BARÇA
INNOVATION HUB
Universitas

PSYCHOLOGICAL PREVENTION TECHNIQUES

PSYCHOLOGICAL INTERVENTION TECHNIQUES I

3.1 Control of Thoughts and Sports Routines

Introduction

Control of Thoughts

Over the course of past few years, issues related to thought and its influence on sports have been the subject of in-depth study in the field of sports psychology. Thought influences athletic performance. This is a fact demonstrated every day in competitions and training sessions.

If the mind is invaded by negative thoughts, sports results will follow along these same lines, and consequently, the athlete will not achieve optimal performance. This is why, faced with the reality of thoughts that arise in a way that is spontaneous, disordered, and not always beneficial, high performance athletes would do well to gain control over what they think about and to make their minds work in their favor.

Although there are athletes who by nature know what to think and when to think it, not all of them master this ability and not all of them can find the training staff or sports psychologists to support and educate them in this regard during their development. Fortunately, this is a skill that can be learned and can, therefore, be trained during the subject's sports career.

The thinking of high performance athletes cannot be limited to keeping negative thoughts at bay. Athletes' thoughts must be productive in and of themselves, and their thinking must be trained in order to be consistent and effective. The sports psychologist plays a crucial role in this regard as they can educate trainers so that, through their interventions, they can engender modes of thought in athletes aimed towards the same goal.

Control of thoughts is a variable that is, or should be, practiced, just as physical skills and abilities are. A negative thought can cause athletes, no matter how well-trained or skillful, to lose their attentional focus on the game and make mistakes that could impair their performance.

In the field of sports, subjects not only set aside time to work on these issues but also seek out strategies to distract their rivals and make them lose focus. Thus we know that adversaries will also strive to make their opponents' thoughts work against them during competitions, which makes for a two-fold task: on one hand, athletes must work to keep negative thoughts at bay (not mastering a specific ability, fearing public exposure or it being revealed that they are not in good physical condition due to an old injury), and, on the other hand, they must not let their rivals utilize their own strategies to take them out of the match.

Ellis's Rational Emotive Therapy

This theory explains athletes' psychological processes using the **ABC** model:

- **A**: Activating Event (e.g.: fault on the first serve).
- **B:** Belief, assessment, or interpretation of something (e.g.: I won't make my first serve today; I'm playing badly).
- **C:** Consequences, emotional or behavioral (e.g.: fear of failure, imprecise swings).

Events can be understood as the consequences of athletes' opinions and interpretations of a situation. This line of thought attempts to explain human thinking using a **cognitive-behavioral approach**, which takes into account subjects' thoughts and images when faced with open-ended responses.

This line of thought attempts to explain how subjects think through language: thus, it is important that athletes develop the ability to verbalize what is happening to them. One aspect of this theory that should be emphasized is that it shows subjects the consequences of their actions and the reasons behind their emotions. It teaches them a different way of thinking so that they can succeed in managing their actions and emotions. The objective is for the subject-athlete to take action when faced with everyday situations and to assess his interactions in a rational manner. The thinking that they are trying to master is one that would be more useful in the real world.

That being said, thoughts and emotions are not processes that work separately. Emotions can be modified by changing one's way of thinking.

Two points stand out here:

- Thinking and feeling are linked.
- The link between thought and emotion leads us to act in a way that is consistent with cause and effect, these often being the same: thought is emotion, and vice-versa.

Subjects, having the ability to generate language, are capable of talking to themselves (auto-verbalization) and of carrying on internal dialogs. Thus, it becomes more difficult to sustain an emotion when it is not reinforced by thought.

Beck's cognitive therapy

Beck' theory is based on an explanation of and treatment for depression, but its basic principles perfectly apply to sports. Especially the **negative cognitive triad** (attitudes and beliefs that cause athletes to perceive everything around them – the future, and themselves – in a negative light (which can lead to injuries, continual negative

results, or a lack of motivation)) and **cognitive distortions**: information processing errors that are also frequently found in athletes.

Some examples of cognitive distortions in sports are:

- Arbitrary inferences: reaching conclusions without supporting evidence or that contradict results. For example: we're going to lose, they're the third-ranked team in the league.
- Selective abstraction: basing a conclusion on isolated details or on something specific that has been taken out of context. For example: I'm sure to be injured, we didn't have enough time to train in hot weather before the match.
- Overgeneralization: reaching a conclusion based on isolated facts. For example: after a series of bad first serves (tennis), thinking, "My first serve will never be effective."
- Magnification and minimization: making a mistake when assessing an event, exaggerating or minimizing its consequences. For example, thinking, "I've missed the penalty shot, now I'll lose my position as a starter."
- Personalization and self-reference: egocentric interpretation of events attributable to no one and a willingness to attribute external events to oneself. For example: "Today is a great day for the match; the weather is working in my favor."
- Superstitious thinking and catastrophic outlooks: creating a cause-and-effect relationship between events that are not contingent upon one another. For example: "I didn't bring the socks that I always wear when I win competitions, today I'll lose for sure."

