantage, or late tackling to stop an opponent from scoring. Thus, instrumental aggression is motivated by some other goal. In contrast, hostile aggression is a behavior aimed toward another person who has angered or provoked the individual and is an end in itself. Its purpose is to harm for its own sake, for example, hitting an opponent who has just been aggressive against the player. Hostile aggression is typically preceded by anger. Instrumental aggression, in pursuit of a goal, is not normally associated with anger and, in sport, is far more frequent than hostile aggression. In both types of aggression, a target person is harmed, and the harm can be physical or psychological.

#### 4.3.9 What is Stress?

Stress is your body's way of responding to any kind of demand or threat. When you sense danger—whether it's real or imagined—the body's defenses kick into high gear in a rapid, automatic process known as the “fight-or-flight” reaction or the “stress response.”

The stress response is the body's way of protecting you. When working properly, it helps you stay focused, energetic, and alert. In emergency situations, stress can save your life—giving you extra strength to defend yourself, for example, or spurring you to slam on the brakes to avoid a car accident.

Stress can also help you rise to meet challenges. It's what keeps you on your toes during a presentation at work, sharpens your concentration when you're attempting the game-winning free throw, or drives you to study for an exam when you'd rather be watching TV. But beyond a certain point, stress stops being helpful and starts causing major damage to your health, mood, productivity, relationships, and your quality of life.

If you frequently find yourself feeling frazzled and overwhelmed, it's time to take action to bring your nervous system back into balance. You can protect yourself—and improve how you think and feel—by learning how to recognize the signs and symptoms of chronic stress and taking steps to reduce its harmful effects.

Your nervous system isn't very good at distinguishing between emotional and physical threats. If you're super stressed over an argument with a friend, a work deadline, or a mountain of bills, your body can react just as strongly as if you're facing a true life-or-death situation. And the more your emergency stress system is activated, the easier it becomes to trigger, making it harder to shut off.

If you tend to get stressed out frequently, like many of us in today's demanding world, your body may exist in a heightened state of stress most of the time. And that can lead to serious health problems. Chronic stress disrupts nearly every system in your body. It can suppress your immune system, upset your digestive and reproductive systems, increase the risk of heart attack and stroke, and speed up the aging process. It can even rewire the brain, leaving you more vulnerable to anxiety, depression, and other mental health problems.

Health problems caused or exacerbated by stress include:

1. Depression and anxiety
2. Pain of any kind
3. Sleep problems
4. Autoimmune diseases
5. Digestive problems
6. Skin conditions, such as eczema
7. Heart disease
8. Weight problems
9. Reproductive issues
10. Thinking and memory problems

Signs and symptoms of stress overload

The most dangerous thing about stress is how easily it can creep up on you. You get used to it. It starts to feel familiar, even normal. You don't notice how much it's affecting you, even as it takes a heavy toll. That's why it's important to be aware of the common warning signs and symptoms of stress overload.

Cognitive symptoms:

- Memory problems
- Inability to concentrate
- Poor judgment
- Seeing only the negative
- Anxious or racing thoughts
- Constant worrying

Emotional symptoms:

- Depression or general unhappiness
- Anxiety and agitation
- Moodiness, irritability, or anger
- Feeling overwhelmed
- Loneliness and isolation
- Other mental or emotional health problems

Physical symptoms:

- Aches and pains
- Diarrhea or constipation
- Nausea, dizziness

- Chest pain, rapid heart rate
- Loss of sex drive
- Frequent colds or flu

Behavioral symptoms:

- Eating more or less
- Sleeping too much or too little
- Withdrawing from others
- Procrastinating or neglecting responsibilities
- Using alcohol, cigarettes, or drugs to relax
- Nervous habits (e.g. nail biting, pacing)

Causes of stress

The situations and pressures that cause stress are known as stressors. We usually think of stressors as being negative, such as an exhausting work schedule or a rocky relationship. However, anything that puts high demands on you can be stressful. This includes positive events such as getting married, buying a house, going to college, or receiving a promotion.

Of course, not all stress is caused by external factors. Stress can also be internal or self-generated, when you worry excessively about something that may or may not happen, or have irrational, pessimistic thoughts about life.

Finally, what causes stress depends, at least in part, on your perception of it. Something that's stressful to you may not faze someone else; they may even enjoy it. While some of us are terrified of getting up in front of people to perform or speak, for example, others live for the spotlight. Where one person thrives under pressure and performs best in the face of a tight deadline, another will shut down when work demands escalate. And while you may enjoy helping to care for your elderly parents, your siblings may find the demands of caretaking overwhelming and stressful.

Common **external** causes of stress include:

- Major life changes
- Work or school
- Relationship difficulties
- Financial problems
- Being too busy
- Children and family

Common **internal** causes of stress include:

- Pessimism
- Inability to accept uncertainty
- Rigid thinking, lack of flexibility
- Negative self-talk
- Unrealistic expectations / perfectionism
- All-or-nothing attitude

#### 4.3.10 Effect of Stress on Sports

Stress has been identified as crucial in sport, influencing performance as well as social functioning (Jones & Hardy, 1990). Increased anxiety and burn-out are symptoms which have been associated to an inability to manage stress in sport, as well as decreased self-esteem and performance difficulties. As the study of stress in sport has continued to develop, research has

primarily focused on the athlete experience. While a focus on the athlete may be appropriate, it could be argued that there are other individuals who have to perform, such as the coach. In more recent times, it has been highlighted there are multiple roles that coaches must assume and there is no doubt that these higher number of demands will be associated with stress for the coach. Because of this, several researchers have devoted study into the stressful nature of sports coaching (Gould, Guinan, Greenleaf, & Chung, 2002). As Thelwell et al (2008) argued, given the technical, physical, organizational, and psychological challenges involved, **coaches should be regarded as performers in their own right**. Coaches' performances are often judged by the success of their athletes (Gould et al., 2002) so it is therefore not surprising that coaches experience stress as a result of these growing demands.

#### **What do we know about stress in elite coaching already?**

So how much light has been currently shed on the area of sporting coach stress? In a study by Frey (2007), National Collegiate Athletes Association (NCAA) Division 1 coaches were interviewed regarding their experiences with stress and their perceived effects of stress. When discussing the specific stressors, coaches frequently cited stressor themes along the lines of interpersonal factors, influences of other people, and factors that would lead to them quitting. The study also explored the coaches' effects of stressors and came to a conclusion that while some stressors had facilitative roles (for example, enhancing focus and motivation) and most were debilitating in that they led to a number of sources of strain. Also, coach stress was reported to affect others, such as their athletes, to the extent that it affected both their mind-sets and their performances. Despite this study initially advancing our knowledge towards some of the stressors experienced by coaches, it had limitations including the standard of participants. Even though the participants were all NCAA coaches, which is quite a high standard, it is reasonable to suggest that they do not fully represent "elite" athlete coaches due to their experience or the level of performers with whom they have worked with (Fletcher & Scott, 2010). Therefore, examining coaches of a higher level was imperative to provide a more comprehensive understanding of the stressors experienced by coaches working with elite athletes. This was achieved by Thelwell et al (2008), who examined the varying stressors experienced by coaches who operate with elite athletes. The results indicated that a variety of stressors from both performance and organizational contexts affect elite coaches, similar to the athletes (Hanton et al., 2005), therefore a coach should be known as an athlete in their own right. This leads me on to an effective advantage an athlete can give themselves above others using marginal gains (extra components or assets which can enhance an athlete's or a team's chances of success by breaking elements down in an attempt to improve them). Beckam's achievement during the off season has allowed him to benefit from marginal gains; something Jenson Button believes is a reason for success. In F1, new components can assist in helping the driver obtain a 0.1 – 0.2 second advantage (Button, 2013). However, marginal gains could also include the fitness, nutritional and psychological edge an athlete can achieve over their counterparts. These are vital components required to stay at the top; moreover the support an athlete receives for these components can be even more influential. For example, with the additional demands of winning to stay at the top, psychological support can assist the athlete in comprising a plan which encompasses a manageable schedule, still providing time for quality training, rest and personal life alongside sponsor demands and other engagements. Needless to say this would be hard work; however staying at the top is arguably harder than getting there. This requires the athlete to push their limits. This shouldn't faze the athlete by any means, after all they have had to be dedicated, committed and focused alongside overcoming adversity and challenge previously. Overcoming adversity many times before could better prepare them for the challenges which they face at this stage in career. For any elite athlete and player, marginal gains could be perceived as the edge which separates the good from the great. "The greatest pressure comes only from myself" (Button, 2012). This statement



could apply to every professional athlete. However the athletes who learn to control this pressure and channel it into their performance are the ones who prevail into the elite. This provokes an implication which is necessary for successful performance, focus only on what the athlete can control. “Don’t over-analyze; it’s important to recognize your own strengths and to maintain your own belief” (Button, 2012). By doing this they begin to reinforce their strengths and improve on their weaknesses through training which in turn assists with building mental superiority, gaining control of performance and building on previous successes. It would appear incredibly simple for an athlete to continue with the processes they have been implementing on course to the top, however this is always easier said than done, hence a support network is essential. It is crucial that the athletes, in conjunction with their support network, reviews the successful components which helped them achieve elitism and try to implement these within the post winning programme in order to continue their success. From a psychological perspective, these include finding the self-belief they had prior to winning, relaxation and “Autopilot Connection” (Kreiner-Phillips & Orlick, ), also referred to as either “The Zone” or “Flow”. Following on from this, research suggests athletes set subsequent goals post winning period and approaching the next competition as they did the last was deemed a successful attribute for continued success (Kreiner-Phillips & Orlick, ). An implication of this for psychologists is to ensure that they assist the athlete in approaching the next competition with the same focus and belief as the last, and in this process, ignoring distractions, purely focusing on process and performance rather than outcome. Even though pressure could be perceived as an illusion, there is no doubt that athletes will always encounter pressure in their sporting career. As much as they could convince themselves it is not there, at some point, the pressure could mount. Hence it is paramount to assist the athlete in developing effective coping mechanisms. If the athlete can utilise these mechanisms, the world is their oyster. Have a game plan, focus on that, keep thoughts positive and in perspective, and finally challenge yourself. There will always be some stress in sports, so it's important to know how to deal with it. Trying different ways during practice helps you know what will work best for you during competition.

You can try:

- **Deep breathing:** Take a deep breath and hold it in for about 5 seconds, then release it slowly. Repeat five times.
- **Muscle relaxation:** Contract (flex) a group of muscles tightly. Keep them flexed for about 5 seconds, then release. Repeat the exercise five times, then move to a different muscle group.
- **Going to a happy place:** Picture a peaceful place or event. Imagine stress flowing away from the body.
- **Visualizing success:** Imagine completing a pass, making a shot, or scoring a goal.
- **Mindfulness:** Focus on the present instead of worrying about the future or the past.
- **Having a routine:** Focus on the routine to keep stress in control.
- **Thinking positively and developing positive self-talk:** Say "I learn from my mistakes," "I'm in control of my feelings," "I can make this goal!" to help keep the negative thoughts away.

To keep stress levels down when you aren't competing:

- Eat well and get enough sleep, especially before games.
- Do something fun and relaxing. Take a break from competing and go for a walk, ride a bike, see a movie, or hang out with friends.
- Remember, no one is perfect. Everyone makes mistakes in sports — it's part of the game. Be quick to forgive mistakes and move on.

Sports are about staying active, feeling proud, developing as a player, and making friends. Above all, whether you play on the varsity team or at a weekend pick-up game, the point is to

have fun. By keeping that as the priority, you can learn to handle the stress that is a natural part of competition.

#### 4.3.11 What is Self Confidence?

Self-confidence is an attitude about your skills and abilities. It means you accept and trust yourself and have a sense of control in your life. You know your strengths and weakness well, and have a positive view of yourself. You set realistic expectations and goals, communicate assertively, and can handle criticism. On the other hand, low self-confidence might make you feel full of self-doubt, be passive or submissive, or have difficulty trusting others. You may feel inferior, unloved, or be sensitive to criticism. Feeling confident in yourself might depend on the situation. For instance, you can feel very confident in some areas, such as academics, but lack confidence in others, like relationships. Having high or low self-confidence is rarely related to your actual abilities, and mostly based on your perceptions. Perceptions are the way you think about yourself and these thoughts can be flawed. Low self-confidence might stem from different experiences, such as growing up in an unsupportive and critical environment, being separated from your friends or family for the first time, judging yourself too harshly, or being afraid of failure. People with low self-confidence often have errors in their thinking.

The self-esteem movement has swept through Western culture over the past 50 years, with parents and teachers alike doubling down on the idea that improving children's self-confidence will lead to improved performance, and a more successful life in general (Baskin, 2011).

This movement started with a book published in 1969, in which psychologist Nathaniel Branden argued that most mental or emotional problems people faced could be traced back to low self-esteem. Branden laid the foundation for the **Self-Esteem Movement** with his assertion that improving an individual's self-esteem could not only result in better performance but could even cure pathology.

Since then, there have been thousands of papers published and studies conducted on the relationship between success and self-esteem. This is a popular idea not only in literature but in more mainstream mediums as well. Before we begin exploring the complexities of self-esteem it is essential to unpack the differences between the overlapping concepts of **self-efficacy**, **self-confidence**, and **self-esteem**.

*"Once we believe in ourselves, we can risk curiosity, wonder, spontaneous delight, or any experience that reveals the human spirit."*

– E.E. Cummings

#### How to Increase Your Self-Confidence

- Recognize and emphasize your strengths. Reward and praise yourself for your efforts and progress.
- When you stumble on an obstacle, treat yourself with kindness and compassion. Don't dwell on failure.
- Set realistic and achievable goals. Do not expect perfection; it is impossible to be perfect in every aspect of life.
- Slow down when you are feeling intense emotions and think logically about the situation.
- Challenge making assumptions about yourself, people and situations.
- Recognize that past negative life experiences do not dictate your future.
- Express your feelings, beliefs and needs directly and respectfully
- Learn to say no to unreasonable requests.

Individual counselling can also help increase your self-confidence if you need more help.

## Popular Theories of Self-Confidence

### Maslow's Hierarchy of Needs

Maslow's hierarchy of needs, an iconic although somewhat out-of-date framework in psychology, theorizes that there are several needs that humans must have met to be truly fulfilled, but, generally, the most basic needs must be met before more complex needs can be met (1943). In his pyramid, self-esteem is the second highest level of need, just under self-actualization. According to Maslow, humans must have their needs of physiological stability, safety, love and belonging met before they can develop healthy self-esteem. He also noted that there are two kinds of self-esteem, a "higher" and a "lower," the lower self-esteem derived from the respect of others, while the higher self-esteem comes from within. In the years following his introduction of the hierarchy of needs, Maslow refined his theory to accommodate the instances of highly self-actualized people who are homeless or individuals who live in a dangerous area or war zone but are also high in self-esteem. This hierarchy is no longer considered as a strict theory of unidirectional growth, but a more general explanation of how basic needs being met allow individuals the freedom and ability to achieve their more complex ones.

### Terror Management Theory

A darker theory that delves a bit deeper into the human experience to explain self-confidence is the **Terror Management Theory**. Terror Management Theory (TMT) is based on the idea that humans hold great potential for responding with terror to the awareness of their own mortality, and that worldviews that emphasize peoples' beliefs in their own significance as humans protect them against this terror (Greenberg & Arndt, 2011). TMT posits that self-esteem forms as a way to protect and buffer against anxiety, and subsequently people strive for self-confidence and react negatively to anyone or anything that could undermine **their beliefs in their comforting worldview**.

### Sociometer Theory

Mark Leary, a social psychologist who researches self-esteem in the context of evolutionary psychology, also contributed a theory of self-esteem to the literature. **The Sociometer Theory** suggests that self-esteem is an internal gauge of the degree to which one is included vs. excluded by others (Leary, 2006). This theory rests on the conception of self-esteem as an internal individual perception of social acceptance and rejection. There is some strong evidence for the accuracy and applicability of this theory. For example, studies have shown that the outcomes of events on people's self-esteem generally match up with their assumptions about how the same events would cause other people to accept or reject them (Leary, Tambor, Terdal, & Downs, 1995). Finally, evidence shows that social exclusion based on personal characteristics decreases self-esteem (Leary et al., 1995).

## 4.3.12 Self Confidence and Sports Performance

When you believe in yourself, you'll be more willing to try new things. Whether you apply for a promotion or sign up for a cooking class, believing in yourself is key to putting yourself out there. When you feel confident in yourself, you're able to devote your resources to the task at hand. Rather than waste time and energy worrying that you aren't good enough, you can devote your energy to your efforts. So ultimately, you'll perform better when you feel confident. For example, if you feel confident about a presentation you're going to make, you'll focus on delivering your message to your audience. If however, you lack confidence in your ability to communicate, you may worry that no one is listening. You might struggle to concentrate and you may stumble over your words-which may reinforce your belief that you are bad at giving presentations. Fortunately, there are things you can do to boost your self-confidence. Whether you lack confidence in one specific area or you struggle to feel confident about anything, these strategies can help.

**Stop Comparing Yourself to Others:**

Whether you compare how you look to your friends on Facebook or you compare your salary to your friend's income, comparisons aren't healthy. In fact, a 2018 study published in *Personality and Individual Differences* found a direct link between envy and the way you feel about yourself. Researchers found that people who compared themselves to others, experienced envy. And the more envy they experienced, the worse they felt about themselves. It can be a vicious cycle. Pay attention to times when you compare your wealth, possessions, skills, achievements, and attributes. Thinking that other people are better or have more will erode your confidence in yourself. When you notice you are drawing comparisons, remind yourself that doing so isn't helpful. Everyone is running their own race and life isn't a competition.

**Take Care of Your Body:**

It's hard to feel good about yourself if you're abusing your body. Skimping on sleep, eating an unhealthy diet, and refraining from exercise will take a toll on your well-being. Studies consistently show physical activity boosts confidence. A 2016 study published in *Neuropsychiatric Disease and Treatment* found that regular physical activity improved participants' body image. And when their body image improved, they felt more confident.

**Practice Self-Compassion:**

Self-compassion involves treating yourself with kindness when you make a mistake, fail, or experience a setback. Speaking to yourself harshly, won't motivate you to do better. In fact, studies show it tends to have the opposite effect. A 2009 study published in the *Journal of Personality* found that self-compassion contributes to more consistent confidence. Thinking, "Everyone messes up sometimes," as opposed to, "I'm so stupid. I ruined everything," can help you feel good even if when you don't perform as well as you hoped. Rather than beat yourself up or call yourself names, try speaking to yourself like you'd talk to a trusted friend. Cut yourself some slack, laugh at yourself, and remind yourself that no one is perfect.

**Embrace Self-Doubt:**

Sometimes, people put off doing things—like inviting someone on a date or applying for a promotion—until they feel more confident. But sometimes, the best way to gain confidence is by doing. Practice facing some of your fears that stem from a lack of self-confidence. If you're afraid you'll embarrass yourself or you think that you're going to mess up, try it anyway. That doesn't mean you shouldn't prepare or practice, of course. If you have a big speech coming up, practice in front of your friends and family so you'll gain some confidence. But don't wait until you feel 100% confident before you proceed. You might never get there. Embracing a little self-doubt might actually help you perform better. A 2010 study published in *Psychology of Sport and Exercise* found that athletes who embraced their self-doubt outperformed athletes who were 100% confident in themselves.

**Perform Behavioral Experiments:**

When your brain tells you that you have no business speaking up in a meeting or that you are too out of shape to work out, remind yourself that your thoughts aren't always accurate. And sometimes, the best way to deal with negative self-talk is by challenging those statements. Try doing things that your brain tells you that you can't. Tell yourself it's just an experiment and see what happens. You might learn that being a little anxious or making a few mistakes isn't as bad as you thought. And each time you move forward you can gain more confidence in yourself.

### A Word From Very well:

Everyone struggles with confidence issues at one time or another. But if your self-confidence issues interfere with your work, your social life, or your education, seek professional help. Sometimes, low self-confidence stems from a bigger issue, like a traumatic event from the past. At other times, it may be a symptom of a mental health problem. And it is possible to have too much confidence. If you're overly confident in your abilities, you might not take action. Being overconfident about your ability to ace a test might prevent you from studying. Or assuming that you don't need to practice a presentation could cause you to be unprepared. It's important to have a healthy dose of self-confidence that helps you perform at your peak.

*“Trust thyself: every heart vibrates to that iron string.” - Ralph Waldo Emerson.*

A broad review of the correlates of self-esteem found that high self-esteem is associated with better health, better social lives, **protection against mental disorders** and social problems, healthy coping, and mental well-being (Mann, Hosman, Schaalma, & de Vries, 2004). Children with high self-confidence perform better at school and, later in life, have higher job satisfaction in middle age. Self-esteem is also strongly linked to happiness, with higher levels of self-esteem predicting higher levels of happiness. High self-confidence has even been found to increase the chances of survival after a serious surgical procedure (Mann et al., 2004). As noted earlier, there have been thousands of papers published on self-confidence or self-esteem, and many of these papers connect self-confidence with success in life. Some studies show a strong relationship between self-confidence and **positive mental health** (Atherton et al., 2016; Clark & Gakuru, 2014; Gloppen, David-Ferdon, & Bates, 2010; Skenderis, 2015; Stankov, 2013; Stankov & Lee, 2014). The success of individuals with high self-esteem lies in these six attributes:

1. A greater sense of self-worth
2. Greater enjoyment in life and in activities
3. Freedom from self-doubt
4. Freedom from fear and anxiety, freedom from social anxiety, and less stress
5. More energy and motivation to act
6. More enjoyable time interacting with other people at social gatherings. When you are relaxed and confident others will feel at ease around you.

In less hopeful news, some research has shown that increasing confidence does not always lead to enhanced positive outcomes (Brinkman, Tichelaar, van Agtmael, de Vries, & Richir, 2015; Forsyth, Lawrence, Burnette, & Baumeister, 2007). Journalists in mainstream media have pointed out that there are also negative correlates with self-confidence. For example, self-confidence has steadily increased over the last 50 years, and with it, narcissism and unrealistic expectations have also increased (Kremer, 2013). Maybe there is such a thing as “too much a good thing,” when we are building our children's self-esteem.

Individuals who are successful in any walk of life have many traits that stand out, and without question one of the main ones is confidence. It is the same in the sporting world and it is no coincidence that those who are successful in sport have a great confidence in their own ability. Confidence can often be one of the key differentiating psychological factors between successful and unsuccessful performance. The article What's Sports Confidence provides us with the following definition:



*Having sports confidence means having self-confidence which is YOUR belief in YOUR ability to complete a physical skill or task required in your sport. Our confidence can be bolstered at times by others' belief in us; but, ultimately, we have to believe in our own abilities to go out there and perform our best.*

It may be tempting to presume that this self-belief is something that these athletes are born with, but in many cases it is a trait that the athlete has developed over the years. What is important to understand is that this belief in their ability is not something that comes by accident, or as a result of them simply relying on natural talent.

### **Preparation is key**

In terms of sport, confidence comes from being properly prepared. Dr Jim Taylor in the Huffington Post talks about Prime Confidence.

*Prime confidence is a deep, lasting, and resilient belief in one's ability. With prime confidence, you are able to stay confident even when you're not performing well. Prime confidence keeps you positive, motivated, intense, focused, and emotionally in control when you need to be.*

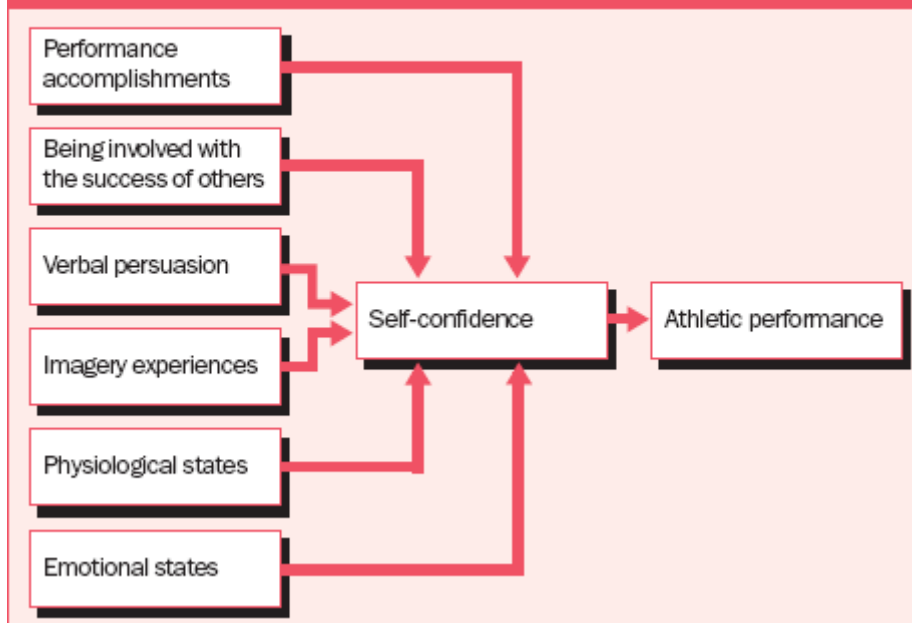
### **How to achieve Prime Confidence**

In another article entitled Five keys to athletic confidence, Dr Taylor identifies the five key components to achieving Prime Confidence and they are as follows:

- **Preparation breeds confidence:** Preparation is the foundation of confidence. This preparation includes the physical, technical, tactical, equipment-related and mental parts of your sport, and it means putting the necessary time and effort into every aspect of your training
- **Mental Skills reinforce confidence:** Inspirational thoughts and images will bolster your motivation, positive self-talk and body language to fortify your confidence, intensity control to combat confidence-depleting anxiety, keywords to maintain focus and avoid distractions, and emotional-control techniques to calm yourself under pressure
- **Adversity ingrains confidence:** Athletes can't always train or compete in ideal conditions, so an athlete has to be prepared to overcome adversity. The challenge is to maintain your confidence when you're faced with the worst possible conditions, situation or opponent
- **Support bolsters confidence:** It's difficult to achieve success on your own. The very best athletes in every sport have many people supporting them. There will be times when things are just not going well, and it helps to have people to whom you can turn for support and encouragement
- **Success validates confidence:** All the previous steps in building confidence will be for naught if you don't then perform well and achieve your goals. Success validates the confidence you have developed in your ability; it demonstrates that your belief in your ability is well-founded



**Figure 1: Model of self-confidence  
(adapted with permission from Feltz, 1984)**



Performance accomplishments are the strongest contributor to sport confidence. When you perform any skill successfully, you will generate confidence and be willing to attempt something slightly more difficult. Skill learning should be organized into a series of tasks that progress gradually and allow you to master each step before progressing on to the next. Personal success breeds confidence, while repeated personal failure diminishes it. Being involved with the success of others can also significantly bolster your confidence, especially if you believe that the performer you are involved with (e.g. a team-mate) closely matches your own qualities or abilities. In effect, it evokes the reaction: 'if they can do it, I can do it'.

The confidence an individual feels during a particular activity or situation is generally derived from one or more of the following six elements:

**1. Performance accomplishments** are the strongest contributor to sports confidence. When you perform any skill successfully, you will generate confidence and be willing to attempt something slightly more difficult. Skill learning should be organized into a series of tasks that progress gradually and allow you to master each step before progressing on to the next. Personal success breeds confidence, while repeated personal failure diminishes it.

**2. Being involved with the success of others** can also significantly bolster your confidence, especially if you believe that the performer you are involved with (e.g. a team-mate) closely matches your qualities or abilities. In effect, it evokes the reaction: "if they can do it, I can do it".

**3. Verbal persuasion** is a means of attempting to change the attitudes and behavior of those around us, and this includes changing their self-confidence. In sport, coaches often try to boost confidence by convincing athletes that the challenge ahead is within their capabilities: "I know you are a great player, so keep your head up and play hard". An athlete might reinforce this by repeating the message over and over to him or herself as a form of self-persuasion. A tip here is to avoid stating what you want in the negative; so, rather than "I don't want to come off second best" try "I really want to win this one". Accordingly, your mind will not need to consider what is not required to arrive at what is.

**4. Imagery experiences** have to do with athletes recreating multi-sensory images of successful performance in their mind. Through creating such mental representations, mastery of a particular task or set of circumstances is far more likely. What you see is what you get

**5. Physiological states** can reduce feelings of confidence through phenomena such as muscular tension, palpitations and butterflies in the stomach. The bodily sensations associated with competition need to be perceived as being facilitative to performance, and this can be achieved through the application of appropriate stress management interventions such as the "five breath technique" and "thought-stopping".

**6. Emotional states** are the ultimate source of self-confidence and relate to how you control the emotions associated with competition, such as excitement and anxiety. Very often, the importance of the occasion creates self-doubt, which is why it is essential to control your thoughts and emotions. Learning imagery and concentration skills such as those described in "the spotlight of excellence".

### Five exercises that will boost your self-confidence

#### *Exercise 1: Confident situations and situations of doubt*

To achieve a greater sense of stability in your confidence, it is necessary to know exactly what causes it to fluctuate. Divide a clean page into two columns. Label the first column 'High-confidence situations' and the second 'Low-confidence situations'. In the first column, list all of the situations or circumstances in your sport in which you feel completely confident. In the second column, list the situations or circumstances that sometimes cause your confidence to diminish. Identifying the situations that make you feel uneasy is the first step towards building greater self-confidence. We will come back to these lists in some of the remaining exercises, but for now, it should have just served to increase your awareness of areas that can be improved.

#### *Exercise 2: The spotlight of excellence*

This visualisation exercise recreates the mental state associated with past performance success and will help you in bridging the gap between your ability and confidence:

- Imagine a huge spotlight beaming down on the floor, one metre in front of you. The light beam is about a metre in diameter
- Now think back to a time in your sporting career when you were performing at the very peak of your ability - perhaps using the first column from Exercise 1 to guide you. Each movement you made brought about a successful outcome, and everything just seemed to flow without much conscious effort
- In a dissociated state (i.e. looking at yourself from the outside) examine each of your five senses. See yourself inside the circle and excelling. Imagine exactly what the 'you' inside the circle is seeing, hearing, feeling, and smelling. Notice the 'taste of success' in your mouth
- Now step into the spotlight and become entirely associated so that you are experiencing events through your own eyes and in real-time. Again, notice what you are seeing, hearing, feeling, smelling and tasting
- Notice exactly what this feels like so that you can reproduce it at will whenever your confidence is waning.

#### *Exercise 3: Positive self-talk*

Positive self-talk will affirm to you that you possess the skills, abilities, positive attitudes and beliefs that are the building blocks of success. The statements you choose need to be vivid, should roll off the tongue, and be practiced well in advance of the competition. Most of all, they must be believable. You should use these, particularly in the low-confidence situations

that you identified in the second column of Exercise 1. Here are some examples to help you in composing your own:

- **Boxer** - I have fists of steel
- **Basketball player** (for free throws) - It is just me and the basket
- **A defensive lineman in American football** - No one is going to get through
- **Hammer thrower** - I am the king of the stingers
- **Judo player** - I am as strong as an ox
- **Ski-jumper** - My timing is always spot on
- **Sprinter** - Go on the B of the bang
- **Striker in soccer** - I will slot in every chance

Make your list of four or five positive self-statements and read them to yourself every night before you go to bed and every morning as you wake up. Through repeated use, they will become embedded in your subconscious and have a profound influence on your sporting performance.

#### *Exercise 4: Exploiting weaknesses in your opponent*

Your opponent will harbour doubts and fears that they will try hard to hide from you. Like any human being, they are susceptible to anxiety, fatigue and indecision. If you spend time thinking about your opponents, focus upon which weaknesses and frailties you might most easily exploit. Here are some specific guidelines to help you:

- Study video footage of your opponents and analyse what most often causes things to go wrong for them. It may be that they cannot perform under certain conditions - such as Paula Radcliffe in the heat and humidity of the Athens Olympics - or a particular part of their game has a distinct weakness. For example, British tennis player Greg Rusedski was known to have a weak backhand that opponents would often seek to exploit
- If you play an individual sport that requires precision skills such as snooker or golf, make a point of congratulating your opponent when they have a lucky stroke but say nothing when they are genuinely skilful
- In team sports, identify players who are easily wound-up and find out what triggers them to see red. Italian defender Marco Materazzi used this technique, albeit in a rather controversial manner, in the final of the 2006 Football World Cup. Materazzi allegedly uttered an insulting personal remark to French captain Zinedine Zidane who reacted badly. Zidane violently head-butted Materazzi and was immediately sent off as a result. Italy went on to win the match
- Some opponents will get highly perturbed by what they perceive to be unfair, refereeing decisions. Make a point of being friendly and respectful towards match officials and, in doing so, at a subconscious level at least, they are more likely to decide in your favour in any 50-50 call;
- When your opponent is having a good run of form, use tactics that slow the match down to break their flow. American tennis star John McEnroe was the undisputed master of this; his on-court rants even earned him the epithet 'SuperBrat'!

NB - you will notice that some of these techniques are entirely ethical and 'sportsmanlike' while others push the boundaries of fair play.

*Exercise 5: Using the power of sound*

Music has unique properties, among which is its ability to inspire, motivate and boost one's confidence. There are many tunes with inspirational lyrics or strong extra-musical associations that you can use to increase your confidence before the competition. Good examples include I Believe I Can Fly by R Kelly (62bpm), The Best by Tina Turner (104bpm) and Gold by Spandau Ballet (143bpm). You may like to try playing some tracks on your mp3 player as part of a pre-event routine. I suggest that if you want to feel confident and keep your physiological arousal low, select tracks with a slow tempo (i.e. below 110bpm). Conversely, if you are going to psych-up, go for a higher tempo (i.e. over 110bpm), and build-up to a tempo of over 150bpm just before competing.

Confidence is a player's belief in their ability to perform well in any situation, practice or game. Confidence is derived from a baseline assessment of past performances, training, and preparation. As competency or skill mastery grows, your confidence becomes proportionately stronger. In order for players to develop high levels of confidence, they must have a clear understanding of the factors that boost and undermine their confidence, such as high expectations.

Confidence is a core mental game skill because of its importance and relationship to other mental skills. Harvey Dorfman (2005) describes confidence as a mindset based on tangible sources such as one's past success in sports. Athletes derive confidence from one or more of the following three sources:

1. From practice
2. From what other people say or do
3. From immediate past performance

It is important to mention these sources because in order to enhance confidence athletes have to a clear understanding of their source of confidence. Many athletes believe that confidence comes from past success, playing well or positive experiences in their sport. Confidence also varies depending on the task you are performing. For example baseball players may be very confident in their hitting, but less confident with their defensive play. Doubt, indecision and negative thoughts are the opposite of confidence.

If athletes maintain doubts prior to or during their performance, this indicates low self-confidence. One intervention is by refuting doubts and instilling a positive/confident belief system. Another intervention to enhance confidence is helping athletes developing a confidence resume of all the reasons an athlete as to feel confident. This entails athletes taking control of their confidence level and being proactive with their confidence.

**4.3.13. What is Concentration?**

Concentration the ability to think carefully about something you are doing and nothing else.

- Concentration is the ability to direct one's attention in accordance with one's will.
- It means control of the attention.
- It is the ability to focus the mind on one subject, object or thought without being distracted.
- It is the ability to focus the attention, and at the same time, ignore other unrelated thoughts.
- It also means the ability to do one thing at a time, instead of jumping from one subject to another, and losing attention, time, and energy.
- Concentration is a state, in which one's whole attention is engrossed in one thing only, and being oblivious to everything else.

During concentration, the mind focuses on the object of concentration, and only one thought occupies the mind. The whole energy of the mind becomes concentrated on this one thought.

The ability to command the mind and control the attention is not common, and requires training. Most people lack the ability to control their attention and focus their mind exclusively

on one thought subject for any length of time. They can't command their mind to concentrate, whenever they want to.

However, concentration is not uncommon activity. It happens almost everyday, to almost everyone, but it is more of a spontaneous and uncontrolled ability. It usually happens, when you are engrossed in something you like or enjoy doing.

