

1.2 Concentration Training

The postmodern era has many differential attributes from previous eras of mankind. Perhaps one of the most significant is the hyperstimulation to which the current population is subjected. A person must permanently choose from a wide range of possibilities, and must decide on what to give their attention to. From the youngest to the oldest, everyone is affected by this postmodernist reality, and sports are no exception.

Currently, the athlete must not only know what stimuli to focus on during the practice of their sport, but also which environmental signals are relevant and what information is useful both before the active practice phase (either training or competition) and in later phases.

Attentive people, hyper focused athletes seem to be the motto of present times. The treatment of an aspect that seems to go against this trend but is essential to an athlete's training of focus and attention of the athlete deserves its own paragraph: learning how to turn off the brain, unplug, turn the page and prepare for the next chapter.

In the following topics, we will delve into the main items that can help us understand the central concepts related to focus and attention, their relationship to the overall athletic performance and mental strength of the athlete in particular, and some useful training techniques.

As we begin to retrace the main ideas, it is worth starting out from a central base: without attention span and focus, human experience is meaningless. It is impossible to give meaning to the experience of human beings if there is no ability to focus on the stimuli of the environment of the individual and perceive it properly. In addition, the individual must be able to shift their attention from one style to another depending on the demands of the environment (Valdés Casal, 1998, p. 178).

Thus, the first thing that should be clear is the distinction between the concepts of attention and focus. To do this, we define two central concepts very much related to these: stimulus and perception.

While the first means talking about anything that has an effect on mankind, the second has to do with the analysis of reality through the senses (De Diego and Sagredo, 1992).

Both make up the definition of attention. These same authors also define attention as "selective and directed stimulate perception" (p. 175).

While on the the one hand, attention is the process by which various stimuli are perceived at the same time, focus is, on the other, attention

drawn specifically to a single point of stimulus. The following three fundamental properties of attention should be taken into account:

- It is selective: it filters relevant stimuli from the less significant stimuli for the situation.
- It is limited: unable to respond effectively and efficiently to form two simultaneous tasks, although it can perceive several at once.
- It is fluctuating: alertness is not permanent in terms of attentional quality but it is transitory.

It can be said, in short, that it is essential for the two mechanisms (attention and concentration) to work in a complementary manner for the athlete, as in all sports there are simultaneous signals that we will need to turn our attention to and specific situations where there will be a single specific and concrete stimulus.

The ability of the athlete to combine the effective use of these two psychological variables has much to do with the real possibility of optimizing their performance.

1.2.1 Attentional Scope and Direction

Thus, based on the definitions of attention and concentration, the importance that these have on athletic performance has been described.

Two of the main components of attention are precisely scope and direction. Understanding how both pillars work in attention training in athletes can be simple, drawn from the work of Nideffer (1981 as cited in De Diego and Sagredo, 1992, p. 177), in relation to his Theory on attentional and interpersonal styles, as described below.

Theory of Attentional and Interpersonal Styles

To understand the attentional process in sports performance, it is essential to consider not only the ability of the athlete to develop certain types of attention, but also the attentional demands of each particular sports performance. Thus, the optimal attentional development would be determined by the athlete's control of their own attentional skills, to adapt to the different attentional demands of their sport.

In short, the following principles define the attentional characteristics of sports:

- a) There are different types of attention with regards to performance. These follow the intersection of two dimensions: attentional scope and direction.

