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Playing Tennis in the Zone

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ABSTRACT

The phenomenon commonly referred to as "the zone" is a topic of discussion in and out of sport psychology. This paper discusses the zone as it relates to athletics. Attentional theory will give the theoretical background that is necessary in our examination. The theory will be applied to athletes competing in the tennis environment. Empirical and testimonial evidence that supports the theory will be discussed.

Introduction

Why do eighteen year old professional baseball players read "Zen and the Art of Motorcycle Maintenance" (Pirsig, 1984) on their road trips? Many of these players do not own a motorcycle. Most of them never will own a motorcycle. So why is this book so popular with minor league baseball players?

The answer is simple. "Zen and the art of Motorcycle Maintenance" discusses changing the reader's mental approach. The players on the bus are reading Pirsig's book looking for methods designed to improve mental approach game. They are looking for mechanisms that will help them perform on a higher plane. They are looking for an entrance to the zone.

The zone is a place of unending happiness that transcends religion, motorcycle maintenance, sport, art, and music. It is the optimal experience that some in popular media refer to as, "dare I say, en fuego" (Patrick, 1999). W. Timothy Gallwey (1974) offers a more educational look at this experience when he refers to it as Self 3, the place where the mind and body are united in purpose. Jackson and Csikszentmihalyi (1999), the current experts in this area, refer to it as the flow.

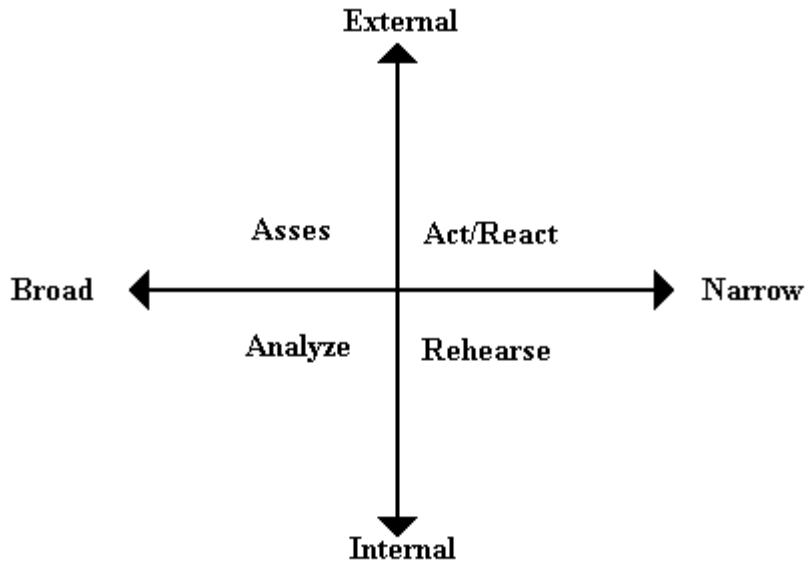
More often than not, this phenomenon is referred to as zone. This zone represents the utmost of human experience, no matter what the arena. The following pages will examine this experience as it is applied to a tennis environment.

The examination of the zone will begin with a look at the underlying theory. This theory will be applied to tennis specifically. Empirical research and a testimonial from a tennis professional will support the hypothesis (since our tennis professional is a female,

the rest of the article will use female examples, for ease of reading). Lastly, we will identify applied methods designed to improve the tennis player's potential of entering the zone.

Attentional Theory in Sport Psychology

The theoretical perspective of the zone is based on the work of Easterbrook (1959), and expanded upon by Watchel (1967) and Bacon (1974). The theory is based on the study of attention. The theory states that at any given time, an individual's attention can lie at any place on two separate continuums. The first continuum consists of an external or internal focus of attention. The second continuum consists of a broad or narrow focus of attention. The two continuums can be crossed, creating four quadrants of attention. In each quadrant lies an attentional strength; a task that the individual will be performing while their attention is in that quadrant. This concept is graphically represented in the figure below.