One of the things that this theory aims to do is to find the thoughts that impair athletic performance and try to identify them using a set of strategies, namely:

- Identifying thoughts that are produced automatically.
- Determining how these automatic thoughts influence emotions.
- Practicing techniques for recording automatic thoughts with a routine.

Another point to emphasize (not included in Beck's model) is that of polarized thinking. In this case, reality is seen in terms of two possibilities: everything is either right or wrong. The construction of thoughts oscillates between opposing categories, and intermediary states are not perceived. This leads to the creation of heightened expectations that, if they are not achieved, negatively affect psychological variables such as stress, anxiety, etc.

3.1.2 Self-Talk as a Strategy for Controlling Thoughts

Authors such as Zinsser, Bunker & Williams (2006) explain how athletes from different disciplines recognize that they delivered better performance when they did not register thoughts in their minds; that is, when they had cognitive control (of their

thoughts). In their study, they discuss the importance of self-talk as the key to achieving cognitive control.

They analyze some of applications of **control of thoughts** through self-talk:

- Acquisition of abilities and skills: For example: for proper execution of a tennis serve, athletes can relieve any tension they experience by saying "Stop" (to put aside any doubts) and then "Breathe," to focus on the execution of the serve and not on its result.
- Changing bad habits: For example: after a mistake, athletes that tend to get caught up in regret can use a keyword to control their thoughts and say to themselves, for example: "Next," "Recover," "Continue."
- Controlling attention: For example: after having identified disruptive thoughts that do not help them focus their attention on elements that contribute to their performance, athletes can count to 3 and then narrate the actions that they need to perform next,"Bounce 3 times, 1, 2, 3," – "Inhale – exhale" – "Look at the scoreboard" – "In" (free throws in basketball).
- Generating or altering a feeling or mood: For example: "C'mon!", "I'm good."
- Controlling effort: For example: athletes can talk to themselves and tell themselves, in accordance with their level of activity, "Calm down," "Less," "Lots more!"
- Building self-efficacy and self-confidence: For example: facing disheartening situations or a feeling of helplessness (for instance), athletes can choose words that energize and motivate them. "I've gotten out of worse situations," "I know how to do this!", "Let's go for it!"
- Increasing adherence to and maintenance of positive behaviors in regard to exercise: For example: "Although this exercise is difficult for me to do, after completing it I'll feel great because I'll have done it despite my laziness"

Self-talk techniques are cognitive strategies aimed at the ability to control disruptive thoughts that can impair athletic performance. Athletes' development of this capability will enable them to control their thoughts before, during, and after competitions.

Self-talk has been defined as:

> "an internal dialog through which an individual interprets feelings and perceptions; this dialog also regulates and changes evaluations and beliefs, *thus fostering instructions and reinforcement* " (Hackfort & Schwenkmezger, 1989).

Athletes are permanently engaged in subconscious internal dialog with themselves. The aim is for athletes to develop this ability in a consistent way so that they can direct their thoughts. Internal messages, or the dialog that athletes have with themselves, reveal sensory information and represent the system of beliefs that subjects generate from what they experience.

When discussing self-talk, Latinjak A., Torregrosa, M. & Renom J. (2009) state that it is:

- Verbalization directed at oneself.
- Multidimensional and dynamic in nature.
- Made up of one element, based on interpretations made by the subjects.
- Can be applied to motivational or instructional issues.

To the extent that athletes are aware of the internal dialog that they carry on during their sports training or during competitions, this can effect cognitive changes. This means that their thoughts and emotions, and, consequently, their behavior, can be directed in a way that could be beneficial to their athletic performance.

It is believed that once the number of disruptive thoughts is reduced through the consistent utilization of self-talk as a resource, we will see improvement in terms of concentration and performance. This is confirmed by authors such as Hatzigeorgiadis, Theodorakis & Zourbanos (2004).

One of the most influential psychological variables in athletic performance is attention. Authors such as Latinjak, Torregrosa & Renom (2009) suggest that self-talk can be utilized as a technique to direct attentional focus toward relevant stimuli in the environment or toward the subject's internal stimuli. Thus, the fact that athletes may have more control over situations during training sessions and competitions seems important.