- b) Different sports situations require different attentional demands from athletes.
- c) The physiological and mental "block" that leads to progressive deterioration in performance has several implications in how to address it and become focused. (Nideffer, 1981 as cited in De Diego and Sagredo, 1992, p. 178)

Specifically, the dimension of attentional direction indicates the place where attention should be focused and it can be:

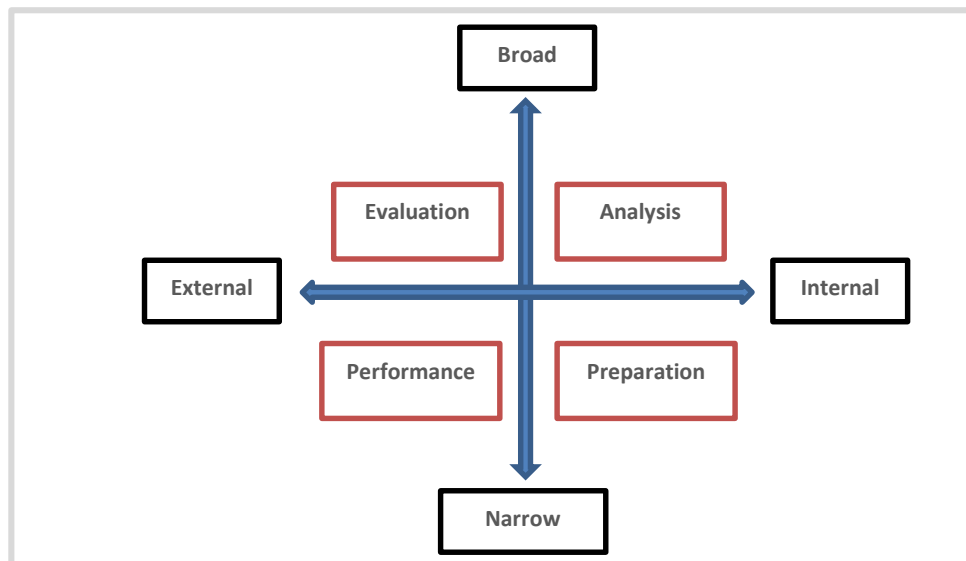
- **External:** external attentional direction can refer to, for example, focusing on the public, rivals, the team's bench or that of the other team or specific references on the field.
- **Internal:** internal attentional direction can refer to, for example, focusing on breathing itself, in the registering of muscle activation or mental review of key indications.

As for attentional scope, it refers to the amount of information one tries to process at a time (how many stimuli to pay attention to at once) and it can be:

- **Narrow:** stimuli very limited in quantity, such as a penalty kick in soccer, a free throw in basketball, or a serve in volleyball or tennis.
- **Broad:** large amount of information to pay attention to simultaneously as, for example, coordinating a certain play in basketball, or running a short corner in hockey, where distance should be fixed, the number of players, the position of the defense, the referee's instructions, etc.

Both external and internal directions, as narrow and broad scopes "are complementary, and their differential use is necessary depending on the sports demand in question" (De Diego and Sagredo, 1992, p. 178).

Figure 1: Attentional Styles and Focuses Quadrant



Source: Taken from Nideffer (1981 as cited in De Diego and Sagredo p. 179).

In the above graph, it is possible to identify the attentional focuses arising from the intersection of attentional styles. These are the focuses that every athlete should manage to cope in the best way possible with specific sports situations.

1.2.2 Attentional Focuses and Competitive States

The intersection of attentional scope and direction provide specific attentional focuses as the result. According to Nideffer (1981 as cited in De Diego and Sagredo, p. 179) they are defined as follows:

- a) Evaluation: quick reading of the medium. Validation of external information for the game.
- b) Analysis: planning schemes or game strategies. Reviewing past information. Make decisions about the next performance.
- c) Preparation: review physiological variables. Mentally go over a certain sports movement.
- d) Performance: focus on the object or sporting situation to generate a sports response.

