

Improving Sports Performance through the use of Hypnosis, Mental Imagery and Self-talk

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Defining 'performance' in sport

There is no standard agreed definition for 'performance' in sport. The word performance can be viewed as a noun or a verb. According to the Exercise & Sport Psychology Division of the American Psychological Association, as a noun, it describes:

"a discrete event where a performer/sportsperson showcases a specific set of developed knowledge, skills, and abilities (KSAs)." As a verb, 'performance' describes "the process of carrying out a plan of action for the execution of KSAs during a performance event."

Performance improvement entails helping a performer improve their capability to perform up to their potential by helping them develop the mindset and mental/emotional skills to improve their KSAs or to better execute their KSAs.

In this dissertation, I will integrate subject matter from the 3 Foundation Diplomas I successfully completed i.e. (a) Hypnotherapy, (b) Psychotherapy and Counselling, and (c) Sports Psychology. The subject matter I will incorporate is: (1) the achievement of optimal sports performance (from Sports Psychology), hypnosis and mental imagery (from Hypnotherapy), and cognitive restructuring (from Psychotherapy and Counselling).

Improving sports performance through psychological (mental) skills training

Psychological (mental) skills training (PST) programs have been shown to positively affect performance across various sports and levels of competition. For example, according to Zizzi et al, (2009) psychological skills training programs have been shown to be effective for improving elite sports peoples' performances in golf putting, tennis, lacrosse, cycling, football, swimming, basketball shooting, running, equestrian, karate, scuba diving, and triathlon.

Elite sports people have also been shown to use psychological skills and strategies in practice and training sessions, not just in competition. However, according to Zizzi et al; the benefits of using PST can extend to non-elite sportspeople. Psychological training strategies can enhance a sport person's focus, confidence, composure and mental preparation, resulting in improved sports performance.

Karageorghis and Terry (2011, p. 7) have noted that: "Performance in any sport is determined is determined by a combination of three main elements." These are: (a) *physical conditioning* for competition, (b) *skill level*, and (c) *psychological readiness* to compete. Whilst the relative importance of these factors varies from sport to sport, the element of performance which makes demands of all sportspeople equally, is the *psychological readiness* to compete.

According to Karageorghis and Terry, sportspeople usually report that they devote only about 5 to 10 percent of their time to psychological readiness, and the work they do is often fairly unstructured and sporadic. They make the very valid point that this is surprising, bearing in mind the high psychological demands of sport, and the fact that mental preparation has been demonstrated to be just important as physical and tactical preparation.

Psychologists and sportspeople have alluded to the 'optimal performance state'. Some sports psychologists talk about the 'zone of optimal functioning'. This refers to an optimal level of arousal which results in better integration of mental and physical processes and superior performance (Hanin, 2000). When sportspeople enters their 'zone of optimal functioning', they tend to have their very best (peak) performances.

Underleider (1996, p. 4) identified two possible explanations as to why mental practice improves sports performance. These are: (a) Symbolic learning theory, and (b) Psychoneuromuscular theory. According to symbolic learning theory, imagery may be part of a coding system that actually helps sportspeople understand movement. The theory states that every move we make in life is first coded like a blueprint in our minds and in our nervous systems, so that if we mentally rehearse a sporting event, we are actually blueprinting each move, making the gestures symbolic and making them more familiar to our body chemistry. By doing lots of mental practice, we are setting the stage for movement to become quite automatic and easy to recall.

According to Psychoneuromuscular theory, mental practice works because even when we are sitting quietly in our armchairs, we are actually producing very small muscle contractions similar to those involved in our particular sport. The theory has been tested and evidence to support it has been obtained by having sportspeople mentally rehearse images and then measuring the electrical activity (with an electromyograph) in their arms and legs.

Zizzi et al; (2009) have identified a 'hierarchy of training necessary to use various psychological skills (as rated by sports trainers, coaches, and psychologists).' The top three skills listed in the hierarchy are: (a) hypnosis, (b) imagery and visualisation, and (c) modifying self-talk. The other skills included in this hierarchy are: energy management, communication skills, team building, attention/concentration, goal setting, and time management. In this paper I will focus on the top three skills in the hierarchy.

Improving sports performance through hypnosis

There has been a long history of the use of hypnosis in sport. In the 1956 Melbourne Olympics, the Russian team was apparently accompanied by 11 hypnotists. Hypnosis has been used by many Champion boxers throughout the years. In 1996 Steve Collins beat Chris Eubank for the World Boxing Organisation's Super-middleweight title. Much of his success was attributed to the focusing of his attention created by hypnosis administered by fellow Irishman Tony Quinn. Collins was 'programmed' to deliver two punches to Eubank's one. In the fight Eubank threw 300 punches, Collins threw over 600.

