APPLYING MENTAL STRATEGIES TO PÉTANQUE PRACTICE AND COMPETITION by Philippe Geraud

The greatest breakthrough in performance enhancement in the next century will be in the mental game

Lanny Bassham, Olympic gold medalist

In my last article, I explored the concept of "deliberate practice" and how its application is now considered by a large body of researchers in sport science, top athletes, and Olympic coaches as the optimal path towards higher level, "peak" performance. I looked at the three stages of skill development in athletes: the cognitive, the associative, and the autonomous.

In this article, I explore in more depth the third stage of skill-building: the autonomous stage, and how mental training and the development of mental skills cannot take place until our physical skills have been perfected and have become "automatic." For the same reasons scientific research has debunked "multitasking," sports psychologists have determined that our brain is wired to concentrate either on conscious execution of physical movement or on the application of mental skills, we simply cannot focus on both at the same time. Thus, for mental skills to be fully effective, physical execution needs to function "unconsciously" at the autonomous level.

In a study titled "Mental Practice or Spontaneous Play? Examining Which Types of Imagery constitute Deliberate Practice in Sport" (Nordin 346), Jennifer Cumming, one of the researchers, argues that the processes involved in the execution of mental skills during higher-level practice meet the criteria for "deliberate practice" as defined by Anders K Ericsson. Not only do these processes meet Ericsson's criteria of peak performance, Cumming says, these processes serve as major contributing factors in the attainment of peak performance in sports.

Recent neurological research tends to support Cumming's findings by showing that areas of the brain activated during mental process, such as visualization, are the same areas of the brain that are activated during physical performance. What this tells us is that once physical skills have been mastered, visualization and other mental skills, tend to act as skill *reinforcers*, leading to higher-level performance during competition.

The role of mental training, and the importance of applying mental skills to achieve higher level performance are now increasingly accepted by top athletes and coaches around the world, especially in the field of international level competition. Cumming goes on to state in her research that:

In a recent review, Abott and Collins (2004) stated that not only are psychological skills (e.g. imagery) used more frequently by higher level athletes than by athletes at lower levels, but such psychological skills can predict performance with greater reliability than physical variables. (Nordin 346)

Mental strategies and pétanque

So why is such training relatively rare in the sport of pétanque—or, at best, a distant also-ran to physical/technical training? Mental skill building and application isn't unknown in our sport, but in my observations and discussions, I have found that only a minority of pétanque players consistently use mental strategies to enhance their performance.

This should not surprise us. After all, the field of sport psychology, which is the "scientific study of behavior and mental processes *in the context of sport*" (Brewer 1) itself is a relatively new phenomenon. The use of sport psychology strategies for the enhancement of sport performance is by no means practiced at all levels of competition and, until the 1960s, these strategies were not widely known in the U.S.

A recent paper published in *The Physical Educator*, "Biomechanical and Psychological Analysis of High School, Intercollegiate, and elite Long-Distance Runners" (Solorio), the author explored the adoption of mental skills techniques. The study, which surveyed high school coaches, found only 3% used psychological skills training. Coaches at the intercollegiate level, tended to use psychological skills training slightly more than their high-school-level peers. Still only a minority of inter-collegiate coaches were integrating psychological training with physical skill training. The study's author references the work of Sullivan and Hodge, which concludes that:

...coaches of elite athletes rated psychological skills as being very important for training purposes and for athlete success. Of the elite coaches, 95.6% incorporated psychological skills training into practices, spending an average of 2.25 hours a week on psychological training. (Solorio 542)

Thus, while mental skill-building strategies are widely used around the world, especially among professional competitors, there does not seem to be much of a focus on these strategies at the local, regional and amateur levels of competition.

The inner game

Tennis coach W. Timothy Gallwey became one of the earliest and most influential proponents of the value of applying mental skills to sports practice and competition. Gallwey popularized the phrase "the inner game" during the 1970s, and wrote a series of books that dealt with how certain mental processes affect performance—not only in sport, but also in everyday life.