Table 6 Advantages and Disadvantages of Each Attentional Focus According to Styles of Sports

Attentional Focus	Advantages	Disadvantages
Evaluation (Broad-external)	Athletes able to make quick adjustments taking into consideration large amount of information and external factors.	The athlete is more concerned with analyzing the external situation than with how to react. They are overloaded with information. They systematically make the same mistakes, since their thoughts and behavior are controlled by the external environment instead of the internal one.
Analysis (broad-internal)	Smart players who plan the game and are able to make strategic and tactical adjustments on the spot and analyze external changes and/or (unnecessary formula) movements of their opponents and anticipate responses very well.	They over-analyze their capacity, so they occupy their thoughts with what has happened or may happen instead of the current game. They may suffer "paralysis by analysis" (excess of thought that prevents action).
Preparation (narrow-internal)	Athlete is very good at diagnosing or monitoring mistakes. Great capacity for introspection and control over internal components that affect the sport.	Tendency to become blocked constantly when they critically self-analyze. They are so focused on their own feelings that they cannot perform well.
Performance (narrow-external)	Ideal for athletes who have established a very clear athletic performance.	When the environment changes, they do not know how to make a decision on how to respond to modifications so as to perform satisfactorily.

Source: Taken from Nideffer (1981 as cited in De Diego and Sagredo, pp.180-181).



1.2.3 Internal and External Distractors

Distractors are all factors that threaten the possibility that the athlete has the appropriate levels of attention and concentration under specific sports demand.

There is no need to mention its influence on sports performance as poor attention and concentration levels automatically result in loss of the level of implementation of technical gesture, in particular, and sporting behavior, in general. Moreover, attentional focuses contaminated by these distractions diminish the chance for the athlete to reach the optimum attitudinal state, meaning the challenging state, as described in previous sections.

Next we present a table describing the types of attentional distractors, the type of athlete they belong to and what their coaches can broadly speaking do in each case. It is worth noting that external distractors are linked more to emotions than the athlete can feel (boredom, anger, anxiety), while internal distractors are highly linked to thoughts (disengaged, analytical, weak).

Table 7: Attentional Distraction, Type of Athletes and Guidelines for Coaches

Type of distractor	Cause	Guideline for coach
External	Boredom: unmotivated athlete. The level of stimulus in training and competition is not suitable.	Bored athlete: find out if boredom has to do with a goal that is low or too high, which would generate high levels of insecurity.
External	Anger: athlete is disengaged due to anger or frustration.	Angry athlete: find out if frustration comes from an internal distraction or if it is an excuse to express their failed dream to perform optimally.

External	Rush: anxious athlete. They try for things to happen too soon, so they break their own pace of athletic performance.	Anxious athlete: find out if this state is the result of internal distractors, which is a common occurrence. Lack of security in one's own abilities distorts the perceptual and attentional control in such a way that generates rush and acceleration in one's actions.
Internal	Dissociated thoughts: the athlete has ideas and feelings excessively withdrawn from the current sporting activity.	Athletes with disassociated thoughts: the coach should readjust the competitive attitude and thoughts through an appropriate policy of positive or negative reinforcement in the athlete's behavior.
Internal	Overly analytical thoughts: athlete suffers paralysis by analysis.	Athlete with analytical thoughts: it is important to redirect the athlete to their priorities, practice itself or results, rather than to analysis and over-perfecting.
Internal	Weak thoughts: athletes who lack self-confidence.	Athletes with weak thoughts: it is convenient rather than focusing on the thought itself, to focus on the reaction of the athlete after claiming their dubious position on their abilities, in order to redirect their behavior.

Source: Taken from De Diego and Sagredo, 1992.

It is worth noting that a third type of distractor could be defined, a typology that combines external and internal aspects; this is the inability to change the way one deals with matters, which often leads to a blocked attitude (De Diego and Sagredo, 1992).

This physical and mental clutter that the athlete may experience is manifested in an athlete who is trapped in their own mind and body



reactions. Therefore, attracting the attention of the athlete with enough significant external stimuli to divert their narrow-internal attentional focus and redirect it to the external sporting situation is recommended.

1.2.4 Attention Training and Mental Strength

Throughout this module, we have tried to show the direct relationship between mental strength and attention, and athletic performance. Like all psychological variables that make up this construct, they can be trained. For this reason, we list below some modes of attentional training, according to the contributions of Weinberg and Gould (1996), who state that "being able to maintain focus on relevant environmental signals is critical to the effectiveness of implementation" (p. 388).