Díaz Ocejo (2010) poses that what athletes say to themselves is what they really believe. Difficulties relating to controlling self-talk lie in the fact that this dialog happens internally and that thoughts happen automatically; thus why it is important to practice these techniques.

As for control of thoughts, Dosil (2004) contends that self-talk is of great importance because it makes us aware of inappropriate thoughts.

Díaz Ocejo (2010) summarizes some of the benefits of self-talk:

- It alters bad habits.
- It directs and controls attention-concentration.
- It encourages positive behaviors associated with athletic activity.

Hatzigeorgiadis et al. (2004) suggest that the type of words that athletes utilize should be related to the goal that they are trying to achieve during a specific task or competition. Athletes can utilize self-talk that is instructional or motivational. The use of one or the other depends on what they are about to do.

Latinjak A., Torregrosa, M. & Renom J. (2009) recommend a list of words that can be utilized by athletes according to the psychological variable that predominates in their emotional state.

Figure 1: Words targeting a psychological variable

Aim	Key Words or Phrases
Reducing anxiety	I'm in control – I know what I'm doing
Skill acquisition	Breathe – Bend elbows – Stand up straight
Self-efficacy	I know how to do it
Initiating a movement	Let's go – Going – Done
Changing bad habits	Change – Stop – Not like that
Problem-solving	Stay with the group – Call the trainer over
Monitoring effort	Easy – More – Speed up

Source: Prepared by the author based on Latinjak A., Torregrosa, M. & Renom J. (2009).

These examples should serve as a guide for athletes: the self-talk technique achieves its best results when athletes formulate their own phrases or keywords in their own words, expressed in their own way. Athletes should make self-talk their own and be capable of giving their self-instructions meaning and purpose.

The psychological intervention techniques that are used to improve athletic performance (in this case, we're referring to self-talk as a strategy for controlling thoughts) must be derived from the objectives proposed by the coach and the athletes. When working with athletes' thoughts, we insert ourselves into their internal world, thus making these types of interventions delicate and capable of arousing strong emotions that can be difficult to control.

In the field of sports, studies have been carried out on tennis, golf, basketball, and soccer. Authors such as Landin & Hebert (1999) utilized self-talk techniques with tennis players to improve their volleying and demonstrated that players improved their execution in terms of precision and increased their level of confidence and attention by acquiring new motor skills. This also reduced levels of cognitive anxiety.

As previously mentioned, this practice can be divided into instructional self-talk and motivational self-talk. A study by Hatzigeorgiadis et al. (2004) conducted on water polo players demonstrated that when the task requires precision, instructional self-talk is more effective than motivational self-talk. However, when the task requires elevated levels of strength, motivational self-talk is more effective for improving performance. Likewise, both techniques (instructional and motivational) helped to reduce disruptive thoughts and improve athletic performance.

In order to define both styles of self-talk, we will adopt the ideas of Zinsser, Bunker & Williams (2006):

- Instructional self-talk: oriented toward attentional focus, technical execution, and tactical procedures. For example: "Rotate the trunk after the stroke," "Body low, swing the leg."

- Motivational self-talk: oriented toward increasing confidence, effort, and positive attitudes. For example: "C'mon!", "You can do it!", "Keep going!"

With what we have seen so far, it can be said that all subject-athletes carry on an internal dialog during training sessions and competitions. The objective is to orient this dialog toward a clear goal related to improving athletic performance. This dialog is the manifestation of thought; therefore, with proper training, the way that an athletic situation is assessed can be modified.

3.1.3 Control of Thoughts

Controlling thoughts allows athletes to guarantee that their performance will be under their control, since it teaches them what to think, when to think it, and how to think it.

There will be moments in which athletes succeed at becoming totally immersed in an activity where all of their thoughts are oriented toward overcoming the difficulties of competition, which reduces the probability that their mind will be invaded by inappropriate thoughts. And, if they do arise, the first thing athletes should do is identify them so that they can stop them and replace them with appropriate thoughts.

It is important to recognize the types of thoughts that may appear and undermine an athlete's performance. To this effect, the most frequently occurring thoughts are the following types:

- Rational vs. Irrational: The former are realistic and objective (If I train regularly at the gym, I will increase my strength levels); the latter are illogical, unrealistic, and permeated by subjectivity (If I don't go to the gym today, I'll lose strength).

- Positive vs. Negative: The former serve as reinforcement and motivation and support athletes in their efforts and increase their confidence (I'll succeed!); the latter impair their performance, reduce their ability to cope, and lower their confidence (I won't succeed!).