Since the unconscious mind is really the driving force between most of our beliefs and behaviors, it makes sense that a technique which elicits change at the unconscious level can be highly effective in sport. Hypnosis is such a technique. Hypnosis can help sportspeople overcome issues of self-doubt which may be keeping them from moving to the next level of performance. It can help sportspeople hone their skills, fine-tune a technique, and have a level of self-belief and confidence which will enable them to excel beyond what they may have previously not thought possible. Hypnosis can also help sportspeople acquire the intense focus required to be at the top in their sport. Hypnosis can also help sportspeople to overcome performance anxiety or pre-competition nervousness.

Another way that hypnosis can help competitive sportspeople is in dealing with pain and injuries. Learning to dissociate from the pain can help them better cope with it and perform in spite of it. Relaxation methods can also be particularly helpful when it comes to managing pain which are part and parcel of most sports.

Karageorghis and Terry (2011, p. 188) have noted that a common misconception about hypnosis is that it involves a deep trance in which the person who is hypnotised is unaware of what is going on around them, and that they have no control over their actions. In reality, all hypnosis is self hypnosis and involves a state of heightened awareness. Essentially, hypnosis is an altered state of consciousness.

Following a short period of relaxation, a sportsperson can give themselves positive suggestions to help enhance their performance and adopt more positive attitudes towards training and competition. They can also use mental imagery (see next section) while in a state of hypnosis. Sportspeople can use self-hypnosis scripts to give themselves positive and beneficial suggestions relating to, for example, mastering a specific sport skill, attaining peak performance, and increasing self confidence. Examples of positive suggestions that sportspeople could use in a state of self-hypnosis include:

- (a) I will be able to channel my arousal and tension into optimizing my performance

- (b) I will only focus on what's relevant for peak performance

In framing suggestions, sportspeople should avoid negativity i.e. suggestions should always be worded positively. For example, a suggestion such as *"I won't be tense and anxious"* has the effect of drawing a sportsperson's attention to tension and anxiety, and makes them more likely to occur in the competition. A better self-suggestion would be *"I will be calm and in full control."*

Karageorghis and Terry (2011, p. 190) have made the point, that in their experience, sportspeople need to be "very motivated and fully accepting of the potential benefits to practice techniques such as self-hypnosis." In their view, sportspeople who are openly sceptical or show a negative attitude toward such approaches should not be forced to adopt them.

Improving sports performance through mental imagery

Mental imagery, also called visualization and mental rehearsal, has been described by Dr. Martin Rossman (a pioneer in the use of imagery), in the following terms: *"Imagery is a flow of thoughts you can see, hear, feel, smell or taste."*

Sportspeople can make use of imagery as a form of mind/body communication to enhance their performance. Sport psychologists, Karageorghis and Terry (2011, p. 170) have made the point that imagination has the power to release hidden strengths or inhibit performance, and that the more a sportsperson can control their imagination, the more they can expect to control their sports performance. They summarise the potential important contribution which mental imagery can make in enhancing sports performance as follows: *"Remember that if you can see it, you can create it; if you can feel it, you can perform it; if you can imagine it, you can achieve it."* (p. 170)

The fact that imagery is seen as a significant potential contributor to improving sports performance is illustrated by the fact that a peer reviewed journal titled *The Journal of Imagery Research in Sport and Physical Activity* is devoted to research on the role of imagery in sport, physical activity, exercise, and rehabilitation settings. According to the journal's website:

"Imagery, also referred to as cognitive enactment or visualization, is one of the most popular performance enhancement and rehabilitation techniques in sports and physical activity."

When employing imagery, a sportsperson should endeavour to achieve maximum vividness and controllability. By doing so, the sportsperson is more likely to be able to translate the images into improved performance. A popular acronym amongst sports psychologists is: WYSIWYG i.e. **What You See Is What You Get**.

Sportspeople can use a number of forms of imagery to either create or recreate sporting experiences. These are:

- (a) The 'visual-internal' form: This involves viewing what's going on as though you were actually there performing.
- (b) The 'visual-external' form: This is like watching yourself through a camera i.e. it is like a sportsperson stepping outside of their body to observe themselves performing.
- (c) The 'kinesthetic' form of imagery involves a sportsperson in recreating the physical feeling of the performance.
- (d) The 'visual-internal kinesthetic' form: This involves a sportsperson experiencing a performance through their own eyes while simultaneously recreating the bodily experiences.
- (e) The 'visual-external kinesthetic' form: This involves a sportsperson seeing their performance from the outside while simultaneously recreating the bodily experiences.