I first became acquainted with Gallwey while reading Pete Carroll's *Win Forever: Live, Work, and Play Like a Champion.* Carroll said he drew his philosophy of mental training, practice, and performance, largely from Gallwey's teachings. Rather than paraphrasing, I will cite a passage in Carroll's book where he describes Gallwey's core philosophy:

Gallwey wrote about how human beings tend to enter a state of doubt when faced with the unknown or uncertainty. When that occurs, he wrote, we instinctively "overtighten." Physically, when we doubt our ability, we will tend to overtighten our muscles. Mentally, we fear failure and can become emotional and distracted. (30)

Gallwey perfected his teaching philosophy over the course of many years as a tennis coach. Early on in his coaching career, he noticed an inconsistency in the way his students played, sometimes playing well and sometimes not well at all. He attributed this failure to an inner dialogue that often takes place in his student's minds as they play, and which stood in the way of smooth effective performance.

Gallwey also believes that much failure in performance is due to the conflict between what he refers to as "Self 1" and "Self 2." Self 1, is the part of our brain that imposes a self-critical attitude towards the way we play, the part of our brain that clutters our mind with concepts about right and wrong. It is punishing and unforgiving of our errors. By contrast, Self 2 is uninhibited, active, childlike and intuitive. Self 2 is the part of us that enjoys the feel of natural movement. It also is the part of our mind that revels in the enjoyment of the game and is naturally in charge until the critical and controlling Self 1 intrudes and disrupts our emotional equilibrium.

In other words, Gallwey argues, Self 1 becomes the "usurper," a "confidence-sapper" that can turn our otherwise flawless performance into a performance that does not reflect our innate abilities. Freeing ourselves from the confines of Self 1 is what allows us to perform at the peak of our physical and mental form, to tap into our vast potential of inner resources.

In Pete Carroll's words:

An athlete's immersion in and focus on performance allows for a lost sense of time in much the same way. When we have confidence and allow ourselves to be fascinated, the world seems to move in slow motion. It is an altered state of consciousness that comes from an extreme level of focus. Some performers describe this as resembling an out-ofbody experience. (31)

Entering the "zone"

We pétanque players all relate to having felt this experience at one time or another, usually when our performance led us to win an end, a game, or a championship. This experience is commonly referred to as being "in the zone." Being "in the zone" is characterized by elements that may sound familiar to many players and athletes: experiencing extreme focus, a feeling of time slowing down, perhaps not even remembering individual actions or movements that led to your final victory.

When "in the zone," athletes may experience the sensation of tunnel vision, where one is unaware of external movement save a magnified view of the target. For example, baseball batters often claim that they can see the ball rotate slowly as it leaves the pitcher's hand, and that they can clearly see details such as the ball's stitching as it flies towards them at 98 miles an hour. In our sport, this focus can be on the cochonnet and the trajectory of your boule.

Another common sensation is the redirection of sound perception, where one becomes less aware of external noises and distractions and becomes more attuned to the sound of one's own breathing and heart beating. Combined, all of these "zone" experiences induce a sense of certainty. There is absolutely no doubt in your mind that your body, moving naturally, is able to perform with the expected outcome.

This state of mind was researched and detailed in a work by Michael L. Lardon, M.D. In his book *Finding Your Zone: Ten Core Lessons for Achieving Peak Performance in Sports and Life*. Lardon claims that ordinary people as well as athletes can, by following a strict mental training regimen and controlling their emotional state, open a pathway to the "zone." In other words,

finding the "zone" is not a random, haphazard process. That said, Lardon cautions that consistently reaching the "zone" is not a process that one can achieve easily. Realizing this goal requires years of training and dedication. Not surprisingly, achieving one's dreams which often requires an athlete to make great sacrifices. Most pétanque players only enter the "zone" from time to time. But, through proper preparation, deliberate practice, and the will to excel, it is possible to consistently reach this state, according to Lardon.

Sport psychology's contribution to athletic performance

Past athletic records—some once thought untouchable—fall with each World Championship and each new Olympic Game. Breaking the four-minute mile, a feat that captivated the world in 1954, soon became commonplace. Part of this athletic progression is due to advances in kinesiology, sport science, and training methodologies; however, mental skills development has also played a huge role in the *normalization of groundbreaking performance*, in which exceptional athletic performance by one athlete helps set a new baseline for competition.

Rather than being the exception to the rule, sport psychology consultants today are valued advisers to coaches, elite athletes, and Olympic champions. In the hyper-competitive environment of today's sport world, having the ability to control one's emotions, and being in a relaxed and focused state, can mean the difference between a silver and a gold medal or, between a medal and none at all.