### **What does one do to improve their ability to concentrate?**

It takes the discipline of frequent self-reminding. You learn to focus by making yourself do it—again and again—until it becomes a habit, a way of thinking. Here are some specific tips:

1. **Value attentiveness:** Realize that you create your personal reality by what you pay attention to. All of us get much less out of life than we could, because we are not paying attention.
2. **Live in the now:** An expert on this philosophy, Eckhart Tolle, says, "The clock's hands move, but it is always now." Grab the present intensely. You cannot know the future and you cannot re-do the past. You can correct for past weaknesses and mistakes and reduce their likelihood in the future, but it has to be done in the now.
3. **Be more aware:** Consciously attend to what you are doing, why, and how. Be aware of how you feel. Emotions affect the ability to focus. If how you feel interferes with your concentration, change how you feel. It IS a choice.
4. **Notice the little things:** Develop an eye for detail. See the forest, but also see the trees (and the leaves, bark, insects, birds, squirrels, and everything else there). Notice the small pleasures of life. This teaches you how to focus and makes you happier. Target things that are fun and provide positive reinforcement.
5. **Set goals, and monitor your progress:** Keep track of how you are getting goals achieved and what adjustments need to be made along the way.
6. **Identify your "targets of attention.":** Think of what you are experiencing as targets for attentiveness and take mental aim at them. Targets should be interesting or have a clear value. If these attributes are not apparent, you must consciously enable them. Make tough choices about your targets of attention. Attend to those things that serve your own best interests. Choose challenging targets of attention, ones that push you to the edge of your competence.
7. **Shut out distractions:** Don't be sidetracked by interruptions or mind wandering. In memory tournaments, contestants wear earplugs. Germans are said to wear glasses with side blinders. Some contestants face a blank wall.
8. **Don't multitask:** This is the archenemy of attentiveness and profoundly interferes with the ability to learn—and especially to remember. Multitasking creates a superficial way of thinking that also imperils the ability to think deeply in intellectually demanding situations.
9. **Fight boredom:** Make your targets of attention more engaging by creating competition or making them into some sort of game. Enliven dull work by thinking of it in novel ways. Find ways to change the pace of your attention. Don't let it become a drill.
10. **Make emotion work for you:** Develop a passion for what you experience, as that will rivet your attention. Both negative and positive emotions work. The kiss of death for learning is to be bored and detached from what you are trying to learn. Ask any school teacher how big a problem that is for so many students.
11. **Practice attentiveness:** Acquiring good concentration ability isn't much different from developing a good golf swing. You have to practice. Psychologist Ellen Langer suggests staring at your finger, for example. Attentiveness is cultivated from the more you notice: the dirt, distribution of hair, pattern of skin folds, shape of the knuckles, and features of the nail (shape, color of quick, ridges, etc.). Do similar exercises with any object you encounter. You will find that daily life experiences become more engaging. You will get more out of life.
12. **Learn how to meditate:** See how long you can sustain focus on your breathing and keep out all intruding thoughts. Notice all things associated with the breathing, but nothing else. Hear the sound of the moving air with each breath. Feel the pulse in your neck. If you don't



feel it, crook your neck or lie down to feel it in your back or hear it by turning your ear to a pillow. Notice the rhythm and the gradual slowing. Feel your clothes shifting position and the tension flowing out of your muscles, first in the jaw, then in the back and legs. Not only does meditation teach your brain how to concentrate, it also lowers blood pressure and contributes to peace of mind.

#### 4.3.14 Concentration and sports performance

Within sports, coaches and athletes often use the words concentration, attention and focus interchangeably. To effectively utilize these tools, it may be helpful to define each term. Vernacchia (2003) defined concentration simply as “the ability to perform with a clear and present focus” (p. 144). What then is focus? Focus has been defined as the central point of one's attention. Attention is simply what an individual is observing. When put together, an individual who is concentrating is said to have their attention focused clearly and presently on the task at hand. Once an athlete has developed the skills necessary for competition, their ability to control one's attention in order to concentrate on the demands of the task is essential to consistently executing these skills. At any given point during a performance, athletes are faced with a number of potential distractors. Just as one's focus can be both internal and external, so too are distractors (Australian Sports Commission, 2008).

- External distractors could be visual or auditory, and may include other competitors, spectators, and media.
- Internal distractors may include negative self-talk, fatigue, and emotional arousal. A change in one's thoughts and emotions can lead to physiological changes as well (Nideffer & Sagal, 2006). Coaches and competitors often refer to this process as Choking. Although many individuals may have different definitions of choking, it is most often associated with a rapid deterioration in performance during an important competitive situation. The choking process involves physiological and psychological changes that may affect performance (Nideffer & Sagal, 2006). For example, an athlete who is competing in an important game may develop increased muscle tension and increased anxiety, which causes an overly narrow focus and inability to identify relevant environmental cues. Effectively helping athletes to manage their thoughts and emotions may allow them to regain attentional control.

Athletes recognize that maintaining concentration is critical to performing their best, yet figuring out what to focus on and maintaining the correct attentional focus during performance is not easy. There are, however, exercises that may be helpful in improving one's ability to concentrate during competition (Performance Services Division, 2008):

- Focus on controllables vs. uncontrollables - make two lists. One list should be the controllables, which are those factors athletes can do something about, such as a response to a mistake or a bad play. The other list should be the uncontrollables, which are the elements of performance athletes cannot do anything about, such as the crowd's response to the athlete's mistake.
- Simulation training – place the athlete in “real life” scenarios during practice in order to simulate possible distractions and additional areas of focus that could occur during a competition.
- Distraction drills – identify distractors and deliberate attempts to shift one's attention away from the areas of required focus in order to practice shifting back to relevant cues during a performance.
- Concentration cues – develop a list of positive, focused cues (e.g. self-talk, visual reminders) to quickly shift one's attention to appropriate points throughout a performance.

Why is focus important for you when playing any sport? It helps in these ways:



- Keeps you in the present moment, not worrying about a past mistake or getting ahead of yourself
- Gives you the ability to ignore distractions
- Lets you better handle anxiety or over-excitement
- Allows you to see things earlier and notice smaller details that can give you an edge
- Encourages a mind-set that let's you be in "the zone"

Mindfulness focusing exercises are a great way to build strong concentration. These can actually be practiced anytime, on the court or off. Here are a few simple ways to start:

- Focus on just your breathing for a few minutes a day and before playing your sport
- Instead of multi-tasking, single-task for a few minutes of an activity. For example, when you eat, just eat. No TV, no email. When you take a shower, notice the warm water and the suds of your shampoo. Don't think about your daily to-do list.

#### 4.3.15 How sports person do the mental practice?

Mental practice is the cognitive (thinking) rehearsal of a physical skill without movement. It is effective both for skill learning and preparing for competition. Sport psychologist often use visualizations and rehearsal to help in motivation, self-confidence, and to reduce competitive anxiety. Regardless of its application, it is well established that training the mind is key to successful sport performance. Here, the focus is on skill acquisition.

Athletes can benefit from this technique in two ways. *Internal imaging* means that the athlete is approximating a real-life situation that he or she might expect in competition. *External imaging* means viewing themselves as the observer, as if watching a movie.

In motor learning literature, research has shown that thinking about how to perform a skill plus physical performing it works better than just physical execution for learning remembering skills. Rehearsing in the mind only is better than not rehearsing at all.

Mind preparation strategies are essential for producing maximum or peak performance. Rehearsing competitive situations in anticipation of events is a key strategy for optimizing performance.

#### Why Imagery Works

There are two theories about why imagery and rehearsals in the mind are effective:

1. Neuromuscular theory proposes that visualization activates the same motor pathways as if the skill were physically performed, but at a sub-threshold level. Studies using EMG equipment have demonstrated this activation, which is comparable to physical movement but at a lower level.
2. Cognitive theory suggests that imagery speeds up the acquisition of mental elements required for the performance of a skill. The athlete can also devise strategies and test solutions without the risk of injury or fatigue.

#### Mental Practice Techniques

1. Ask athletes to visualize movements early in learning to facilitate skill acquisition.
2. Encourage athletes to engage in rehearsal strategies and problem solving activities prior to competition.
3. Between trials, include techniques where the athlete imagines how correct movements should be performed.

4. Allow opportunities for athletes to visit sites of competitions prior to important contests, and encourage them to visualize themselves in peak performance in competition.
5. Perform imagery exercises in a relaxed state when the subconscious mind is more active.

### Rehearsing Motor Skills

Mental practicing is defined as the cognitive rehearsal of a motor skill that does not involve physical movement. It is effective both for acquiring skills and preparing to take a test or enter a competition.

Athletes can practice mentally in two ways. **Internal imaging** means that the athlete is approximating a real life situation that he or she might expect in competition. **External imaging** means viewing themselves as the observer, as if watching a movie.

Thinking about how to perform a skill plus physical performing it works better than just physical execution for learning remembering skills. Mental rehearsing is not intended to replace on-ice practice sessions, rather it should be used to complement a regular on-ice training program.

Mind preparation strategies are essential for producing maximum or peak performance. Rehearsing competitive situations in anticipation of events is a key strategy for optimizing performance.

**Stress Management:** Training stress syndrome is one of these problems that could be manifested. The key is whether a person uses an internal or external image.

### Mental Practice in Sports:

Athletes can practice mentally in two ways. Internal imaging means that the athlete is ... Top of Mental Practice.

### Enhancing The Psychological Skills (PST):

PST programs can incorporate a number of different mental skills. The program described here involved five different mental skills: anxiety control, mental imagery, attentional focus and control, self-confidence (also called self-efficacy), and the ability to handle adversity (e.g., poor performances, home sickness, conflicts with coaches, etc.).

**Athlete's mental toughness as important as physical strength:** Nov. 24, 2008. Along with a high level of internal motivation, top athletes must also be able to consistently execute those behaviors that have been practiced to virtual perfection so many times in training.

### Mental Rehearsing

There are two explanations for why the concept of mental rehearsing is effective when used properly:

The neuromuscular explanation is that electromyographic (EMG) activity is produced in the muscles. It provides sensory information that can be used to learn a skill. In schema theory, sensory consequences are critical for strong recall. Rehearsals in the mind can be considered a form of response preparation that aids in the tuning process.

- The cognitive explanation is that early in learning, athletes are figuring out what to do. Because they are beginning to understand how a skill should be executed, thinking about the skill can be as effective for a novice skater as actually performing the physical

skill. Mental rehearsing can assist learners in consolidating strategies as well as correcting errors.

### Application of Visualization Techniques

Facilitate skill acquisition by asking athletes to visualize movements early in the learning process.

- Encourage athletes to engage in the mental rehearsal strategies and participate in problem solving exercises as part of peaking for tests and competitions.
- It is very important to stress that mental exercises are of images of the correctly performed body movements.
- Encourage the skater(s) to visit rinks hosting important contests prior to the actual competition so they can visualize themselves competing.
- For maximum effectiveness, it is necessary for the skater to achieve a relaxed state when the subconscious mind is more receptive to perform imagery exercises.

#### 4.3.16 Goal setting in sports

A goal is simply something you are trying to accomplish; it is the object or aim of an action. Although goals can function at an unconscious level, the process of goal setting represents the deliberate establishment and refinement of goals and the evaluation of goal progress. The concept of goals and the practice of goal setting are well known and established within settings where performance enhancement is the objective. It is important to understand goals because they have such a broad function in terms of affecting the thoughts and behaviors of those to whom participation, productivity, and performance are important.

In the broader field of performance psychology where the objective is to enhance productivity in its varying forms, the effectiveness of goal setting as a strategy has consistently been verified across tasks, groups, methods for setting goals, and performance indicators. Although it was assumed that the positive effects of goals would be replicated within sport and exercise settings, research in sport has failed to illustrate unequivocally that goals function as effectively in this domain. The reasons why have been debated widely, with the consensus being that sample and task characteristics were markedly different in sport. Despite this, studies that have described the goal-setting practices in sport performers have confirmed that almost all athletes do set goals and the majority find them to be effective. This entry provides a brief overview of the current state of play with regard to goal setting in sport, and critiques, where appropriate, the transfer of goal-setting concepts to sport and to performers in that domain. The intention is not to present an exhaustive review, but rather to highlight those aspects of goals and goal setting that are most pertinent to the advancement of knowledge in

this area from both a theoretical and an applied perspective. The following sections cover definitions and types of goals, proposed mechanisms of effects, parameters of goals, and dispositional and situational antecedents of goals, and the final section addresses future research potential.

## Types of Goals

The definition of *goals* as an aim of action serves to portray goals as the drivers (or cognitive regulators) behind goal-directed behavior. Consequently, within the multilayered domain of sport, where the nature and level of engagement varies so much, these underlying drivers of behavior can take many different forms. For example, antecedents of behaviors (goals) might range from winning a gold medal at the next Olympics, through the bending of an injured leg an extra two degrees during a physiotherapy session, to maintaining form through a high knee lift in sprinting.

The sport psychology literature consistently distinguishes between three broad goal types: outcome goals, performance goals, and process goals. *Outcome goals* describe intentions relative to the performance of others involved in the activity. The key delineator of these to other goal types is the notion of social comparison. The objective of winning represents the predominant outcome goal; however, the objective of placing in a race, reaching a final, or simply beating a teammate in an individual race, also represent examples of outcome goals. Unlike outcome goals, performance goals are based on *levels* of personal achievement and are entirely self-referenced (subjective). Typical performance goals are to run a race in a certain time, to jump a certain distance, to lift a specific weight, or to do a number of repetitions in a training situation—perhaps within a certain time; they refer to products of performance. These goals are normally based on numeric criteria (e.g., to jump one meter and sixty five centimeters) and refer to a predetermined subjective performance standard. *Process goals* are similarly self-referenced but are distinguished from performance goals because their focus is on the process of performing rather than a product of performance. The variation in process goals is subsequently far broader than that of outcome and performance goals. For example, they might range from the breathing techniques designed to regulate heart rate in a pistol shooter, to imaging in the mind's eye the flight of a golf ball before taking a shot, to focusing on maintaining position while executing a half-court press in basketball. In essence, process goals center on the execution of behaviors regarded as contributing to effective performance.

One of the earliest conclusions of research in organizational settings on the relationship between conscious goals and task performance was that individuals striving for goals that were both specific and difficult performed better than those who had goals that were specific and easy, those who had goals that were vague (e.g., “I want to do my best”), and those who had no goals. While there are obvious (and widely debated) contextual differences between business and sport settings, research in sport suggests that moderate levels of goal difficulty were most effective in facilitating performance. Furthermore, responses to extremely difficult goals in sport were very different—instead of

withdrawing effort, individuals in sports settings, when faced with relatively difficult goals, modified them to ensure they remained relevant and achievable. Similarly, in terms of specificity, while specific goals are more effective than no goals or vague goals, those instructed to “do their best” in sport settings do not perform any worse. It is argued that this is because one of the fundamental differences in sport participants is that they actively engage in personal goal setting in response to this type of ambiguous suggestion.

*Goal proximity* refers to the time aspect of goals, and this can range from immediate intentions to future aspirations. *Long-term goals* have been described as those whose attainment is 6 or more weeks away, whereas goals of shorter duration are termed *short-term goals*. Goal proximity research conducted within sport settings has been rather limited; however, researchers do suggest that combinations of long-term and short-term goals are more effective than using either type alone. Arguably, much of the limited research in this area simply illustrates that having goals is better than not having goals. Nevertheless, in terms of effectiveness, the overriding message is that long-term objectives are most likely to facilitate performance and motivation when short-term goals represent flexible and controllable stepping stones to achieving them. In other words, long-term goals provide direction, while shorter term goals appear to provide opportunities to develop confidence and maintain motivation in pursuit of more distal objectives.

The study of goal *collectivity* concerns itself with the effects of team or group goals on collective performance. Early work on team goals in sport suggested that these goals can facilitate group performance and, in addition, promote team satisfaction, cohesion, and motivation. Specifically, team goals are argued to offer direction for the team and help individual members establish appropriate personal goals to support team objectives. Furthermore, it is logical that team goals should be accompanied by individual goals to ensure task focus and effort levels are maintained by individuals within the team. These individual goals should be based on the individual roles that each player needs to fulfill in order to maximize unit (e.g., a defensive group), and in turn, team effectiveness.

### **Dispositional and Situational Antecedents of Goals**

One important consideration when seeking to more fully understand the nature and function of goals that athletes set is where do the goals come from and what factors lead to individual variations in goal preferences? The concept of the person by situation interaction has been used by many social scientists attempting to explain thoughts and behaviors. Specifically, and of relevance here, it has been applied in the sporting environment to explain variability in goal-setting practices; the personal and situational antecedents of goals are described in the paragraphs that follow.

At a personal level, the goals individuals adopt are argued to give meaning to their behaviors and energize their actions; they reflect the objective of striving and provide a framework through which an individual can interpret performance-related information. According to the predominant goal theory, two categories of achievement goals exist, and these are consistent with personal views of

what is required to demonstrate competence in settings where the potential for competition and evaluation occurs. Goals, and the individuals utilizing such goals, concerned with demonstrating capability through personal improvement and learning about a task with reference to personal performance criteria are said to be *task involved*. Conversely, goals that focus on demonstrating competence with respect to others are described as being *ego involved*. The engaged reader may have noted a parallel between what are described here as achievement goals (task and ego-involved goals) with what were earlier labeled as goal types, such as outcome, performance and process goals. Put simply, ego-involved goals, where the intention is to outperform others, are logically equated to the use of outcome goals. Similarly, task-involved goals are characterized by self-referenced intentions, which might focus on anything ranging from personal performance targets (a performance goal) to successfully executing a skill or action (a process goal). While the goals described reflect moment to moment targets, individuals are also predisposed to pursue goals reflecting their personal theory of what represents achievement. Researchers have labeled these dispositional (or trait-like) tendencies as goal orientations, for example, one predisposed to using ego-involved criteria to judge competence is said to be ego oriented, and those predisposed to using self-referenced criteria are said to be task oriented, and this aspect of achievement goals has stimulated the majority of research in this area.

Broadly speaking, sport-based research in this area has espoused the motivational benefits of a high level of task orientation, and regards high levels of ego orientation as placing the individual motivationally and behaviorally at risk, especially when accompanied by lower levels of perceived competence. One of the key characteristics of task and ego goal orientations is that they are independent. This means that an individual can be high or low in each or both orientations, and thus at a general level make judgments of their competence using a variety of personal and social comparison based criteria. Although these goal orientations may be regarded as relatively stable, the specific goals used by individuals are dynamic and can change from moment to moment in response to the ongoing stream of information presented within the context of their sport involvement. In other words, specific goals can change during a task or performance.

The preceding paragraph outlines a case for how dispositional preferences affect goal choice. In line with numerous other motivational theories, situational factors also play a role in shaping the goals one adopts. Specifically, in situations where performance is evaluated (achievement settings), the psychological environment (labeled as the *motivational climate*) created by the coach (or those with similar leadership roles), can emphasize or promote, within the individual, a variety of criteria for judging competence; unsurprisingly, these impact individual goal preferences. Based originally on work conducted in education settings, two types of motivation climate have been described and applied to achievement contexts such as sport. A *mastery climate* operates when,



for example, individuals perceive that task mastery and self-referenced goals are promoted, effort is rewarded, groupings for training tasks are not based on ability, mistakes are regarded as a natural part of learning, and success is evaluated with regard to personal improvement. Conversely, a *performance* climate exists when, for example, individuals perceive that time constraints limit mastery opportunities, superior performance compared to others in the training group is rewarded, groupings for training are based on ability, mistakes are punished, and success is evaluated with regard to outperforming others. Although motivationally adaptive behaviors are most likely to be associated with a mastery climate, certain individuals, most notably those with high levels of perceived competence, may also flourish in environments that promote social comparison (performance climate).

There is no research examining the direct relationship between motivational climate and goal choice. Nevertheless, one might still predict that the relationship between motivational climate and goal preferences parallels that which has been proposed to exist between achievement goal perspectives and goal types. Athletes exposed to a strong mastery climate are most likely to consider using self-referenced goals focused on personal improvement and learning (performance and process-based goals), whereas athletes in a strong performance climate would more likely lean toward goals based on social comparison (outcome goals). Adopting an alternative perspective, recent research on motivational climate suggests that a mastery climate may actually be promoted by encouraging athletes to adopt self-referenced goals focused on personal improvement and learning or mastery of tasks, that is, performance and process goals, respectively.

Research specifically examining the predictive effects of dispositional and situational antecedents of goal choices has not been forthcoming to date- this is most likely a result of an absence of effective measure of goal choices. Nonetheless, anecdotal evidence and common sense suggest that high levels of task orientation and a mastery motivational climate are likely to promote self-referenced performance and process goals, whereas high levels of ego orientation and an environment emphasizing social comparison are likely to promote outcome goals.

Goal setting is an established technique to increase motivation and enhance confidence. It is used widely across all levels of sport, and goals provide essential direction at both an immediate and long-term level. Goals can take a variety of forms, and they have both personal and situational antecedents. The consensus of research and anecdotal accounts is that an individual's primary focus should be on personal task-focused objectives, rather than social comparison. Nevertheless, factors such as personality, perceived ability, the psychological environment, and support with goals by others significantly influence the motivational and behavioral consequences of goal pursuit. While there is some conjecture regarding the specific nature of effective goals, it is generally accepted that setting and using challenging, specific goals with sub goals formulated to act as stepping stones to longer term objectives seems important. Despite undoubted progress, many questions about goals in sport remain unanswered. More clarity is needed on the functionality of goals and which goal types influence different aspects of personal psychology.

Perhaps most importantly, practitioners need to develop methods for process-based goals to be integrated into the day-to-day routines of athletes. Finally, there is a need for much higher quality, theoretically grounded research to provide practitioners with clearer, evidence-based guidance for effective goal setting at an individual and group level.

Setting goals is critical to your success as athletes in both sports and life. It's important that you stay committed to evaluating and changing your goals when needed. You should create and monitor goals for practice and competitions or games.

Younger athletes' goals may simply be to have fun, make friends or learn to run faster. As you get older, your goals can be more specific and more focused on improving your performance. It's important to remember that goals should not become expectations that weigh you down. In other words, it's one thing to have a goal and work toward it and evaluate it often. In this case, you keep in mind that goals can and should change. It's another thing—and not as healthy—to place high expectations on you, such as “I HAVE to make 10 shots today.”

You need to set challenging and appropriate goals, but without the heavy burden of strict expectations. Why are expectations so harmful to goal-setting? First, you set yourself up for a win/lose situation. You either achieve your expectations or you fail to achieve your expectations. Second, if you don't achieve these expectations, it's easy to question your ability. Essentially, when you establish rigid, high expectations you set yourself up for failure before you even start. If you don't meet these expectations you'll feel as if you are failing to meet your goals. This can cause you to become frustrated with your progress. We don't want that to happen!

We've talked about how important it is to know HOW to establish goals. It's also important—and maybe not always easy—to figure out what your goals are. Your goals should be specific and measurable. They should include a timeline. They should match your abilities. And they should be challenging.

What's more the goals should be stated in positive terms. For example, you might say, “I'm going to improve my defense.” That's a positive statement. A negative statement would be “I'm going to stop messing up on defense.”

Your goals should focus on process and performance, rather than on outcomes—things like scoring a certain number of points.

Consider these things when setting goals:

1. A goal should identify a specific action or event that will take place.
  2. A goal and its benefits should be quantifiable. That means you should be able to say how many hours you'll work on a goal—and what you'll get from it.
  3. A goal should be attainable given available resources.
  4. A goal should require you to stretch some, but ensure that you will likely be successful.
  5. A goal should state the time period in which it will be accomplished. For example, “I'll achieve this goal in two months.” Again, remember that you can change such goals!
- Goal setting is a simple and practical mental tool you can use to maintain a high level of motivation in your sports participation. For some very elemental reason, people respond to goals in a very deep and personal way. The experience of setting a goal, working toward a goal, and achieving a goal has a powerful emotional resonance that causes us to continue to strive higher for the goals we set for ourselves.
  - Goals offer two essential things that fuel your motivation. First, goals provide the destination of where you want to go in your sports participation. This endpoint is important because if you don't know where you're going, you're just going to stay where you are. Second, having a place you really want to go doesn't have a lot of value

if you don't know how to get there. Goals provide the roadmap for getting to your destination.

- **Set S.M.A.R.T.E.R. Goals**

- The acronym S.M.A.R.T.E.R. represents the five criteria that you can use to get the most out of your goal setting:
- **Specific.** Your goals should be specific to what you want to accomplish. For example, if you are a lacrosse player, you wouldn't want a general goal such as "I want to improve my shooting." Instead, you want to identify what aspects of your stick handling you want to get better at. A more appropriate goal might be: "I want to improve my scoring percentage." The more specific you can get, the more you can focus on what you need to do in your training to improve that area.
- **Measurable.** "Do your best" goals aren't very effective because they don't offer an adequate benchmark to strive for. Instead, you want to set goals that are measurable and objective. For example, if you are a basketball player wanting to improve her free-throw shooting, a measurable goal might be: "My goal is to shoot 50 free throws three times a week for the next four weeks to raise my free-throw percentage from 71 percent to 80 percent."
- **Accepted.** Ownership of your sport is essential for your athletic success. Ownership is no less important in the goals you set. Goals that are set by parents or coaches will not inspire or motivate you fully because they come from outside of you and you won't feel real buy-in because they aren't yours. When you set goals that you believe deeply in, they will be woven into the very fabric of your motivation and you almost have no choice about whether you strive them.
- **Realistic.** If you set goals that are too low, they will have little motivational value because you know you'll achieve the goal without much effort. You don't want to set goals that are too high because you'll know that you can't achieve them, so you'll have little incentive to put out any effort. You want to set goals that are both realistic and challenging. Realistic meaning that you can actually achieve them and challenging because your only chance of achieving them is by working really hard.
- **Time-limited.** The best goals are ones in which there is a time limit for their achievement. You will feel highly motivated to put in the time and energy necessary to reach them when you have set a deadline to achieve them. For example, if you're a cyclist and want to improve your power output, a goal might be: "I'm going to work toward increasing my wattage by five percent by doing 45 minutes of interval training three times a week for the next six weeks."
- **Exciting.** Your motivation to strive toward your goals is driven by the emotions you associate with those goals. As a result, you want to set goals that inspire and excite you. These emotions can be the deciding factor in whether you achieve your goals when faced with setbacks, failures, disappointment, fatigue, pain, tedium, and the desire to do other more interesting things.
- **Recorded.** You are more likely to stay committed to the pursuit of your goals when you write them down (not just type them into your phone or computer) than if you just think about them. The physical act of writing your goals appears to somehow imprint them more deeply in your psyche. Writing them down also seems to make the goals more tangible and real. The explicitness of writing down your goals seems to create a greater sense of ownership of them that makes you feel more compelled to strive your goals.
- **S.M.A.R.T.E.R. Guidelines**
- There are several other guidelines that can help you set goals that will offer you the maximum benefit.

- Focus on the degree of attainment. Goal setting is still an inexact science because it is impossible to set goals that you can be sure you can achieve. Because of this uncertainty in the goal-setting process, your focus when you set and strive for goals should be their degree of attainment, not absolute attainment.
- Absolute attainment means accomplishing the goal in its entirety. For example, if you are an equestrian show jumper who has been clearing 3' fences and you set a goal of clearing 3' 9" fences within 16 weeks, you must clear at least that height for your goal to have been achieved successfully. Adhering to absolute attainment is a recipe for failure because it leaves only a small window for accomplishing the goal and a very large window for not.
- In contrast, degree of attainment emphasizes improvement toward the goal. Returning to the equestrian example, if, after 16 weeks, you have cleared 3' 3" fences, though your absolute goal wasn't attained, your improvement would be deemed a success. With degree of attainment, as long as you are showing progress toward a goal, you are on the right track.
- Make your goals public. You are more likely to adhere to your goals if you make them public, meaning share them with others, for example, showing them to your coach, family, or friends. Or posting them on your social media. By doing so, not only are you accountable to yourself, but also to everyone with whom you shared them.
- Review your goals regularly. Because goal setting is an inexact science, you should view goal setting as a dynamic and ever-evolving process of review, adjustment, and recommitment. You should make it a habit to review your goals monthly and compare them to your actual progress. It can also be helpful to review them with your coaches who can provide useful feedback you can use to make adjustments that will further motivate you to pursue your goals.

### **Types of Goals to Set**

Goal setting involves establishing a series of goals that start big picture and get increasingly specific and actionable.

- Long-term goals: What you ultimately want to achieve in your sport (e.g., win an make your high school team, play in college, win an Olympic gold medal).
- Yearly goals: What you want to achieve this year (e.g., qualifying for a new level of competition such as States or Nationals, a ranking, won-loss record).
- Performance goals: What results you need to achieve your yearly goals (e.g., finish in top 10 to qualify for big competition, achieve certain game statistics).
- Preparation goals: How you need to train and what you need to improve to reach your higher goals (e.g., physical, technical, mental).
- Lifestyle goals: What you need to do in your general lifestyle to reach the above goals (e.g., sleep, eating habits, study habits).

Decide on what you think are reasonable goals using the S.M.A.R.T.E.R. guidelines, as well as the other criteria I described. If you are unsure of the goals to set, I recommend that you sit down with your coaches and prepare your goals collaboratively as they often have experience and perspective on your development that can help you set the best goals that will motivate you most.

Goal setting is a mental training technique that can be used to increase an individual's commitment towards achieving a personal goal. Having a short or long-term goal can encourage an individual to work harder, to be more focused on the task and to overcome setbacks more easily.

Goal setting, is a technique pioneered by Locke (1968)<sup>[1]</sup>, effects performance in four ways:

- focuses attention
- mobilises effort in proportion to the demands of the task
- enhances persistence
- encourages the individual to develop strategies for achieving their goals

#### *Outcome Goals*

Outcome goals are to do with winning or performing better than someone else. They refer to the desired result, e.g. selected to represent your national team. These can be highly motivating long-term goals, but as they not under the individual's control and are affected by how others perform, they are limited without related process and performance goals.

#### *Process Goals*

Process goals, over which the individual has complete control, deal with the technique or strategy necessary to perform well. Process goals can also be established to map the route to achieving the desired Performance Goals.

Examples of process goals are:

- maintain controlled rhythm in the long jump run up
- run at 5-minute mile pace
- engage legs before arms when throwing the discus
- use a pre-event routine before each high jump

Process goals help focus attention and are very effective in helping to control anxiety.

#### *Performance Goals*

Performance goals specify a specific standard to be achieved. Performance goals are about personal standards (for a runner this might be a time for a specific distance {33 minutes for 10km}) and as such are unaffected by the performance of others and so totally under the control of the individual.

Performance goals can be used to monitor the achievement of Process Goals and progress towards the desired outcome goal.

Performance goals encourage the development of mastery and can make a performer feel satisfied with a performance even if they do not win.

#### SMARTER

Outcome Goals, Process Goals and Performance Goals all need to be SMARTER:

- Specific - make them as precise and detailed as possible
- Measurable - a method by which you can quantify or rate your current position and then determine the amount of improvement required
- Accepted - goals need to be shared and negotiated with all others involved
- Realistic - the goal is realistic yet challenging
- Time-phased - the date is set for when the goal is to be achieved by
- Exciting - goal motivates the individual
- Recorded - the goal and progress towards it are recorded

#### GROW Model

As a coach or mentor, you may help others to solve problems, make better decisions, learn new skills or otherwise progress in their role or career. One proven approach that helps with this is the GROW model (Whitmore 1992)<sup>[2]</sup>.

- G for goal - find out what they want to work on/discuss, and their specific goal for the mentoring session and the short and long-term goals
- R for reality - ask questions that help them to think about the current situation related to the goal. This means asking questions that raise awareness and promote self-reflection and thinking.



- O for option - encourage them to generate as many options as possible without judging them. This is the time to help them to think outside the box to find more creative solutions. If they have run out of ideas, they may ask you for further ideas, or you may wish to offer suggestions (if agreed)
- W for will - use questions to help them determine which option to take, how and when to take it. Agree on the first step(s)

Goal setting is not just about identifying what you want to achieve but also how you will achieve it (process goals) and measure that achievement (performance goals). When challenging goals are broken down into realistic steps and then systemically achieved motivation, commitment and self-confidence will grow. Goals must be set according to the age, stage of development, confidence, ability and motivation of the individual. Beginners require short term easily achieved goals to boost their self-confidence, whereas the experienced individual needs more challenging yet realistic goals.

### Principles of goal settings:

**1. Make goals specific, observable and in measurable terms** – Setting general goals such as improving your shooting percentage in basketball is easy but it becomes hard to determine how to go about doing this without specific criteria or directives. Specifying how and when to do things can help to this end. Coaches, consider telling your players to ‘draw’ a “C” with their wrist and use a cue word such as “push” to guide players towards the meaning of improved mechanics. A measurable goal is one you can quantify, in the sense that you know exactly how close you are to achieving that goal. Rather than saying “most of you have a good shooting percentage” reporting the percentage of players who meet the 65% criteria can be updated on the following week until 100% of the team has achieved this goal. Observable goals are those that can be measured and are specific. Thus, identifying what comprises a general goal can help develop specific criteria that are observable and measurable, especially if the terms of a specific date or number of trials.

**2. Clearly identify the time constraints** – Asking players to improve their shooting percentage will be ineffective unless you have a specified date or event to work towards. Is this goal to be accomplished by the end of practice? The end of the week? By playoffs? Well stated goals should be timely.

**3. Use moderately difficult goals** – Moderate goals are better than easy or very difficult goals because it pushes athletes to work hard and extend themselves in order to meet the goals. They are also more satisfying when attained.

**4. Write goals down and regularly monitor progress** – Goals are ineffective if forgotten. Write them down being as specific as possible. Keeping a journal or a publicly posted goal monitoring chart

Goal Type	Poorly written goals	Rewritten and improved goals
<i>Process</i>	1. improve my free throw mechanics	1. focus on bending at the knees during each of 10 trials
<i>Performance</i>	2. improve passing	2. during each scrimmage, pass to a teammate 8 times
<i>Outcome</i>	3. improve win loss record from last year	3. Improve free throw percentage during games and decrease the number of fouls in the first half

It can help athletes and coaches with the monitoring process.



**5. Use short-range goals to achieve long range plans** - As shown in the above diagram, goal setting is much like climbing a mountain. The long range goal of reaching your main goal requires strategic short-term goals setting.

**6. Set practice as well as competition goals** – It is important for the team and the coach to recognize the critical importance of effective practices to prepare for competition. Practice goals should match competition performance goals as often as possible. Goals related to work ethic and attitude during practice are essential. Showing up on time ready to practice, entering warm-up with enthusiasm and paying attention to the coach and team captain are examples. Additionally, complementing one another on good effort can promote team cohesion and a supportive environment that is fun to be involved with. Practice goals should also involve using mental skills such as imagery which can help with skill learning, strategies, presentation and working through competitive anxiety.

**7. Make sure goals are internalized by the athlete** – It is important that athletes feel in control (self-determined) of their goals. Ensuring that athletes accept and internalize goals is one of the most important features of goal setting. If athletes set their own goals, they will most likely internalize them. Sometimes when coaches set goals for athletes, they aren't taken seriously.

**8. Consider personality and individual differences in goal setting** – Coaches should also keep in mind that athletes' personality characteristics can determine the effectiveness of goal setting. Whether or not a player is ego oriented (compares their performance to that of others) or task oriented (compares her performance to herself) could determine the extent to which they will be able to internalize goals. When athletes define success as beating others, they have little control over the outcome. Ego oriented athletes also have a tendency to set unrealistically high or low goals so they can have an excuse if their goals are not attained. Task oriented athletes set goals about doing their best and making some improvement experience success more frequently, persist at tasks longer and are more confident.

**9. Set positive goals as opposed to negative goals** – Goals can be stated either positively (e.g., increase the number of times I complete a back walkover on the balance beam) or negatively (e.g., reduce the number of times I fall off the balance beam during back walkovers). Whenever possible, set goals in positive terms by focusing on behaviors that should be present rather than those that should be absent. This can help athletes focus on success rather than failure.

**10. Identify a goal-achievement strategy** – It is important to understand the difference between setting goals and identifying a strategy that will help you accomplish your goals. For example, general objective goals and outcome goals are often set without strategies. Consider the goal of making the University of Tennessee basketball team. A high school student would have to research the GPA necessary to get into her academic program of interest, adhere to a strict study schedule to make good enough grades on assignments and test in various classes, work hard at her shooting, throwing and passing skills as well as her offensive and defensive skills among setting other important goals necessary to get to get to summer scouting camps.

**11. Seek support of goals** – Significant others in the life of an athlete can help ensure goals are achieved. In addition to the team coach, this usually includes other coaches, family, friends, teachers and teammates. Effort should be made in educating these individuals about the types of goals that you are setting for yourself and the importance of their support in encouraging progress towards the goals.

**12. Set team as well as individual performance goals** – Performance for the team can be set just as easily as for individuals. Coaches should also consider involving the team in setting some of the various types of goals. For example, consider involving players in deciding weak performance areas and whether to focus on technique or strategies involved in those weak areas over the course of a practice.

## Sub Unit – IV

### Personality- Theories of personality, measurement of personality.

#### 4.4.1 What is personality?

Personality is the combination of characteristics or qualities that form an individual's distinctive character. Personality is defined as the characteristic sets of behaviors, cognitions, and emotional patterns that evolve from biological and environmental factors. While there is no generally agreed upon definition of personality, most theories focus on motivation and psychological interactions with one's environment. Personality is the combination of behavior, emotion, motivation, and thought patterns that define an individual. Personality psychology attempts to study similarities and differences in these patterns among different people and groups.

#### 4.4.2 Theories of personality.

Research into these following five philosophical questions has branched into several different approaches to studying personality. The major theories include the psychodynamic, neo-Freudian, learning (or behaviorist), humanistic, biological, trait (or dispositional), and cultural perspectives.

- Psychodynamic theory, originating with Sigmund Freud, posits that human behavior is the result of the interaction among various components of the mind (the id, ego, and superego) and that personality develops according to a series of psychosexual developmental stages.
- Neo-Freudian theorists, such as Adler, Erikson, Jung, and Horney, expanded on Freud's theories but focused more on the social environment and on the effects of culture on personality.
- Learning theories, such as behaviorism, regard an individuals' actions as ultimately being responses to external stimuli. Social learning theory believes that personality and behavior are determined by an individual's cognition about the world around them.
- Humanistic theory argues that an individual's subjective free will is the most important determinant of behavior. Humanistic psychologists such as Abraham Maslow and Carl Rogers believed that people strive to become self-actualized—the "best version" of themselves.
- Biological approaches focus on the role of genetics and the brain in shaping personality. Related to this, evolutionary theories explore how variation in individual personalities variance may be rooted in natural selection.
- Trait theorists believe personality can be conceptualized as a set of common traits, or characteristic ways of behaving, that every individual exhibits to some degree. In this view, such personality traits are different from person to person but within an individual are stable over time and place.