- Rigid vs. Flexible: The former are inalterable, they leave no room for additional information that could be of value in a situation (when I get the ball, I should go toward the goal); the latter can be modified and accept new external information or information that has not previously been considered (every time I want to go toward the goal, it's hard for me to come out on top. Next time, I'll look to see if I can pass to a teammate to keep the play going).

Once the types of thoughts that can invade a player's mind have been differentiated, they should be identified and, with the help of the trainer or psychologist, alternative thoughts should be formulated to replace them.

Exercises to Help Direct Thoughts

Identifying situations that generate negative thoughts, taking note of the thoughts that appear in each situation that do not help to improve athletes' performance, and, lastly, substituting these negative thoughts with others of a positive nature.

Figure 2: example

Situations That Can Generate Cognitive Distortions	Negative Thoughts	Positive Refocus
When the crowd screams my name.	Oh no! Everyone is looking at me.	Everyone is rooting for me!
When I get ready to take a penalty shot.	I'll miss it for sure. The goalkeeper will block it. And if I miss?	I've trained enough to accept the potential outcome. This will be a goal. I know what I have to do. Steady yourself with the inside of your foot.
When I'm a starter in a match.	I can't fail. The opponent is very good; I must maintain my concentration for the entire game or we'll lose. I'm afraid.	I'm a starter because I've earned it. The coach trusts me. Start with the basics: sure passes and a strong defense.

Source: Prepared by the author.

The above can be utilized so that athletes can see how they think in the moments before, during and after competitions. To visualize something means to take something that could impair performance and make it visible, which is why these kinds of interventions are extremely useful. Working as a team with the active participation of the coach, the team psychologist (should the team have one) and the athlete's family is recommended. These are the parties that relate best to the subject and their contributions can enrich these efforts.

Often, athletes speak only with their parents after completing training sessions or competitions: this indicates that the coach should have frequent contact with the

family. Many trainers don't know how subjects feel in training sessions and propose interventions that are not in line with the athletes' expectations; consequently, their performance is sub-optimal.

3.1.4 Self-Control and Managing Thoughts

The more athletes improve their thought control techniques, the more self-control they will have over themselves and, in many cases, the more efficiently they will handle their emotional stability.

Self-control is defined as a skill or ability that can be learned. It refers to an individual's control over his own behavior in regard to physical, cognitive, or social dimensions. The subject-athlete himself is the one that internally manages the variables that could alter his behavior.

As for those athletes that lack the capacity for self-control, they can be trained using a variety of techniques. Achieving control over one's thoughts, as was mentioned earlier, is one way of doing it. However, self-control has become a variable that must be studied, and, in order to do this, strategies that are useful to subjects are applied.

Self-control techniques make it so athletes do not need the sports psychologist during training sessions or competitions and know how to manage their behavior on their own. In this case, we are talking about subjects that have not achieved sufficient self-control. No athlete will be able to control his thoughts or alter his behavior unless he is convinced that this is possible.

This case is premised on the autonomy principle as it applies to subject himself, who attempts to control his behavior through his own internal or acquired strategies.

Some tools for practicing self-control are listed below:

- Self-observation: in this case, the coach should help athletes track their own behavior by establishing a recording routine. For example: one behavior to track would be to pay attention to how many passes he must make before passing the ball to the pivot. Once the exercise has been completed, the athlete shall note the number of times that he achieved success.
- Self-contingencies: in this case, a change in behavior will be generated by external agents (material reinforcements) or internal agents (giving oneself compliments). For example: "Well done!", "Good shot!"
- Contingencies contract: here a subject comes to an agreement with his coach or sports psychologist to carry out, for example, a series of behaviors aimed at changing his conduct. These should refer to observable behaviors, and the benefits of adherence and penalties for non-adherence, should be defined. For example: a swimmer makes a deal with her trainer: to be on time and not dawdle during training sessions; warm up correctly before getting in the water; when swimming, make an effort to finish within the times that have been established. All of these behaviors, which can be measured by both parties (the coach and the swimmer), imply benefits for good adherence (self-realization,

commitment, responsibility) and consequences for non-adherence (for example, emotional consequences that will have a negative impact on self-esteem, guilt).

- Objectives: the type of behavior to be mastered is established here. These should be gradual in order not to generate negative feelings in players should they set objectives for themselves that are too difficult.