We split the following table with attentional training suggestions: first with actions that can be exercised on the playing field, then with exercises that can be practiced at other times and in other contexts.

Table 8: Attentional Training in the Playing Field

No.	Denomination	Mode of Implementation
1	Training in the presence of distractions.	Simulate the conditions of competition during training sessions and add external ingredients that can damage the athlete's attention. For example: people screaming, environmental noise, distracting images, environmental temperature of competition, etc.
2	Using agreed words.	Keywords are especially useful when we try to modify or change a complex motion or behavior sports model, for example, a golf swing or a serve in tennis. These words can be instructive (keep going, shoulders, look back, stretch, etc.) or motivational or emotional (strong, movement, relaxation, hold on, hold it). The key is to keep the input of simple words that automatically cause the desired response.

3	Using non-critical thoughts.	<p>One of the biggest obstacles athletes must overcome to stay focused is the tendency to evaluate performance and classify it as good or bad. They assign a positive or negative value to what they do. And usually, since their ego is involved in these considerations, these thoughts threaten the ability to perform satisfactorily.</p> <p>The athlete must learn to evaluate their actions uncritically. Describe the gesture and provide indications to improve on the how, rather than focusing too much on the what.</p>
4	Establishing routines	<p>Routines or rituals help the psychological preparation for future executions. The athlete tends to ramble during many times of training or competition and these outlined word or action constructs promote the corresponding attentional focus, depending on the specific athletic demand.</p>
5	Training visual control.	<p>Eyes tend to wander and focus on distractions (not relevant to the task) such as movements of spectators, referee's instructions, the rival's clowning around, etc. The key, obviously, is to train the visual focus on the signals that are relevant to the task. This can be exercised by looking at the floor for a certain amount of time, fixating on a particular point on the playing field, on the ball, etc.</p>
6	Focusing on the present.	<p>Thoughts driven towards the past or the future create attentional problems. Staying focused on the stimuli that define these situations is key to optimizing athletic performance.</p>

Source: Adapted from Weinberg and Gould, 1996.



Table 9: Concentration Training

No.	Exercise	Mode of Implementation
1	Learning to shift attention.	<p>Changing the focus on internal-external and broad-narrow dimensions trains voluntary modifications of attentional styles. It can be exercised in a comfortable and relaxed position with eyes closed, as follows:</p> <ol style="list-style-type: none"> 1- pay attention to the sounds of the environment; 2- then, to body sensations; 3- after, own thoughts and emotions; 4- finally, open eyes and focus on an object in the room that is directly across.
2	Learning to stay focused.	<p>If the athlete is competent at maintaining their concentration despite distractions and interruptions, athletic performance has greater power.</p> <p>To do this, it can be practiced in a quiet place where there are no distractions. Choose an object related to the sport (ball, racket, etc.). Take the object with both hands and feel the sensations it produces, such as its texture, size, etc. Then, let go of the object and focus on those perceptions. If thoughts begin to wander, repeat the sequence. Record how long you can stay focused on the object or target and the progress as the exercise is repeated.</p>



3	Searching for relevant signals.	<p>Learning to focus on finding the relevant signals is particularly important in fast-moving sports. To do this, exercises can be performed with a grid in which numbers from 0 to 99 are written in a disorderly manner, and then the athlete has to sequentially seek and mark the numbers for two minutes, then for minute and a half, then a minute, etc.</p>
4	Test of focus on the game.	<p>Visualization technique: within the numerous variants to train this resource, we can find this basic principle to train focus. In a quiet place without distractions, before a training session or competition, with eyes closed, imagine performing a technical gesture or complex sports behavior perfectly. Perceive the details of the execution, at different speeds, from different angles. Repeat this procedure three to five times per session.</p>

Source: Adapted from Weinberg and Gould, 1996.



References

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