With any of these theories, it is important to keep in mind that the culture in which we live is one of the most important environmental factors that shapes our personalities. Western ideas about personality are not necessarily applicable to other cultures, and there is evidence that the strength of personality traits varies across cultures.

### 4.4.3 Personality Traits

Each person has an idea of their own personality type — if they are bubbly or reserved, sensitive or thick-skinned. Psychologists who try to tease out the science of who we are defining personality as individual differences in the way people tend to think, feel and behave. There are many ways to measure personality, but psychologists have mostly given up on trying dividing humanity neatly into types. Instead, they focus on personality traits.

The most widely accepted of these traits are the Big Five:

- Openness
- Conscientiousness
- Extraversion
- Agreeableness
- Neuroticism

Big 5 Trait	Definition
<i>Openness</i>	The tendency to appreciate new art, ideas, values, feelings, and behaviors.
<i>Conscientiousness</i>	The tendency to be careful, on-time for appointments, to follow rules, and to be hardworking.
<i>Extraversion</i>	The tendency to be talkative, sociable, and to enjoy others; the tendency to have a dominant style.
<i>Agreeableness</i>	The tendency to agree and go along with others rather than to assert one's own opinions and choices.
<i>Neuroticism</i>	The tendency to frequently experience negative emotions such as anger, worry, and sadness, as well as being interpersonally sensitive.

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<b>Big 5 Trait</b>	<b>Example Behavior for LOW Scorers</b>	<b>Example Behavior for HIGH Scorers</b>
<b><i>Openness</i></b>	Prefers not to be exposed to alternative moral systems; narrow interests; inartistic; not analytical; down-to-earth	Enjoys seeing people with new types of haircuts and body piercing; curious; imaginative; untraditional
<b><i>Conscientiousness</i></b>	Prefers spur-of-the-moment action to planning; unreliable; hedonistic; careless; lax	Never late for a date; organized; hardworking; neat; persevering; punctual; self-disciplined
<b><i>Extraversion</i></b>	Preferring a quiet evening reading to a loud party; sober; aloof; unenthusiastic	Being the life of the party; active; optimistic; fun-loving; affectionate
<b><i>Agreeableness</i></b>	Quickly and confidently asserts own rights; irritable; manipulative; uncooperative; rude	Agrees with others about political opinions; good-natured; forgiving; gullible; helpful; forgiving
<b><i>Neuroticism</i></b>	Not getting irritated by small annoyances; calm, unemotional; hardy; secure; self-satisfied	Constantly worrying about little things; insecure; hypochondriacal; feeling inadequate

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Trait	Facets of Trait
<b><i>Openness</i></b>	<ul style="list-style-type: none"> <li>• Fantasy prone</li> <li>• Open to feelings</li> <li>• Open to diverse behaviors</li> <li>• Open to new and different ideas</li> <li>• Open to various values and beliefs</li> </ul>
<b><i>Conscientiousness</i></b>	<ul style="list-style-type: none"> <li>• Competent</li> <li>• Orderly</li> <li>• Dutiful</li> <li>• Achievement oriented</li> <li>• Self-disciplined</li> <li>• Deliberate</li> </ul>
<b><i>Extraversion</i></b>	<ul style="list-style-type: none"> <li>• Gregarious (sociable)</li> <li>• Warm</li> <li>• Assertive</li> <li>• Active</li> <li>• Excitement-seeking</li> <li>• Positive emotionality</li> </ul>
<b><i>Agreeableness</i></b>	<ul style="list-style-type: none"> <li>• Trusting</li> <li>• Straightforward</li> <li>• Altruistic</li> <li>• Compliant</li> <li>• Modest</li> <li>• Tender-minded</li> </ul>
<b><i>Neuroticism</i></b>	<ul style="list-style-type: none"> <li>• Anxious</li> <li>• Angry</li> <li>• Depressed</li> <li>• Self-consciousness</li> <li>• Impulsive</li> <li>• Vulnerable</li> </ul>



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**Other Traits Beyond Those Included in the Big Five**

<b>Personality Trait</b>	<b>Description</b>
<b><i>Machiavellianism</i></b>	Named after the famous political philosopher, Niccolo Machiavelli, this trait refers to individuals who manipulate the behavior of others, often through duplicity. Machiavellians are often interested in money and power, and pragmatically use others in this quest.
<b><i>Need for Achievement</i></b>	Those high in need for achievement want to accomplish a lot and set high standards of excellence for themselves. They are able to work persistently and hard for distant goals. David McClelland argued that economic growth depends in part on citizens with high need for achievement.
<b><i>Need for Cognition</i></b>	People high in need for cognition find it rewarding to understand things, and are willing to use considerable cognitive effort in this quest. Such individuals enjoy learning, and the process of trying to understand new things.
<b><i>Authoritarianism</i></b>	Authoritarians believe in strict social hierarchies, in which they are totally obedient to those above them, and expect complete obedience from their subordinates. Rigid in adherence to rules, the authoritarian personality is very uncomfortable with uncertainty.
<b><i>Narcissism</i></b>	The narcissistic personality has self-love that is so strong that it results in high levels of vanity, conceit, and selfishness. The narcissistic individual often has problems feeling empathetic toward others and grateful to others.
<b><i>Self-esteem</i></b>	The tendency to evaluate oneself positively. Self-esteem does not imply that one believes that he or she is better than others, only that he or she is a person of worth.
<b><i>Optimism</i></b>	The tendency to expect positive outcomes in the future. People who are optimistic expect good things to happen, and indeed they often have more positive outcomes, perhaps because they work harder to achieve them.
<b><i>Alexithymia</i></b>	The inability to recognize and label emotions in oneself. The individual also has a difficult time recognizing emotions in others, and often has difficulties in relationships.

#### 4.4.4 Factors of personality

According to Cattell, there is a continuum of personality traits. In other words, each person contains all of these 16 traits to a certain degree, but they might be high in some traits and low in others. The following personality trait list describes some of the descriptive terms used for each of the 16 personality dimensions described by Cattell.

1. **Abstractedness:** Imaginative versus practical
2. **Apprehension:** Worried versus confident
3. **Dominance:** Forceful versus submissive
4. **Emotional stability:** Calm versus high-strung
5. **Liveliness:** Spontaneous versus restrained
6. **Openness to change:** Flexible versus attached to the familiar
7. **Perfectionism:** Controlled versus undisciplined
8. **Privateness:** Discreet versus open
9. **Reasoning:** Abstract versus concrete
10. **Rule-consciousness:** Conforming versus non-conforming
11. **Self-reliance:** Self-sufficient versus dependent
12. **Sensitivity:** Tender-hearted versus tough-minded
13. **Social boldness:** Uninhibited versus shy
14. **Tension:** Inpatient versus relaxed
15. **Vigilance:** Suspicious versus trusting
16. **Warmth:** Outgoing versus reserved

#### 4.4.5 Measurement of personality

Psychologists seek to measure personality through a number of methods. The most common of these methods include objective tests and projective measures.

##### Objective Tests

An objective test is a psychological test that measures an individual's characteristics in a way that isn't influenced by the examiner's own beliefs; in this way, they are said to be independent of rater bias. They usually involve the administration of a bank of questions that are marked and compared against standardized scoring mechanisms, in much the same way that school exams are administered. Objective tests tend to have more validity than projective tests (described below); however, they are still subject to the willingness and ability of the examinee to be open, honest, and self-reflective enough to accurately represent and report their true personality.

The most common form of objective test in personality psychology is the self-report measure. Self-report measures rely on information provided directly by participants about themselves or their beliefs through a question-and-answer format. There are a number of test formats, but each one requires respondents to provide information about their own personality. They typically use multiple-choice items or numbered scales, which represent a range from 1 (strongly disagree) to 5 (strongly agree).

	Strongly Disagree	Somewhat Disagree	No Opinion	Somewhat Agree	Strongly Agree
I am easygoing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have high standards.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy time alone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I work well with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I dislike confrontation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer crowds over intimacy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Self-report measure:** Self-report measures typically use multiple-choice items or numbered scales, which represent a range from 1 (strongly disagree) to 5 (strongly agree).

Self-report measures are used with both clinical and nonclinical populations and for a variety of reasons, from diagnostic purposes to helping with career guidance. Some of the more widely used personality self-report measures are the Myers-Briggs Type Indicator, Neo Pi-R, MMPI/MMPI-2, 16 PF, and Eysenck Personality Questionnaire.

### Myers-Briggs Type Indicator

The Myers-Briggs Type Indicator (MBTI) is based on Carl Jung's theory of personality. The MBTI is one of the most popular personality inventories used with nonclinical populations; it has been criticized, however, for its lack of statistical validity and low reliability. The MBTI measures individuals across four bi-polar dimensions:

- Attitudes: *Extraversion-Introversion*. This measures whether someone is "outward-turning" and action-oriented or "inward turning" and thought-oriented.
- The perceiving function: *Sensing- Intuition* . This measures whether someone understands and interprets new information using their five senses (sensing) or intuition.
- The judging function: *Thinking-Feeling*. This measures whether one tends to make decisions based on rational thought or empathic feeling.
- Lifestyle preferences: *Judging-Perceiving*. This measures whether a person relates to the outside world primarily using their judging function (which is either thinking or feeling) or their perceiving function (which is either sensing or intuition).

### Neo Pi-R

The Revised Neo Pi (personality inventory) is designed to measure personality traits using the five factor model. According to the five factor model, the five dimensions of personality lies along a continuum of opposing poles and include *Openness to Experience*, *Conscientiousness*, *Extroversion* , *Agreeableness*, and *Neuroticism* .

### Minnesota Multiphasic Personality Inventory (MMPI)

The Minnesota Multiphasic Personality Inventory (MMPI) is the most widely used personality inventory for both clinical and nonclinical populations, and is commonly used to help with the diagnosis of personality disorders. It was first published in 1943, with 504 true/false questions; an updated version including 567 questions was released in 1989, and is known as the MMPI-2. The original MMPI was based on a small, limited sample composed mostly of Minnesota farmers and psychiatric patients; the revised inventory was based on a more representative, national sample to allow for better standardization.

The MMPI-2 takes 1–2 hours to complete. Responses are scored to produce a clinical profile composed of 10 scales: hypochondriasis, depression, hysteria, psychopathic deviance (social deviance), masculinity versus femininity, paranoia, psychasthenia (obsessive/compulsive qualities), schizophrenia, hypomania, and social introversion. There is also a scale for ascertaining risk factors for alcohol abuse. In 2008, the test was revised once more using more advanced methods; this is the MMPI-2-RF. This version takes about one-half the time to complete and has only 338 questions. Despite the new test's advantages, the MMPI-2 is more established and is still more widely used. Although the MMPI was originally developed to assist in the clinical diagnosis of psychological disorders, it is now also used for occupational screening for careers like law enforcement, and in college, career, and marital counseling (Ben-Porath & Tellegen, 2008).

### **16 PF**

The 16 PF (personality factor) inventory measures personality according to Cattell's 16 factor theory of personality. The 16PF can also be used by psychologists and other mental health professionals as a clinical instrument to help diagnose psychiatric disorders and help with prognosis and therapy planning. It provides clinicians with a normal-range measurement of anxiety, adjustment, emotional stability, and behavioral problems. It can also be used within other areas of psychology, such as career and occupational selection.

### **Eysenck Personality Questionnaire**

The Eysenck Personality Questionnaire is based on Eysenck's model of personality, and was developed from a large body of research and laboratory experiments. Eysenck's inventory focuses on three dimensions: *psychoticism*, *extraversion*, and *neuroticism*.

### **Projective Measures**

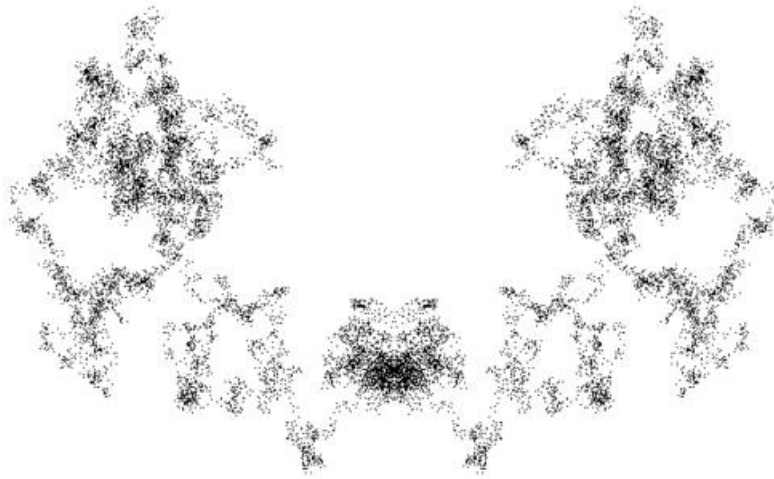
Projective measures, unlike objective tests, are sensitive to the rater's or examiner's beliefs. Projective tests are based on Freudian psychology (psychoanalysis) and seek to expose people's unconscious perceptions by using ambiguous stimuli to reveal the inner aspects of an individual's personality. Two of the most popular projective measures are the Thematic Apperception Measure and the Rorschach test.

The advantage of projective measures is that they purportedly expose certain aspects of personality that are impossible to measure by means of an objective test; for instance, they are more reliable at uncovering unconscious personality traits or features. However, they are criticized for having poor reliability and validity, lacking scientific evidence, and relying too much on the subjective judgment of a clinician.

### **Rorschach Test**

The Rorschach test consists of ten inkblots, which were created by Herman Rorschach dribbling ink on paper and then folding over the paper to create a symmetrical design. During the test, participants are shown the inkblots and asked what each one looks like. The test administrator then asks questions about the responses, such as which part of the inkblot was linked to each response. This test can be used to examine a person's personality characteristics and emotional functioning, and is thought to measure unconscious attitudes and motivations.





**Simulated inkblot:** This simulated inkblot is similar to those that make up the Rorschach test; a Rorschach inkblot would be filled in rather than a dotted pattern.

### **Thematic Apperception Test**

The Thematic Apperception Test (TAT) consists of 30 cards (including one blank card) depicting ambiguous drawings. Test-takers are asked to tell a story about each picture, including the background that led up to the story and the thoughts and feelings of the characters. Like the Rorschach test, the results are thought to indicate a person's personality characteristics and emotional functioning.

### **Objective Tests**

Objective tests (such as the Myers-Briggs Type Indicator, Neo Pi-R, Minnesota Multiphasic Personality Inventory, 16PF, and Eysenck Personality Questionnaire) are thought to be relatively free from rater bias, or the influence of the examiner's own beliefs. Because of this, objective tests are said to have more validity than projective tests. The challenge of objective tests, however, is that they are subject to the willingness and ability of the respondents to be open, honest, and self-reflective enough to represent and report their true personality; this limits their reliability.

The Minnesota Multiphasic Personality Inventory (MMPI) attempts to account for these weaknesses by including validity and reliability scales in addition to its clinical scales. One of the validity scales, the Lie Scale (or "L" Scale), consists of 15 items and is used to ascertain whether the respondent is "faking good" (in other words, under-reporting psychological problems in order to appear healthier). For example, if someone responds "yes" to a number of unrealistically positive items such as "I have never told a lie," they may be trying to "fake good" or appear better than they actually are.

Reliability scales test the instrument's consistency over time, assuring that if you take the MMPI today and then again five years later, your two scores will be similar. Beutler,

Nussbaum, and Meredith (1988) gave the MMPI to newly recruited police officers and then to the same police officers two years later. After two years on the job, police officers' responses indicated an increased vulnerability to alcoholism, somatic symptoms (vague, unexplained physical complaints), and anxiety. When the test was given an additional two years later (four years after starting on the job), the results suggested high risk for alcohol-related difficulties.

The MMPI-2 also revised many of the limitations within the original MMPI, thereby increasing its usefulness. For example, the original MMPI was intended to be used in clinical populations, and the normative sample (or the sample of individuals whose scores are used as a baseline against which all test-takers' scores are compared) consisted of psychiatric patients. For a clinical population, this information can reveal what is normative for *that particular population*; however it limits the usage and application to other nonclinical populations. The MMPI-2 used a normative sample from within the general population that was thought to be representative of all major demographic variables, expanding its applicability.

Many objective personality measures were created after years of research, such as the Eysenck Personality Questionnaire. Eysenck spent many years working with factor analysis and conducting countless laboratory experiments. The result is that the Eysenck Personality Questionnaire has excellent reliability and validity. Additionally, there is a large body of research that demonstrates the practical uses of the Eysenck measure.

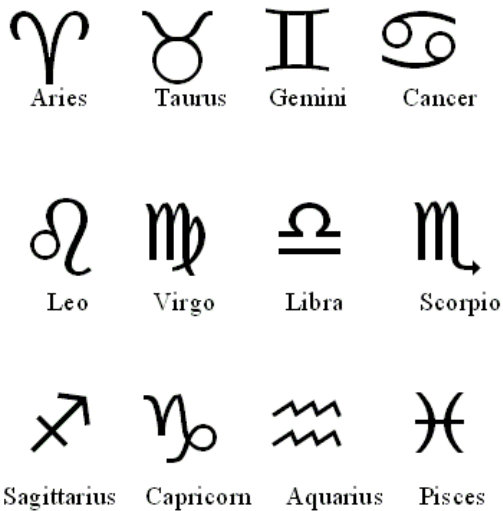
### **Projective Tests**

In contrast to objective tests, projective tests are much more sensitive to the examiner's beliefs. Projective measures like the Rorschach Inkblot Test and the Thematic Apperception Test have been criticized for having poor reliability and validity, for lacking scientific evidence, and for relying too much on the subjective judgment of a clinician. Some projective tests, like the Rorschach, have undergone standardization procedures so they can be relatively effective in measuring depression, psychosis, and anxiety. In the Thematic Apperception Test, however, which involves open-ended storytelling, standardization of test administration is virtually nonexistent, making the test relatively low on validity and reliability. Projective tests are often considered best used for informational purposes only, and not as a true measure of personality.

For many decades, traditional projective tests have been used in cross-cultural personality assessments. However, it was found that test bias limited their usefulness. It is difficult to assess the personalities and lifestyles of members of widely divergent ethnic/cultural groups using personality instruments based on data from a single culture or race. Therefore, it was vital to develop other personality assessments that explore factors like race, language, and level of acculturation (Hoy-Watkins & Jenkins-Moore, 2008).



### The Forer Effect



**Astrological signs:** Horoscopes are often endorsed because of the Forer effect. The generalized nature of the descriptions allows for a large number of individuals to believe that they are accurate.

One problem with personality measures is that individuals have a tendency to endorse vague generalizations. This is one reason why horoscopes continue to be popular and trusted despite their lack of reliability or validity.

#### 4.4.6 Effect of personality on sports performance

Personality has been defined as the relatively stable organization of an individual's character, temperament, intellect, and physique, which shapes the individual's behavior and his or her actions in a given situation. For each individual, there are core personality components that are quite stable and unchanging. However, when one observes patterns of behavior in an individual not only his or her base psychological core should be considered but also the dynamic organization within the individual that determines his or her unique adjustment to the environment. In essence, the interaction between the core trait and the peripheral (e.g., state) aspects of the individual's behavior defines his or her personality.

This interaction between the core traits and peripheral aspects in the individual is expanded in a current view on personality. This view, called the "New Big Five," is composed of five different aspects associated with the concept of personality:

(1) an individual's unique variation on the general evolutionary design for human nature, expressed as a developing pattern of (2) dispositional traits, (3) characteristic adaptations, and (4) integrative life stories complexly and differentially situated (5) in culture. According to this view, the psychology of personality should provide an integrative framework for understanding how each person is like all other persons (understanding speciestypical characteristics of human

nature), like some other persons (understanding individual differences in common characteristics), and like no other person (understanding unique patterns of an individual's life).

Based on the New Big Five approach, a *psychological profile* is often used to describe the type of personality that is exhibited by the individual (e.g., an athlete). For example, elite performers in sport are expected to be highly motivated toward practicing hard, aimed at enhancing their abilities and skills, focusing on their performance, and coping effectively with physical (e.g., illness, injury) and mental (e.g., failure, lack of playing time) barriers. A unique psychological profile (i.e., a "sport personality") consisting of sport-relevant psychological characteristics is required to attain high performance standards. In addition, individuals act in given settings that also have the potential to influence their personality. In sport, athletes are typically required to execute acts in particular settings (e.g., practice sessions, competitions, games), where they are exposed to specific task and environmental demands. Under such conditions, observed behavior depends largely on the interaction between the athlete's core personality and the environmental demands. Therefore, *personality* is composed not only of core psychological characteristics but also of an arsenal of plans, strategies, and skills that individuals implement to achieve their goals. The integrated approach of the core psychological characteristics (i.e., "hard" aspect) and the skills and strategies (i.e., "soft" aspect) that are used by the individual is adopted in our discussion on personality and psychological characteristics of elite athletes.

Since the early 1960s, researchers in sport psychology (SP) have used introspective tools to measure the personality profile of athletes. Two of the earliest tools for measuring personality were the Minnesota Multiphasic Personality Inventory (MMPI) and the Cattell 16PF Questionnaire. These personality tests were typically given to adult athletes who had already attained the highest level of performance in their sport. The personality scores of these high achievers were compared with those of nonathletes or with general population norms.

Personality tests failed to associate specific traits with sport performance and ignored the unique psychological characteristics related to sport performers. Consequently, sport-related psychological skills questionnaires were developed. An example of one of these questionnaires was the Psychological Skills Inventory for Sports (PSIS), developed by Michael J. Mahoney, T. J. Gabriel, and T. S. Perkins, which measured the psychological skills athletes use in practice and competition. This inventory and others, such as the Self-Analysis of Mental Skills (SAMS), developed by J. R. Grove and S. J. Hanrahan, and the Ottawa Mental Skills Assessment Tool (OMSAT), developed by Jordache D. Bota, were administered to elite and novice athletes. Specifically, the psychological

strengths and weaknesses of the novice and elite athletes were assessed. In some of the studies using questionnaires related to sport, a number of methodological (e.g., sample size or sample availability) or conceptual (e.g., the difficulty in defining the term elite athlete) concerns were noted, and therefore, determining the psychological characteristics associated with skill levels was limited and still remains inconclusive.

To overcome the methodological and conceptual barriers associated with personality-testing instruments, such as the MMPI or PSIS, in-depth interviews and narrative stories have been among the alternative methodologies used for determining sport-related psychological characteristics. In the in-depth interviews, athletes are asked about the psychological attributes and characteristics that most helped them to attain their athletic performance. From the narrative stories (e.g., autobiographies, biographies told by athletes), researchers obtained unique information on the athletes' personal journey of "climbing to the top," which helped to provide insight into the psychological characteristics or skills central to the athletes' achievements.

### Psychological Characteristics and Skills of Adult Elite Athletes

A number of psychological characteristics and skills of elite athletes have been identified from the extant research using questionnaires and interviews. These are outlined next.

#### Psychological Characteristics

Among the psychological characteristics of elite athletes are (a) *commitment* (the dedication to devote oneself to all activities associated with the selected sport from early phases of talent development until achieving sport expertise); (b) *internal motivation* (the internal drive of the athlete to direct his or her effort toward achieving high-standard goals, such as the willingness to be involved in a multiphased task-pertinent training program for an extended period of time, the desire to excel in competition, and the ability to cope with feelings of discomfort and failure); (c) *learning capability* (the ability to learn complex sport skills); (d) *control* (the command of the ongoing events on and off the court, field, or gym); (e) *competitiveness* (the ability to compete against others and strive for success); (f) *self-confidence* (the belief in one's ability to achieve the best results while overcoming physical and psychological barriers); (g) *adaptability* (the ability to perform well under unfavorable conditions); and (h) *mental toughness* (the ability to control emotions and thoughts, and to remain focused under challenging and stressful conditions, particularly under negative circumstances).

The aforementioned psychological characteristics have been observed in athletes in both team and individual sports. However, in some early studies comparing the personalities of athletes of various sports with nonathletes, it was evident that athletes who played team sports demonstrated less abstract reasoning, more extraversion, more dependency, and less ego strength than nonathletes. Athletes who competed in

individual sports exhibited higher levels of objectivity and dependency, and less abstract thinking, compared to nonathletes. In regards to the female athlete, early research showed that female athletes were more achievement-oriented, independent, aggressive, emotionally stable, and assertive than female nonathletes.

### Psychological Skills

Elite athletes have been found to possess various mental skills that are at significantly higher levels than those of less-than-elite athletes. Specifically, the following psychological skills have been found to be used by elite athletes and associated with their efforts to achieve high levels of proficiency in their sports: (a) *goal setting* (the ability to set challenging but realistic goals for short and long-term periods); (b) *imagery* (the ability to imagine oneself successfully performing a sporting act); (c) *focusing attention* (the ability to focus effectively, ignore external distractions, and avoid negative internal thoughts); (d) *emotional control* (the ability to stay calm when feeling anxious or nervous or to become “psyched-up” when not appropriately aroused or excited); and (e) *psychological routines* (the use of pre-, during-, and post-performance routines to self-regulate behavior and emotional states before, during, and after performing the sporting act).

### Psychological Characteristics and Skills of Young Athletes

Not only have psychological characteristics of elite adult athletes been studied but also those of young individuals in earlier phases of talent development (e.g., children up to the age of 14). Researchers interested in talent detection and early development in sport identify age 14 as the final year of *early involvement* in sport and the beginning of the *specialization phase* (i.e., focusing solely on one sport activity). Based on data obtained by researchers such as Craig R. Hall and Tara Scanlan, who administered questionnaires to young athletes involved in competitive sport programs in basketball, gymnastics, hockey, soccer, and wrestling, as well as conducted interviews with these athletes, it was found that young athletes showed more persistence than nonathletes. In terms of psychological characteristics and skills, it was observed that (a) the level of trait confidence in the young elite athletes was negatively related to the level of state competitive concerns; (b) motivation to participate in sport was more intrinsic than extrinsic in the young elite athletes—more specifically, young elite athletes more often reported skill development, team affiliation, fun, excitement of the game, liking to compete, and liking to do something they are good at as important motives for participating in sport; and (c) using imagery as a psychological skill is common among young athletes, but the type of imagery and the reasons for using imagery vary. For example, the types of imagery used by the young athlete were visual, auditory, kinesthetic, or tactile. Some of the athletes used imagery for developing game strategy while others used it only to serve individual goals. In addition, it was found that gender differences exist in some, but not all, psychological characteristics. Girls reported professional or international ambitions

less often than boys and reported enjoyment as a motive for playing sports more often than boys. More boys than girls attributed their success to physical factors.

### Can Sport Build Character?

A question that is often asked by researchers and practitioners deals with the contribution of sport to the development of psychological characteristics. Specifically, “Can sports help athletes build character?” Although the belief that sport enhances psychological development is widespread, research in SP has yet to provide clear-cut evidence supporting this assumption. For example, studies have examined the influence of sport competition on the prosocial behavior of cooperation and altruism in children. Data from these studies showed that sport competition had a negative effect on prosocial behavior and that children who gained more experience in competitive sports were significantly less altruistic than those who accumulated less experience. In other studies aimed at examining the contribution of organized sport programs to the moral behavior of young children, it was observed that some aspects of moral behavior did improve (e.g., attitudes concerning sportsmanship, and moral reasoning). However, some of the sport activities that were performed in these studies failed to reflect actual competition or game situations, and therefore the ecological validity of the studied activities was relatively low.

Personality is difficult to define due to its complex nature; however one definition in the literature is ‘the characterisation of individual differences’ (Wiggins, 1996). It’s a well-known fact, and often cliché that ‘everyone is different’, but it is true. The fact that everyone is different is extremely important when it comes to sport and coaching. As a coach it is essential that you understand the personality of your athlete in order to optimise the transmission of your message and their subsequent performance; as an athlete it is important you understand the significance of personality and its potential effect on performance.

It is considered that personality relates to the specific traits a person displays. A trait is a characteristic, which can be related to a person, for example ‘laziness’. Therefore Peterson (1998) suggests that is a combination of these traits which results in personality. As with any construct in psychology there are numerous theories behind personality. The most common used theory in the literature currently is The Five Factor Model of Personality (FFM) used by many in their writing (Wiggins, 1996; Bleidorn et al. 2010; Allen et al., 2013). The FFM, according to the APA Dictionary of Psychology, includes extraversion, neuroticism, conscientiousness, agreeableness, and openness to experience as the factors which effect personality. Extraversion relates to interpersonal relations, neuroticism relates to the likelihood the individual may suffer from emotional instability with conscientiousness the factor which deals with goal-related behaviour. Finally agreeableness concerns their focus on co-operation and openness to experience is self-explanatory (Roccas et al., 2002; Allen et al., 2013). Roccas et al. (2002) claim that the traits of the FFM can interact, which supports the notion that no one trait is independent from another and it is the interaction of the traits which results in the person’s personality. Roccas et al. (2002) goes further to suggest that traits influence individual’s on the subconscious level, meaning that they cause behaviour which is out of the cognitive control of the person. As a result it can be seen how important it is for a coach to appreciate the personality of a player, as their



personality traits may result in behaviour which is unexplainable by the player themselves.

The degree to which an athlete presents one of the traits outlined in FFM can determine their sporting performance. Allen et al. (2013) suggest, for example, that those competing at International level are likely to display lower neuroticism and higher levels of conscientiousness. It is also discussed how the direction of causality may not be fully known with a study of British Gymnasts demonstrating greater conscientiousness following good quality preparation in the lead up to a competition (Allen et al., 2013).

Personality also plays an important role in goal setting and the types of goals people set. It has been noted that goal setting and personality are closely linked, with goals likely to be set in order to compensate for or complement an individual's personality (Salmela-Aro et al., 2012; Reisz et al., 2013). Goal-setting is an important aspect of sport, and a very large concept in itself. However it is noted by Reisz et al. (2013) that goals are usually set to relate to the individual's personality. Therefore should they be low in extroversion, their goal may be focussed around improving that. When goal setting, it must then be noted, that it is important to consider and understand the individual's personality in order to appreciate why a certain goal has been set.

Another aspect of sports performance linked to personality is that of coping behaviour and strategies. This relates to the ability or techniques used by an athlete to deal with psychological stressors such as anxiety. Allen et al. (2011) have discussed how different trait dominance results in different coping strategies being displayed. This could be important from a coach's perspective due to the fact that understanding their trait dominance and the coping strategy which is associated with bringing the best results for that trait, it is possible to individualise direction given to players regarding coping. In return, an athlete who is able to cope with the psychological pressure present in sport is likely to perform better. Furthermore, as a coach you are in a position to see whether an athlete is adopting an undesirable coping strategy and can work to improve the coping strategy to improve its effectiveness and benefit subsequent performance.

Outside of the natural realms of sport, personality is also said to influence psychological well-being and physical health (Ozer & Benet-Martinez, 2006). Ozer and Benet-Martinez (2006), highlight how those with a more positive personality, higher in extraversion and conscientiousness, are likely to live longer.

Since a very early age, it is very common to see young children experimenting with different types of sports—soccer, basketball, baseball, swimming, tennis, etc. until they decide to keep practicing the sport in which they are more skillful and they feel more comfortable with. They have the disposition, character, and motivation to train, practice, and even compete in this sport without any problems. In this particular situation, there is a direct relationship between the individual's personality and the nature of the sport of their choosing. Most likely, these individuals will practice the sport with enjoyment; they will feel very confident with their skills; they might become successful, if competing at a professional or amateur level, and they might have a feeling of fulfillment or satisfaction every time they practice the sport.

In contrast, there are some other occurrences or factors that could influence an individual's decision to practice a specific sport, and in some instances, this individual's personality might not necessarily be “congruent” with the expected type of personality that best suits the sport. For example, when parents demand their children to practice a specific type of sport because of their own success or because, on the other hand, they were a complete failure. In this case, they want their children to become what they could never be; regardless of their children's personality, skills, likes, or dislikes.



A good example of this situation is Andre Agassi, who has even published a book with his autobiography, and in which he explains that he literally hated tennis and everything related to the sport for years. His father was the one who wanted him to become a professional tennis player; therefore, Andre had to abide by his father's demands and adopt a personality that could help him survive and become successful in tennis. It was not until it was almost time for his retirement where he developed a sincere love for the sport. He not only returned to being No. 1 in the rankings in 1999, but he also played amazingly well during the next and last four years of his career.

Another interesting aspect of how an individual's personality is shaped by the sport they practice is when they seem to have a completely different personality from that expected from sports psychologists, textbooks, or even coaches and fans. In other words, they may have a Type B personality and yet practice a team or contact sport. An example of this could be Joe DiMaggio, who was a very successful baseball player; he was a celebrity in his time, and yet, he is well known for his shy and quiet personality. Di Maggio was somewhat able to adapt his own personality in order to adopt the necessary personality traits to deal with the sport, fame, and everything else that brought him to the spotlight.

### **How Does Physical Activity and Sports Help Obesity?**

In contrast, participating in a specific type of sport might also have some influence on an individual's personality. For example, we have recently seen a dramatic increase in obesity among children, teenagers, and adults in the United States. This type of situation might be initiated by a vast array of personal, professional, cultural, or even health problems or conditions. However, it is up to the individual to choose a much healthier regime and embark on a series of new personality traits, which will help him or she lose weight and become a healthier individual.

This will obviously include adopting new eating habits of course; however, it will also require that this individual embrace a complete and new lifestyle, including more discipline and intrinsic motivation to keep focused and achieve his or her goals. Exercise might become a key factor in assisting this person with these goals. Enrolling in a fitness club or hiring a personal trainer, or deciding to practice a team sport, running, swimming, or taking a bicycle ride will most likely become part of this new lifestyle. Therefore, sports and exercise will most definitely help this person shape a new and much healthier type of personality.

### **Hard-to-Control Personalities**

Another interesting case in which sports can shape someone's personality is when individuals with aggressive or hard-to-control personalities find "their way" in sports, and they channel this aggression towards something much more positive and productive. In addition, sports can provide a completely different lifestyle with more opportunities to skillful kids or individuals who live in underprivileged households. Sports can most definitely provide them with another chance to obtain a good education, receive scholarships or grants, and adopt specific personality traits. These personality traits will not only help them become successful in sports; they will help them in their careers and all throughout their lives.

### **Sports and the Senior Population.**

Lastly, it is time to talk about the senior population. A few decades ago, a sixty-year-old individual might have been considered a very old, fragile, and maybe even a sick person with just a few more years to live a somewhat good, conservative life. Nowadays, we have seen such a dramatic change in this perception, and more than ever, we are looking at healthier, stronger, and very motivated sixty, seventy, and even eighty-year-old individuals who perform all kinds of sports and maintain an overall healthy lifestyle. There is no doubt that sports have helped shape this new personality and approach adopted by the senior population. Exercise and sports most certainly bring a new meaning to their lives, particularly, because they live and experience the benefits of exercising on a daily basis. Therefore, their personalities and

psychological state might be completely different from that sixty-year-old senior stereotype from a few decades ago.

Evidently, there is an intrinsic relationship between personality and sports. In addition, sports are also a major influence on an individual's personality and overall lifestyle. Anyone working in the sports and exercise arena must feel honored, grateful, and motivated to be able to care for and help individuals with their health and fitness goals in order to live longer better lives.

### **Getting Started with a Personal Training Career**

Check out what it takes to start a career in personal fitness training. This is your most affordable and fastest way to become a highly qualified personal trainer.

Sport psychology coaches help people of all abilities increase sports and fitness performance while enhancing their overall enjoyment of the physical activity. As a coach, you have endless opportunities to work with athletes and fitness enthusiasts ranging from beginner to professional.

### **Many different strands of science are used by sports organisations to maximise the performance of their respective athletes.**

Psychology is amongst the subjects that has had a big impact over the past few decades, helping to shape the way athletes compete in their chosen sport.

Differences in personality is just one facet of this, with people's individual characteristics impacting on the way they perform in a sports environment.

Read on as we take a closer look at personality and the impact it can have on sports performance.

### **Personality influences sports choice**

No two people have exactly the same type of personality, meaning that everyone who takes part in sport is a unique individual.

Athletes generally choose a sport based on their personality type. For instance, an extrovert may be more inclined to play team sports, while introverts are likely to lean towards individual activities.

Personality is displayed by how people behave in different circumstances and reflect an individual's most prominent characteristics.

Not everyone will react the same way when presented with a specific set of circumstances, highlighting the important role personality can play in sport.

### **Defining different personalities**

There are two main 'approaches' people take when dealing with events that occur in their life – trait and situational.

Someone who has a trait approach takes the same personality they possess in everyday life and transfers that to their sporting activities.

People with strong situational approach traits may react differently when playing sport than would normally be the case.

### **The scale of personality**

There are lots of different type of personalities that sit between the two extremes of introverts and extroverts.

Introverts are generally less confident socially, a trait that generally leads them to pursue individual activities such as swimming or distance running.

By contrast, extroverts are the opposite, possessing high confidence levels and the ability to be outgoing no matter what they are faced with.

A great example of this was Eric Cantona, whose extrovert personality helped to inspire his Manchester United teammates to huge success during the 1990s.

### Confidence plays a key role

Personality has a huge influence on sport, impacting the activity an athlete chooses to undertake and their performance thereafter.

A key element of how personality impacts sports performances is confidence – an athlete who believes they will succeed is more likely to do so than one who is wracked with self-doubt.

Being confident can help to boost motivation levels and make an athlete even more determined to excel at their chosen sport.

However, it is important to remember that someone who is over-confident may actually end up failing as complacency can creep into their performances.