As for the self-control strategies used by athletes, it should be clear from the very beginning that the subjects should master their thoughts and behavior. These strategies are related to controlling one's behavior and can include:

- Narrowing stimuli: this refers to changing the setting (context) so that behavior can be adapted to this change. For example, on a court full of coaches, parents, tennis players, changing the place or the time of a training session to reduce the stimuli that lessen the athlete's sense of control. As techniques are learned, more stimuli can be gradually introduced for the purpose of making the situation similar to that of a real competition.
- Situational conditioning: this refers to performing desired behaviors on repeated occasions in order to reinforce behavioral habits. For example, the performance of a successful behavior (free throws) increases self-esteem, along with efficacy, and generates the habit of repeating this training.
- Behavioral tasks during sessions: what is being proposed here is training athletes on the aspects they should modify, perhaps through talks between sessions about the importance of performing specific tasks during training sessions. This reinforces the stimulus. For example, before the training session starts, talking to the player in order to set an objective and focus on the behaviors and techniques that they must employ. Supervision of these tasks and the feedback given during and after the training session will make it more likely that the desired behavior persists over time.
- Covert control: here, the athlete develops a list of non-observable thoughts that can prevent the appearance of unwanted behaviors. For example: "When I miss my first shot I have doubts about how I will do in the match." When this happens, the athlete is already familiar with the feeling that comes before missing a shot, which is why he will fight these thoughts with others he worked on beforehand: "The fact that I miss the first one doesn't mean anything; there's still a lot of playing time ahead," "I'll forget the mistake and focus on getting the ball back."

Self-recording during training sessions

In this case, self-recording is used as a way to learn which behaviors and thoughts should be worked on. It is recommended that long periods of time not go by without record-keeping so that this information can be internalized by the athletes.

Using this tool, the subject is able to demonstrate evidence of a process that involves behavioral changes and the results obtained. This record-keeping should be conducted at the location where the subjects perform their activities.

Some of the advantages of self-recording are:

- Subjects become protagonists in their learning process when they monitor and record the issues or variables that they must modify.
- No information is left unknown, and they learn about details of their training that might have otherwise escaped them. By recording, they obtain information.
- Athletes begin to have more control over themselves.

In view of what we have discussed, we can say that with these tools, athletes can acquire an understanding of their training process and of the variables that affect it. They improve and monitor their behavior, thoughts and emotions. They stabilize their personalities in order to cope with training sessions and competitions. Thus, their athletic performance has a greater chance of success.

Thoughts, if they are not controlled, can drown subjects when they face a stressful situation. The better a subject masters the variables surrounding a situation, the more opportunities he will have to perform successfully.

Below is a description of what are known as sports routines. The aim here is to understand how to maintain a working environment in which athletes feel comfortable.

Sports Routines

A "routine" is understood to be the acquired habit of doing things purely out of habit, without thinking about them.

It is important to stress that a routine is not the same as a ritual. In rituals, acts are performed for their symbolic value, that is, the need to reinforce some belief; these may also be compulsive behaviors.

Routines, on the other hand, can arise spontaneously (the player acquires the habit of always doing it the same way, out of natural repetition) but they can also be adopted with the aim of achieving a greater level of efficiency or performance.

In the latter case, there is a process of routine building through which athletes test which actions they feel comfortable with and which actions give them their best results. It is like a process of trial and error carried out by the athletes themselves: when they think that an certain action is useful to them, it becomes routine.

After building or repeating, comes the step where the player adopts the routine. This implies numerous repetitions in order to achieve automation. They first do this during free training, under practically no pressure, and then during match-training situations and competitive matches. During this stage, athletes should be patient and know that the routine does not ensure results but that it does improve the conditions for execution and, therefore, the probability of success (especially for

technical motor patterns that are unopposed: penalty shots, free throws, serves in tennis).

A routine can be adjusted if necessary, but when complete automation is achieved, athletes will stop thinking about what they have to do and just do it without thinking. This is the point at which the routine has been solidified and when athletes have most control over their psychological abilities, even at times when they are under a great deal of pressure. Routines allow athletes to focus their attention on the elements that are under their control, ignoring stimuli out of their reach, and elements that could, on occasion, be considered distracting elements.

Routines can be discussed right before a competition, during a competition, and even after a competition. Examples of routines for the moments before, during and after a competition might be:

- Pre-competition: Listening to music, visualizing technical exercises (serves in tennis, movements to perform on a climbing route, executing a high jump).
- Competition: In golf, for example, before making a putt (a stroke made on the green), athletes become used to already having decided on their movements beforehand: Looking at the slope of the terrain head-on, taking practice swings to measure force before the swing, body positioning, looking at hole and, finally, swinging.
- Post-competition: Muscle stretching and/or relaxation exercises are usually performed after a competition.

It should be emphasized that routines create comfort zones for athletes after they assure themselves that some behaviors give them positive results. This generates a great deal of resistance to change because their thoughts and behaviors run in one specific direction. As coaches and sports psychologists, we should be careful when it comes to resistance to change: changes should be gradual and adapted to subjects' capabilities.