The best form of imagery for a given sportsperson is the one that works best for them.

Over the years, hundreds of studies on imagery in sport have been carried out which indicate that imagery can improve the physical performance of sports skills. Kremer and Moran (2013, p. 98) summarised what is known about the use of imagery in sport, by identifying the following conclusions that have emerged:

- (1) Visual and kinesthetic imagery are most common amongst sportspeople
- (2) Imagery is more commonly used by elite sportspeople, than by less skilled ones
- (3) Imagery is especially common prior to competition
- (4) Imagery can be motivational as well as skill-focused
- (5) Imagery isn't always used positively i.e. many sportspeople have reported experiencing negative images involving the anticipation of mistakes, setbacks and poor results.

PETTLEP is an acronym for a model (developed by Holmes and Collins, 2001) which indicates 7 key elements to include during imagery, so as to create the best possible images. The word count limitation on this paper does not allow me to elucidate on these elements. However, they are as follows: (1) Physical, (2) Environment, (3) Task, (4) Timing, (5) Learning, (6) Emotion, and (7) Perspective.

Improving sports performance through modifying self-talk

Sportspeople can create unpleasant emotional states, such as anxiety and anger, through thinking patterns (self-talk) that are based on irrational beliefs. Self-talk is usually so automatic and subtle that sportspeople don't notice it, or the effect it has on their beliefs, moods and feelings. Beliefs can impact on sports behaviour and performance. Unfortunately, sportspeople are often taught to tune in to their bodies or their physical skills, but are not taught to tune in to their minds or their mental skills.

A sportsperson's self-talk is their internal dialogue. It includes thought content and self-statements. Four main types of self-talk are generally employed by sportspeople. These are: (a) negative (e.g. "That was a terrible dive"), (b) positive (e.g. "That was a brilliant tumble turn"), (c) technical or instructional (e.g. "Keep fingers closed on my front crawl pulls"), (d) neutral ("I wonder what time the gala will end."). 'Cognitive restructuring' allows sportspeople to change the way they feel by changing the way they think.

Cognitive restructuring was developed by Aaron Beck as part of his cognitive approach to psychopathology and psychotherapy which he developed in the 1960s. In teaching a sportsperson cognitive restructuring, a sports psychologist teaches them 'metacognition' which according to Benson and Van Loon (2012, p. 92) is "*how to think about their thinking.*" In practice, this is achieved by:

- (a) Monitoring automatic thoughts, especially negative ones
- (b) Examining and 'reality testing' the evidence for and against distorted/negative thoughts
- (c) Substituting more realistic interpretations for biased thinking
- (d) Recognising the connections between cognitions, emotions, and behaviours/performance

Cognitive restructuring is a psychological process which can enable a sportsperson to replace irrational (emotionally damaging) and dysfunctional beliefs with more accurate, emotionally beneficial and functional/positive beliefs. Cognitive restructuring allows sportspeople to challenge and replace thought patterns that trigger or reinforce pre-competition hyper-anxiety, and other negative emotional states. It is useful before, during, and after competition.

According to Austin (2013): "*It is generally accepted that negative self-talk is associated with worse performance, whereas positive self-talk is associated with better performance. Positive self-talk may benefit an athlete by impacting on their self-confidence, anxiety control, concentration and mood.*" An example of changing a negative self-talk statement to a positive one is as follows - "*This referee is really out to get me.*" (a negative self-talk statement) can be changed to "*I can't control the referee. I need to focus on what I can do: play smart and hard water polo.*"

A sportsperson can weaken the hold of their negative self-talk by using Socratic enquiry, which according to Wilding and Milne (2010, p. 136): "*works on the principle that you have a great deal of*

valuable information known to you but 'outside your awareness'. That is, you are failing to take the information into account when formulating negative thoughts and beliefs." A sportsperson can weaken the hold of negative self-talk statements by asking him/her self questions such as the following:

- (a) What is the evidence for this?
- (b) Is this always true?
- (c) Am I looking at the whole picture?

A sportsperson can counter negative self-talk or negative automatic thoughts (NATs) by recording this self talk (automatic thoughts) on work sheets and later challenging these NATs. In challenging NATs a sportsperson should try to identify common thinking errors e.g. (a) catastrophizing, awfulizing, mind reading, emotional reasoning, and overgeneralizing.

Conclusions

Performance improvement in sport involves improving sportspeople's capability to perform up to their potential by helping them develop the mindset and mental/emotional skills to improve their knowledge, skills, and abilities (KSAs) or to better execute their KSAs. In this way, sportspeople can be helped to enter their 'zone of optimal functioning', to achieve their very best (peak) performances. The three most important psychological/mental skills for sports performance improvement have been identified as: (a) hypnosis, (b) imagery and visualisation, and (c) modifying self-talk.