### PERSONALITY Theory:

Top Personality Theorists	Theory	Top Points and Terminology
Sigmund Freud	Psychodynamic	Psychosexual Development, Id, Ego, Super-Ego
Carl Jung	Psychodynamic	Collective Unconscious, True Persona, Introvert-Extrovert
Alfred Adler	Psychodynamic	Social Urges, Conscious Thoughts, Compensation for Inferiorities, Birth Order
Karen Horney	Psychodynamic	Biological Influences on Personality Rather Than Social Forces
Harry Stack Sullivan	Psychodynamic	Interpersonal Relationships, Social Acceptance and Self-Esteem
John Bowlby	Attachment	Parent Child Relationships, Social Acceptance and Self-Esteem
Mary Ainsworth	Attachment	Strange Situation Theory, Observation of Parents
Erik Erikson	Psychosocial	Child's Trust Relationship With Mother, Early Development
Carl Rogers	Psychosocial	Humanistic Theory Based on Subjective Experiences, Self-Understanding
John Watson	Behavioral	Environmental Impact on Behavior
Ivan Pavlov	Behavioral	Pavlov's Dog, Classical Conditioning, Temperament
B. F. Skinner	Behavioral	Operant Conditioning, Rewards and Punishments for Behaviors
George Kelly	Cognitive	Self-Reflection, Perception and Interpretation Impact on Behavior
Albert Bandura	Social Learning	Human Capabilities, Structural Framework, Thinking Processes
Walter Mischel	Social Learning	Social Variables Explain Human Complexities, Delayed Gratification
Gordon Allport	Trait	Focus on Positive, Traits are Permanent
Raymond Cattell	Trait	Factor Analytic Trait Theory, 16 Source Traits Including Temperament and Dynamic, State and Roles Determine Personality
Hans Eysenck	Trait	Three Factor Theory, Introversion-Extroversion, Neuroticism, Psychoticism

### Other Theories of personality:

There are three main theories on how a person gets their traits. For example, if one is lazy or energetic, or if one is fast or slow.

#### 1. Trait Theory

The trait theory suggests that individuals have certain characteristics that will determine how they behave and perform in non-sport situations and in a sporting situation. The trait theory also suggests that there are two types of people: introverts and extroverts.

#### Introverts

- Introverts tend to be shy, quiet, and don't really share opinions. The trait theory tells us that introverts do not actively seek excitement. They prefer calm/quiet environments; they prefer tasks which consist of great concentration; and they also dislike the unexpected. Introverts regularly play sports which don't consist of teamwork and competitive situations. Instead, introverts play individual sports or activities.
- The sports which introverts may play or take part in are games like golf, which needs a fair bit of concentration and is an individual sport. Another example is snooker, which again takes high concentration and time to line up your shot and is not a team game. Athletics (track and field) is another popular place to see introverts. They like to take part in marathons and 100m sprints because it is an individual sport.
- BUT, not all introverts play individual sports. Paul Scholes is an example of someone who I would class as an introvert but plays football, which is a game that includes a lot of teamwork. He is quiet, but when it comes down to playing football, he is one of the best footballers around.

#### Extroverts

- Extroverts are the complete opposite. Extroverts are the type of people who are outgoing and loud. They also tend to be more confident and like to show off. The trait theory also tells us that extroverts get bored quickly; are poor at tasks that require a lot of concentration; seek excitement and change; are less responsive to pain; and are more successful in sporting situations.
- Extroverts prefer sports like football and rugby because they involve teamwork and hard work. They prefer sports that are fast-paced and exciting, and those that sometimes include aggression.
- An example of someone who plays these sports is Steven Gerrard, Liverpool's captain. As captain, he has to be confident to lead his team to victories. He is loud, aggressive, and demanding, which is what is needed.
- But, an example of an extrovert who played an individual sport is Mohamed Ali. He was very confident, loud, and aggressive, but played an individual sport.

Early theorists, such as Eysenck and Cattell, argued that traits are merely inherited and are stable aspects of a person's personality. Inherited traits are traits that you gain from your parents. Some of the traits you may gain from your parents include your body type (big or small, lots of fat or little fat, etc.), and if you are an outgoing person or a shy and quiet person. The trait theory suggests that the environmental situation has a minimal role on people's personality, so the trait theory fails to identify the possibility of being able to shape your own personality.

#### Type A and Type B

Personality traits can be grouped into two headings: Type A and Type B.

- **Type A** lacks patience, has a strong urge for competition, and has a high desire to achieve goals. This type always rushes to complete activities, happily multitasks, and has high levels of anxiety. These people are most likely to play sports like football and rugby.

- **Type B** is the opposite. They are more tolerant towards others and more relaxed than type A. They experience low levels of anxiety, and have high levels of imagination and creativity.

## 2. Social Learning Theory

This theory suggests that our personality is not a stable characteristic and that it can constantly change due to variations in social situations. This includes the people we are around and socialize with.

It also makes the point that we are highly unlikely to behave in the same way when we are in a sporting situation and in a non-sporting situation. Furthermore, it suggests that in sporting situations we learn through two different ways: modeling and reinforcement.

- **Modeling** means that an individual is likely to model him/herself on people he/she can relate to, such as those in the same sport or are the same gender. It basically says that when we look up to someone, we copy their actions.
- **Reinforcement** is important because if an individual's behavior is reinforced or rewarded, it is likely that the behavior will be repeated. You have to have high attention to retain the skill. Motor responses and motivation skills have to be high, too.

The difference between trait theory and social theory is that the former suggests that your personality is stable and nothing can change it, whereas the latter suggests that your personality is not stable and can change due to many things.

## 3. Marten's Schematic View and the Interactional Approach

This theory is the only theory that is widely accepted by most sport psychologists. It tells us that if we are going to accurately predict behavior in a sports setting, it's important that we consider the situation the individual is in and the individual's characteristics. This theory is basically a mix between the social learning theory and Marten's schematic view.

Marten's schematics view says there are three different levels that relate to each other: the physiological core, typical responses, and role-related behavior.

- **The psychological core** is often referred to as the real you: what you believe in, what your interests are, and your attitude towards work and play.
- **Typical responses** are the usual ways you respond to any given situation and are also a good indicator of your psychological core.
- **Role-related behavior** determines the circumstances you are in. Circumstances are ever-changing, especially within a sporting environment. For example, in football you won't be the same all the way through the game because you may get frustrated at some points. Role-related behavior is seen as the changeable aspect of one's personality.

Marten's schematic view and the interactional approach are very similar in that they both agree that your personality can change due to the situations you face in sports and non-sporting environments.

## Sub Unit – V

### Group dynamics, Group cohesion and leadership in sports.

#### 4.5.1 What is Group Dynamics?

**Group dynamics** is a system of behaviors and psychological processes occurring within a social group (*intra-group dynamics*), or between social groups (*intergroup dynamics*). The study of group dynamics can be useful in understanding decision-making behavior, tracking the spread of diseases in society, creating effective therapy techniques, and following the emergence and popularity of new ideas and technologies.

The history of group dynamics (or group processes) has a consistent, underlying premise: 'the whole is greater than the sum of its parts.' A social group is an entity that has qualities which cannot be understood just by studying the individuals that make up the group. In 1924, Gestalt psychologist Max Wertheimer proposed 'There are entities where the behavior of the whole cannot be derived from its individual elements nor from the way these elements fit together; rather the opposite is true: the properties of any of the parts are determined by the intrinsic structural laws of the whole' (Wertheimer 1924, p. 7). (The proposition remains questionable, since modern biologists and game theorists do look to explain the 'structural laws of the whole' in terms of 'the way the elements fit together'.)

As a field of study, group dynamics has roots in both psychology and sociology. Wilhelm Wundt (1832–1920), credited as the founder of experimental psychology, had a particular interest in the psychology of communities, which he believed possessed phenomena (human language, customs, and religion) that could not be described through a study of the individual.<sup>[2]</sup> On the sociological side, Émile Durkheim (1858–1917), who was influenced by Wundt, also recognized collective phenomena, such as public knowledge. Other key theorists include Gustave Le Bon (1841–1931) who believed that crowds possessed a 'racial unconscious' with primitive, aggressive, and antisocial instincts, and William McDougall (psychologist), who believed in a 'group mind,' which had a distinct existence born from the interaction of individuals. (The concept of a collective consciousness is not essential to group dynamics. Eventually, the social psychologist Kurt Lewin (1890–1947) coined the term *group dynamics* to describe the positive and negative forces within groups of people. In 1945, he established *The Group Dynamics Research Center* at the Massachusetts Institute of Technology, the first institute devoted explicitly to the study of group dynamics. Throughout his career, Lewin was focused on how the study of group dynamics could be applied to real-world, social issues. Increasingly, research has applied evolutionary psychology principles to group dynamics. As humans social environments became more complex, they acquired adaptations by way of group dynamics that enhance survival. Examples include mechanisms for dealing with status, reciprocity, identifying cheaters, ostracism, altruism, group decision, leadership, and intergroup relations. Also, a combination of evolution and game theory has been used to explain the development and maintenance of cooperative behavior between individuals in a group. *Intergroup dynamics* (or intergroup relations) refers to the behavioral and psychological relationship between two or more groups. This includes perceptions, attitudes, opinions, and behaviors towards one's own group, as well as those towards another group. In some cases, intergroup dynamics is pro-social, positive, and beneficial. In other cases, intergroup dynamics can create conflict.

Group dynamics deals with the attitudes and behavioral patterns of a group. Group dynamics concern how groups are formed, what is their structure and which processes are followed in their functioning. Thus, it is concerned with the interactions and forces operating between groups.



Every organization is a group unto itself. A group refers to two or more people who share a common meaning and evaluation of themselves and come together to achieve common goals. In other words, a group is a collection of people who interact with one another; accept rights and obligations as members and who share a common identity.

### **Characteristics of a Group:**

**Regardless of the size or the purpose, every group has similar characteristics:**

- (a) 2 or more persons (if it is one person, it is not a group)
- (b) Formal social structure (the rules of the game are defined)
- (c) Common fate (they will swim together)
- (d) Common goals (the destiny is the same and emotionally connected)
- (e) Face-to-face interaction (they will talk with each other)
- (f) Interdependence (each one is complimentary to the other)
- (g) Self-definition as group members (what one is who belongs to the group)
- (h) Recognition by others (yes, you belong to the group).

### **Process/Stages of Group Development/Evolution:**

Group Development is a dynamic process. How do groups evolve? There is a process of five stages through which groups pass through. The process includes the five stages: forming, storming, forming, performing, and adjourning.

#### *Forming:*

The first stage in the life of a group is concerned with forming a group. This stage is characterized by members seeking either a work assignment (in a formal group) or other benefit, like status, affiliation, power, etc. (in an informal group). Members at this stage either engage in busy type of activity or show apathy.

#### *Storming:*

The next stage in this group is marked by the formation of dyads and triads. Members seek out familiar or similar individuals and begin a deeper sharing of self. Continued attention to the subgroup creates a differentiation in the group and tensions across the dyads / triads may appear. Pairing is a common phenomenon. There will be conflict about controlling the group.

#### *Norming:*

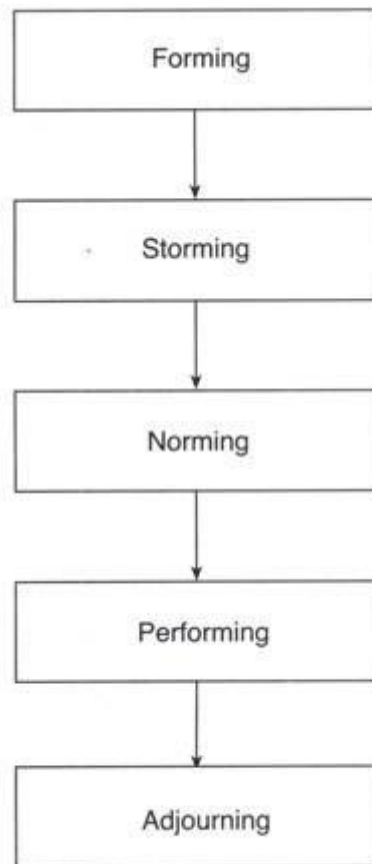
The third stage of group development is marked by a more serious concern about task performance. The dyads/triads begin to open up and seek out other members in the group. Efforts are made to establish various norms for task performance.

Members begin to take greater responsibility for their own group and relationship while the authority figure becomes relaxed. Once this stage is complete, a clear picture will emerge about hierarchy of leadership. The norming stage is over with the solidification of the group structure and a sense of group identity and camaraderie.

#### *Performing:*

This is a stage of a fully functional group where members see themselves as a group and get involved in the task. Each person makes a contribution and the authority figure is also seen as a part of the group. Group norms are followed and collective pressure is exerted to ensure the Process of Group effectiveness of the group.

The group may redefine its goals Development in the light of information from the outside environment and show an autonomous will to pursue those goals. The long-term viability of



**Figure 12.1 : Process of Group Development**

the group is established and nurtured.

Adjourning:

In the case of temporary groups, like project team, task force, or any other such group, which have a limited task at hand, also have a fifth stage, This is known as adjourning.

The group decides to disband. Some members may feel happy over the performance, and some may be unhappy over the stoppage of meeting with group members. Adjourning may also be referred to as mourning, i.e. mourning the adjournment of the group.

The readers must note that the four stages of group development mentioned above for permanent groups are merely suggestive. In reality, several stages may go on simultaneously.

#### **4.5.2 Effect of Group Dynamics on Sports performance**

The object of psychology as a science is to describe, explain, predict, and control behaviour. But, a group is an abstraction, or theoretical construct; only its individual members are real. The presence of a theoretical construct cannot be directly observed; it can only be inferred from behaviour. Therefore, it is not surprising that social scientists have historically had difficulty agreeing on the real nature of groups. Conversely, the behaviour of individuals, alone or in collective situations, can be described, explained, predicted, and/or controlled. As a consequence, Fred Allport (1924), a prominent psychologist in the 1920s, argued that groups are not real, and that any scientist who wished to understand human behavior should focus on the individual, not the group. Allport stated, The only psychological elements discoverable are in the behaviour and consciousness of the specific persons involved. All theories that partake of

the group fallacy have the unfortunate consequence of diverting attention from the true locus of cause and effect, namely the behavioral mechanisms of the individual ... if we take care of the individuals, psychologically speaking, the groups will be found to take care of themselves. This issue may seem to be simply philosophical to the coach or athlete, who could argue “Of course, we have a team. We meet and practice, travel together, compete against other teams, have a history, and so on.” And, they would be correct. But the issue raised by Allport is not whether an organization exists, whether it is successful, or whether it is recognized as a distinct entity. When he questioned the reality of groups, Allport questioned whether groups were anything more than the sum of the individual members. Consider the hypothetical case of two mixed doubles tennis teams in competition. Allport might have argued that if the two males were identical in their ability, experience and so on and the two females were also identical in every way, then the two mixed doubles teams would be identical, including their behaviour and performance. In short, Allport proposed that a group is simply a sum of its parts. If the parts are identical, the groups will be identical. And, as an extension of this fact, if we wish to describe, explain, predict, or control the behaviour and performance of the doubles tennis teams, we must describe, explain, predict, and control the behaviour and performance of the individual members. Inherent in this viewpoint is the assumption that there is no special chemistry that sets off one group or team from another.

Within different sports there are many different teams and within these different teams there is something called ‘Group Dynamics’. What is group dynamics? Group Dynamics can be described as *‘The way in which any group of humans interacts and develops as a group, and the relationship between the group and the individuals within it.’* (Skill Zone Ltd, H. 2013.) Group Dynamics are something that the team or group need to work on together in order for them to succeed however there are factors that can get in the way of this. Within this blog I will be identifying and explaining four different key factors that can affect Group Dynamics. The first factor that I will be discussing is Stages of Group Development and these fall into four categories which are Forming, Storming, Norming and Performing. This theory was introduced by Bruce Tuckman and his theory states that in order for a team to work they need to go through all four of these stages but as well at this they have to go through these stages in the correct order. The first stage that a team has to go through is the ‘Forming’ Stage and this is when the different individuals within the group make themselves familiar with each other and known to one another. In order for this to happen the people within the group should look at each other’s strengths and weaknesses and from there they can figure out where they belong in the group. As well as all this it is important that the group have a strong leader who will lead them in the right direction. By having a strong leader between them this leader can identify the individuals and can see whether they are forming together and can push them more towards each other by having that leadership role. An example of a team forming together could be a new Dance Team who do not know each other but know that they have to form together in order for them to be able to perform. Without them getting to know each other they will not be able to identify each other’s strengths and weaknesses.

The next stage of the development process is the ‘Storming’ stage. This is when the group start to have differences between them which could be because of a difference in opinions that they have about a particular subject or decisions that are being made within the team. This storming stage is something that needs to be carried out in order for the group to become stronger and form more. The individuals within the group may also start to have resistance towards the leader which is good because it makes them gain more leadership skills and take more responsibility which is what the leader wants to do.

The next stage that a team usually goes through is the ‘Norming’ stage and this is when the team starts to develop further by seeing what they have in common and in most cases they can

see the common goals that they want to achieve between them all. The norming stage can only come from the forming stage because that is where they started to learn more about each other and the differences that they have between them. As mentioned before they start to take on more leadership skills between each other and start to take on more responsibility. This is good because the coach can start to see who is becoming more responsible within the team.

The last stage within Team Development is the 'Performing' stage however this is only possible if the team go through the past three stages because all of them put together is what enables the team to work together to perform and be successful. From all four stages we can see that Team Development can have a great effect on group dynamics and the sporting performance that comes from this. If a team does not develop well and does not go through all four stages of team development it could have huge effect on their performance because they will not be a team who is working together instead they will just be a group of individuals who have had no development process between them.

A team like the Olympic Rowing team would have to have gone through team development in order for them to work well together. If a team goes through the team development but do not go through it very smoothly this will have an effect on the dynamics of the group. In London 2012 we saw that the GB Olympic Rowing team all performed well and above what they thought they would achieve and this is because they would have had to go through the stages of development. If the rowers were all just put into a team together and were told to compete in the Olympics there is no way that they would have performed as well as they did because they did not go through the stages of becoming a team, instead they would just be a group of individuals. Within the team they would have gotten to know each other and then stormed with each other maybe about decisions that they had to make but in the end they performed together and worked as a team to be successful.

Team dynamics are the unconscious, psychological forces that influence the direction of a team's behavior and performance. They are like undercurrents in the sea, which can carry boats in a different direction to the one they intend to sail. Team dynamics are created by the nature of the team's work, the personalities within the team, and their working relationships with other people, and the environment in which the team works. Team dynamics can be good - for example, when they improve overall team performance and/or get the best out of individual team members. They can also be bad - for example, when they cause unproductive conflict, demotivation, and prevent the team from achieving its goals.

Although team dynamics are very similar to group dynamics, and the terms are often used interchangeably, there is an essential difference. Groups are a social community, consisting of two or more people who have something in common. A team is a special instance of a group in which the commonality is a shared goal. This fact, itself, creates a dynamic between team members because they are dependent on each other for success. For example, a sports team wins or loses as a whole. The word "team" is sometimes used, incorrectly, to refer to a group. For example, many sales "teams" are groups - because the sales people are incentivised individually. A sales person wins commission based on his/her own sales, and is not affected by the performance of other sales people.

The social environment shapes us almost every day and almost everywhere. Groups and relationships seem to be ubiquitous. Coaches, athletes, applied sport psychologists, and sport scientists work with groups or within groups. These individuals feel positively or negatively affected by relationships with team mates, friends, or colleagues. In sport, this impact of interpersonal processes applies especially, but not only, to team sports. In addition, training groups of individual sport activities and substantial athlete-athlete or coach-athlete relationships are important issues of group and interpersonal research in sport. Every meaningful textbook covers chapters on group-related topics (e.g., Hackfort, Duda, & Lidor,

2005; Singer, Hausenblas, & Janelle, 2001; Tenenbaum & Eklund, 2007). Furthermore, as far as diagnostics are concerned, there is a special section on group dynamics in Joan Duda's compendium from 1998. And of course, handbooks of social psychology in sport (Jowett & Lavallee, 2007) give an overview on different approaches to relationships and group processes in sport. Finally, both practitioners and researchers are able to resort to specific book publications on group processes and interpersonal relations (Beauchamp & Eys, 2007; Carron, Hausenblas, & Eys, 2005). Despite this general importance and presence of group and team topics in sport psychology, these topics are underrepresented or in decline in congresses and handbooks compared with other sport psychology topics (Birrer & Seiler, 2008). Moreover, when a practitioner or researcher needs information on specific procedures and measures in terms of working with groups, the literature seems to be sparse and systematic overviews lacking. The impression may arise that questions like "What diagnostic or intervention is reliable and useful in my case?", "Where do I find a research based toolbox for my team?", "What is the best way for me as a sport psychologist to gain access to a team?" are difficult to answer. To confirm or confound this impression, a consensus conference was held in spring 2010. The intention of this conference was to have a discussion in a small group consisting of theoretical and applied experts from different countries. Led by German organizers, experts were invited from Canada, US, UK, and Switzerland due to their thematic experience and scientific visibility. Moreover, persons with experience in working with teams on a high international level (e.g., Olympic teams) were also involved. The purpose of the two-day conference was to identify structures, important areas, and special challenges of the state and the future of group dynamics in sports. Furthermore, author teams were defined to build a common position of the group in special areas. The current paper, as a result of this process, should demonstrate both our reasoned opinion or appraisal and our recommendation for desiderata of research. In addition, the paper is intended to catalyze the debate on what has to be done in terms of the development of diagnostic approaches, intervention programs, and educational concepts in the area of group dynamics in sport.

Effective team functioning and the achievement of group psychological outcomes are associated with success (i.e., cohesion, collective efficacy), and rest on a complex and dynamic integration of a number of important individual and inter-individual sub factors, processes, and behaviors (e.g., self-regulation skills, role clarity, communication skills, leadership style, peer acceptance). The applied sport psychologist (ASP) plays a fundamental role in awareness building, assessment, education, strategy development, and counseling at the level of the individual member, dyadic relationships, and the group as a whole. All of these specific roles serve the ultimate goal of enhancing team functioning and competitive performance through enhanced team member and support staff behavior. However, whereas these roles are inherently focused on positive team development (i.e., facilitating improvements in a given factor), the expert panel noted how the roles of an ASP in youth team settings may differ to those characterizing the approach of a consultant within a senior team. Specifically, a greater focus on the foundational development of individual psychological skills and strategy use (for enhanced individual contributions) in youth sport may contrast with the greater investment in optimizing the group's interpersonal skills, relational perceptions, social structures, and behaviors that is made by the practitioner in adult sport. A number of specific task-related areas that exemplify the scope of an ASP's potential contributions to enhanced group functioning. Some of the tasks reflect awareness and educational activities, while others focus on assessment, counseling, relationship development, conflict management, and self/group reflection work. These are described forthwith.



### 4.5.3 What is Group Cohesion?

Group cohesion is a social process that characterizes groups whose members interact with each other and refers to the forces that push group members closer together. A lot of work these days is accomplished in groups. Most people have had both good and bad experiences from participating in such group work. One important element that influences one's group work experience is cohesion. Cohesion has two dimensions: emotional (or personal) and task-related. The emotional aspect of cohesion, which was studied more often, is derived from the connection that members feel to other group members and to their group as a whole. That is, how much do members like to spend time with other group members? Do they look forward to the next group meeting? Task cohesion refers to the degree to which group members share group goals and work together to meet these goals. That is, is there a feeling that the group works smoothly as one unit, or do different people pull in different directions?

#### Factors Influencing Group Cohesion

The forces that push group members together can be positive (group-based rewards) or negative (things lost upon leaving the group). The main factors that influence group cohesion are members' similarity, group size, entry difficulty, group success, and external competition and threats. Often, these factors work through enhancing the identification of the individual with the group he or she belongs to as well as the individual's beliefs of how the group can fulfill his or her personal needs.

##### *Members' Similarity*

The more group members are similar to each other on various characteristics, the easier it is to reach cohesion. Through social identity theory, it has been found that people feel closer to those whom they perceive as similar to themselves in external characteristics (age, ethnicity) or internal ones (values, attitudes). In addition, similar background makes it more likely that members share similar views on various issues, including group objectives, communication styles, and the type of desired leadership. In general, higher agreement among members on group rules and norms results in greater trust and less dysfunctional conflict, which, in turn, strengthen both emotional and task cohesion.

##### *Group Size*

Because it is easier for fewer people to agree on goals and to coordinate their work, smaller groups are more cohesive than larger groups. Task cohesion may suffer, though, if the group lacks enough members to perform its tasks well enough.

##### *Entry Difficulty*

Difficult entry criteria or procedures to a group tend to present it in more exclusive light. The more elite the group is perceived to be, the more prestigious it is to be a member in that group, and consequently, the more motivated members are to belong and stay in it. This is why alumni of prestigious universities tend to keep in touch for many years after they graduate.

##### *Group Success*

Group success, like exclusive entry, increases the value of group membership to its members and influences members to identify more strongly with the team and to want to be actively associated with it. Think how it feels to be part of a winning basketball team!

##### *External Competition and Threats*

When members perceive active competition with another group, they become more aware of members' similarity within their group and see their group as a means to overcome the external threat or competition they are facing. Both these factors increase group cohesion; leaders



throughout human history have been aware of this and have focused the attention of their followers on conflicts with external enemies when internal cohesion was threatened. Similar effects can be brought about by facing an objective external threat or challenge (such as natural disaster).

#### Consequences of Group Cohesion

Cohesive groups have several characteristics. First, members interact more with each other. Cohesive groups develop a supportive communication climate in which people are more comfortable expressing their thoughts and feelings. Second, cohesive groups' members are friendlier and cooperative with each other than are members in noncohesive groups. Members of highly cohesive groups talk positively about their group and its members. Third, cohesive groups have greater influence over their members and pressure them to conform. Fourth, cohesive groups' members are more satisfied and believe that both their personal and group goals are better met compared to low-cohesion groups.

Given these characteristics, it may be not surprising that a general finding that emerged from studying various groups (including sport teams and work groups) is that cohesion contributes to positive group processes (e.g., sharing information) and to groups' task performance. Among the reasons for the performance-enhancing effects of cohesion are members' increased motivation to perform better in the group, partially due to norms that discourage social loafing on group projects. Another reason for the performance superiority of cohesive groups is members' commitment to the group task, which tends to be higher in cohesive groups; higher task commitment was indeed found to relate to higher task performance. Improved communication and trust allow members to share more and better information with each other, enabling a wider resource pool for the group to use when solving problems. Lastly, the high mutual support among cohesive groups' members in stressful times creates a positive and long-lasting interdependency among team members. On the other hand, in low-cohesion groups, conflicts tend to occur more and develop into dysfunctional interpersonal conflicts more often, discouraging members from sharing information and helping their teammates.

#### Group Cohesiveness Defined

Imagine you are on a work project with three co-workers and aren't able to make progress because of conflict. Or maybe you are in a therapy group for depression and feel connected to, and safe with, the other group members. These are examples of group cohesion types that one can experience while being a member of a group.

**Group cohesiveness** can be defined as a bond that pulls people toward membership in a particular group and resists separation from that group. In addition, group cohesion generally has three characteristics. They include the following:

##### **Interpersonal Attraction**

This means group members have a preference or want to interact with each other. Group members enjoy this interaction and seek it out.

##### **Group Pride**

This involves group members viewing their membership to a specific group with fondness. They feel proud of their group membership, and staying in the group feels valuable.

##### **Commitment to the Work of the Group**

Group members value the work of the group and believe in its goals. They are willing to work together to complete tasks which are aligned with these group goals, even through adversity.

**Factors**

The ability of a group to be more or less cohesive is dependent on several factors. Here are some important factors that have been found to impact group cohesiveness.

**Similarity**

When the group members are similar, it's easier for the group to become cohesive. The similarity can be due to several factors, such as having similar values, beliefs, life circumstances, or pressing life issues.

Example: A group of patients with depression might be more cohesive than a group of ten members each with different mental health diagnoses.

**Group Openness to New Members**

When a group is open and welcoming to new members, group members more easily develop cohesion. Often over time, group membership will change due to various life circumstances or changing individual needs.

Example: Josh's bowling team lost Frank when he moved out of town. James joined the team in Frank's place. The rest of the bowling team welcomed James with open arms. James felt accepted and began to really look forward to bowling nights.

**Trust**

When group members feel they can trust each other, group cohesiveness is more easily developed.

Example: A veteran shares with his PTSD support group things he did in Iraq for which he feels guilty. The other veterans in the group provide reassurance and don't judge him. The group is closer as a result.

**Stage of the Group**

When a new group forms, there tends to be an initial burst in group cohesiveness because the first goal of any group is often to form.

Example: Jaime joined a new weight loss group to help her keep her weight loss on track. When Jaime and the other new group members went to the first meeting, they started sharing their weight loss struggles. Jaime instantly felt close to the other members and was happy she joined the group.

**Past Group Experiences**

When members of a new group have had previous positive group experiences, they are more easily able to establish group cohesion. When members have had past group experiences that were unfavorable, they will resist developing cohesion.

Example: Last year Julie was involved with a work group project that had lots of tension and conflict. The group had so much difficulty working together that the project was never completed, and the group was disbanded. When Julie was assigned a new work group this year, she dreaded it and kept her distance from the other group members.

## What is group cohesiveness?

- Group cohesiveness is the ability to think and act 'as one' if the group is physically together or not.
- According to Stephen P Robbins, "Group cohesiveness is the degree to which members are attracted to each other and are motivated to stay in the group."

## Dimensions of group cohesiveness

- Group Unity
- Attraction
- Team work

## Group unity

- Many theorists believe that group cohesion results from a deep sense of “we-ness” or belonging to a group as a whole.
- By becoming enthusiastically involved in the efforts of their group and by recognizing the similarities that exist among group members, individuals tend to develop a close connection with their group and its members.

## Attraction

- According to Hogg (1992), group cohesiveness typically develops from a depersonalized attraction to group members based on their status as group members, rather than a personal attraction based on specific relationships.

## Team work

- Some theorists stress that cohesion comes from group members' commitment to work together to complete their shared tasks and accomplish their collective goals.
- Members of task-oriented groups typically exhibit great interdependence and often possess feelings of responsibility for the group's outcomes.

Group cohesiveness is one of the characteristic features of the groups, which is very important from behaviouristic point of view. Cohesiveness is the degree to which the group members are attracted to each other and are motivated to stay in the groups. Cohesiveness defines the degree of closeness that the members feel with the groups. It is understood as the extent of liking each member has towards others in the group and how far everyone wants to remain as a member of the group.

“Cohesiveness refers to the extent of unity ‘in the group and is reflected in members’ conformity to the norms of the group, feeling of attraction for each other and wanting to be co-members of the group.” Attraction, cohesiveness and conformity are all intertwined. The more the members feel attracted to the group, the greater will be the group cohesiveness. The greater the cohesiveness, the greater the influence of the group members to persuade one another to conform to the group norms. The greater the conformity, the greater the identity of the members to the group and the greater the group cohesiveness.

### 4.5.4 Effect of Group Cohesion on Sports Performance

**A sports person can follow any one or more of the following suggestions to encourage cohesiveness:**

1. Make the group smaller
2. Encourage agreement with group goals
3. Increase the time members spend together
4. Increase the status of the group and the perceived difficulty of getting membership of the group
5. Stimulate competition with other groups.



6. Give rewards to the group rather than to members.

7. Physically isolate the group

8. Increase membership homogeneity

9. Increase interaction among members

But few steps may decrease the group cohesion:

1. Induce disagreement on group goals

2. Increase membership heterogeneity

3. Restrict interactions among members

4. Increase group size

5. Reduce the time members spend together

6. Allocate rewards to individuals rather than to group member.

7. Remove physical isolation

8. Disband the group

9. Introduce a dominating member

Nowadays, sport activities are more and more demanding and performance based. The sport group's theory has developed, and most researchers think that a group with high cohesion is more likely to be united and committed to success than a group with low cohesion (Jarvis, 2006). Group cohesion can be described as the strength of bonds between group members, the unity of a group, the feeling of attraction between group members, and the degree to which members concentrate their efforts to achieve group goals. Therefore, we believe this definition given fits best: group cohesion is a dynamic process that is reflected in the tendency for a group to stick together and remain united in its pursuit of instrumental objectives and/or for the satisfaction of members affective needs (Carron et. Al., 1998).

Being a dynamic process, group cohesion has the characteristic that group tends to remain together and united in the pursuit of its goal for the satisfaction of the affective needs of group members (Pasekovich et. Al., 2001). Having a high group cohesion is considered to be important and would lead to a better performance. The relation between cohesion and performance was studied by many researchers; and most concluded that "the connection between cohesion and performance is reciprocal". Hence, high cohesion increases the group's performance while successful performance increases cohesion. However, both task and social cohesion are related to group performance (Carron et. Al., 2002). Team cohesion exists where players are united with a common purpose (Cashmore, 2002). Members of the group spend time and share common interests outside the group activity, which signifies that the group has a good social cohesion. Task cohesion is referring to a group united to accomplish a specific task (Williamson, 2007). This definition focus on two important concepts of task and social cohesion. Thus, as a group is usually formatted to obtain and fulfill a purpose, task cohesion plays an important role in the functionality of every group. Another cohesive force which often develops over time was that of social cohesion among the group members (Rovio et. Al., 2009). Task cohesion or group integration is an indication of how well the team operates as a working unit, while social cohesion or individual attraction refers to how well team members like each other as well as the team's identity (Lavalley, Kremer, Moran & Williams, 2004). Research has shown that a high level of task cohesion is also linked to perceived psychological momentum (Eisler and Spink, 1998).

Performers do not exist in isolation; they form groups that have common features. Groups can vary in size, from a few individuals to large teams of players, coaches and a variety of support staff E.G. The British and Irish Lions is a prime example of a large team with a range of individuals with different roles. As Jeremy Guscott (British & Irish Lion) said "Lions tours are about bonding together...Success depends on whether you come together or split into factions...There were times with this Lions squad when we felt invincible - that we could take on the whole world and beat them."

According to Carron (1980), these groups all exhibit the following characteristics:

- A collective identity
- A sense of shared purposes
- Structured patterns of communication

A racket player can move from singles to doubles and interact with a trainer or coach. Team games are based on units of players combining to function as a whole team (forwards and back in rugby, this can be sub divided into the front row, back row, half backs, back three etc). Players and coaches often attribute a team's success or failure to how well the personnel of the team worked as a cohesive unit.

Building group identity, providing an environment where performers feel comfortable and willing to work with and for each other, and creating a spirit of unity is all fundamental to sport success. The dynamic of the group, the energy and functioning of the members as one, is a clear aim for a successfully performing group – cohesion acts as glue that binds and bonds individuals to a group identity and cause. Cohesion is defined as “the total field of forces that cause members to remain in a group)

Cohesion comprises both task cohesion and social cohesion:

- Task Cohesion: refers to the degree to which members of a group work together to achieve common goals, for example, to win a specific game.
- Social Cohesion: reflects the degree to which members of a team like each other and interact accordingly.

A school team made up of players who have played rugby since Primary 5 have very strong social bonds than a team of relative strangers. This is what the lions have to overcome and so far they seem to be doing that. Most of these players have played with each other or against for their clubs and country. Some have played with each other from young age and have their coaches on the tour as well. Also it isn't just the lions that have to worry about group cohesion the Barbarians are another example.

### **Building Group Cohesion – A Conceptual Model**

There is clear evidence that the more united a group becomes with its cause, and the more interactive group members are socially within the group the greater the probability of success. Leaders in the sports environment should aim to develop cohesiveness within the group. The development of a group normally goes through 4 stages:

- Forming: the group meets or is assembled
- Storming: heightened tension may develop as roles are defined and tasks established
- Norming: rules and standards of behaviour are agreed as cohesion is built
- Performing: the group matures and works together.

### **Group Dynamics**

The dynamic within the group is also an important consideration in building group cohesion. Group cohesion is defined as “a measure of the extent to which a group works together socially or to complete a task”. Group dynamics describes the processes within a group and between the members of the group. This can also be described as the energy the group

exhibits. Successful groups with a dynamic have “chemistry”. This is difficult to guarantee – it depends on individual personalities, but can be the product of leadership and cohesion within a group. A clear goal and the nurturing of personalities all contribute to the dynamic within a group. Leaders will seek out individuals to join the group who have similar social and task characteristics and a shared ethos – groups are often fashioned in the image of the leader.

Carron identifies 4 factors that affect the development of cohesion:

- Environmental factors: that binds players together are age, club membership, location etc
- Personal factors: belief in the group, a desire to win, the social relationships within a community etc
- Leadership factors: the influence of the coach or manager in building identity and affiliation through task and social cohesion factors
- Team factors: in relation to the group as a whole, its identity, targets set, the ability and role of each member of the group.

### **Strategies and Methods for Enhancing Group Cohesion**

Building on Carron’s 4D model there are strategies and methods for developing cohesion in a group.

Environmental Factors can be enhanced through:

- Holding training camps to build unity through external changes in social circumstances. The lions held their training camp in Carton House in Dublin this year to start the process of building the team.
- Ensuring all members of the group have equal importance and value by avoiding star billings
- Rewarding all players equally with praise or constructive criticism.