Sport psychologists deal with a wide range of factors that affect performance and excellence in sports. Their methods can range from short-term "fixes" to long-term interventions designed in

part to help athletes keep in check unconscious behavioral habits that can undermine their attainment of peak performance. Sport psychologists, for example, often help their clients break through phobias and other mental barriers that can keep them from maximizing their athletic potential. Interestingly, it is not uncommon for an athlete to be unaware of the mental habits affecting his or her performance. It often takes the intervention of a perceptive coach to realize that while an athlete may have perfected his or her physical skills, it is the lack of mental preparation and mental skills that holds them back from moving to a higher level of performance.

Proven techniques

The tools and techniques employed by sport psychologists vary widely. Some methods including those for controlling emotional arousal have been thoroughly researched and tested in clinical and academic settings. Other disciplines, such as energy-work, are considered experimental and lie on the fringes of what academia considers to be rigorously tested methods. For the purposes of this article I will limit myself to reviewing five widely accepted techniques that rest on solid bodies of evidence.

1) Goal-setting strategies for athletes

When an athlete visits a sport psychologist for a consultation, usually, one of the consultant's first tasks is to assess the athlete's level of motivation goals. Often, the athlete will fill-out a questionnaire, to help clarify short and long-term goals. Articulating a goal-setting strategy is important because it enables the athlete to come to terms with what is required of them if they are to successfully fulfill their aims.

Goal-setting strategies typically fall into three categories:

A) Outcome goals: outcome goals tend to reflect more what we wish for rather than a detailed strategy. Most sport psychologists tend to minimize this aspect of goal setting simply because "winning a tournament," "winning a medal," or being first during a particular event usually involves multiple outside factors that are often beyond the athlete's control. Trying to control the uncontrollable, researchers agree, leads to frustration.

B) Performance goals: these usually involve setting goals which have to do with the perfection of a target skill. For instance, a performance goal for a pétanque player who has difficulty hitting a target boule at 10 meters consistently may entail hitting 6 boules placed at 10 meters without missing one. The player repeats this exercise until he successfully completes it.

C) Process goals: these goals are even more specific. For example, they may involve a shooter learning to consistently focus and use imagery each time prior to shooting. Gradually, this process of visualization becomes part of the autonomous system. Process goals are usually easy to identify since they deal with mastering sequential steps, which ultimately lead to the development of a particular technique.

2) Controlled breathing and progressive relaxation

No one can argue that smooth execution of motor movement plays a huge part in performance. For this reason, muscle tightness is a primary hurdle the elite athlete faces when he or she competes. One of the more commonly known techniques for dealing with muscle tension, is that of Visual Motor Behavioral Rehearsal (VMBR).

While practicing VMBR, the athlete goes through a progressive series of alternate tension and relaxation of muscle groups. Initially the relaxation phase takes 20 minutes however, with practice, the athlete learns to condense the exercise to as little as five minutes. There is a strong "mindfulness" component to this technique in that the athlete learns to be consciously aware of his or her muscle tension and uses VMBR as a tool to progressively relax. Once the athlete is relaxed, behavior rehearsal begins and a coach or sport psychologist is free to offer suggestions about tension or anxiety reduction. The athlete can then fully focus on aspects of his or her performance that need attention.

3) Focusing and avoiding distractions

We have already seen from W. Timothy Gallwey's work how our internal dialogue can distract us, cause us to lose focus, and often cause muscle tension and poor performance. Sport psychologists identify two types of distractions:

Internal distractions are largely caused by subjective factors, i.e. how we may perceive our abilities as compared to that of our competitors during an important tournament. These factors can also include thoughts of insecurity or not feeling as though your level of performance matches that of your competitors, especially if you feel yourself falling behind. Such internal distractions usually have to do with an athlete's own negative thoughts, fears, and/or sensations either prior to a competitive event or during an event. Sometimes family concerns or other issues entirely unrelated to the sport performance intrude, taking the athlete's focus away from his or her performance.