Hypnosis can help sportspeople overcome issues of self-doubt which may be keeping them from moving to the next level of performance. It can help sportspeople hone their skills, fine-tune a technique, and have a level of self-belief and confidence which will enable them to excel beyond what they may have previously not thought possible. Hundreds of studies on imagery have been carried out which indicate that imagery can improve the physical performance of sports skills. Cognitive restructuring allows sportspeople to challenge and replace thought patterns that trigger or reinforce pre-competition hyper-anxiety, and other negative emotional states. Such restructuring facilitates improved sports performance.

References

- Austin, M. (2013) *Listening to the voices in your head: identifying and adapting athletes' self-talk*, Australian Government: Australian Sports Commission website:
[http://www.ausport.gov.au/sportscoachmag/psychology2/listening to the voices in your head identifying and adapting athletes self-talk](http://www.ausport.gov.au/sportscoachmag/psychology2/listening%20to%20the%20voices%20in%20your%20head%20identifying%20and%20adapting%20athletes%20self-talk)
- Benson, N. and Van Loon, B. (2012) *Introducing Psychotherapy*, London: Icon Books Limited
- Cunningham, L. (1984) *Hypnosport: The creative Use of Hypnosis to Maximise Athletic Performance*, New York: Richard West
- Gawain, S. (1995) *Creative visualization*, Berkeley, California: New World Library
- Hanin, Y. L. (2000) *Emotions in Sport*, Champaign, Illinois: Human Kinetics
- Holmes, P. S. and Collins, D. J. (2001) *The PETTLEP approach to motor imagery: A functional equivalence model for sport psychologists*. *Journal of Applied Sport Psychology*, 13(1) 60-83.
- Hunter, C. R. (1995) *The Art of Hypnotherapy*, Dubuque, Iowa: Kendall/Hunt Publishing Company
- Joseph, A. (2010) *Cognitive Behavioural Therapy*, Chichester: Capstone Publishing Limited

- Karageorghis, C.I. and Terry, P.C. (2011) *Inside Sport Psychology*, Leeds: Human Kinetics
- Kremer, J. and Moran, A. (2013) *Pure Sport: Practical Sport Psychology*: Routledge
- LeUnes, A. (2011) *Sport Psychology: A Practical Guide*, London: Icon Books Limited
- Mack, G. and Casstevens, D. (2001) *Mind Gym: An Athlete's Guide to Inner Excellence*, New York: McGraw Hill
- Neenan, M. and Dryden, W. (2004) *Cognitive Therapy: 100 Key Points & Techniques*, New York: Brunner-Routledge
- Portenga, S. T. et al; (undated) *Defining the Practice of Sport and Performance Psychology*, Washington, DC: Division 47 (Exercise and Sport Psychology) of the American Psychological Association
- Rossmann, M. L. (2000) *Guided Imagery for Self Healing*, Novato, California, New World Library
- Schwartz, A. E. (1995) *Guided Imagery for Groups*, Duluth, Minnesota: Whole Person Associates Inc
- Scott, M. J., Stradling, S. G. & Dryden, W. (1995) *Developing Cognitive Behavioural Counselling*, London: SAGE Publications
- Szymanska, K. and Palmer, S. (2012) *Understanding CBT*, London: KoganPage
- Tod, D., Thatcher, J. and Rahman, R. (2010) *Sport Psychology*, London: Palgrave Macmillan
- Trower, P., Casey, A. And Dryden, W. (2004) *Cognitive-Behavioural Counselling in Action*, London: SAGE Publications
- Underleider, S. (1996) *Mental Training for Peak Performance*, Emmaus, Pennsylvania: Rodale Press Inc
- Weitzenhoffer, A. M. (2000) *The Practice of Hypnotism*, New York: John Wiley & Sons, Inc
- Whitmore, J. (2002) *Coaching for Performance*, London: Nicholas Brealey Publishing
- Wilding, C. and Milne, A. (2010) *Cognitive Behavioural Therapy*, Abingdon, Oxon: Bookpoint limited
- Yapko, M. D. (1990) *Trance work: An Introduction to the Practice of Clinical Hypnosis*, Levittown, Pa: Taylor & Francis
- Young, P. (1987) *Personal Change through Self Hypnosis*, London: Angus & Robertson Publishers
- Zizzi, S. J. et al; (2009) *Establishing a Hierarchy of Psychological Skills: Coaches', Athletic Trainers', and Psychologists' Uses and Perceptions of Psychological Skills Training*, *Athletic Insight: The Online Journal of Sport Psychology*, 11/2