Personal factors can be enhanced through:

- Ensuring all member of the group feel ownership of the group
- Mixing young and old players together in groups, especially when staying away from home
- Developing a shared responsibility for success and a belief that all members are essential to successes of the group
- Creating a belief in the group and its task and social development
- Avoiding the formation of cliques voicing disenchantment with the group task or the social mix
- Identifying the reasons to why members individually want to be part of the group, and building on their motives
- Identifying those members who exhibits social loafing (makes less effort than they would alone), and introducing methods to incorporate them into the group.

Leadership factors can be enhanced through:

- Unite players in their belief in you as a leader through your leadership style and behaviour, mix autocratic and democratic style.
- Treat players as individuals, offer praise and criticism
- Avoid criticising players in front of the group.
- Get to know your members of the team: be aware of each person’s needs and their preferred way of interacting and style of motivation.

Teams can be enhanced through:

- The appropriate use of short, medium and long term goals.
- Clearly identifying member roles within the group as integral to the team ethic: avoid the Ringelmann effect (increased social loafing and loss of coordination as more members are added to the group)
- Devise and identify a clear system of rewards and punishments that the group that the group members have helped devise and have agreed to.
- Encourage social bonding through winter training camps or group social events.

#### 4.5.5 What is Leadership?

Leadership is the action of leading a group of people or an organization.

Leadership captures the essentials of being able and prepared to inspire others. Effective leadership is based upon ideas—both original and borrowed—that are effectively communicated to others in a way that engages them enough to act as the leader wants them to act.

A leader inspires others to act while simultaneously directing the way that they act. They must be personable enough for others to follow their orders, and they must have the critical thinking skills to know the best way to use the resources at an organization's disposal.

#### 4.5.6 Various theories of leadership

The search for the characteristics or traits of leaders has continued for centuries. Philosophical writings from Plato's *Republic*<sup>1</sup> to Plutarch's *Lives* have explored the question "What qualities distinguish an individual as a leader?" Underlying this search was the early recognition of the importance of leadership<sup>1</sup> and the assumption that leadership is rooted in the characteristics that certain individuals possess. This idea that leadership is based on individual attributes is known as the "trait theory of leadership".

A number of works in the 19th century – when the traditional authority of monarchs, lords and bishops had begun to wane – explored the trait theory at length: note especially the writings of Thomas Carlyle and of Francis Galton, whose works have prompted decades of research. In *Heroes and Hero Worship* (1841), Carlyle identified the talents, skills, and physical characteristics of men who rose to power. Galton's *Hereditary Genius* (1869) examined leadership qualities in the families of powerful men. After showing that the numbers of eminent relatives dropped off when his focus moved from first-degree to second-degree relatives, Galton concluded that leadership was inherited. In other words, leaders were born, not developed. Both of these notable works lent great initial support for the notion that leadership is rooted in characteristics of a leader.

Cecil Rhodes (1853–1902) believed that public-spirited leadership could be nurtured by identifying young people with "moral force of character and instincts to lead", and educating them in contexts (such as the collegiate environment of the University of Oxford) which further developed such characteristics. International networks of such leaders could help to promote international understanding and help "render war impossible". This vision of leadership underlay the creation of the Rhodes Scholarships, which have helped to shape notions of leadership since their creation in 1903.

### **Rise of alternative theories**

In the late 1940s and early 1950s, a series of qualitative reviews of these studies (e.g., Bird, 1940, Stogdill, 1948; Mann, 1959) prompted researchers to take a drastically different view of the driving forces behind leadership. In reviewing the extant literature, Stogdill and Mann found that while some traits were common across a number of studies, the overall evidence suggested that people who are leaders in one situation may not necessarily be leaders in other situations. Subsequently, leadership was no longer characterized as an enduring individual trait, as situational approaches (see alternative leadership theories below) posited that individuals can be effective in certain situations, but not others. The focus then shifted away from traits of leaders to an investigation of the leader behaviors that were effective. This approach dominated much of the leadership theory and research for the next few decades.

### **Reemergence of trait theory**

New methods and measurements were developed after these influential reviews that would ultimately reestablish trait theory as a viable approach to the study of leadership. For example, improvements in researchers' use of the round robin research design methodology allowed researchers to see that individuals can and do emerge as leaders across a variety of situations and tasks. Additionally, during the 1980s statistical advances allowed researchers to conduct meta-analyses, in which they could quantitatively analyze and summarize the findings from a wide array of studies. This advent allowed trait theorists to create a comprehensive picture of previous leadership research rather than rely on the qualitative reviews of the past. Equipped with new methods, leadership researchers revealed the following:

- Individuals can and do emerge as leaders across a variety of situations and tasks.
- Significant relationships exist between leadership emergence and such individual traits as:
  - Intelligence
  - Adjustment
  - Extraversion
  - Conscientiousness
  - Openness to experience
  - General self-efficacy

While the trait theory of leadership has certainly regained popularity, its reemergence has not been accompanied by a corresponding increase in sophisticated conceptual frameworks.

Specifically, Zaccaro (2007) noted that trait theories still:

- Focus on a small set of individual attributes such as "The Big Five" personality traits, to the neglect of cognitive abilities, motives, values, social skills, expertise, and problem-solving skills.
- Fail to consider patterns or integrations of multiple attributes.
- Do not distinguish between the leadership attributes that are generally not malleable over time and those that are shaped by, and bound to, situational influences.
- Do not consider how stable leader attributes account for the behavioral diversity necessary for effective leadership.

### **Attribute pattern approach**

Considering the criticisms of the trait theory outlined above, several researchers have begun to adopt a different perspective of leader individual differences—the leader attribute



pattern approach. In contrast to the traditional approach, the leader attribute pattern approach is based on theorists' arguments that the influence of individual characteristics on outcomes is best understood by considering the person as an integrated totality rather than a summation of individual variables. In other words, the leader attribute pattern approach argues that integrated constellations or combinations of individual differences may explain substantial variance in both leader emergence and leader effectiveness beyond that explained by single attributes, or by additive combinations of multiple attributes.

### **Behavioral and style theories**

In response to the early criticisms of the trait approach, theorists began to research leadership as a set of behaviors, evaluating the behavior of successful leaders, determining a behavior taxonomy, and identifying broad leadership styles. David McClelland, for example, posited that leadership takes a strong personality with a well-developed positive ego. To lead, self-confidence and high self-esteem are useful, perhaps even essential.

Kurt Lewin, Ronald Lipitt, and Ralph White developed in 1939 the seminal work on the influence of leadership styles and performance. The researchers evaluated the performance of groups of eleven-year-old boys under different types of work climate. In each, the leader exercised his influence regarding the type of group decision making, praise and criticism (feedback), and the management of the group tasks (project management) according to three styles: authoritarian, democratic, and laissez-faire

In 1945, Ohio State University conducted a study which investigated observable behaviors portrayed by effective leaders. They would then identify if these particular behaviors are reflective of leadership effectiveness. They were able to narrow their findings to two identifiable distinctions. The first dimension was identified as "Initiating Structure", which described how a leader clearly and accurately communicates with the followers, defines goals, and determines how tasks are performed. These are considered "task oriented" behaviors. The second dimension is "Consideration", which indicates the leader's ability to build an interpersonal relationship with their followers, to establish a form of mutual trust. These are considered "social oriented" behaviors.

The Michigan State Studies, which were conducted in the 1950s, made further investigations and findings that positively correlated behaviors and leadership effectiveness. Although they had similar findings as the Ohio State studies, they also contributed an additional behavior identified in leaders: participative behavior (also called "servant leadership"), or allowing the followers to participate in group decision making and encouraged subordinate input. This entails avoiding controlling types of leadership and allows more personal interactions between leaders and their subordinates.

The managerial grid model is also based on a behavioral theory. The model was developed by Robert Blake and Jane Mouton in 1964 and suggests five different leadership styles, based on the leaders' concern for people and their concern for goal achievement.

### *Positive reinforcement*

B. F. Skinner is the father of behavior modification and developed the concept of positive reinforcement. Positive reinforcement occurs when a positive stimulus is presented in response to a behavior, increasing the likelihood of that behavior in the future. The following is an example of how positive reinforcement can be used in a business setting. Assume praise is a positive reinforce for a particular employee. This employee does not show up to work on time every day. The manager of this employee decides to praise the employee for showing up on time every day the employee actually shows up to work on time. As a result, the employee comes to work on time more often because the employee

likes to be praised. In this example, praise (the stimulus) is a positive reinforce for this employee because the employee arrives at work on time (the behavior) more frequently after being praised for showing up to work on time.

The use of positive reinforcement is a successful and growing technique used by leaders to motivate and attain desired behaviors from subordinates. Organizations such as Frito-Lay, 3M, Goodrich, Michigan Bell, and Emery Air Freight have all used reinforcement to increase productivity. Empirical research covering the last 20 years suggests that reinforcement theory has a 17 percent increase in performance. Additionally, many reinforcement techniques such as the use of praise are inexpensive, providing higher performance for lower costs.

### **Situational and contingency theories**

Situational theory also appeared as a reaction to the trait theory of leadership. Social scientists argued that history was more than the result of intervention of great men as Carlyle suggested. Herbert Spencer (1884) (and Karl Marx) said that the times produce the person and not the other way around. This theory assumes that different situations call for different characteristics; according to this group of theories, no single optimal psychographic profile of a leader exists. According to the theory, "what an individual actually does when acting as a leader is in large part dependent upon characteristics of the situation in which he functions."

Some theorists started to synthesize the trait and situational approaches. Building upon the research of Lewin et al., academics began to normalize the descriptive models of leadership climates, defining three leadership styles and identifying which situations each style works better in. The authoritarian leadership style, for example, is approved in periods of crisis but fails to win the "hearts and minds" of followers in day-to-day management; the democratic leadership style is more adequate in situations that require consensus building; finally, the laissez-faire leadership style is appreciated for the degree of freedom it provides, but as the leaders do not "take charge", they can be perceived as a failure in protracted or thorny organizational problems. Thus, theorists defined the style of leadership as contingent to the situation, which is sometimes classified as contingency theory. Three contingency leadership theories appear more prominently in recent years: Fiedler contingency model, Vroom-Yetton decision model, and the path-goal theory.

The Fiedler contingency model bases the leader's effectiveness on what Fred Fiedler called *situational contingency*. This results from the interaction of leadership style and situational favorability (later called *situational control*). The theory defined two types of leader: those who tend to accomplish the task by developing good relationships with the group (relationship-oriented), and those who have as their prime concern carrying out the task itself (task-oriented). According to Fiedler, there is no ideal leader. Both task-oriented and relationship-oriented leaders can be effective if their leadership orientation fits the situation. When there is a good leader-member relation, a highly structured task, and high leader position power, the situation is considered a "favorable situation". Fiedler found that task-oriented leaders are more effective in extremely favorable or unfavorable situations, whereas relationship-oriented leaders perform best in situations with intermediate favorability.

Victor Vroom, in collaboration with Phillip Yetton (1973) and later with Arthur Jago (1988), developed a taxonomy for describing leadership situations, which was used in a normative decision model where leadership styles were connected to situational variables, defining which approach was more suitable to which situation. This approach was novel because it supported the idea that the same manager could rely on different group decision

making approaches depending on the attributes of each situation. This model was later referred to as situational contingency theory.

The path-goal theory of leadership was developed by Robert House (1971) and was based on the expectancy theory of Victor Vroom. According to House, the essence of the theory is "the meta proposition that leaders, to be effective, engage in behaviors that complement subordinates' environments and abilities in a manner that compensates for deficiencies and is instrumental to subordinate satisfaction and individual and work unit performance". The theory identifies four leader behaviors, *achievement-oriented*, *directive*, *participative*, and *supportive*, that are contingent to the environment factors and follower characteristics. In contrast to the Fiedler contingency model, the path-goal model states that the four leadership behaviors are fluid, and that leaders can adopt any of the four depending on what the situation demands. The path-goal model can be classified both as a contingency theory, as it depends on the circumstances, and as a transactional leadership theory, as the theory emphasizes the reciprocity behavior between the leader and the followers.

### **Functional theory**

Functional leadership theory (Hackman & Walton, 1986; McGrath, 1962; Adair, 1988; Kouzes & Posner, 1995) is a particularly useful theory for addressing specific leader behaviors expected to contribute to organizational or unit effectiveness. This theory argues that the leader's main job is to see that whatever is necessary to group needs is taken care of; thus, a leader can be said to have done their job well when they have contributed to group effectiveness and cohesion (Fleishman et al., 1991; Hackman & Wageman, 2005; Hackman & Walton, 1986). While functional leadership theory has most often been applied to team leadership (Zaccaro, Rittman, & Marks, 2001), it has also been effectively applied to broader organizational leadership as well (Zaccaro, 2001). In summarizing literature on functional leadership (see Kozlowski et al. (1996), Zaccaro et al. (2001), Hackman and Walton (1986), Hackman & Wageman (2005), Morgeson (2005)), Klein, Zeigert, Knight, and Xiao (2006) observed five broad functions a leader performs when promoting organization's effectiveness. These functions include environmental monitoring, organizing subordinate activities, teaching and coaching subordinates, motivating others, and intervening actively in the group's work.

A variety of leadership behaviors are expected to facilitate these functions. In initial work identifying leader behavior, Fleishman (1953) observed that subordinates perceived their supervisors' behavior in terms of two broad categories referred to as consideration and initiating structure. Consideration includes behavior involved in fostering effective relationships. Examples of such behavior would include showing concern for a subordinate or acting in a supportive manner towards others. Initiating structure involves the actions of the leader focused specifically on task accomplishment. This could include role clarification, setting performance standards, and holding subordinates accountable to those standards.

### **Integrated psychological theory**

The Integrated Psychological theory of leadership is an attempt to integrate the strengths of the older theories (i.e. traits, behavioral/styles, situational and functional) while addressing their limitations, introducing a new element – the need for leaders to develop their leadership presence, attitude toward others and behavioral flexibility by practicing psychological mastery. It also offers a foundation for leaders wanting to apply the philosophies of servant leadership and authentic leadership.

Integrated Psychological theory began to attract attention after the publication of James Scouller's Three Levels of Leadership model (2011). Scouller argued that the older theories offer only limited assistance in developing a person's ability to lead effectively. He pointed out, for example, that:

- Traits theories, which tend to reinforce the idea that leaders are born not made, might help us select leaders, but they are less useful for developing leaders.
- An ideal style (e.g. Blake & Mouton's team style) would not suit all circumstances.
- Most of the situational/contingency and functional theories assume that leaders can change their behavior to meet differing circumstances or widen their behavioral range at will, when in practice many find it hard to do so because of unconscious beliefs, fears or ingrained habits. Thus, he argued, leaders need to work on their inner psychology.
- None of the old theories successfully address the challenge of developing "leadership presence"; that certain "something" in leaders that commands attention, inspires people, wins their trust and makes followers want to work with them.

Scouller proposed the Three Levels of Leadership model, which was later categorized as an "Integrated Psychological" theory on the Businessballs education website. In essence, his model aims to summarize what leaders have to do, not only to bring leadership to their group or organization, but also to develop themselves technically and psychologically as leaders.

The three levels in his model are Public, Private and Personal leadership:

- The first two – public and private leadership – are "outer" or behavioral levels. These are the behaviors that address what Scouller called "the four dimensions of leadership". These dimensions are: (1) a shared, motivating group purpose; (2) action, progress and results; (3) collective unity or team spirit; (4) individual selection and motivation. Public leadership focuses on the 34 behaviors involved in influencing two or more people simultaneously. Private leadership covers the 14 behaviors needed to influence individuals one to one.
- The third – personal leadership – is an "inner" level and concerns a person's growth toward greater leadership presence, knowhow and skill. Working on one's personal leadership has three aspects: (1) Technical knowhow and skill (2) Developing the right attitude toward other people – which is the basis of servant leadership (3) Psychological self-mastery – the foundation for authentic leadership.

Scouller argued that self-mastery is the key to growing one's leadership presence, building trusting relationships with followers and dissolving one's limiting beliefs and habits, thereby enabling behavioral flexibility as circumstances change, while staying connected to one's core values (that is, while remaining authentic). To support leaders' development, he introduced a new model of the human psyche and outlined the principles and techniques of self-mastery, which include the practice of mindfulness meditation.

### **Transactional and transformational theories**

Bernard Bass and colleagues developed the idea of two different types of leadership, transactional that involves exchange of labor for rewards and transformational which is based on concern for employees, intellectual stimulation, and providing a group vision.

The transactional leader (Burns, 1978) is given power to perform certain tasks and reward or punish for the team's performance. It gives the opportunity to the manager to lead the group and the group agrees to follow his lead to accomplish a predetermined goal in

exchange for something else. Power is given to the leader to evaluate, correct, and train subordinates when productivity is not up to the desired level, and reward effectiveness when expected outcome is reached.

### **Leader–member exchange theory**

This LMX theory addresses a specific aspect of the leadership process is the leader–member exchange (LMX) theory, which evolved from an earlier theory called the vertical dyad linkage (VDL) model. Both of these models focus on the interaction between leaders and individual followers. Similar to the transactional approach, this interaction is viewed as a fair exchange whereby the leader provides certain benefits such as task guidance, advice, support, and/or significant rewards and the followers reciprocate by giving the leader respect, cooperation, commitment to the task and good performance. However, LMX recognizes that leaders and individual followers will vary in the type of exchange that develops between them. LMX theorizes that the type of exchanges between the leader and specific followers can lead to the creation of *in-groups* and *out-groups*. In-group members are said to have *high-quality exchanges* with the leader, while out-group members have *low-quality exchanges* with the leader.

#### *In-group members*

In-group members are perceived by the leader as being more experienced, competent, and willing to assume responsibility than other followers. The leader begins to rely on these individuals to help with especially challenging tasks. If the follower responds well, the leader rewards him/her with extra coaching, favorable job assignments, and developmental experiences. If the follower shows high commitment and effort followed by additional rewards, both parties develop mutual trust, influence, and support of one another. Research shows the in-group members usually receive higher performance evaluations from the leader, higher satisfaction, and faster promotions than out-group members. In-group members are also likely to build stronger bonds with their leaders by sharing the same social backgrounds and interests.

#### *Out-group members*

Out-group members often receive less time and more distant exchanges than their in-group counterparts. With out-group members, leaders expect no more than adequate job performance, good attendance, reasonable respect, and adherence to the job description in exchange for a fair wage and standard benefits. The leader spends less time with out-group members, they have fewer developmental experiences, and the leader tends to emphasize his/her formal authority to obtain compliance to leader requests. Research shows that out-group members are less satisfied with their job and organization, receive lower performance evaluations from the leader, see their leader as less fair, and are more likely to file grievances or leave the organization.

### **Emotions**

Leadership can be perceived as a particularly emotion-laden process, with emotions entwined with the social influence process. In an organization, the leader's mood has some effects on his/her group. These effects can be described in three levels.

1. The mood of individual group members. Group members with leaders in a positive mood experience more positive mood than do group members with leaders in a negative mood. The leaders transmit their moods to other group members through the mechanism of emotional contagion. Mood contagion may be one of the psychological mechanisms by which charismatic leaders influence followers.



2. The affective tone of the group. Group affective tone represents the consistent or homogeneous affective reactions within a group. Group affective tone is an aggregate of the moods of the individual members of the group and refers to mood at the group level of analysis. Groups with leaders in a positive mood have a more positive affective tone than do groups with leaders in a negative mood.
3. Group processes like coordination, effort expenditure, and task strategy. Public expressions of mood impact how group members think and act. When people experience and express mood, they send signals to others. Leaders signal their goals, intentions, and attitudes through their expressions of moods. For example, expressions of positive moods by leaders signal that leaders deem progress toward goals to be good. The group members respond to those signals cognitively and behaviorally in ways that are reflected in the group processes.

In research about client service, it was found that expressions of positive mood by the leader improve the performance of the group, although in other sectors there were other findings.

Beyond the leader's mood, her/his behavior is a source for employee positive and negative emotions at work. The leader creates situations and events that lead to emotional response. Certain leader behaviors displayed during interactions with their employees are the sources of these affective events. Leaders shape workplace affective events. Examples – feedback giving, allocating tasks, resource distribution. Since employee behavior and productivity are directly affected by their emotional states, it is imperative to consider employee emotional responses to organizational leaders. Emotional intelligence, the ability to understand and manage moods and emotions in the self and others, contributes to effective leadership within organizations.

### **Neo-emergent theory**

The neo-emergent leadership theory (from the Oxford Strategic Leadership Programme) sees leadership as an impression formed through the communication of information by the leader or by other stakeholders, not through the true actions of the leader himself. In other words, the reproduction of information or stories form the basis of the perception of leadership by the majority. It is well known that the naval hero Lord Nelson often wrote his own versions of battles he was involved in, so that when he arrived home in England he would receive a true hero's welcome. In modern society, the press, blogs and other sources report their own views of leaders, which may be based on reality, but may also be based on a political command, a payment, or an inherent interest of the author, media, or leader. Therefore, one can argue that the perception of all leaders is created and in fact does not reflect their true leadership qualities at all. Hence the historical function of belief in (for example) royal blood as a proxy for belief in or analysis of effective governing skills.

### **Six main leadership theories**

The six main leadership theories are:

- The great man theory
- The trait theory
- The behavioral theory
- The transactional theory or management theory
- The transformational theory or relationship theory
- The situational theory

### **The great man theory**

The great man theory of leadership states that excellent leaders are born, not developed. A popular concept in the 19th century, this theory states that leadership is an inherent quality.

This type of leader often possesses the natural attributes of intelligence, courage, confidence, intuition and charm, among others.

#### **The trait theory**

The trait theory of leadership states that certain natural qualities tend to create good leaders. Having certain qualities does not necessarily mean someone has strong leadership skills, however. Some leaders may be excellent listeners or communicators, but not every listener or communicator makes an excellent leader.

#### **The behavioral theory**

The behavioral theory of leadership focuses on how a person's environment, not natural abilities, forms him or her into a leader. One of the key concepts of behavioral theory is conditioning. Conditioning states that a person will be more likely to act or lead in a certain style as a result of environmental responses to behavior.

#### **The transactional theory or management theory**

The transactional theory of leadership, also called the management theory, studies leadership as a system of rewards and penalties. It views effective leadership as results-focused and hierarchical. Transactional leaders prioritize order and structure over creativity.

#### **The transformational theory or relationship theory**

The transformational theory of leadership, also called the relationship theory, studies effective leadership as the result of a positive relationship between leaders and team members. Transformational leaders motivate and inspire through their enthusiasm and passion. They are a model for their teams, and they hold themselves to the same standard they expect of others.

#### **The situational theory**

The situational theory of leadership does not relate to a certain type of leader or claim that any one style is best. Instead, situational theory argues that the best kind of leader is one who is able to adapt her style based on the situation. They may respond to a situation by commanding, coaching, persuading, participating, delegating or however they think is necessary. Situational leaders are defined by their flexibility.

**Here is the list of leadership theories ordered chronologically:**

1. Trait Theory
2. Basic Style Theory
3. Blake and Mouton's Leadership Grid
4. Adair's Action-Centered Leadership
5. Hersey and Blanchard's Situational Leadership Theory
6. Fiedler's Contingency
7. Burns' Transactional Leadership Theory
8. Dansereau, Graen and Haga's Leader Member Exchange Theory
9. House's Charismatic Leadership Theory
10. Burns' Transformational Leadership Theory
11. Bass and Transformational Leadership Theory
12. Bennis and Nanus Transformational Leadership Theory

### **4.5.7 Role of leadership in Sports**

Creating teamwork among athletes, organizations, and clients are something that a leader should be able to do well. Sports managers must be leaders, motivators, and organizers. They should be able to inspire people to work together to reach shared goals and experience success as a team. Boosting morale and encouraging teamwork by approaching tasks with confidence,

passion, and enthusiasm is the way to set an example as a leader and a team to work together at a level of excellence. Building relationships, empowering team members, creating a common vision, and having fun are all important aspects that nurture teamwork. Be visible and open with your team. Create clear and common goals that can be focused on by all. Interaction and meetings should occur frequently. Listen to concerns and feedback from the team members. Encourage cooperation and regular team building activities and events. Being an excellent leader comes more naturally to some personalities than others, but can be learned over time by practicing and implementing these leadership skills.

Problem-solving, decision making, and critical thinking are necessary skills in the field of sport management. These are highly valued qualities that contribute to the success of a manager and his team. Decisions often need to be made quickly and wisely. The information must be critically analyzed to determine the advantages or disadvantages of different situations and the actions to be taken. A sports manager should be very knowledgeable about the sports industry, general management, sports law, sales, promotion, negotiation, and planning.

Multitasking is a requirement for a person working in this career field. There are often many things to do and keep track of. The job is often unpredictable, making good time management skills, quick thinking, and organization extremely important. A sports manager should have the ability to work under stress and be confident with the ability to work well independently.

An *athlete leader* in sport is defined as an individual who holds a formal or informal leadership role within a team and influences other group members in the pursuit of common objectives. Researchers suggest that approximately one quarter of athletes occupy some form of leadership role within a team, and highlight the potential importance of athlete leadership toward positive group functioning as well as the need for a more thorough understanding of the topic. The following entry briefly highlights the characteristics, types, and functions of athlete leaders, as well as other important variables associated with the presence of these individuals on sport teams.

#### Characteristics of an Athlete Leader

Research generally demonstrates that individuals possessing athlete leadership roles within a group have similar characteristics. Maureen Weiss and colleagues Molly Moran and Melissa Price revealed that athlete leaders self-report greater friendship quality and peer acceptance, while Joseph Bucci, Gordon Bloom, Todd Loughhead, and Jeffrey Caron found that these individuals have a stronger work ethic, desire for high performance, and respect from teammates. The latter researchers also noted that possessing these characteristics leads to positive relationships with both coaches and teammates, helping foster effective levels of communication within the overall group structure. However, despite the importance and prevalence of the social psychological characteristics noted above, the most consistent characteristic of athlete leaders found in previous research pertains to sport-related competence; in other words, athletic ability is positively associated with ratings of athlete leadership.

#### Types of Athlete Leadership

To garner an understanding of how athlete leadership manifests itself in the sport context, it is important to understand the emergence of the leadership role, as well as the extent to which leadership behaviors influence group members.

### Formal and Informal Athlete Leadership

The formal athlete leader represents a role that is prescribed by another individual within the group or sport organization, usually a member of the coaching staff. This type of leader is highly visible within the group and is assigned specific responsibilities. A common example of a formal athlete leader in sport is the team captain. In many instances, the coach selects the captain of the team and, within certain sports, the occupant of this role may even be formally designated by such things as a *C* on the uniform or an armband to wear during competitive matches.

Conversely, an informal athlete leader emerges as a function of (a) group interaction, (b) distinct group needs, and (c) the personality traits of individual athletes. This type of athlete leader acts in a way that often complements the style of an established leader within the group (the formal athlete leader). However, the informal leader emerges naturally, without designation by another group member or the organization. For example, an athlete may assume the role of an emotional leader to help rally a team around its goals. This potential informal athlete leader may exist on teams in which the formal leader is more task driven (less expressive in nature); however, in other teams this informal role may be redundant if the formal leader possesses high interpersonal attraction and engages in socially supportive behaviors.

### Team and Peer-Level Athlete Leaders

In addition to the level of formality, athlete-to-athlete leadership is categorized in terms of the scope of influence held by each individual. Todd Loughhead, James Hardy, and Mark Eys discussed the presence of both team and peer-level leaders. First, a team-level leader is more influential and is identified as an athlete leader by the majority of the team (over 50% of the membership). Examples include veteran players who provide valuable advice to all members of a group at different times or who are highly vocal (in a productive manner) during team meetings. It is also worthwhile to note that the team-level athlete leader likely emerges through the formal leadership process discussed previously.

In contrast, peer-level leaders represent those who are identified by a lower percentage of the team (less than 50%). Equally important in a team setting, peer-level leaders exert individualized influence on a small number of athletes. An example of this type of leader is an individual within the team who acts as a mentor to two or three less-experienced teammates. Although other team members may never be influenced by this specific individual, the inexperienced athletes may view the mentor as a very important leader.

### Functions of Athlete Leadership

Athlete leadership roles are often differentiated by their specific functions within the group. These functions revolve around both internal and external activities. Athlete leaders who attend to the internal functions focus on the (a) task or (b) social related activities of the group.

- *Internal task functions.* Task-related functions represent the behaviors executed by a leader surrounding a group's instrumental objectives, such as the performance of the sport team. The behaviors oriented toward this

function, for example, influence group members to perform to the best of their abilities and to coordinate effectively with their teammates.

- *Internal social functions.* Social-related functions represent the behaviors executed by a leader surrounding interpersonal relations and optimal team unity. An example of an athlete leader concerned with the social activities of the group would be someone who works to resolve conflict or plans events aimed at bonding the members of a team together.
- *External functions.* Athletes can also serve the function of leading their team in external activities. Todd Loughhead et al. described the external athlete leader as one who leads and represents the group outside of the competitive setting. Specifically, an external athlete leader helps a team cope and adapt to the surrounding environment. As examples, individuals who represent the team at different community-driven events or speak to the media on behalf of the group undertake external functions.

It is important to note that the various functions of an athlete leadership role, although distinct from one another, are not necessarily performed by different people. One individual may have the ability to occupy a leadership role that is solely task related, whereas another individual may occupy a leadership role that executes all three functions.

#### Correlates of Athlete Leadership

Interesting insights have been yielded with respect to the presence of athlete leadership in sport. The

following sections briefly highlight both individual (satisfaction) and team level (group cohesion and collective efficacy) correlates of athlete leader behavior.

#### Athlete Satisfaction

Following research that linked leadership behaviors of the coach with athlete satisfaction, Mark Eys, Todd Loughhead, and James Hardy demonstrated that athletes who perceived a balanced dispersion of athlete leaders across the aforementioned functions (approximately equal number of leaders focusing on task, social, and external objectives) had higher satisfaction with their sport experiences. Specifically, these athletes were more satisfied with team performance and the degree of integration of team members than those who perceived a relative imbalance with respect to the focus of athlete leaders on their team, as with a high number of task leaders but low numbers of social and external leaders.

#### Group Cohesion

Athlete leadership is also related to the perceptions of cohesion experienced by group members. Two studies provide different perspectives on the relationship between these variables. First, Price and Weiss found that adolescent female soccer players who self-reported higher leadership abilities with respect to instrumental and prosocial behaviors perceived greater task and social cohesion on their teams. Furthermore, those who were rated higher by their teammates in the same leadership abilities perceived greater social cohesion.

In a second study, Hardy, Eys, and Loughhead were interested in the links between the percentage of athlete leaders on sport teams (i.e., dispersion) and group members' perceptions of cohesion.



Their findings indicated that the dispersion of leaders focused on task functions was negatively related to perceptions of task cohesion. In other words, a more constrained number of task-focused leaders was associated with increased group unity. Furthermore, these researchers found that intrateam communication mediated this relationship. The interpretation of these results was that a lower number of task leaders leads to better quality communication in terms of consistency, clarity, and overall effectiveness that, in turn, is associated with more positive perceptions of task cohesion.

### Collective Efficacy

Finally, athlete leadership is linked to members' beliefs regarding the group's ability to carry out required tasks, as well as its general ability to perform at a high level. Price and Weiss revealed that the self-reported instrumental and prosocial leadership behaviors of athletes were positively related to their indications of efficacy related to the team's ability, unity, effort, preparation, and persistence.

Overall, athlete leadership represents an important aspect of group functioning. This entry has briefly highlighted the characteristics, types, and functions of athlete leadership. Future research, however, must continue to build upon the current breadth of knowledge regarding the influence of athlete leaders within sport. In doing so, sport psychology

researchers can continue moving toward unearthing different individual and group level variables that are related to both effective and ineffective cases of athlete leadership. Furthermore, another future step can involve translating this knowledge into the group exercise setting to test similar relationships to those found in sport like individual satisfaction and group cohesion and determine if exerciser-to-exerciser leadership influences important outcomes such as physical activity adherence.

Successful teams have strong leaders and the importance of this role is evident in all categories of sports. The performance of a leader is very clear in interactive games and during matches. Although less obvious in co-active situations, the leader's contribution to the effectiveness of a team's performance is also influential.

Leadership maybe considered as a behavioural process that influences individuals and groups towards set goals. As such, a leader has the dual function of ensuring player satisfaction while steering the individual or group to success.

There are three traditional types of leadership used in sports varying from an amateur level up to the elite level. Many coaches across team or individual sports will have characteristics from one of these styles if not all.

- 1) Autocratic Leaders
- 2) Democratic Leaders
- 3) Laissez-Faire Leaders

Firstly, the Autocratic style of leadership tends to make all the decisions and is motivated to complete the task as quickly and effectively as possible. This leadership style is 'authoritarian' and does not take into account the opinions or preferences of the group. The autocratic leader will not delegate responsibility and focuses on group performance and

achieving groups. This style would be most effective when quick decisions are needed for large groups/teams i.e. whole team warm up session, when groups are hostile and discipline is needed, in the cognitive stages of learning (Beginners).

Secondly, the Democratic style of leadership tends to share the decisions with the group and is often ready to delegate responsibility. This type of leadership believes in consultation and is interested in developing meaningful interpersonal relationships within the team. The belief is that by giving 'ownership' of the task to each individual, the group will work harder, developing unity and a common purpose. This style would be effective in a co-active game or when time constraints are not as exacting, personal support may be required, if groups are small and when in the autonomous stages of learning has been achieved (elite level).

Thirdly, the laissez-faire style, the leader will stand aside and allow the group to make its own independent decisions. This style can happen automatically and will result in a loss of group direction if the leader is inadequate. Lewin (1985) found that when subjected to this style of leadership, group members were inclined to be aggressive towards each other and gave up easily when mistakes occur.

The characteristics adopted by the leader depends fundamentally upon the 'favourableness' of the situation. As is seen in the table below, the most successful teams will have a strong leader, the task is clear and understood by the players and there is a positive relationship between leader and players.

Going back to the leadership styles, an autocratic leader will be most effective in both the most favourable and least favourable situations, whereas a democratic leader will be most effective in moderately favourable situations.

The bond that is created between an athlete and a coach can be considered the most sacred, and it is essential that this relationship is not abused in any shape or form.

To build this relationship from strength to strength it is key that the coach has the leadership skills and constantly be improving these skills.

Leadership is the art of getting someone else to do something you want done and they help themselves and others to do the right thing through many different skills.

These skills can then be passed on from the teacher to the student, not only making them a better athlete but also building them as a person.

Good leadership skills are important for a coach of athletes of any age because after their parents their coach is the biggest influence that they have, if a coach is seen to be a good, strong leader, it will inspire them to work harder to get to where they want.

Another reason that leadership skills are vital is so that the coach can get the skill or training session done successfully without too many obstacles and interruptions.

There can be many ways for someone to improve these skills, some of these can be trivial things such as listening more or even just paying more attention to the athlete so you can realise what they need to improve.

There are many different things that can be seen as examples and elements of successful leadership some of the key elements associated with being a successful leader for a coach is building a positive relationship with the athletes or students, challenging the athlete, supporting and encouraging them and driving them for results.

*Building a positive relationship:* It's easier to learn from someone who you trust, that is why coaches must try and develop a strong positive relationship with their students. They have to be careful to establish a healthy and effective set of boundaries. These boundaries help to keep this relationship professional yet effective at the same time.

*Challenging the athlete:* Challenging the athlete, is key for the improvement of the athlete and it allows you to become more aware of what they can and cannot do. Challenging helps to improve the leadership skills of the coach because it shows the athletes and parents of the athletes that they are interested in the results of each individual child and not just treating them

as just another child and treating them all the same, not challenging them in any shape or form to ensure they become the best athlete that they possibly could be.

*Supporting and encouraging:* It is vital that as a leader the coach shows that they are there to encourage the athlete and there to support them. The relationship built between each individual athlete and their coach is very different, it shows a real leader who makes the time to support and encourage everyone, they can be there for emotional or physical support always there to help them especially in situations when the going gets tough. Sometimes this support can be an outlet for the athlete, if they have a problem that they feel they cannot approach a parent, a coach is there for them in support and can help them how ever possible.

*Drive them for results:* A final example of good leadership in a coach especially is the way that a coach can drive them for the best results possible by that athlete. The athlete must want to succeed not just do it because they must, they will not succeed to the best of their ability just because they were told to, they have to want to. The leadership the coach expresses towards the athletes can help to inspire them to drive for the best results possible.

No one is a born leader, but everyone can develop and improve leadership skills.

Some simple ways that anyone can improve their leadership skills are improve communication, maintaining a positive attitude, be passionate, and set goals and follow concrete plans.

Improving communication seems like such a simple task but it can have amazing effects, it allows for athletes to understand a coach clearly and believe and trust what they are doing.

Sometimes just talking can resolve so many issues, it can show them that you are there for them for support, but effective communication is also essential when in charge to ensure that the plan and goals for the future are portrayed successfully between coach and athlete.

Another effortless way to improve effective leadership is by maintaining a positive attitude, a positive attitude is something so easily fixed and maintained, it's one leadership elements that has a larger effect on yourself, a positive attitude makes the long hours of sacrifice and work easier and more enjoyable which in turn passes onto the athletes making a more enjoyable and positive training atmosphere.

Finally, an ideal way to help and improve leadership skills is to set goals and plans and follow these exactly.

These goals and plans helps you to see where you are going and how much they are improving or the areas that may need to be improved on.

Being a coach is involves being a good leader and inspiration for the athletes, but it is also about ensuring that they do the best that they possibly can and improve in every-way possible. It is obvious that being a good coach doesn't mean that they are a natural born leader but there are a vast number of ways that they can improve their leadership.