External distractions are usually caused by environmental events that divert an athlete's attention away from a focus on his or her performance. Being able to manage external distractions usually involve training under conditions that are not inherently comfortable for the athlete: extreme heat, for instance, or playing in a noisy environment. Here again, when in competition, we do not always have the luxury of being in, what we would consider an optimal environment. If we can't focus when people nearby have a low-level conversation, how then can we expect ourselves to perform in a sports arena where people are moving about, sirens are blaring in the distance, and when the weather suddenly becomes an impediment? Most sport psychologists teach their athletes to embrace their environment, rather than trying to control it. Being able to adapt quickly to changing circumstances, especially extreme ones, is a skill, which once developed, is extremely useful during competition.

I have learned to cut out all the unnecessary thoughts...on the track. I simply concentrate on the tangible—on the track, on the race, on the blocks, on the things I have to do. The crowd fades away and the other athletes disappear and now it's just me and this one lane. Michael Johnson, two-time Olympic gold medalist and nine-time world-athletics gold medalist (Brewer 18)

4) Modulating competitive stress and anxiety

Contrary to popular belief, experiencing anxiety does not always have a negative effect on performance. As long as it does not become debilitating, anxiety can actually help individual players. Many top athletes have learned to turn anxiety into a positive force, helping them to achieve peak performance. Very often, it comes down to how a particular athlete perceives his or her own anxiety level, whether he or she is able to turn the negative thoughts and feelings brought about by their anxiety into positive ones. As noted by one author:

...athletes who view their competitive anxiety symptoms as more positive toward performance demonstrate better overall performance standards, are higher in skill level, feel more in control, exhibit higher level of self-confidence, demonstrate a more resilient personality, and are more experienced, and more competitive when compared to athletes who interpret their anxiety symptoms as more negative towards performance. (Brewer 37)

5) Visualization as a way to enhance preparation and performance

As discussed earlier, elite athletes and their coaches have widely adopted mental skills such as visualization. Indeed, MRI studies reveal that athletes re-experiencing a successful performance during visualization show a greater increase in neural activity in the right premotor cortex, showing that the areas of the brains stimulated by visualizations are identical to those stimulated when the action is performed. Though there seem to be some variances in the sensory manifestations of visualization among athletes, researchers agree that for visualization to be successful, the athlete needs to re-experience the performance in every detail, including sights, sounds, and tactile impressions.

Visualization is most effective when it is practiced both during training and as a pre-competition routine. Many top athletes, either write or record their own visualizations and play them back immediately prior to competition. The more visualization is used in preparation for actual performance, the more effective it becomes.

Jim Afremow M.D. in his book *The Champion's Mind: How Great Athletes Think, Train, and Thrive* lists three key ingredients for successful imagery rehearsal (35):

1) Vividly see yourself performing successfully

2) Deeply *feel* yourself performing masterfully

3) Thoroughly *enjoy* seeing and feeling yourself winning.

As described in her book *The Mental Athlete: Inner Training for Peak Performance in All Sports*, Kay Porter sees visualization as a rehearsal on many levels of competition. During the pre-competition stage, visualization begins in the locker-room, repeats in the competition stage right before the actual event is performed, and finally, is revisited in the post-competition stage. During these three stages of competition the athlete's emotions, sights, sounds, and tactile impressions are felt as if they were happening in real time. It is important to note here that visualization is most effective when done with regularity for approximately ten to twenty minutes every other day during the weeks that precede actual competition. When it is practiced right before a match, visualization needs to be condensed so as not to prematurely exhaust the athlete.

Lanny Bassham, Olympic gold medalist, author, and speaker argues that successful athletes can even use visualization to turn a recent loss into a win by mentally replaying the scenario of a past performance and imagining the outcome as a win. This technique conditions the brain to think positively and successfully about the athlete's performance despite what may have been a disappointing outcome during the actual event.

Clearly, the topic of mental skill preparation and mental practice is a vast and complex area of study. In this article, I've sought to outline the main concepts in mental skills training as they relate to pre-competition preparation and competitive performance. For the sake of keeping this article concise, I have highlighted only what I consider to be relevant to the sport of pétanque.

The references I've provided in this article will, I hope, enable you to pursue your own inquiry into this interesting and crucial aspect of performance enhancement.

In my next article, I will look at the recent research into team dynamics and explore what sport performance authors and researchers have to say about how this factor can either help or detract us from achieving peak performance during casual play and in competition.

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Author's note: I want to thank my very dear friend Dwight Davis, who took time from his busy writing schedule to coach me on my numerous stylistic and grammatical errors.