Some of these skills that can be improved on include improving communication, maintaining a positive attitude, be passionate towards the students and whatever their situation may be, and finally setting goals and plans and following these carefully.

As well as all of these small things that can be improved on when it comes to leadership but there is numerous examples that we see as being a coach such as when they maintain and build a positive relationship with the athlete, when we challenge the athlete to help them improve to the best of their ability, when we support and encourage them and finally after support and encouraging them it's when we drive them for the results that they are capable of.

### **What's your role?**

Depending on your role in the team your scope for leadership can change, and the series of pointers given below will be realised in slightly different ways.

Coaches can use the training ground and pre-and-post match team talks to display their leadership, but once the players are out on the field, it's generally down the captain. Captains are responsible for taking what their coach does off the field and implementing it on match day.

Coaches and captains are the obviously the first place to look for leadership, but they aren't the only ones who can take the bull by the horns on-or-off the field. Leadership can come from any team member on the pitch. Develop the right skills, and you could be the one delivering a killer injection of leadership to lift your team from potential defeat to dramatic victory.

Bare in mind your individual role within the team and how you might use the pointers given here to display true leadership.

### **1. Set an example**

As a leader and authority figure, your fellow team members are likely to follow you down any behavioural path you choose. For the good of the team then, you need to be heading down the right pathway.

If you're seen with your head down, ranting and raving at players or officials, or generally conducting yourself in a negative manner – then your players will see no reason why they can't behave in exactly the same manner. The best leaders are the hardest workers on the pitch and the most respectful of their sport.

The same goes for training days and off the field commitments. Turning up late or having a less than enthusiastic attitude to training is just giving the rest of your team a reason to take their eye off the ball. Set a good example, and your team will feed off your enthusiasm and positivity to give you the best chance of achieving your goals.

### **2. Awareness**

As the leader of a team, awareness is key. There's no absolute method to leadership, and your approach to certain scenarios should be heavily influenced by external factors.

Awareness comes through time spent building relationships with your team mates, peers and players. Learn how they react to certain styles and tones. If you're on the end of a serious defeat, do they react better to a few harshly spoken words, or do they need an arm round their shoulder to help them lick their wounds?

It works on an individual basis too. Certain players react differently to different kinds of leadership. A passionate, rousing team talk may be enough to gee most players up before a big game, but others may just need a few softer motivational cues in their ear to get them in the zone or back on track.

In the heat of the moment it's easy to lose sight of your awareness of the situation, leading to you taking the wrong tone with team mates. Develop it by drawing on what you know about your team, individual players, the match or training scenario and previous experiences in similar situations.

### **3. Passion**

Sport is intrinsically passionate. You feel the same set of emotions out on the pitch every weekend: euphoria from victory and disappointment in defeat. As a leader, you have to embody the positive side of those emotions (commitment, dedication and passion) to drive your team towards their goals.

It's not just passion towards victory you need to display as a leader. Caring for your team mates and your sport from a wider perspective are both ways you can show passion. It's not all about fist pumping and over-exuberant celebrations; passion can be about showing compassion for your team mates or respecting the opposition.

### **4. Enthusiasm**

A similar quality in many ways to passion, enthusiasm is an important characteristic for a leader and one that can be displayed in a number of ways.

On the pitch, enthusiasm is being the first to every ball, offering encouragement to your fellow players, or geeing up your team when they're looking down and out. But encouragement also stretches to your day-to-day behaviour as a sports leader, and can often be more valuable in the long run.

Show enthusiasm for your game as an individual and towards the sport you love, and expect others to follow. Be the most enthusiastic in training; be enthused to new ideas; be supportive of team bonding activities; strive to be the best out on the pitch every weekend.

Enthusiasm is infectious. Injecting some into everything you do when representing your club can lead to an increase in dedication and commitment from everyone involved in your team.

### **5. Ability**

Leaders, and in this case particularly coaches, live and die by their decision making. As the creator and implementor of a strategy off the field, or key figure in decision making on it, you need to have the knowledge and ability to stand by the strength of your convictions.

Leaders are often elevated into their position because of their ability (particularly team captains). Without that ability, your authority can become undermined. Strive to improve your skills, and not will it leave you in a better position to lead, it'll also set an example to others to improve their game.

### **6. Communicate**

Communication is a vital area in team sport. And if any member of the team needs to nail it down, it's the leaders of the team. At the very core of great leadership is inspiring others towards a series of goals. To get those goals across to team members, you need to be able to communicate them effectively.

Make it clear to your players what you want to achieve and how you intend them to contribute to achieving it. Clear, concise communication can really boost your success rate as a leader.

Again, awareness is an important factor that ties in with communication. You know the players that you lead better than anyone, so learn to take the right communicative approach for each of them.

### **7. Motivational skills**

As we've mentioned before, your position as a sports leader means in times of trouble, heads will start to turn towards you. In response to that, you first have to show the stomach for a fight yourself, before turning into Mr. Motivator to turn that sinking ship around.

Honing your motivational skills should be a top priority as you look to become a better leader. Not only can it squeeze out those little margins between winning and losing, but it challenges players to be better everyday.

Good leadership is about infusing that challenge in the minds of your players. Motivate them to be better everyday, and watch your team grow as a result.

### **8. Will to win**

One final common theme runs through the finest sports leaders – an insatiable will to win. Good leaders are the ones that win every 50/50, bring their absolute best when the team needs it, pushes their team mates on and never gives an inch to the opposition.

Bringing energy to everything they do as they hunt out victory, leaders are winners as they put the required time and effort into what needs to be done to win. As long as these ruthless character traits don't spill over into aggression or the use of unethical methods of victory, a complete and utter will to win should be high on the list of must-haves for sports leadership.

### **9. Visionary**

They say that the best leaders lead from behind their men. Especially relevant to leadership in coaching, your job is plan out that vision in your own head before imprinting it into the minds of your team.

Many of the characteristics required to be a successful sports leader interlock with one another. Whenever you call upon them, do so as another step on the ladder to your over arching vision. The start of a leadership journey, use it as a constant source of motivation.

To get there though, you'll need to drop in a number of the other characteristics discussed above. Your vision requires the ability to know how to get there, communication to let other



know how they will contribute to success, and motivation and enthusiasm to share your vision and win the support of others.

Without knowing where your end game is, your capacity to lead is seriously diminished. Outline a series of goals for you and your team, and use everything else in your leadership armoury to steer them towards it.

Effective leadership does not only require passion and being visionary, but it needs leaders who have adequate leadership skills and a strong ability to work under pressure. In contrast to managers, effective leaders must ensure understanding a sport organization's internal systems but also the external environment. Leaders are constantly exposed to new and challenging situations what demands a high grade of flexibility and know-how.

In order to move their organization forward, today's leaders need to apply transformational leadership. In comparison to the transactional model, transformational leadership is more than just meeting immediate needs. It is all about identifying the follower's potential motivations and creating a common and shared objective. Transformational leadership underscores the importance of vision, intellectual stimulation, and individualized consideration in leadership. When implementing change, leaders might face numerous challenges. One major component, which has to be considered carefully, is how to use power and influence most efficiently to accomplish goals. The basic approach of how using power and influence in an adequate way can be found in the five bases of power by French and Raven – Reward, Coercion, Legitimate, Expertise, and Referent. However, leaders should use their power and influence very carefully as there is also a high risk that followers do not understand and agree with certain actions, what could ultimately lead to a suffering of an individual's or a team's morale and a loss of productivity. In this context, leaders should also be aware of the most common obstacles to effective leadership and change management. In fact, it is still a leader's personal characteristics that seriously affect the follower's reaction to change.

The complexity of sport organizations and the challenge of organizational change, require professional training to ensure effective leadership. It seems that business environments of sport organizations are fundamentally different from those of 10 years ago. Organizations must try to avoid leaders experiencing an information overload, but to know exactly how to interpret situations and information most efficiently. In recent years, an increasing number of organizations have recognized this need to support leaders and established leadership development programs.

## Sub Unit – VI

### Cognitive process- memory and thinking. Principles of Motor skill learning.

#### 4.6.1 What is Cognition?

Cognition is the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses. Cognition is a term referring to the mental processes involved in gaining knowledge and comprehension. These cognitive processes include thinking, knowing, remembering, judging, and problem-solving. These are higher-level functions of the brain and encompass language, imagination, perception, and planning.

#### Types of Cognitive Processes

There are many different types of cognitive processes. These include:

- **Attention:** Attention is a cognitive process that allows people to focus on a specific stimulus in the environment.
- **Language:** Language and language development are cognitive processes that involve the ability to understand and express thoughts through spoken and written words. It allows us to communicate with others and plays an important role in thought.
- **Learning:** Learning requires cognitive processes involved in taking in new things, synthesizing information, and integrating it with prior knowledge.
- **Memory:** Memory is an important cognitive process that allows people to encode, store, and retrieve information. It is a critical component in the learning process and allows people to retain knowledge about the world and their personal histories.
- **Perception:** Perception is a cognitive process that allows people to take in information through their senses (sensation) and then utilize this information to respond and interact with the world.
- **Thought:** Thought is an essential part of every cognitive process. It allows people to engage in decision-making, problem-solving, and higher reasoning.

Upon waking each morning, you begin thinking-contemplating the tasks that you must complete that day. In what order should you run your errands? Should you go to the bank, the cleaners, or the grocery store first? Can you get these things done before you head to class or will they need to wait until school is done? These thoughts are one example of cognition at work. Exceptionally complex, cognition is an essential feature of human consciousness, yet not all aspects of cognition are consciously experienced. **Cognitive psychology** is the field of psychology dedicated to examining how people think. It attempts to explain how and why we think the way we do by studying the interactions among human thinking, emotion, creativity, language, and problem solving, in addition to other cognitive processes. Cognitive psychologists strive to determine and measure different types of intelligence, why some people are better at problem solving than others, and how emotional intelligence affects success in the workplace, among countless other topics. They also sometimes focus on how we organize thoughts and information gathered from our environments into meaningful categories of thought.

#### 4.6.2 Cognition process and sports

The role of cognition and neuroscience in understanding, predicting, and potentially improving elite sports performance is an area that has received increased interest in recent years (Yarrow et al., 2009; Walsh, 2014; Katwala, 2016). This notion is validated by studies showing that

athletes perform faster and more accurately on specific cognitive tasks (Mann et al., 2007; Voss et al., 2010). Such findings have been supplemented by studies showing that baseline cognitive ability is able to predict future sporting achievement (Vestberg et al., 2012, 2017; Mangine et al., 2014). Competing and performing in sport requires a huge amount of time, effort, and physical capacity. To perform at a high level, you need the ability to express strength, speed, and power, and maintain a high degree of technical proficiency. It is honestly a whole lot more complex than simply just *playing a sport*. Now, most of us know that the bulk of these qualities are developed through the act of training in an entirely *physical* sense. Practicing skill development on the field or court and building physical capabilities on the track or in the gym. However, there is a growing body of evidence to suggest that *cognitive sports training* can also play a role in sports performance enhancement. For the most part, cognitive sports training is still a developing area of research. While it has been utilized in practice for several years, its applications have been varied, with different degrees of effectiveness discussed (Walton, 2018). With this in mind, cognitive sports training encompasses a broad range of mental tasks designed to improve various aspects sports performance. These mental tasks have been used to improve upon the various psychological factors known to contribute to successful sports performance, such as mindset, self-efficacy, self-confidence, motivation, and mental toughness. They have also been used extensively to help cope with various mental challenges, such as stress and pre-competition anxiety, which can negatively impact performance. Within this, cognitive sports training have also been used to enhance skill development and skill execution, thus improving technical proficiency in various sporting situations. When it comes to improving athletic performance through cognitive sports training, the way in which it works is highly dependent on the *modality* of cognitive training that you choose to implement. There are currently 3 main types of cognitive training that appear regularly within the literature:

- **Mental Imagery**
- **Self-talk**
- **Mindfulness and meditation**

### **Mental Imagery**

Mental imagery is often defined as the mental execution of a movement, motor act, or physical action, *without* any actual physical movement or muscle activation. In this manner, it represents an effective cognitive tool that can be strategically used by athletes to enhance their capacity to perform motor skills specific to their chosen sport or event (Montuori, 2018).

You see, neuro-imaging has shown that when using this technique *imagined movements* and the *actual movements* they replicate are completely equivalent in the sense they share the exact same neural circuitry. As a result, by improving the efficiency of those skill-related neural pathways, mental imagery can cause subsequent improvements in movement efficiency and skill development, thus improving athletic performance (Slimani, 2016).

### **Self-Talk**

Self-talk is a unique cognitive strategy that can be defined as performing an act of recognizable communication, articulated either out loud or as a mental voice inside one's head, that is addressed to the self with interpretative elements associated to its content. In short, it is the process of talking to oneself to reinforce technique and change the mood, while also enhancing confidence, self-belief, motivation, and mental resilience. With this in mind, the application of self-talk in athletic populations has been shown to facilitate and accelerate the learning of new skills and game plans, reduce performance-related anxiety, improve mood and training dedication and develop motivation and resilience (Hatzigeorgiadis, 2011). Through these interactions, it has been shown to be a powerful method of cognitive sports training.

### Mindfulness and Meditation

While research suggests that the vast majority of *successful* athletes would be considered psychologically healthy, it is still extremely common for them to experience a wide range of undesirable internal processes. These can include competition anxiety, negative emotions, fear of failure, and dysfunctional thinking – all of which may influence performance negatively (Birrer, 2012). With this in mind, both mindfulness and meditation are being increasingly used in sporting settings to improve mood, increase emotional well-being, stave off feelings of depression and anxiety, and increase sensations of confidence and self-worth. As a result, the practice of each of these cognitive training methods has been shown to *indirectly* improve sports performance by positively influencing these key cognitive variables (Josefsson, 2017), while also having a positive effect on decision-making capabilities and cognitive processing (Sun, 2015). In fact, the act of performing sport has been shown to have positive effects on cognitive function – and that those effects are comparable to the impact that cognitive training can have on sports performance (Gomez-Pinilla, 2013). Which is truly amazing when you take a second to think about it. Participating in sport across the lifespan has been shown to improve cognitive capabilities across that lifespan, limiting age-related declines in cognitive function, and even sparing age related loss of brain tissue. Additionally, maintaining a high degree of fitness through sport has been shown to enhance the efficiency of the neural pathways responsible for cognitive control, memory, and attention. As a result, those individuals who more frequently participate in sporting activities much more efficient at taking in and processing environmental stimuli and other types of perceived information. – in which fewer mental resources are required to monitor their own actions.

### 4.6.3 What is Memory?

Memory refers to the processes that are used to acquire, store, retain, and later retrieve information. There are three major processes involved in memory: encoding, storage, and retrieval. Human memory involves the ability to both preserve and recover information we have learned or experienced. As we all know, however, this is not a flawless process. Sometimes we forget or misremember things. Sometimes things are not properly encoded in memory in the first place. In order to form new memories, information must be changed into a usable form, which occurs through the process known as *encoding*. Once the information has been successfully encoded, it must be *stored* in memory for later use. Much of this stored memory lies outside of our awareness most of the time, except when we actually need to use it. The *retrieval* process allows us to bring stored memories into conscious awareness. To use the information that has been encoded into memory, it first has to be retrieved. There are many factors that can influence how memories are retrieved such as the type of information being used and the retrieval cues that are present. Of course, this process is not always perfect. Have you ever felt like you had the answer to a question right at the tip of your tongue, but you couldn't quite remember it? This is an example of a perplexing memory retrieval problem known as *lethologica* or the tip-of-the-tongue phenomenon.

#### Types of Memory

While several different models of memory have been proposed, the stage model of memory is often used to explain the basic structure and function of memory. Initially proposed in 1968 by Richard Atkinson and Richard Shiffrin, this theory outlines three separate stages of memory: sensory memory, short-term memory, and long-term memory.

**Sensory memory** is the earliest stage of memory. During this stage, sensory information from the environment is stored for a very brief period of time, generally for no longer than a half-second for visual information and 3 or 4 seconds for auditory information. We attend to only certain aspects of this sensory memory, allowing some of this information to pass into the next stage: short-term memory.

**Short-term memory**, also known as active memory, is the information we are currently aware of or thinking about. In Freudian psychology, this memory would be referred to as the conscious mind. Paying attention to sensory memories generates information in short-term memory.

While many of our short-term memories are quickly forgotten, attending to this information allows it to continue to the next stage: long-term memory. Most of the information stored in active memory will be kept for approximately 20 to 30 seconds.

**Long-term memory** refers to the continuing storage of information. In Freudian psychology, long-term memory would be called the preconscious and unconscious. This information is largely outside of our awareness but can be called into working memory to be used when needed. Some of this information is fairly easy to recall, while other memories are much more difficult to access.

**Losing Memory:** Forgetting is a surprisingly common event. Just consider how often you forget someone's name or overlooked an important appointment. Why do we forget information we have learned in the past? There are four basic explanations for why forgetting occurs:

- Failure to store
- Interference
- Motivated forgetting
- Retrieval failure

Sometimes information is simply lost from memory and, in other cases, it was never stored correctly in the first place. Sometimes memories compete with one another, making it difficult to remember certain information. In other instances, people actively try to forget things that they simply don't want to remember. For us to recall events, facts or processes, we have to commit them to memory. The process of forming a memory involves encoding, storing, retaining and subsequently recalling information and past experiences. Cognitive psychologist Margaret W. Matlin has described memory as the "process of retaining information over time." Others have defined it as the ability to use our past experiences to determine our future path. When they are asked to define memory, most people think of studying for a test or recalling where we put the car keys. However, memory is essential in our everyday lives. We would not be able to function in the present or move forward without relying on our memory.

#### 4.6.4 Effect of memory in sports performance

Principles for learning motor skills are based in psychology and applied to movements used in performance. The following techniques can facilitate sport skill memory and retention:

**1. Help athletes learn skills correctly the first time.** Initial learning is most impressionable. Coaches should monitor and guide athletes as much as possible in the early stages of learning. A skill learned incorrectly is often difficult to re-pattern after neurological pathways are established. The more engrained the motor program becomes, the more difficult it is to change.

**2. Teach skill rhythms first, then refine the movements.** Athletes can learn and recall rhythmic movements more quickly than isolated movements, just as rhymes are more readily remembered in verbal learning.



**3. Chunk movements.** Movements can be learned and processed if they are “chunked” or grouped into larger movements. This grouping increases an athlete’s capacity to learn and perform sport skills. Break skills down only as much as is necessary.

**4. Make new skills meaningful.** Explain and demonstrate new skills so that the athlete understands what the skill requires and why it is executed that way. Also make clear how a skill applies to sport performance.

**5. Associate new skills and concepts with well learned skills.** Athletes learn new skills more quickly if key movement concepts are relevant to them. Knowing an athlete's previous experience is helpful for creating associations.

**6. Point out specific cues or concepts that require the athlete's attention.** Intention to remember alerts an athlete to important aspects of a skill or situation.

**7. Overlearn skills to correct errors.** Overlearning means practicing skills beyond what was necessary to learn them. It is effective when incorrect movement patterns are engrained.

Memory is the ability to store and recall information. Sport memory involves learning and retaining physical skills. Sound instructional and coaching techniques can accelerate the memory and retention process.

Memory is a cognitive module in action organization in which information about objects, movements, events, environmental elements, and the action-related constellations between these entities are stored. Memory could be described as well as a process by which such information about the aforementioned elements are encoded, consolidated, stored, and recalled for use in attaining action goals. The structural organization of memory is based on units, categories, and expertise-dependent order formation and is therefore strongly related to learning processes.

The study of human memory has a long history, making it one of the oldest and most investigated

topics in psychology. The initial scientific studies of memory are usually ascribed to Hermann Ebbinghaus’s work in 1885. He investigated the serial learning and forgetting of new information (nonsense syllables) and described the speed of forgetting by formulating the so-called *forgetting curve*. William James was the first scientist to address the topic of structure in memory with the distinction between *primary* and *secondary memory*, around the last decade of the 19th century. Over the years, the wealth of research assessing memory has greatly increased. The methods used have also evolved over time, spanning from experimental approaches in healthy subjects, to neurobiological and biophysical studies on neuronal cells, to neuropsychological studies on patients with brain damage, and in recent decades to neuroimaging research.

## Memory Systems

The first memory studies, and over the years the bulk of memory studies, have been conducted to learn about verbal memory using methods like *serial learning*, *associative learning*, *free recall*, and *recognition tests*. Through studying such learning processes, researchers have found that memory performance is constrained by both *capacity* and *time-related storage* (duration). Halfway through the 20th century, the idea of a distinctive *short-term memory* (STM) came forward, mostly supported by the investigations and theoretical work of Donald Broadbent in the 1950s and Richard Atkinson and Richard Shiffrin in the 1960s. From their points of view, STM temporarily allows a limited storage of information that can be conveniently retrieved without performing control processes like rehearsal. The capacity of information storage is limited as well. As a famous example for such *capacity limits*, in 1956 George A. Miller described the magical number 7 ( $\pm 2$ ) as the limited number of items that may be stored in STM. He was also able to show that this memory capacity could be increased through processes like *chunking*—that is, grouping items (e.g., digits) into reasonable frames or subgroups, such as three-digit-chunks. Based on various experiments in the 1960s using a *partial report paradigm*, George Sperling defined *sensory memory*, which refers to holding an iconic mental picture of the relevant items for approximately 100 to 500 ms after an item is presented. Based on such research lines, Atkinson and Shiffrin were the first to describe in 1968 a multistore model of memory featuring both (a) *structure* and (b) *control processes*. Concerning structure, the further developed *Atkinson–Shiffrin memory model* distinguished between three separate stores: sensory memory, STM, and long-term memory (LTM). Control processes are used for encoding, consolidating, and rehearsing information in memory; improving memory capacity; supporting the transfer from STM into LTM; and vice versa. This model became an influential framework in cognitive psychology and sport psychology (SP) because it provided an integrative theoretical perspective and a testable background for experimental studies.

In the years since the appearance of the original Atkinson–Shiffrin model, many alternative models have been developed, some of which hypothesize only one memory structure. In such models, sensory registers or short-term stores are hypothesized as temporary states of activation in a unique memory network. These perspectives are similar to the idea of a unified cognitive memory model like Adaptive Character of Thought–Rational (ACT–R), which was developed over two decades (from the 1970s to the 1990s) by John Robert Anderson. This model does not define memory structures by their storage duration. Rather, it distinguishes two types of information that may be stored in memory: *declarative information*, which consists of facts about our world, and *procedural information*, which is the knowledge about how to perform actions, for instance writing a letter. ACT–R theory also includes a computational implementation to study principles of human memory through simulation.

Much effort has been made in the field of memory research to define and describe *working memory*. While there are commonalities between working memory and STM, STM researchers emphasize *time limitations*, whereas working memory researchers address *storage limitations* from a functional point of view. The term *working memory* was originally used by George A. Miller, Eugene Galanter, and Karl H. Pribram in 1960 to describe the function of memory in the planning, implementation, and cognitive control of behavior. Because various working memory studies demonstrated that stimuli are differentially processed with respect to the sensory nature of information, Alan D. Baddeley proposed in 1986 a working memory model with three active components. The model distinguishes between two active slave systems: a *phonological loop*, responsible for the storage of auditory information, and a *visuo-spatial scratch pad*, which stores visual and spatial information. Furthermore, it has been assumed that these different types of representations are controlled by an attention-based *central executive*. With the help of this model, it is possible to explain why it is easier to perform a dual task with two different sensory channels, with for instance auditory and visual information, compared to a dual task with the same kind of information, such as two types of visual information. This model of working memory remains influential even today.

### Memory and Performance

Research over the past 40 years has revealed the close relationship between memory and performance. For example, the chess studies of Adriaan de Groot and later William G. Chase and Herbert A. Simon have highlighted differences in STM performance among expert and novice performers. These authors used different methods to learn about the cognitive mechanisms underlying expert performance. De Groot used think-aloud protocols, in which participants were instructed to verbalize their thoughts during the task, while Chase and Simon used a 5-second recall task to learn about how experts “chunk” meaningful game constellations. These chess studies revealed that experts are better than novices at storing task-relevant information in STM. However, their superiority is limited to meaningful game constellations. The experts’ advantage is no longer evident when players must reproduce meaningless constellations of chess pieces. Chase and Simon developed a chunking theory and proposed that experts are better able to memorize perceptual information because they adopt an organized pattern of information and a large number of chunks in LTM through practice. However, later research has shown that it is speculative to make direct statements as to how far chunked-representations in LTM mediate the formation of a chunk pattern in STM. As a consequence, William G. Chase and K. Anders Ericsson developed at the beginning of the 1980s the *skilled memory theory*, which argues that experts’ LTM structures, as well as their encoding and retrieval skills, spill over into working memory, supporting its capacity. This research perspective was later generalized

to studies on the relationship between STM and performance in sport. New studies employing a variety of tasks such as menu orders, medical expertise, and text comprehension highlighted the limits of skilled memory theory. As a consequence, in 1995 Ericsson and Walter Kintsch presented their concept of *long-term working memory*. From this point of view, experts do not only use encoding and retrieval skills but also develop a retrieval structure to address relevant information patterns in a particular task domain. Skilled performers are able to use long-term working memory to anticipate future retrieval demands and identify the task-relevant information in the environment and in memory. This work has made major contributions to the study of the functional links between retrieval processes in LTM and the coding and chunking processes in working memory, and it shows that the capacity for task-related information storage also increases as a function of performance in domains like high performance sport.

Further research has addressed the storage of knowledge components in LTM. As opposed to the focus on information storage capacity in working or STM, these studies have been more concerned with how knowledge is structured and networked in LTM. Hence, a major issue in this domain is whether we can confirm that improving performance is also accompanied by a higher degree of hierarchy in the knowledge structure. A wide range of methods and populations have been used to study expertise-dependent differences in the classification and memory representation of context-specific problem states, for instance, among springboard divers, judokas, triathletes, and weight lifters. Such research has revealed that the nodes of experts' representation structures in memory possess far more features than those of novices.

Such nodes of representation in motor memory might involve formats such as *propositions*, *relational structures of many kinds*, and *concepts*. Researchers from various fields such as cognitive

psychology, cognitive robotics, and SP have provided evidence in recent years of so-called *basic action concepts* (BACs) in the control of human movements. BACs are based on the cognitive chunking of body postures and movement events concerning common functions in the realization of action goals. Based on this definition of representation units in motor memory, Thomas Schack, Franz Mechsner, Bettina Bläsing, and other researchers studied the link between memory and motor skills in various kinds of sport and dance to investigate the nature and role of LTM in skilled athletic performance. In high-level experts, these representational frameworks were organized in a distinctive hierarchical treelike structure, were remarkably similar between individuals, and were well matched with the functional and biomechanical demands of the task. In comparison, action representations in low-level players and nonplayers were organized less hierarchically, were more variable between persons, and were less well matched with functional and biomechanical demands. The results from a number of different studies in domains such as golf, soccer, windsurfing, volleyball, gymnastics, and dancing have demonstrated that mental representation structures in memory are functionally related to motor performance.

#### 4.6.5 What is thinking?

Thinking is the process of considering or reasoning about something. Thinking simply equates to conscious cognitive processes. This definition is too broad, and make more scientific and philosophical progress if we tighten it up a bit. People of a psychodynamic persuasion might even want to talk about "unconscious thinking," but that makes the term so broad as to be quite useless. Of course, there are tremendously important unconscious cognitive processes shaping the way make sense of the world, but "thinking" seems to be quintessentially conscious. Let's take Rodin's *The Thinker* as an example. Here's someone who is more than just conscious. He is struggling with a problem, cognitively trying to get from A to B. One important point about thinking is that it is *active*; it is something that we *do*. That's why I, following Vygotsky, prefer the active term "thinking" to the passive term "thought." If you like, we can call "thought" the product of the active process of "thinking." But that sticking to the active term keeps the special qualities of thinking at the forefront, and that's important for what we have to do. What about the *experience* of thinking; what it seems like from the inside? If we could put ourselves in Rodin's character's head, what would we see, hear, and feel? Phenomenology can be misleading here, as it can be throughout psychology. Just because an experience *seems* to be a certain way, that doesn't mean it's a true guide to what's going on our brains. But it's hard to deny an experience which has a strong subjective character. When Gibson tunes into a woman's thought processes, he hears language. He doesn't see pictures or abstract symbols. He hears a voice, one that is supposed to be private, linking together the unsuspecting victim's experience into a verbal stream of consciousness. In comic books, thought bubbles are usually full of words, not pictures. This view of thinking is the one that makes the most sense to us, because it is the one that most closely matches our experience. Thinking is conscious and it is active. It is the kind of cognitive process that can make new connections and create meaning. It is dialogic: It has the quality of an internal conversation between different perspectives, although the "give-and-take" quality of external dialogues may not always be immediately obvious. And it is linguistic: verbal for those of us who use spoken language, visual for those of us who use sign language to communicate with others and with ourselves. So far, language is necessary for thinking, and then thinking is defined in terms of its reliance on language. That won't do. But now that we have a slightly clearer sense of what thinking is, we can try to define it in terms of other things that are going on, cognitively and perhaps neurologically. And then we can perhaps make some progress. Thinking is inner speech. That's a strong claim, and it requires another step to the argument. We usually assume that inner speech is just one homogeneous kind of thing: a flow of words in the head which appear to us, subjectively, like heard language. Their existence is implied in Vygotsky's writings, but he never spelled it out quite like this. Understanding why these two kinds of inner speech exist requires us to think about where inner speech comes from: how it develops, and particularly how it is transformed as it changes from external to internal speech. Vygotsky proposed that this process of transformation involves both semantic and syntactic changes. In a nutshell, the language that is to be internalized becomes abbreviated, so that inner speech becomes a "note-form" version of the external dialogue from which it derives. In its condensed form, the language that forms inner speech has all of its acoustic properties stripped away, losing the qualities of tone, accent, timbre and pitch that distinguish spoken language. Vygotsky referred to this stage of ultra-abbreviated internal language as "thinking in pure meanings." We see some aspects of this process in action in children's private speech, which can be seen to undergo the same transformational processes as it gradually becomes internalized. It is this category of abbreviated inner speech that I have called condensed inner speech. In this kind of thinking, we are still using language, but it may not subjectively seem like spoken language (because the acoustic properties of language have been stripped away). At other times, our thinking takes the form of a second kind of inner speech, expanded inner speech, where subjectively we do experience a full-blown internal dialogue playing out in our



minds. We have a sense of participating in a true internal conversation, with one point of view answering another, just like a dialogue spoken aloud between two people. Together, these two forms of inner speech make up my narrower category of "thinking." In the Radiolab show, Elizabeth Spelke counters by noting that she is often conscious of thoughts that cannot be put into words. There are at least two reasons why this might be so. Firstly, thinking does not equate to consciousness, so of course, we can be conscious of things we can't express verbally. Secondly, the experience Spelke describes is the one you might have when you are doing condensed inner speech. The thinking is not fully verbally expressible simply because it has not yet been expanded into full, recognisable language. For Vygotsky, this kind of thinking could be likened to the rain before it falls. He said that thought is like a "cloud shedding a shower of words," only fully expressible when it is converted back into regular language. The rain is there in the cloud, but not yet in the form of raindrops. In fact, I think we do most of our thinking in condensed inner dialogue, and I believe that it gives our cognition some very special qualities, such as flexibility, creativity, and open-endedness. Our brains have evolved to meet certain very important demands, and many of their functions may be subserved by specially evolved, relatively autonomous systems. But something needs to stitch the outputs of those systems together. Condensed and expanded inner dialogue are the basis for the internal conversation which allows us to integrate the different things that our brains do. It's this that I call "thinking." How about Bill Evans? In the Radiolab show, the jazz pianist's beautiful music is used to illustrate a kind of thought that does not involve words. I'm not sure what to make of this musical example. The first thing to say is that we don't know what's going on in Evans' head as he plays. It seems conceivable to me that he is using condensed inner speech, but my own experience of improvising music also tells me that one's head is usually pretty empty of everything except the music. Evans was conscious while he played, of course, and he was clearly doing some cognitive work, but that doesn't mean that it's helpful to describe him as thinking. Music is an odd thing, psychologically speaking, and I think it's a mistake to describe it in these terms. Music is *like* thought, in that it has structure, emotions, and logic, but the analogy only goes so far. Of course, there are lots of questions remaining. It may be that we will show, through (for example) experimental techniques which can selectively knock out internal language, that language is not involved in all of the integrative, active cognitive processing call "thinking." more in a future post on studies (including one forthcoming from our lab) which show that language does have such a role, but we can sure that the debate will continue for some time yet.

#### 4.6.6 Effect of thinking on sports performance

Serious athletes devote hours to conditioning, honing skills, perfecting techniques for their particular sport, and practice, practice, practice. And it's true that physical training—and inherent talent—can take an athlete far. But only so far. If you're an athlete or simply enjoy competitive sports, developing a positive mental attitude can help give you an edge. Emotions, both happy and sad, are unavoidable and necessary, but they also can affect cognitive functioning (how well you think), your energy level, and other aspects of your physical performance. When negativity rules the day—because you're dealing with an injury, say, or being criticized by your coach—it can be really tough to drum up the optimism that can help you succeed. So if you'd like to take your sports performance to the next level, consider trying some of these mental strategies for reversing negativity and getting rid of self-limiting beliefs.

**Improve your mind:** If you're in a state of frustration or plagued by a pessimistic perspective, you may be able to bring about a shift by getting yourself into a happier mood. Rather than dwell on whatever problems or issues are getting you down—maybe you've hit a snag in your training or you're having a losing streak—do something that you know will lift your spirits,

even if you don't feel like it. Crank up some uplifting music. Get together with a friend who's always cheery. Play with your kids. Head to the dog park and watch the pups at play.

**Take a time out:** Negativity doesn't always stem from an internal or personal source. Often we find ourselves being deeply affected by awful things we hear or read about that are happening in the world around us or by troubling images we see on television or in the newspaper. It's all too easy to allow these sorts of things to seep into our own psyches and overtake our mental and emotional state.

Of course, it's important to keep up with current events, even bad ones, but it's equally important to protect ourselves from overdosing on disturbing information. Take a break from the nonstop news. Dedicate a specific chunk of time each day to keep up with current events, but don't allow yourself to get sucked into watching and listening to the same information over and over, or compulsively checking for updates. If you must read or tune into something, make it a magazine article about an inspiring athlete or a fun sitcom.

**Talk to yourself:** Ongoing research in sports psychology continues to find that practicing positive self-talk can greatly improve athletic performance. Sports psychologists often explain this link by pointing to the idea that thoughts create beliefs that ultimately drive actions. Positive self-talk can take many different forms. For some people, reciting a positive mantra—a specific phrase or sentence, or even a single word, such as "power" or "focus"—is an effective way to manage thoughts and quash negativity that can get in the way of optimal performance. A similar strategy is using visualization exercises. This basically means imagining a scenario in which you're competing and doing well.<sup>2</sup> Use all your senses—imagine the sound of the crowd cheering, the smell in the air, how the ground feels under your feet or how the ball feels in your hands. There is some truth to the idea that if you can think it, you can do it, so use this wisdom when you compete.

Traditionally, sport psychologists have placed great value on athletes thinking positively about upcoming and imminent performances. Compared with practicing sport psychologists who have demonstrated a keen interest in positive thinking, theorists and researchers have not. As a result, a systematic and thorough knowledge base regarding what positive thinking is and why it is so sought does not currently exist. However, it would be reasonable to state that positive thinking is a broad term encapsulating self-affirmations (e.g., I feel strong, I stay focused under pressure), images of successful goal attainment (e.g., winning an important competition), as well as thoughts reflecting optimism and an unshakable self-belief. Although positive thinking can include recollection of previous sporting successes, the essence of positive thinking is a focus on the present goals at hand (e.g., to successfully "sink" the immanent golf putt) and the likely attainment of these. Both personal (e.g., personality traits such as anxiety) and social (e.g., coach feedback about progress concerning the learning of a skill) factors can influence positive thinking. The current research and theories pertaining to positive thinking are discussed here.

As well as sport psychologists, coaches around the world clearly value positive thinking. For instance, we know that North American and Australian tennis coaches strongly encourage their players to think positively and say positive things to themselves in order to bolster their confidence levels. However, despite its perceived importance, it is only relatively recently that researchers have identified four types of sports-oriented positive thinking: psyching up, anxiety control,

confidence

enhancing, and instructional. Although instructions are not necessarily inherently positive, it is likely that the mere presence of directive thought assists with a positive mind-set by indicating to the athlete that she or he has some control over the situation. Researchers who have examined how athletes might utilize positive thinking have developed a self-talk questionnaire, the use of which has revealed beneficial relationships between athletes' positive thinking and their mood states (e.g., anxiety, vigor, tension, and boredom).

Perhaps unsurprisingly, positive thinking has been shown to be most strongly and positively related to state self-confidence. Indeed, studies involving athletes being trained in the use of positive thinking have revealed that athletes experience reduced precompetition anxiety and elevated levels of confidence, as well as more facilitative interpretations of the symptoms associated with anxiety. That is, athletes are more likely to view characteristics associated with anxiety (e.g., "butterflies in the stomach," concern with the task at hand) as being helpful rather than a hindrance for their subsequent performance.

Although the association between positive thinking and performance has not been extensively investigated, based on the limited available literature, researchers have identified a consistent positive effect of positive statements addressed to oneself on sporting performance. One of the proposed reasons for this effect involves self-confidence; more specifically, positive thinking leads to enhanced confidence, which, in turn, assists skill execution and performance. Drawing on the sources of self-efficacy proposed by Albert Bandura offers some guidance about how to develop a positive frame of mind and increase sporting confidence. For instance, athletes can be trained to think more positively through the use of specific positive self-administered verbally persuasive cues (e.g., I can). Research has indicated that use of these cues by moderately skilled tennis players prior to task execution improves both their confidence and ability to execute ground strokes.

Although specific positive thoughts seem to be particularly beneficial for enhancing confidence (and performance), there are a number of more general positive thinking techniques worthy of mention, not least because they are frequently employed by sport psychologists when working with athletes. As well as monitoring one's mindset (e.g., keeping a diary or log of mental aspects connected with training and competing), a number of methods for modifying thoughts have been proposed. These include thought stopping using physical or verbal triggers (e.g., saying stop), replacing negative statements with positive ones, or more thought restructuring-based approaches such as reframing, which emphasize positive aspects or perspectives within a seemingly unfavorable situations (e.g., an injured soccer player unable to practice enables her to realize how much she enjoys playing the sport and being part of the team).

Practitioners have been advised to assist athletes by challenging and countering irrational or distorted thinking and by helping develop affirmation statements or more extensive positive scripts. In essence, these methods aim to help athletes develop an optimistic and empowered explanatory style of events they experience; that is, athletes learn to avoid catastrophizing about errors or failure, view themselves as having more control over events, and are able to extract positive information from potentially negative experiences (e.g., a loss). It is notable that positive thinking seems to be particularly useful when athletes need to cope with adversity (e.g., injury, being under pressure). In this setting, positive thinking may help the performer make a more favorable appraisal of the situation and/or his or her ability to cope with it. Thus, positive thinking may have both a direct and an indirect effect (via stress buffering) on performance. Caution needs to be used due to the relatively under researched nature of many positive thinking techniques advocated in the sport psychology (SP) literature; although theoretically viable, the techniques and reasoning behind them have yet to be tested with athletes.

A final important consideration is that, to date, a “more is better” approach to positive thinking has been taken within the sport psychology literature; indeed, some research evidence supports this perspective. However, alternative perspectives exist that predict that problems arise with excessive positive thinking, reflecting unrealistic expectations and self-perceptions. Consequently, it is possible that one can have “too much of a good thing” and that there is a need to optimize the balance between positive and negative thoughts.

## **10 Tips for To Keep You Thinking Positively**

### **1) Focus on the things you can control**

Don't focus so much on *outcome* targets, such as the end result or how many goals you scored. These are things that you can only partially control (after all, you're just one of many players on the pitch), so it makes no sense to fixate on them and get upset when they don't go the way you want.

Focus instead on *process and performance* targets. These are things you can control, such as your attitude, whether you tracked opponents when you were defending, whether you put in enough effort, whether you got your shots on target when you had the chance. These are all things you can control.

Even if you meet your performance targets, you still might lose the game. Why spend your time feeling negative about things beyond your control, it's the things you can influence that really matter. Thinking about your own performance also helps you identify the areas where you can personally make a difference and be a valuable asset to your team, so you're more likely to be successful like this anyway.

### **2) Be realistic in your expectations**

The truth is, sometimes you've got to hold your hands up and say that you were comprehensively beaten by a much better opponent, with much more experience. What might seem like a heavy defeat might actually be a fantastic result when you objectively consider how much better they are.

This doesn't mean that you should develop a losing mentality. If you gave it everything to try to win, but still lost, there's no point dwelling on it. Analyse, improve, move on.

### **3) Look for the positives in your performances**

When you're analysing a game, make sure that you put more effort into reflecting on what went right than what went wrong. Maybe you put a few good moves together and your team scored

a great goal – that’s something you can build on. Finding the positives give you the encouragement to improve other areas.

Even the negatives can become positives with the right mindset. Let’s say your goalkeeper was at fault for a couple of the goals you conceded. You could look at the situation and think how those mistakes cost you the game, or you could instead take heart from the fact that, with a couple of simple goalkeeping improvements, you’ll be very close to winning next time.

#### **4) Be constructive and encouraging with your teammates**

One of the beauties of 5-a-side is that it’s a social game and players love to stick around and chat about things afterwards. The post-match autopsy is an unavoidable part of that conversation for most people, but it’s here that a lot of negativity can creep in.

Sometimes a point needs making to somebody. Maybe your goalkeeper has consistently been giving away goals through poor distribution, rolling the ball straight to the opposition. Instead of being openly critical about them (or even worse, moaning behind their back) it’s much better to ask them about it, see if they’ve got any suggestions on what the team can do to help, and be positive in your comments. Some helpful (not patronising) advice, encouragement and reassurance is often all that players need to be able to work on fixing their errors.

Positive comments help build bonds between players, the bonds that help build a team and encourage everyone to work hard and support each other. Nobody tries to make a mistake, and shouting at them generally isn’t a great motivating technique – they’ll just think you’re a maniac who’s taking it much too seriously.

#### **5) Cherish the successes**

Barbara Fredrickson, a positive psychology researcher at the University of North Carolina published a study that showed the power of focussing on the positives. In a paper published in the Journal of Research in Personality, it was found that when a group of 45 students wrote about an intensely positive experience each day for three consecutive days they had better mood levels and fewer illnesses than 45 similar students who wrote about something neutral. Considering what just 3 days of focussing on something positive did for the students, shouldn’t you be letting yourself enjoy your successes? When you do have a positive experience playing sport, make sure you take time to enjoy it!

#### **6) Surround yourself with positive people**

It’s no fun at all playing with people who are moaners. It’ll quickly bring you down, and where there are two or three of these personalities you can find yourself quickly spiralling downwards in a cycle of negativity and discontent. The only thing worse than being on a team of negative people is to realise that you’re the ringleader!

#### **7) Cut yourself some slack**

It’s easy to dwell on your mistakes, but nobody is perfect. Acknowledge the mistake and learn from it: “I shouldn’t have made the mistake that led to their goal, but it happened. Now the only thing I can do is learn from it and move forward so it doesn’t happen again.” Mistakes are nothing more than learning opportunities.

#### **8) Challenge your negative thoughts**

Feel a negative thought creeping in during a game? Cut it off at an early stage, before it festers and becomes destructive. If it’s still bothering you at the end of the game, raise it constructively with your teammates.

#### **9) Remember why you’re playing**

When all seems to be going wrong and people are getting stressed, consider why you’ve decided to dedicate your free time to playing football in the first place. Most likely it’s because you love it, you want to get some exercise, spend time with your mates, and enjoy yourself in the process. Keep sight of this reason, and don’t let yourself turn the experience into an unpleasant one.



At the end of the game, win or lose, life will carry on as normal so keep things in perspective. it's not worth getting stressed about, and certainly not worth losing friends over.

#### 10) Smile, laugh and have fun

Football is a game that is best played if you can smile, have a laugh and enjoy yourself. After all, that's the main reason to play.

1. Negative thinking is based on **fear...** Fear of failing, fear of mistakes, fear of criticism, fearing of losing playing time, etc. Negative beliefs bring about negative outcomes. You make your reality by the thoughts you choose to entertain. Now, a few random negative thoughts won't guarantee a poor performance. Poor performance occurs when you feed those negative thoughts by constantly **focusing** on them, especially when not performing your best. The more you **focus** on negative thoughts, the more they run rampant in your mind which leads to mistakes, errors, drops, falls and losses. You can change your beliefs to **focus** on healthy ones. The more you **focus** on feeling **confident**, the more you will push out the demons in your head. Scottish soccer player Ryan Fraser has batted with **thinking negative** during games. During a game tied 0-0 with 5 minutes remaining, Fraser had a one-on-one against a defender but rather than take on the defender, he passed the ball back. Fraser was later asked by the team's sport psychologist why he'd been so timid, he said, *"I didn't want to lose the ball and they run in and score."* The **sport psychologist** responded with, *"But what if you took him on and crossed the ball and we scored from it?"* Fraser admitted, *"I hadn't really thought of that. I had gone to the **negative output**, the safer output. That was the type of stuff holding me back."* 1. Attack the goal and possibly score (success-oriented) 2. or "What if I mess up?" (avoid failure) Avoiding failure causes you to play it safe. You'll play to not make mistakes or mess up your team's chances of winning. And since the avoiding failure holds you back from taking chances, you will never become all you can be in sports. **Focusing** on **success** and what you have allows you to play **aggressively**, gives you the opportunity for a **positive outcome** and allows you to strive for your potential. When you opt to see the positive and grab hold of **confident** thoughts, you will greatly increase your chances to **succeed**. For this reason, it is essential that you commit to reprogram your thinking!

**Focus** on what you want to do instead of what you fear might happen. This **success-oriented** approach immerses you in the present moment and allows you to intuitively play your game or perform the way you want to. Ask yourself positive questions, such as, *"What is the best that can happen?"* By **focusing** on what you want to have happen during competition, your performance will follow your thinking.

#### Bad thinking about sports:

- Sports can encourage a child to focus so intently on becoming a star that the child neglects other essential areas of life.
- Sports offer the most common avenue to adolescent acclaim, a fleeting journey that will end soon — and often abruptly.
- Sports can cause a child to fall into a pattern of rationalizing unacceptable behavior. A good example is the athlete who becomes so competitive that he/she will do anything to win, convincing himself/herself that the ends justify the means.
- A few sports foster a culture of violence. Such a misguided culture too often spills over into barbaric acts in and out of competition, and also produces a copycat reaction among some impressionable young athletes.
- Sports can produce an unhealthy level of stress in a child, particularly a child who is pushed to excel and who feels a failure with every loss.



- Sports can produce irrational, boorish behavior among parents and athletes.
- Sports can produce many athletes who are negative role models.
- Sports can produce many coaches who are negative role models.
- Sports can produce many parents who are negative role models, especially those who overvalue athletic achievement.
- Sports, even team sports, can promote selfish behavior.
- Dreams of sports glory can induce some parents to completely lose perspective of the really important things in their child's life, especially that the athlete is a child.
- Sports can chip away at a child's self-esteem. A child who falls short of athletic goals or who perceives that one is valued only for athletic ability may lack a sense of value and self-worth off the field.
- The desire to win can lead some young athletes to turn to harmful, illegal substances.
- Sports can be so time-consuming that it leaves some athletes with little time for studies or social life.
- Sports can be a distraction from serious academic pursuit. At the highest level of intercollegiate competition, colleges are producing magnificent athletes who, in many cases, are ill-equipped to engage in any meaningful life's work.
- From blaming referees for poor calls to listening to those who say, "you are being treated unfairly," sports can be a haven for excuses.
- Sports can allow many who are physically gifted to behave like arrogant bullies.
- Sports can allow many who are physically gifted to underestimate the real meaning of hard work.
- The link between sports stardom and arrested development is far too common.
- The "trample the opponent" philosophy espoused by some coaches and parents sends the wrong message about the core value of empathy.
- When sports are more important to the parent than the child, it can create distance and resentment, particularly when a child's performance does not live up to parental hopes and expectations.
- Burnout or injuries from sports can lead to neglect of physical fitness.
- Finally, sports can teach a child that it is acceptable to cheat or take short cuts to win, especially if coaches and parents turn a blind eye toward such practices. Gamesmanship tactics such as flopping in basketball, when a defensive player fakes an offensive foul by falling to the floor, are frequently encouraged by coaches and parents, and employed by young athletes. Acceptance of these tactics fosters a belief that such behaviours are not only acceptable but admirable; to win at any cost is okay.

### **Negative Thinking in Sport**

It could be argued that negative thinking is a common occurrence before, during and after athletic performance.. Whereas confidence is perceived as the athlete's conviction of successfully performing a task (self-efficacy), negative thinking can be understood as the opposite. For example, a kick-boxer in preparation for an important fight may experience a stream of negative internal-dialogue..... "I'm not sure if I am as good as my opponent", "perhaps my opponent has trained harder than me", "it may be embarrassing if I get hurt", and "what if I let people down"?

### **Consequences of Negative Thinking**

- Reduced confidence
- Lack of concentration for upcoming task(s)
- Performing to please others, rather than focusing on own performance capabilities
- Becoming tense
- Elevated anxiety and stress (Butler, 1996).

### Is a negative thought always a bad thing?

It could be argued that athletes can still perform to their potential even if they do think negatively or have self-doubts. Perhaps the extent to which athletes performing successfully under negative thinking is determined by how negative thinking is dealt with?

### Developing Positive Thinking

The following are **ideas** for possible methods to help manage negative thinking.

1. **Re-phrase** – Avoid self-statements which highlight what is not supposed to happen and supplant them with clear declaration of what should be focused on. For example, a kick-boxer thinking “my opponent may be better than me”, may instead think about what needs to be done; “focus on what I need to do to win”, “perform the routines I have prepared”, or “I have trained hard, so I can be confident”.
2. **Believe in the possible** – Rather than perceive an upcoming performance as a threatening event, perceive the performance as a challenge. This may require an athlete to question: What is possible? What is needed to achieve the possible? These questions may lead an athlete to develop a goal-setting plan to motivate him/her to go beyond self-imposed limitations
3. **See set-backs as unstable** – It is important to view a set-back as only temporary and an opportunity for improvement, which may, in turn, benefit future performances.

### 4.6.7 Definition of Motor Skill

A motor skill is a function, which involves the precise movement of muscles with the intent to perform a specific act. Most purposeful movement requires the ability to “feel” or sense what one's muscles are doing as they perform the act. A **motor skill** is a learned ability to cause a predetermined movement outcome with maximum certainty. Motor learning is the relatively permanent change in the ability to perform a skill as a result of practice or experience. Performance is an act of executing a motor skill. The goal of motor skill is to optimize the ability to perform the skill at the rate of success, precision, and to reduce the energy consumption required for performance. Continuous practice of a specific motor skill will result in a greatly improved performance, but not all movements are motor skills. Motor skills are movements and actions of the muscles.

**Gross motor skills** – require the use of large muscle groups to perform tasks like walking, balancing, and crawling. The skill required is not extensive and therefore are usually associated with continuous tasks. Much of the development of these skills occurs during early childhood. The performance level of gross motor skill remains unchanged after periods of non-use. Gross motor skills can be further divided into two subgroups: locomotor skills, such as running, jumping, sliding, and swimming; and object-control skills such as throwing, catching and kicking.

**Fine motor skills** – requires the use of smaller muscle groups to perform smaller movements with the wrists, hands, fingers, and the feet and toes. These tasks that are precise in nature, like playing the piano, writing carefully, and blinking. Generally, there is a retention loss of fine motor skills over a period of non-use. Discrete tasks usually require more fine motor skill than gross motor skills. Fine motor skills can become impaired. Some reasons for impairment could be injury, illness, stroke, congenital deformities, cerebral palsy, and developmental disabilities. Problems with the brain, spinal cord, peripheral nerves, muscles, or joints can also have an effect on fine motor skills, and decrease control.

Motor skills develop in different parts of a body along three principles:

- **Cephalocaudal** – development from head to foot. The head develops earlier than the hand. Similarly, hand coordination develops before the coordination of the legs and feet. For example, an infant is able to follow something with their eyes before they can touch or grab it.
- **Proximodistal** – movement of limbs that are closer to the body develop before the parts that are further away, such as a baby learns to control the upper arm before the hands or fingers. Fine movements of the fingers are the last to develop in the body.
- **Gross to specific** – a pattern in which larger muscle movements develop before finer movements. For example, a child only being able to pick up large objects, to then picking up an object that is small between the thumb and fingers. The earlier movements involve larger groups of muscles, but as the child grows finer movements become possible and specific things can be achieved.

**There are six aspects of development:**

- Qualitative – changes in movement-process results in changes in movement-outcome.
- Sequential – certain motor patterns precede others.
- Cumulative – current movements are built on previous ones.
- Directional – cephalocaudal or proximodistal
- Multifactorial – numerous-factors impact
- Individual – dependent on each person

Motor learning is a change, resulting from practice. It often involves improving the accuracy of movements both simple and complex as one's environment changes. Motor learning is a relatively permanent skill as the capability to respond appropriately is acquired and retained.

The stages of motor learning are the cognitive phase, the associative phase, and the autonomous phase.

- Cognitive phase – When a learner is new to a specific task, the primary thought process starts with, "What needs to be done?" Considerable cognitive activity is required so that the learner can determine appropriate strategies to adequately reflect the desired goal. Good strategies are retained and inefficient strategies are discarded. The performance is greatly improved in a short amount of time.
- Associative phase – The learner has determined the most-effective way to do the task and starts to make subtle adjustments in performance. Improvements are more gradual and movements become more consistent. This phase can last for a long time. The skills in this phase are fluent, efficient, and aesthetically pleasing.
- Autonomous phase – This phase may take several months to years to reach. The phase is dubbed "autonomous" because the performer can now "automatically" complete the task without having to pay any attention to performing it. Examples include walking and talking or sight reading while doing simple arithmetic.

#### 4.6.8 What is Motor Skill Learning?

A variety of motor skills occur in various forms of movement: work, play, sport, communication, dance, and so on. Psychophysical studies of the learning and retention of motor skills date from the 1890s, with neurophysiological studies coming later. Attempts to combine cognitive and neural approaches flourished in the twentieth century (Bernstein, 1967) and persist unabated, capitalizing on advances in technology.

The theoretical and operational emphases of this field parallel those in other subdomains of learning, in part because motor, perceptual, and cognitive skills are not mutually exclusive and in part because of anatomical advances that show the underlying modular architecture of the

brain (Houk, 2001). Definitions of motor skills typically pertain to the movements of the limbs and torso as opposed to those of perceptions and the formulation of ideas, but the conceptual boundaries blur in the face of the planning that precedes elaborate motor acts.

How do people learn and remember how to dance, type, hop, play the piano, and tie their shoelaces? Bartlett (1932) said of the skilled tennis player, "When I make the stroke I do not, as a matter of fact, produce something absolutely new, and I never merely repeat something old." A central issue in the learning of motor skills is how the movement form is acquired through practice and retained over time. A related issue is the role that variations of movement form play in realizing the goal of the act. These two issues, movement invariance and motor equivalence, have been the focus of the theorizing about the acquisition and retention of motor skills.

Motor skills involve two distinctive operations: One is to select, recall, and initiate the movement segment required at each stage in a task; the other is to guide the trajectories of the movement segments so that they achieve the subgoals required to complete the task. Much of the work on skill learning and retention has emphasized the second operation, the refinement of trajectories based on the experience gained through the sensory consequences of the movement (Adams, 1971).

The emerging conceptions of cognitive psychology challenged the one-to-one memory accounts of movement representation. An outgrowth of this trend was Schmidt's (1975) schema theory of motor learning, which promoted a one-to-many representational construct for both recall and recognition processes of movement control. The representation for each memory state consisted of the relations between task, organism, and environmental variables rather than the absolute levels of the variables themselves. The schema was a generic rule for a given class of movements that allowed the generalization of movement outcome to a variety of task and environmental circumstances. Schema theory proposed that the more variable the practice within the potential class of movements (e.g., variations in the length, velocity, and/or angle of a forehand drive in tennis), the more general the schema rule would become for that activity. Neurobiologically based theories of movement control seem to be able to account for most of this framework (Bertier et al., 1993).

The schema theory seemed to provide a solution to two enduring problems in motor-skill acquisition and retention: novelty and the limited storage capacity. The novelty problem addresses the question of how the performer accommodates to novel tasks and environmental circumstances. The limited storage capacity of the CNS arises as a consequence of the many one-to-one representations that would be generated from an individual's lifetime movement experience, especially in the absence of schema theory. The Schmidt schema theory could not resolve the novelty problem because it did not explain the initial establishment of the movement class; it accounted only for changes in the scaling of force, velocity, or position of a given action pattern (such as a tennis forehand drive) rather than the generation of pattern of the forehand drive movement—perhaps because it did not interface with the emerging knowledge about the basal ganglia (Houk and Wise, 1995).

During the 1980s one-to-one and one-to-many prescriptive accounts of motor-skill learning were challenged by the tenets of the ecological approach to perception and action (Kugler and Turvey, 1987). The ecological approach seeks the solution to motor learning through the mapping of perception and action with minimal appeal to the representational processes typically posited by cognitive psychologists. A central concern has been the appropriateness of

cognitive strategies proposed to map the emergent movement dynamics into a rule-based symbolic representation.

The emergent structure and variability of the movement sequence was subsequently analyzed in terms of physical-systems solutions to the mapping of the gradient and equilibrium regions of the perceptual and motor processes (Kugler and Turvey, 1987; Schoner and Kelso, 1988). A physical approach to the study of the learning and retention of motor skills must contend with the question of how information and dynamics relate to the intention of the performer. Learning can be viewed as an exploratory activity, with the performer searching for stable regions of the perceptual and motor dynamics that realize the goal of the act (Newell et al., 1989).

The 1990s saw a rising interest in understanding how the networks of the brain might learn to generate motor command signals capable of controlling skilled movements. Neural-network models of the cerebellum based on the anatomy and physiology of these circuits helped to relate skill acquisition and performance to many fundamental features of motor performance, such as the one-to-many representational construct for motor programs (Berthier et al., 1993) and the predictive capacity required to prevent instability caused by closed-loop control (Barto et al., 1999). Models of the interaction between the cerebellum and the cerebral cortex suggested the manner in which memories might be translocated to improve the speed and automaticity of practiced skills. New techniques such as transcranial magnetic stimulation are shedding light on the changes in the motor cortex that occur with practice (Classen et al., 1998). Functional imaging of the brain is helping to define the networks that participate in motor programming (van Mier et al., 1998).

Motor learning is learning involving neuro-muscular system of the body. As it can be defined as muscular action directed towards the achievement of a goal, motor skill learning, therefore, is a relatively permanent change in the performance of motor skill resulting from experience and practice.

Motor learning is a set of processes associated with practice or experience leading to relatively permanent changes in the capability for movement (Schmidt & Lee, 2005).

#### 4.6.9 Principle of Motor Skill Learning

- 1. PRINCIPLE OF INTEREST:** A student's attitude toward learning a skill determines for the most part the amount and kind of learning that takes place.
- 2. Principle of Practice:** Practicing the motor skill correctly is essential for learning to take place.
- 3. Principle of Distributed Practice:** In general short periods of intense practice will result in more learning than longer, massed practice sessions.
- 4. Principle of Skill Specificity:** A student's ability to perform one motor skill effectively is independent of his/her ability to perform other motor skills.
- 5. Principle of Whole-Part Learning:** The complexity of the skill to be learned and the learner's ability determine whether it is more efficient to teach the whole skill or break the skill into component parts.
- 6. Principle of Transfer:** The more identical two tasks are the greater the possibility that positive transfer will occur. Practice conditions should match the conditions in which the motor skill is going to be used.



**7. Principle of Skill Improvement:** The development of motor skills progresses along a continuum from least mature to most mature. The rate of progression and the amount of progress within an individual depends upon the interaction of nature and nurture.

**8. Principle of Feedback:** Internal and external sources of information about motor performance are essential for learning to take place.

**9. Principle of Variable Practice:** Block practice aids in performance while variable practice aids in learning. Variable practice causes an increase in attention.

Motor learning is a complex phenomenon with many components. Depending on the particular task, different anatomical structures are involved. It would be an oversimplification to say that only one part of the brain is involved with any task; it is more likely that a network is functional. However, it is possible to identify some aspects where particular structures play a major role. The cerebellum takes the principal part in adaptation learning. In skill learning, however, the cerebella role is smaller, and cortical structures, including the motor cortex, are important. Skill learning has many facets and likely engages large portions of the brain. To the extent that sequencing is important, the cerebellum appears to have an important role.

## Sub Unit – VII

### Transfer of training and its types with its implication in sports.

#### 4.7.1 Definition of Transfer of Training

**Transfer of training**, influence the learning of one skill has on the learning or performance of another. Training transfer means that learners are able to “transfer” their knowledge and skills learned in a training session back to their jobs. The importance of training transfer cannot be overemphasized. Organizations spend billions of dollars each year on training, yet only a fraction of that investment results in improved performance if training transfer is not supported by stakeholders (i.e. any individual or group that has a “stake” in the transfer of training). These include managers, peers, customers and the employer. Stakeholders also assume responsibility for supporting transfer. The goal of training is not simply to gain knowledge and skills, but to transfer learning into performance, which in turn leads to improvements in agency results. Training transfer is not an event; it is a dynamic and complex process that requires planning.

**Crow and Crow:**

**“The carry-over of habits of thinking, feeling, or working of knowledge or of skills, from one learning area to another usually is referred to as the transfer of training.”**

**Skinner:**

“Transfer of training is concerned with the question of whether or not the learning of material A—say Mathematics—helps, hinders or does not affect the subsequent learning of material B—say Physics or Chemistry.

**Sorrenson:**

“A person learns through transfer to the extent that the abilities acquired in one situation help in another.”

**W.B. Kolesnik:**

“Transfer is the application of carry over the knowledge’s, skills, habits, attitudes or other responses from the situation in which they are initially acquired to some other situation.”

**Peterson:**

“Transfer is generalization for it is extension of ideas to a new field.”

**Hilgard Atkinson Atkinson:**

(Introduction to Psychology) “The influence that learning one task, may have on the subsequent learning of another is called transfer of learning.”

**Guthrie & Others:**

“Transfer may be defined as a process of extending and applying behaviour.”

**Encyclopaedia of Educational Research:**

“The term ‘learning’ would be applied to the special kind of transfer phenomena in which there is great similarity between training conditions and test conditions.”

#### 4.7.2 Types of Transfer of Training

On the basis of magnitude or quality, it is of three types—positive, zero and negative.

**Positive Transfer:**

In this case, the past learning of one subject or activity facilitates the learning of another subject or activity. A sportsman playing football plays volley-ball as nicely. A bus-driver can drive a truck also equally efficiently.

**Zero Transfer:**

In this case, the learning of one subject does not help the learning of another. There may be zero transfer between language and mathematics.

**Negative Transfer:**

Herein learning of one task makes the learning of a second task harder. Learning shorthand by Danton method may cause interference in subsequent learning by Pitman method. The negative transfer is also called habit interferences.

One form of positive transfer is bilateral transfer or cross-transfer. Practice in using right hand while handling a machine in the factory may help handling by the left hand.

**4.7.3 Different theories of Transfer of training**

There are a number of theories regarding transfer of training.

**1. Mental Faculty Theory:**

This theory is the out-come of Faculty School of Psychology, which believed that mind is composed of a number of independent faculties like memory, attention, will, imagination, reasoning and temperament. According to this theory, a particular faculty works in every situation. If a person possesses strong memory, he can use it in any situation. He will be able to remember anything.

Theory has been abandoned now. It has been found experimentally that there is no faculty (amongst many) that is used in different situations. Take memory, for instance. Memory is of different types visual memory, auditory memory, immediate memory, rote memory, etc. Training in visual memory does not affect auditory memory and vice-versa. Hence this theory is not tenable now.

**2. Theory of Formal Discipline:**

According to this theory some school subjects or instructional items have a disciplinary value, apart from the knowledge value. Subjects like classics, geometry, logic and grammar train the mind and strengthen the faculties of observations and scientific thinking.

The advocates of formal discipline undermined the study of practical or utilitarian subjects, because the subjects having disciplinary value could train to learn to meet all situations in life. Geometry, for instance, was enough to strengthen the reasoning faculty.

**Appraisal of the Theory:**

A number of experiments were made to find out the significance and truth of the theory.

(i) William James was the first person to attack on this problem. He determined to find out whether practising memorisation of poetry really helped general memory. He discovered that it did not help at all.

(ii) Thorndike also made experiment on reasoning ability. But he found that one subject was as good as another in developing reasoning ability. Greek and Latin made no better logicians than Science or Physical Education.

These and such other evidences disproved the theory of formal discipline.

**3. Theory of Identical Component:**

According to this theory transfer takes place from one situation to another to the extent that there are common or identical elements (or components) in the two situations. Reasoning ability is common to Geometry and Physics. Hence transfer can take place here.

Modern psychologists also believe that mental functions like perception, attention, memory and reasoning are not separate entities but interrelated aspects of the total functioning of the mind.

Hence learned response in one situation may benefit the learner in another situation, if there are common elements in it. This theory was propounded by Thorndike. He says, “**By identical elements are meant mental process which have the same cell action in the brain as their physical correlate**”. Later Woodworth substituted the word element by component.

**Examples:**

(i) A boy who is a good hockey-player can be a good football- player also, because in playing hockey he has learnt the skill of keeping eye on the ball, judging the flight of the ball, catching the ball, hitting the ball, hitting the ball towards the companion or the goal etc. All these skills will help him in both the games. These skills are common elements in the two games.

(ii) A girl who has practised hemming a towel by hand can hem a short or a curtain in the same nice manner, because hemming skill is common to both.

(iii) A student who acquires good expression and style in writing in one language can be as good a writer in another language he learns.

#### **Educational Implication:**

This theory has got significant implications. There are a number of a courses in our scheme of studies which have identical elements. It would be profitable to form a group of all those subjects which possess identical or common components. This grouping of subjects was unknown during the last century. But the present higher secondary curriculum is based on the same principle.

The elective groups constitute of the subjects which have common elements. These common elements are related to some special skill or ability. If a student possesses that special ability he will profit by taking up that educational course in which all the subjects are related to ability. Secondly, now-a-days, we like to drop all those topics and skills, from the school curriculum which are unique and isolated. A subject or topic which has nothing common with other subjects, may be dropped. A number of a topics in arithmetic like stocks and shares', 'trains', 'pipes and cisterns' are being dropped on this account.

Again, subjects which are of practical nature, which develop a number of abilities, like scientific curiosity, initiative, originality, resourcefulness, application of knowledge, judgment and reasoning, are being emphasised more. The curriculum is being divested of much of the theoretical topics. Practical work, activity, projects, assignments, field-work and application are being emphasised more.

#### **4. Theory of Generalisation:**

Charles Judd has gone a step further in propounding this theory. He accepts the common element theory but gives further explanation that transfer takes place because the pupil learns to acquire some broad principles or generalisations which he applies in a number of situations with common elements. The attitudes, skill and abilities are transferred only when these are systematised and related to many situations wherein these can be utilised.

Suppose two situations a common element viz., punctuality. According to the common element theory, a boy who is punctual at dinner party should be punctual for school also. But no, this may not always be true. The child will not be punctual in both situations, unless 'punctuality' has become a part of the child's attitude pattern as a result of schooling and training.

Again, a child may be tidy in the school for fears of punishment, but he may be untidy at home. Transfer can take place from school situation to home (or vice-versa) if the child full grasps the principle of tidiness, and gains a complete view of the principle.

Symbolically we may say what is learned in situation X gets transferred in situation Y when a general principle applicable to both is acquired. Judd explained this principle through an experiment on two groups of boys regarding throwing darts at a target placed 12 inches under water.

He explained the principle of refraction to one group could not apply the principle as the target was very deep. But next time, the target was kept only four inches deep. This time that group only. But that did not help that group, because the pupils in that group fared better. Hendrickson and Schoroder made further experiments of this type and confirmed the theory.

This theory is in consonance with the Gestalt theory of Psychology. The Gestaltists believe that learning of a meaningful configuration presumes a kind of organisation that modifies the organism. The organisation leads to the necessity of generalisations.

**Educational Implications:**

It has been accepted now that there are certain broad principles which govern the learning of some groups of subjects. In the absence of generalised principles, isolated or fragmented pieces of information are soon forgotten. We may forget the entire Physics long after the schooling is completed, but some generalised principles that the study of Physics gave to us, can be applied to a number of other situations in life.

Even in the teaching of a particular subject, transfer from one situation can take place to another, if the generalised principles to both are comprehended. In spelling, for example, grouping of words with similar spellings may lead to improvement in spelling, as it may help the pupil to see a generalised principle which he can apply.

Virtually speaking, the Theory of Generalisation is only an extension of the Theory of Identical Components. The latter talks of common elements, and these are substituted by the word 'common rules' in the former. Many psychologists take these two theories as identical.

**5. Transposition Theory:**

This theory has been put forth by Gestalt psychologists. Gestalt Psychology emphasises the total pattern of behaviour. So transfer is dependent upon the whole-part relations between the old and the new situations. It is not the principle or generalisation that is at the basis of transfer, but the understanding of the relationship between facts, processes and principles. Hence the need for 'transposition'.

Thus a song learned in a certain key may be recognised even in a different key. The component of the song may be different, but that does not hamper the transfer. It is because of the understanding of the total situation.

**6. Theory of Ideals:**

W.C. Bagley, goes a step further from the Theory of Generalisation, and he emphasises 'ideals' or generalised attitudes at the basis of all transfer. Ideals are rather deeper than generalisations, generalised attitudes.

There is no denying the fact that ideals, once adopted, and adopted seriously, are applicable to all situations. The truth-seeking ideal, the spirit of enquiry, the love for wisdom and thirst for discovery are transferable from one subject to another, whether it is science or philosophy or history.

The teacher will do well to emphasise some practicable ideals, which can be applied to majority of situations. If these ideals are kept in view, teaching methods will secure greater transfer.

Two more theories viz. Edward Tolman's Theory and Lewin's Field Theory are not so significant, hence not discussed here.

Six theories have been explained above. The Theory of Formal Discipline has been discarded now, as it does not accord with the facts discovered after numerous experiments. There is nothing like a mental discipline which may be gained from one subject, and transferred to another.

Memorisation of paradigms of grammar, or of stanzas of poetry or of non-sense syllabus will no longer strengthen the memory of a person. That will be applied in an entirely different situation, say remembering the prices of commodities in a business-shop. Like Browning's Grammarian, who died of cancer, most of the grammarians are prone to get no benefit from the knowledge of grammar in solving actual problem of life, such as maintaining health, succeeding in a vocation etc.

The other four theories have much in common, and these prove that transfer of learning does occur. These theories are only different explanations of the same truth, in varied linguistic expressions. Identical components, general principles, ideals and total patterns are in fact the same thing.



#### 4.7.4 Implication of transfer of training in sports

##### 1. Factors Affecting Transfer of Training:

It is a crucial question before the teacher, how to secure maximum transfer. He must know the factors that determine or affect transfer. We conclude and reply to this question on the basis of the theories propounded by psychologists and experiments conducted.

##### The three major factors are:

- (i) Intelligence,
- (ii) Positive attitude and
- (iii) Meaningfulness of the contents.

##### (i) Intelligence:

The amount of transfer is closely related to the intelligence of the learners. Thorndike's experiments give clear evidence. Brighter children transfer their experience more effectively in different situations than average or dull children. The intelligent pupil comprehends the subject-matter more efficiently, masters it, remembers it and over-learns it. Over-learning helps greater transfer.

##### (ii) The positive self-confident attitude:

Influences greater transfer when the pupil knows that a particular subject is to be learnt not for the sake of examination but for its intrinsic work, for its applicability, when he is confident of its utility in varying situations, he is bound to apply the knowledge in as large extent of the field as possible. The teacher and the pupil should be conscious of the goal.

(iii) Generalising affects transfer i.e., transfer depends up on the extent to which principles are developed and experiences are made more meaningful. The common elements, common principles and common ideals in different situations, affect transfer. This has already been explained above in connection with common. Element Theory, Theory of Generalisation and Theory of Ideals.

##### 2. Factors helping Maximum Transfer:

Three essential conditions ensure maximum transfer.

Firstly, the purport and meaning of the subject-matter taught should be explained fully and in minute details. It is not enough to dole out some geographical facts to be mugged up.

Thoroughness and details will stimulate the pupil to think more and apply the knowledge in different situations. The paragraph in a language lesson could be explained with all its details — grammar, spelling, pronunciation, idiom, etymology, beauty of thought etc. This will ensure maximum transfer.

Secondly, all learning should take place in living and concrete situations. Thus all unreal problems in arithmetic, useless items in grammar, memorisation of dates and names in history and geography, which have no utility in life situations should be eliminated from the curriculum.

Thirdly, pupils should be given as much of practical experience as possible. The curriculum should contain subjects of practical nature, which are applicable in vocations or life situations.

##### 3. Curriculum and Transfer:

The theories and experimental evidences regarding transfer of learning provide us with certain broad principles on the basis of which we can remodel, overhaul or reorganise the present curriculum in order to secure-greater transfer.

##### (i) Disciplinary value of subjects:

As the theory of formal discipline is no longer acceptable now, there is no reason for inclusion or rejection of any subject in the curriculum simply for its disciplinary value. We can easily dispense with theoretical grammar, Euclid's logic (in geometrical theorems) and classical languages which to thought to be of disciplinary value.

##### (ii) Varying Importance of Subjects:

All subjects in the present curriculum do not have equal value. Some subject are least connected with life situations (like ancient history), and these have the least transfer value. The present approach is the social-utility approach in including a subject or a topic in the curriculum.

### **(iii) Subject-matter Vs. Experiences:**

Thorndike and Wesman have experimentally proved that it is not the subject-matter but the experiences gained in the study of the subject that is important and useful for future applicability. The transfer value of all the subjects for any trait (say improvement in reasoning) is almost equal.

But the experiences gathered by the pupils differ, and that accounts for greater or lesser positive transfer. Hence an attempt should be made to provide superior experiences leading to greater transfer rather than teach subjects in a theoretical manner.

Mathematics enjoys no monopoly for developing reasoning ability. There are no less opportunities for the same in the teaching of other subjects, say geography or history or physics. All subjects can be taught in a manner that they encourage raising questions and offering answers.

### **(iv) Classical Languages:**

The old belief that classical language should be taught for its disciplinary value is no longer tenable. Even its linguistic value is questionable. Experiments on transfer value of Latin by Thorndike do not give credit to Latin beyond 10% transfer. In India we may teach Sanskrit not for its transfer value for Hindi or modern Indian languages, but for its literary importance.

### **(v) Grammar may be taught only for its practical use and application:**

The present grammar teachers get lost in details of parsing, tenses, moods, analysis, transformation and etymology, which have no bearing upon the real objectives of teaching the subject, as these do not help correct expression or smooth communication. **“The transfer is to take place from expression to grammar, that is, expression and communication is to take place first and then correct grammatical usage is to follow.”**

### **(v) Subjects related to life:**

Subjects and topics which are directly connected with our vocations, physical environment, social environment social living and life-situations have great transfer value. Hence stress should be laid on those subjects which bear daily needs and help solving life problems.

Diversification of courses, and presenting groups of subjects directly connected with future vocations of the pupils, or certain areas of life, will help the pupils in gaining appropriate knowledge of maximum utility which have transfer value for vocations and life-activities.

## **4. Methods of Instruction and Transfer:**

For securing desirable transfer, the present methods of instructions shall have to be modified and overhauled, on the evidences of experimentations (cited above). There is no ‘best method’. But there are varying approaches to instruction in accordance with varying situations.

### **(i) Importance of goals:**

Firstly goals and outcomes of each subject should be clearly stated. It is only recently that attempts have been made in analysing a particular subjects in terms of objectives, behaviour patterns and learning experiences. Much of what is useless and unrelated to the objectives of a subject is being discarded.

The awareness of goals both on the part of the teacher and the pupil will lead to devotion to work, habits of thoroughness, exactness, accuracy, sound attitude to work and consciousness of the utility for future occasions.

### **(ii) Understanding of Individual Differences:**

The teacher should study each pupil and his credit side and debit side, so as to vary with great flexibility his teaching methods, illustrating material and emphasis on the subject-matter. Approaches towards bright and dull pupils will differ, otherwise the same approach might cause negative transfer.

**(iii) Integrated Approach:**

It was Herbert who emphasised first the need for correlating various school subjects, and further upon concentrating upon subject as a centre of study for many other subjects. Ziller and Colonel Parker actually put this idea into practice. Froebel kept play as the centre of all study. Transfer from one central subject to many others was considered possible.

Dewey gave the integrated approach, and propounded the problem and the project method through which a number of subjects could be introduced in an integrated manner, with their common elements emphasised at one place.

Modern experiments on transfer, the Theory of Common Components, vouchsafe the fact that maximum transfer can be procured by integrating different subjects and emphasising their common elements, principles or generalisations.

**(iv) Attitude towards work:**

The value and importance of attitude towards work and study has already been explained above (Theory of Ideals). Healthy attitudes and worthy ideals get integrated into the mental and moral make-up of the pupil, and thus these ensure greater transfer.

The pupils should study with a spirit of enquiry, desire to know love for wisdom and hunger of the soul. All scientific discoveries have been preceded by this attitude. Such an attitude will be transferable from one subject to another.

**(v) Practical application of knowledge:**

Practical application of knowledge and out-of-school experiences are helpful in assimilating the core of a particular subject. Which can help transfer. Every subject, including the sciences should be taught intelligently with the scope of practical application. Mursell remarks in this regard.

**“When any ability is most intelligently taught and organised for its own sake, it is thereby taught and organised in such a way as will facilitate transfer, and its converse; when we deliberately work for the transfer of some ability, we facilitate its acquisition in its own right.”**

We may conclude that securing of maximum transfer depends solely upon the teacher. It is he who can inculcate worthy ideals and attitudes which secure maximum transfer in all situations. It is he who can find out that he wants to teach, and for what goal. Transfer can take place, if the goals of teaching are known, and the appropriate methods are used.

Transfer is a critical issue in sports training. Logically, if training conditions and activities do not transfer, or transfer marginally to competition, valuable workout time is wasted.

Let's look at an example of mismatching training with the energy demands of a sport. Let's say a recreational basketball player trains in the preseason by working up to running 5 miles. League play starts and the player is exhausted after just a few times up and down the court. Why?

Because sustained running for 5 miles does not quite match the energy demands of basketball. Different energy systems are used for long distance as compared with the quick bursts of speed performed repeatedly with brief recovery periods in basketball, so the transfer effect is less than optimal. But transfer of training is not just about the energy demands of a sport. One key aspect that coaches must consider is how the *transfer of learning* from athletes' previous experiences influences the learning and performance of new skills, experiences, and conditions. Building fitness and developing precision for skilled execution in sports involves coordination, perhaps the most overlooked fitness component in sports training. Coordination of movements is key to developing *skill* in sports.

While licensed physical education teachers are required to understand and apply motor learning principles, coaches tend to teach skills the way their coaches did.

But taking advantage of skill acquisition techniques can boost skill development as well as fitness for sport performance. Transfer of learning even applies to weight training.

A practical question for a basketball player is: Does the power clean improve vertical jumping for basketball?

Let's assume that the athlete can perform the power clean correctly. In motor learning terms, the question is: "What are the common elements shared by the power clean and the vertical jump?"

These common elements include very similar movements in the pulling phase, the shift of body weight to the balls of the feet, and acceleration. Speed at take-off and at the peak of the high pull are also common elements that influence success. Dissimilarities would not transfer.

In reality in sports, who are the highest vertical jumpers? Olympic weightlifters and sprinters (who also do lots of power cleans).

The bottom line is, coaches should consider the common elements between training activities and sport performance when designing programs and strategies.

The Transfer Principle suggests that learning and performing one activity affects the performance of related skills and activities. This principle is essential for designing practice strategies that have the greatest positive impact on competitive performance. Correctly applying this principle saves valuable training time while accelerating results.

Transfer of learning is defined as the influence of previous experiences on learning new skills or performing skills in new contexts. According to the transfer principle, effects may be positive, negative, or zero when there is no influence at all. The goal for sport coaches is to select practice activities and use instructional techniques that optimize positive transfer to the competitive arena.

**Positive transfer** means that practice on one activity results in improvements on another activity. Two hypotheses have been proposed as to why it occurs.

First, the *identical elements theory* proposes that positive effects increase as a function of the similarities of the components of motor skills and the context in which they are performed.

Second, the *transfer-appropriate processing theory* states that the amount of positive transfer is related to the similarity of the cognitive processing activity involved in the two situations.

For example, an experienced discus thrower usually learns the rotational shot put quickly because of the similarities both in movement qualities and mental processing.

**Negative transfer** means that practice on one activity interferes with the performance of another activity. Negative effects occur when two skills are performed in a similar environmental context, but the movement characteristics are different. Two situations that are especially vulnerable involve a change in spatial locations and/or the timing of a movement.

Think of the difference between batting a baseball vs. batting a softball. While swinging the bat has similar qualities for both sports, a baseball pitcher throws the ball downward in an over arm motion.

In contrast, a softball is thrown underarm and rises as it approaches the plate. In this example, previous experience in baseball could interfere with hitting a softball due to changes in path and location (the spatial characteristics) of the ball, as well as the timing of the swing.

Fortunately, negative transfer appears to be rare and temporary in motor skill learning. Beginners experience negative transfer because they are initially confused by subtle changes to a familiar skill. As a coach, you may have to encourage athletes who are experiencing temporary negative effects so that they do not become discouraged early in learning a new skill.

**Zero** transfer occurs when previous experience has no influence on the performance of a new skill or change in context of an existing skill. For example, previous swimming experience should not influence learning to snow ski.

When transfer of learning concerns the same skill performed with different limbs, it is called **bilateral transfer**. It occurs because the learner already understands what is required to achieve the goal of the skill. Another explanation is that a generalized motor program can be applied to performance on the unpracticed limb.

### Coaching Tips for Applying the Transfer Principle

1. Identify similarities between previously learned skills and new skills.
2. Maximize the similarity between training activities and competitive conditions. Simulate various elements of competition (e.g. arousal level, game intensity, spectator noise) occasionally during training sessions, particularly during the in-season.
3. Provide adequate experience with fundamental skills before advancing to more complex skills. Well learned lead-up skills can positively influence an athlete's performance in more demanding conditions at the next level of play (e.g., T-ball to baseball).
4. Develop more general capabilities, such as critical gross motor skills, that apply to a variety of sport tasks. For example, in basketball, the vertical jump is a key element of rebounding and blocking shots.
5. Point out to the athlete how training activities will improve sport performance. For example, call attention to the shifting of weight, the hip lead, and the arm movement in softball throw when teaching the javelin throw.

Learning or regularly performing a skill can affect, either positively or negatively, the learning of a second skill.

### Positive Transfer

This usually occurs when the two skills in question are similar in some way. Having already mastered one of the skills, makes learning the second skill easier. Coaches can aid this positive transfer by making sure the individual understands the similarities between the two skills and by making sure that the basics of the first skill are well learnt so that they transfer more easily into the second skill. An example of this is a tennis player using their knowledge of a serve to help them learn the overarm serve in volleyball.



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**Negative Transfer**

This occurs when having learnt one skill, makes learning the second skill more difficult. This more often happens when a stimulus common to both skills requires a different response. For example, a squash player who takes up tennis may find it difficult to learn to not use their wrist during shots.

Negative transfer can be avoided by making sure the athlete is aware of the differences and making practice sessions similar to match situations to ensure a larger, generalised motor programme.

**Proactive Transfer**

A skill learnt in the past affects a skill currently being learnt or to be learnt in the future

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**Retroactive Transfer**

Learning a new skill affects a previously learned skill.

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**Bilateral Transfer**

Where the learning of one skill is transferred from one limb to the other e.g. a footballer learning to pass with their left foot when they have previously learned this skill with their right foot.

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**Zero Transfer**

Where there are no transferable elements between previously learned skills and the new one about to be learned e.g. bowling in cricket and skipping.

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**Stimulus Generalisation**

The transfer of previously learned skills to a new situation can sometimes be generalised rather than specific to the situation. For example, a performer who has learned to catch a ball playing rugby, may react to catch any ball in the same way. This is not always a positive thing as in a different situation (e.g. football) catching the ball is not within the rules of the game

**Response Generalisation**

When a performer has well learned a skill they can begin to adapt the skill to vary it. An example is in cricket where a bowler will vary his or her delivery to try to unsettle the batsman. Six categories of skill transfer have been identified:

1. Transfer between skills – such as all racket sports
2. Practice to performance – transferring skills learnt in training to a competitive environment
3. Abilities linked to skills – balance to perform a good landing in gymnastics
4. Limb to limb (bilateral) – striking a football with the right or left foot
5. Principle to skill – the principles of defensive play in rugby are similar to football
6. Stages of learning – skills that are learnt in the cognitive phase will then be built upon in the associative phase

## Sub Unit – VIII

### Long and short term psychological preparation for performance/competition.

#### 4.8.1 Long term psychological Preparation for performance/competition

**Definition:** psychological preparation refers to the mental preparation of the player before competition, during the competition, after the competition

##### Importance of psychological preparation

- Mental training is important as well as physical training
- Mind trains the body hence it is necessary to train the mind for high level performance in sports
- Psychological preparation helps the player to meet the demands of competition situations and everyday problems.
- Psychological preparation is important because it helps the player to deal with negative emotions like anxiety, fear of competition and arousal etc.,
- It helps the player to develop qualities like developing self awareness, and control, positive attitude, self confidence, tough-mindedness, strong will power and determination etc.
- It also helps the player to develop their concentration, decision making, and goal setting
- Psychological preparation helps to resolve the interpersonal conflict and to improve interpersonal relationships with team mates and the coach.
- It helps the athlete to learn mental skills.

##### Types of psychological preparation

##### I. Short term psychological preparation

##### II. Long term psychological preparation

#### Long term psychological preparation

##### Pre competition phase

##### Stage 1: psycho diagnosis:

- The psycho diagnosis includes psychological tests which have to be designed keeping in mind the demands of the particular game, age and skill level.
- Broadly the psychological tests can include the area of psychomotor abilities, information processing, personality, motivation and social psychological factors.
- The testing is to be conducted during selecting a player or even when the training camps are in progress

##### Stage 2: Psychological recommendations:

- After the psychological assessment is done in the first stage, psycho pedagogical recommendations are given.
- The recommendation is to be given to different personal involved with the team.
- This includes coaches, players, doctors and other paramedical staff for further improvement of player's performance.

##### Stage 3: psychological preparation

- Psychological preparation of team will include different exercises (relaxation training, managing stress, positive thinking, regulation of self, mental practice, training for concentration, and self talk) to improve those qualities which have been evaluated.
- The psychologist and the coach should be sensitive to observe the motivational levels of athletes and group dynamics of the team.
- Psychological stress management training has to be an integral part of training.

**Competition phase or immediate phase:****Phase 4: Psychological control of player and self regulation during competition**

- Psychological control during competition (pre game, start of match and competition period) will be achieved if the sports person has learned the psycho regulative techniques during long term preparation.
- During critical period of the competition, well meaning suggestions offered by the coach elicits change in athlete's behavior.
- Pep talk, psycho regulatory techniques and brief counseling during the competition will help the player for better performance.

**Post competition phase:****Stage 5: Evaluation**

- Every competition provides a feed back of strengths, weaknesses and strategies used.
- Coach and player should together analyze the reasons for winning and defeating the match
- Based on these, future strategies can be chalked out and psychological preparation of the players should be continued.

**4.8.2 Short term psychological Preparation for performance/competition****A. General planning:**

- Under this category the player is helped to tolerate distractions like the pre match meal, timing of the meal, physical activities prior to the competition, details of equipment and travel, mental rehearsal programme.

**B. Stress management:**

- Relaxation exercises should be used more often. Sometimes interaction with other players and player's interaction with significant others also reduce stress.

In this section we take a look at how performers can prepare mentally for sport in the last few hours before competition. Sport provides considerable uncertainty – this fact alone can increase the stress levels of competitors. Stress and uncertainty may motivate some athletes, but may also induce anxiety and worry in others. Generally, the more important the contest, the greater the stress and the more likely a competitor is to be prone to anxiety. We will look at the factors that affect mental preparation, and identify some of the training and strategies that can be used to ensure a competitor performs at their optimum level. Sports psychology is the application of the science of behaviour to exercise and sports participation. Elite performers and their coaches use sports psychology to help them gain a competitive edge. A knowledge of sports psychology, or the intervention of a sports psychologist, can help performers manage their stress and anxiety more effectively, improving their concentration and motivation.

Research into sports psychology and successful performances suggests that the best performers tend to have:

- higher levels of self-confidence
- more task-oriented focus
- control over their anxiety levels
- more determination and commitment.

**MOTIVATION AND STRESS CONTROL:**

In order to perform at our best in sport, we must want to perform well and achieve. This drive to play well is referred to as motivation. In short-term preparation, coaches and players use strategies to ensure this drive is at its optimum level. There are many influences and factors that may inhibit this motivation – these stresses lead to anxiety, which we discuss in detail below. In the short-term preparation phase, motivation can be influenced by how confident a

performer feels about their role in an impending competition. Psychologists refer to this factor as self-confidence. For beginners, lack of self-confidence may relate to a general feeling that they are going to perform badly. With experienced and elite performers, it is usually related to specific situations or venues. Bandura (1977) developed the principle of self-efficacy, suggesting that self-confidence is often specific to a particular situation. It can affect motivation in terms of the amount of effort a performer puts in, and how long they persist at a task. Bandura believed that a performer's self-efficacy is influenced by four factors. • Performance accomplishments – possibly the most important factor. If the individual has been successful in the past, then feelings of self-confidence are likely to be high. For example, football teams often have a particular ground where they nearly always win, and this gives the team a lot of confidence.

Vicarious experience – this refers to performances we have observed before. If a performer watches others perform and achieve success, then they are likely to experience high self-efficacy. For example, many elite athletes will watch videos of previous gold medallists during their preparation for major races. • Verbal persuasion – if significant others can encourage and support a performer, then self-confidence will be high. Elite rugby teams often ask ex-players to give motivational speeches and hand out shirts before international matches. • **Emotional arousal** – how a performer feels about their level of arousal can affect their confidence level. If they feel they are becoming overanxious, this will have a negative impact on confidence. Being able to monitor and use strategies such as relaxation techniques to control anxiety and arousal levels is an important part of an elite athlete's short-term preparation.

**ANXIETY:** The ability to deal with pressure is vital for success in sport. When a performer freezes or 'chokes' at the vital moment, anxiety is usually the cause.

Anxiety is said to have three dimensions: • cognitive – worry and negative feelings about your own performance • somatic – physiological symptoms such as raised heart rate, increased perspiration, shortness of breath • behavioural – experiencing tension, agitation and restlessness. Sports performers can suffer from two types of anxiety linked to performance: • state anxiety – which is situation-specific and can be linked to a particular role (such as penalty-taking), place, or level of competition • trait anxiety – which is a general and enduring feeling of apprehension.

**MAIN CAUSES OF ANXIETY:** The main causes of anxiety include a general predisposition to this state. If a competitor has an innate sense of anxiety, they naturally will be uneasy about competing in front of others, or in a situation of pressure. A competitor may also suffer anxiety due to the perceived importance of the situation – the more important a match, or the more that is at stake, then the higher the level of anxiety. This is also referred to as competition-specific stress. Some athletes may suffer anxiety through ascribing poor performance to their lack of ability – athletes at the start of their career, or making their debut for an international or professional team, may suffer from this type of anxiety. This may also be due to a fear of failure.

**EFFECTS ON TECHNIQUE:** The concept of anxiety is closely linked to arousal – the state of alertness. Arousal is usually displayed on a continuum of low (sleeping) to high, intense excitement. In sport, the aim is to be in a state of high arousal. Research suggests that arousal can have either a positive or negative effect on sports performance. The type of effect depends on how the performer perceives their arousal level. Jones and Swain (1992) state that most elite athletes view pre-competition arousal as a positive feeling of alertness, rather than as anxiety, whereas novice or less-experienced athletes have negative response to this rise in arousal. In the words of Tiger Woods, the challenge is hitting good shots when you have to, when the nerves are fluttering, the heart pounding and the palms sweating. Sometimes, the harder one tries, the worse the performance – this is often caused by excessive self-consciousness and concern about the mechanics of skill execution. Famous examples include Ian Woosnam in

golf and Eric Bristow in darts. An athlete's potential for choking depends on both the athlete and the situation. Choking usually occurs when an athlete is overly concerned about what others (teammates, coaches or an audience) think about their performance.

### **STRATEGIES TO PREVENT ANXIETY AND CHOKING:**

The following strategies can be useful:

- set your own achievable goals
- use imagery before a competition to review strategy and technique and create a sense of confidence
- use positive talk, both in preparation and in competition
- practice relaxation exercises
- use music prior to a competition to help maintain focus by controlling negative thoughts. One method of relaxation is centering. This is used by many elite performers to produce a calming and controlling effect. Athletes may use centering when they feel they are becoming overanxious, indicated by somatic signs. Centering involves the performer focusing attention on the centre of their body.

### **AGGRESSION VERSUS ASSERTION:**

Aggression is a term that is used loosely in sport. Again, it can have both a positive and negative effect on performance. Aggression in this context is defined as 'intent to harm outside the laws of the game'. But where aggression is controlled and channeled, it becomes assertion, and it is this approach that we should encourage in sport. There are a number of theories that suggest causes for aggression. These tend to fall into the two categories of nature or nurture.

- The instinct (nature) theory suggests that aggression is an innate biological drive in all humans, and sport provides an outlet for this aggression. The frustration–aggression hypothesis is a version of this drive theory, which states that having our goals blocked can cause frustration, which then leads to aggression.
- The social learning theory developed by Bandura (1977) states that we learn to be aggressive by watching others (nurture). Strategies to reduce aggression include internal control of arousal levels, punishment, and the reinforcement of non-aggressive behavior.

**EXTERNAL INFLUENCES HOME ADVANTAGE:** Studies on the concept of home advantage suggest that teams playing at home win, on average, 56–64 per cent of their matches. This advantage is especially relevant to indoor sports. This phenomenon is often seen in the success of the host nations of major global games, such as the Olympics. At the 2008 Beijing Olympics, host nation China topped the medals table with their highest-ever medal table position (51 gold medals). One suggestion is that large, supportive crowds may help the home team in terms of motivation and the amount of effort they put in. This may also be linked to a so-called proximity effect, where crowds that are close to the action (as in basketball) are said to increase the audience's influence. There is some evidence that it takes about six to nine months for a team to regain its home advantage after moving to a new stadium. Arsenal FC, for example, suffered a drop in form when they moved from Highbury into their new Emirates Stadium.

**THE CROWD EFFECT SOCIAL FACILITATION:** Social facilitation refers to the influence other people can have on performance. These other people may include:

- co-actors – other participants, teammates and opponents
- audience – spectators can have a huge impact on performance.

**SOCIAL INHIBITION:** Social inhibition is the negative effect of an audience on a performer. This may involve an increase in:

- arousal of the performer
- competitive drive
- speed of performance.

These may have facilitating or inhibiting effects on the performance.



One of the earliest studies on the effect of others was undertaken by Norman Triplett as long ago as 1898. He published in the American Journal of Psychology his finding that cyclists' performance increased by 30 per cent when they were riding in a group of other cyclists. Other research has confirmed that the presence of others tends to result in an increased level of performance. But studies by a French professor, Max Ringelmann, published in 1913, showed that this was true only up to a certain number of co-actors. When group size gets too big, there is a tendency for some in the group to lose motivation – this is 'social loafing', sometimes called the Ringelmann effect. Robert Zajonc was a psychologist who studied how audience influences performance. He believed that the mere presence of others was sufficient to increase the arousal levels of a performer. He developed the drive theory to explain the link between arousal and performance. Drive theory suggests that our learned behaviours tend to be our dominant responses. Zajonc (1965) concluded that as a performer's arousal increases, they are most likely to revert to their dominant response. In relation to sport, this often results in less-experienced performers showing an incorrect response as their arousal level rises, either before or during competition. Audience + skilled performer = increased level of performance  
audience + unskilled or novice performer = reduced level of performance.

**HOW TO COPE WITH CROWDS:** Sports psychologists suggest that performers use the following strategies to help cope with the pressure of playing in front of crowds.

- Practice selective attention to help cut out the negative awareness of others.
- Use cognitive visualization techniques and strategies, such as imagery/mental rehearsal, to help focus on the task.
- Ensure essential skills are over-learned and grooved to ensure the dominant response is successful.
- Use evaluative practices where people are encouraged to give feedback on each other's performance.
- Practice with simulated crowd noises, using audio recordings.
- Incorporate stress-management and relaxation techniques into training.

The concept of being in the optimal zone of psychological preparedness is also referred to as a 'peak flow' experience. This is where the performer is in complete control – they feel that nothing can go wrong, skills and techniques are occurring automatically, and the performer has time to look around and identify space, opponents and the locations of teammates. This is normally the result of a high degree of inner drive and self-motivation.

**EVALUATION APPREHENSION:** A researcher called N.B. Cottrell (1972) studied the concept of social facilitation, and concluded that the key was not simply the mere presence of others influencing performance – but whether the performer felt the audience was judging or evaluating the performance. This is called evaluation apprehension, and leads to arousal and the resulting dominant response.

**THE IMPORTANCE OF COMPETITION:** The more important the level of competition, generally the higher the level of state anxiety the performer will experience. Most of this pressure and anxiety will come from external sources – the bigger the competition, the more the media, audience and significant others will talk and project the result. Again, it is the way the performer perceives this extra pressure that is the key to controlling the anxiety. A cup final or international fixture will heighten the stakes, and there is a chance that the participants will feel less confident. This concept was developed by Martens into the theory of competitive anxiety (see Martens et al., 1998). Competitive anxiety can be defined as an individual's tendency to perceive competitive situations as threatening, and to respond to these situations by experiencing state anxiety.

**STRATEGIES FOR COPING:** Strategies include self-talk, imagery, cue utilisation and relaxation techniques, among others.

**SELF-TALK (Cognitive strategy):** It is important that athletes practise self-talk, which may be very useful for keeping motivated during intensive training sessions. Self-talk can also be used by athletes to enable them to link to specific skills and help them focus on correct technique. Examples might include a rugby player linking the phrases ‘low’ and ‘drive’ when they are about to execute a tackle on an opponent. During competition, an athlete may need to reassure themselves that they are well prepared and ready to compete, and self-talk can help in promoting this feeling of self-confidence. The main focus during competition should be positive reinforcement through the use of positive self-talk: ‘I have trained well and I am at 100 per cent for this challenge.’ In terms of technique during competition, the key is to keep the reinforcement as simple as possible. For example, at the Winter Olympics the Great Britain luge team uses the phrase ‘Arrow!’ to help the riders focus and maintain the correct body shape as they progress down the course.

**IMAGERY (Cognitive strategy):** Imagery can be used by performers to improve their concentration and promote feelings of self-confidence. Imagery involves creating a series of mental pictures (also known as visualization). These pictures may include images of successful past performances, the flowing movements of an elite role model, or escape images where the performer imagines him or herself in a more relaxed place. All these techniques can be used to help control anxiety.

**CUE UTILISATION (behavioral strategy):** Cue utilization helps develop the performer’s attention level by getting them to concentrate on the cues that are most relevant. Often this can be combined with self-talk and the use of focus words. Cue utilization theory suggests that as the arousal of the performer increases, their attention narrows, and they are more able to pick up the most relevant cues. But this narrowing of attention occurs only up to a certain level of arousal – the optimum arousal level. If arousal levels are too low, then both irrelevant and relevant cues are picked up. If arousal levels are too high, then both irrelevant and relevant cues are ignored, which will lead to a drop in performance.

**RELAXATION TECHNIQUES: (cognitive and somatic strategies):** These techniques are most commonly associated with controlling somatic anxiety, although they can also be used to control cognitive anxiety. Self-directed relaxation is where the performer concentrates on each of their muscle groups separately and relaxes them. Progressive relaxation training is where a performer feels the tension in their muscles and gets rid of this tension by ‘letting go’. Other techniques include:

- Visualisation – using mental images to help create calm and control
- Yoga • listening to music and/or relaxation tapes
- Toe-tensing
- Deep-breathing exercises.

**ENVIRONMENTAL FACTORS:** In a sporting context, the effect of environment depends not so much on the playing field or physical setting, but rather on the people in that setting. These include the crowd, other competitors (including teammates and opponents), coaches, and in elite sport the media in its various forms. Research and analysis suggest that novice performers perform best in low-arousal environments. The low-arousal environment would be where no one is watching or evaluating the performance, and where the importance of competition is low. The presence of others may have a positive impact on some performers, but may cause others to choke. As noted above, the nature of the audience can also have an effect on performance. If the crowd is noisy and aggressive, then the performer may feel more anxious and may also become more aggressive themselves. The proximity of the crowd can also influence performance – if the crowd is very close to the court or pitch, the performer may feel threatened, which may cause their level of anxiety to increase. Conversely, some performers may feel reassured by a supportive crowd close to the action. We have also seen how other environmental factors, such as whether the performer is playing at home in familiar

surroundings or away from their home base, can also have a positive or negative influence on performance. The climatic conditions can also affect performance. Again, the better the performer, the more effective they will be at dealing with adverse conditions.

## Sub Unit – X

### Spectators and sports performance

#### 4.10.1 Spectators

Spectators is a person who watches an activity, especially a sports event, without taking part in it, a person who watches at a show, game, or other event.

#### 4.10.2 Audience effect

The audience effect is a type of social facilitation in which a individual's performance is influenced by the presence of others (an audience). This was first noticed in the late 1800s with the work of Norman Triplett who found that bicyclists were slower when racing a clock than when racing against other cyclists. In the 1950s Zajonc discovered that the improvement in performance depended on the complexity and familiarity of the task. He found that a person would perform simple tasks better and more accurately in front of an audience than when alone but would do worse when performing a complex task in front of an audience than when alone. This is now known as social inhibition.

**Social facilitation** is defined as improvement in individual performance when working with other people rather than alone. In addition to working together with other people, social facilitation also occurs in the mere presence of other people. Previous research has found that individual performance is improved by co-action, performing a task in the presence of others who are performing a similar task, and having an audience while performing a certain task. An example of co-action triggering social facilitation can be seen in instances where a cyclist's performance is improved when cycling along with other cyclists as compared to cycling alone. An instance where having an audience triggers social facilitation can be observed where a weightlifter lifts heavier weight in the presence of an audience. Social facilitation has occasionally been attributed to the fact that certain people are more susceptible to social influence, with the argument that personality factors can make these people more aware of evaluation. The Yerkes-Dodson law, when applied to social facilitation, states that "the mere presence of other people will enhance the performance in speed and accuracy of well-practiced tasks, but will degrade in the performance of less familiar tasks. Compared to their performance when alone, when in the presence of others they tend to perform better on simple or well-rehearsed tasks and worse on complex or new ones. The audience effect attempts to explain psychologically why the presence of an audience leads to people performing tasks better in some cases and worse in others.<sup>[3]</sup> This idea was further explored when some studies showed that the presence of a passive audience facilitated the better performance of a simple task, while other studies showed that the presence of a passive audience inhibited the performance of a more difficult task or one that was not well practiced, possibly due to psychological pressure or stress.

Social facilitation occurs not only in the presence of a co-actor but also in the presence of a passive spectator/audience. This is known as the audience effect.

Dashiell (1935) found that the presence of an audience facilitated subjects' multiplication performance by increasing the number of simple multiplications completed.

An audience effect refers to a type of social facilitation in which an individual's performance is influenced by the presence of others (an audience), which causes an individual's dominant response to occur.

### 4.10.3 Co-action effect

A co-action effect refers to a phenomenon whereby increased task performance comes about by the mere presence of others doing the same task. An example would be running a 100 meter sprint against someone. The co-action effect may come into operation if you find that you work well in a library in preference to working at home where it is equally quiet (and so on). Other co-action effect studies include Chen (1937) who observed that worker ants will dig more than three times as much sand per ant when working (non-co-operatively) alongside other ants than when working alone. Platt, Yaksh and Darby (1967) found that animals will eat more of their food if there are others of their species present.

### 4.10.4 Effect of Spectators on Sports Performance

Sports history is rarely made in empty arenas. Spectators and audiences have had the ability to turn the tide. Even in the age of television coverage, watching a sports action live has its own charm. For many, it provides them with a life-time worth experience. Nick Hornby writes in his memoir *Fever Pitch*, which was inspired by the title winning match between Arsenal football club and Liverpool football club in 1989, “So please, be tolerant of those who describe a sporting moment as their best ever. We do not lack imagination, nor have we had sad and barren lives; it is just that real life is paler, duller, and contains less potential for unexpected delirium.” While it is easy to understand the rationale behind people spending exorbitant money to watch a game of cricket or football, it is often difficult to comprehend someone going to watch a marathon entirely free of cost. I remember inviting a friend to watch a running event I was a part of. He said he’d rather watch paint dry! Watching folks run for 42 long kilometres was unappealing. A marathon runner certainly lacks the artistic appeal of Zinedine Zidane or a Malcom Marshall. It is difficult to drum up enthusiasm for a runner unless you know him or her personally. Having said that, there is a lot more to a Marathon than just the distance. It is quite something that a diverse set of people of all ages, gender, caste, creed, race, nationality and shapes unite to run. For the lead pack it may be the prize money that motivates, but a lot of other runners run their own race. For them, the race day is the crowning moment of all their training over many days and weeks. Every runner has a story and the marathon weaves their stories together. Watching the entire city move in one direction, towards one goal, instils the belief that anything is possible if we move together. Kathrine Switzer, often credited to be first women finisher of Boston Marathon, said, “If you are losing faith in human nature, go out and watch a marathon.” Marathons have their share of fantastic crowds too. The “Wellesley Tunnel” created by students of Wellesley College in Boston by standing on either side of the Boston marathon route has become an integral part of the event. London marathoners were surprised to see celebrity sports persons managing their water station. The Comrades marathon in South Africa is often held up as a symbol of unity in a country torn apart by racial discrimination. Cheryl Winn, who won the race in 1982, says “It showed the country what it could and should be.” In 2009, I participated in the Mumbai Marathon, which happened to be the first major event after the terrorist attacks in November 2008. For the city, it was the moment to stand as one and move forward. This Sunday, the Coimbatore Marathon will see over 13,000 participants in a running event that promises to be biggest sporting event in Tamil Nadu outside Chennai. The marathon, started in 2013, is organized in aid of the Coimbatore Cancer Foundation. It is hoped the residents of Coimbatore who are not running in the event will come out and cheer those who are. These runners are none other than friends, neighbors, relatives, colleagues – ordinary people – collectively trying to achieve an extraordinary feat. Physicality, body language, freedom, connection with nature and other people, energy spreading etc., all these peculiarities are intrinsic in **human nature**, it is something that a kid is not taught in school, it simply belongs to him. These natural instincts evolve during a lifetime and most



likely are best expressed when **practicing sports**. If we take football as an example, **spectators** are excited when the game gets faster, which can eventually be translated into higher revenues for many of the stakeholders involved in that industry. The latter could certainly be considered as a trigger to foster sport importance; in other words, if the game gets faster, more people would watch it, more revenues, more investments, better infrastructure, better services, more players. This chain would eventually end up augmenting the number of people passionate about football which would end up triggering people's interest in trying it. This reasoning could be applied to any sport. Hence, how could we possibly speed up the game? If we explore the history of football, we recognize how **technology** has improved the game's dynamicity from time to time. For instance, players have been equipped with a radio incorporated in the helmet to keep communication going with the coach. Nowadays, the improvements within the field of artificial intelligence would be able to guarantee an even greater effect if correctly implemented. Thanks to this, it would be possible to capture a massive amount of data coming from the field to exploit in several ways. Eventually, this would mean that a great football team wouldn't only be the result of a good coach and talented players, nonetheless also some advanced IT specialists would make the difference in generating impactful information for the players. Each sport should browse into available technologies to **renovate** and get on board new participants which could eventually **foster the practice** of the discipline.

Social facilitation can be defined as a tendency for individuals to perform differently when in the mere presence of others. Specifically, individuals perform better on simpler or well-rehearsed tasks and perform worse on complex or new ones. In relation to this, there are three main empirical relationships which are the activation, evaluation, and attention theories. The activation theory describes how we are physiologically aroused and how that affects our functioning. The evaluation theory relates to the systematic assessment of the worth or merit of some object. The attention theory takes into account possession in the mind including focalization and concentration of consciousness. In 1897, Triplett studied the effect on performance of having an audience. Triplett's experiment had a simple design; a cyclist's performance when alone was compared with a cyclist's performance when racing against another cyclist. He found that the cyclist was slowest when he was only racing the clock and not another cyclist. He attributed these results to a competitive instinct which releases energy that was not available when pedaling alone. Triplett's study started off a revolution of studies attempting to examine the theory that people's performance is influenced by the presence of others. In 1898, while studying the competitive nature of children, he found that children were much faster at completing their given activity (winding string) while they were competing, which caused him to wonder whether or not simply having another individual there would have the same effect. To determine this, Triplett studied the race time of cyclists and found that cyclists had faster race times when in the presence of other cyclists. He theorized that the faster times were because the presence of others made individuals more competitive, and further research led Triplett to theorize that the presence of others increases individuals' performances in other noncompetitive situations as well. In 1924, Floyd Allport, coined the term social facilitation. Allport conducted studies in which participants sat either alone or with other participants and did a variety of tasks such as word association tasks and multiplication assessments. He found that people performed better when in a group setting than when alone for the majority of tasks.<sup>[5]</sup> However, at this time, social facilitation simply meant an "increase in response merely from the sight or sound of others making the same movement."

Hazel Markus of the University of Michigan conducted an experiment to test the hypothesis that the mere presence of others can influence an individual's performance.<sup>[6]</sup> A task that lacked a rubric structure and was likely to cause the subject to be apprehensive of how they would be

evaluated was used. Performance times on the task of dressing and undressing in familiar and unfamiliar clothing were compared with subjects working alone, working in the presence of a passive inattentive person, and working in the presence of an attentive spectator. Compared to the alone condition, both social conditions (audience and incidental audience) enhanced performance on the well-learned aspects of the task of dressing and undressing with the subject's own familiar clothing and hindered the subject's performance on the more complex aspects of the task of dressing and undressing using unfamiliar clothing. It was concluded that the presence of others is a sufficient condition for social facilitation and social interference effects. Therefore, the presence of an audience causes an individual to do better on a simple task or worse on a more complicated task. In a 2010 study, donation rates increased with the presence of observers, and neuro-imaging revealed that the presence of observers significantly affected activation in the ventral striatum before the choice of whether or not to donate. In Raefeli's meta-analysis of the social facilitation phenomenon in 2002, three conclusions are made. Firstly, the presence of others heightens an individual's physiological arousal only if the individual is performing a complex task. Moreover, the mere presence of others increases the speed of simple task performance and decrease the speed of complex task performance. Lastly, social facilitation effects are surprisingly unrelated to the performer's evaluation apprehension. Travis (1925) found that well-trained subjects were better at a psychomotor task (pursuit rotor) in front of spectators. However, Pessin (1933) found an opposite audience effect, namely that subjects needed fewer trials at learning a list of nonsense words when on their own than when in front of an audience.

It seems, then, that the extent of social facilitation or inhibition depends upon the nature of the interaction between the task and the performer.

In some cases, the presence of co-actors/audience improved the quality of performance (Dashiehl 1935) but in others it impaired the quality (Pessin, 1933).