(Adapted from Nideffer, 1992, p. 21)

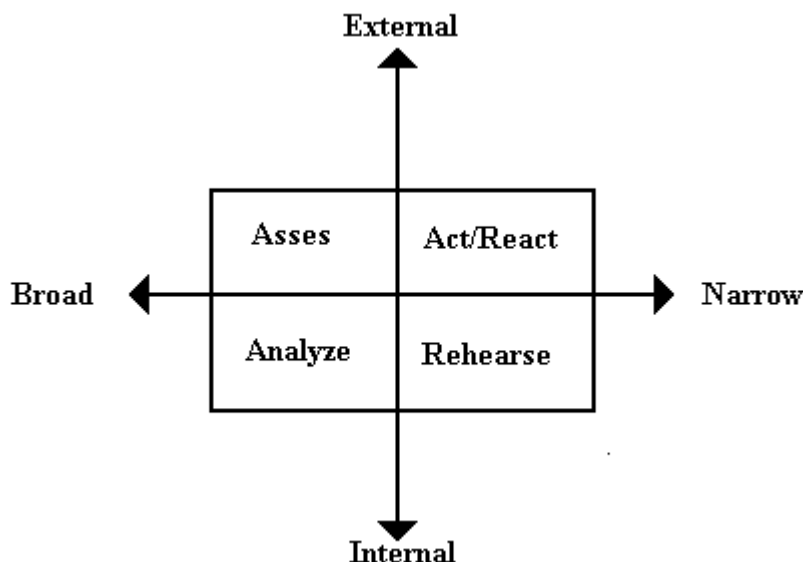
The broad external quadrant is being used when (1) the athlete's attention lies outside of her body and (2) she is examining a large number of cues. This quadrant allows her to assess the environment, searching for task relevant cues. The narrow external quadrant is being used when (1) the athlete's attention lies outside of her body and (2) she is examining a limited number of cues. This quadrant allows her to act and react to the environmental cues.

The broad internal quadrant is being used when (1) the athlete's attention lies inside her body and (2) she is examining a large number of cues. When the athlete is analyzing strategy for the upcoming game, she will be using the broad internal quadrant. The narrow internal quadrant is being used when (1) the athlete's attention lies inside her body and (2) the athlete is examining a limited number of cues. The athlete uses this quadrant when she visualizes or images her performance.

Attentional Theory Applied to Tennis Environment

This theory can be directly applied to tennis. Consider the following example. A tennis player is in the match, ready to return her opponent's serve. First she analyzes where her opponent may serve the ball. To perform this task, she must assess her opponent's tendencies and previous serves (broad internal). She then visualizes her return before stepping to the baseline (narrow internal). Once on the line, she analyzes the task relevant cues, her opponent, and the environmental conditions (broad external). Her opponent serves the ball, and she focuses on the ball approaching her own racquet (narrow external).

During an average competition, an athlete will have a range of attention that exists within all four of these quadrants. The next diagram graphically represents this area in the form of a rectangle that overlaps a portion of each quadrant. This area represents the normal span of attention during competition. During an average performance, the athlete's attention will never leave the boxed area. The area we are concerned about in this paper is the area outside of the box. This area is the zone.



(Adapted from Nideffer, 1992, p. 21)

In attentional theory, the zone is defined as "...when you become immersed in an external or internal focus of attention" (Nideffer, 1992). This closely parallels Jackson and Csikszentmihalyi's (1999) definition of flow. They suggest that "Action and awareness merge only when you become totally absorbed in what you are doing. This comes about when you feel that you have the skills to meet the challenge and when you focus all your attention on the task at hand." This immersion (or absorption) of attention refers to the athlete's ability to spend more time in task relevant quadrants. The more time she spends in one specific quadrant, the more likely she is to pick up task relevant cues that lie outside her normal attentional range. These cues lie outside the box, in the area that represents the zone. Not only is she likely to pick on more cues, she is also less likely to become distracted by cues that lie in other quadrants (i.e. internal distractions

such as doubt and worry). She has now reached an altered state of consciousness, the zone.

Immersion does not necessarily mean that the individual's attention will never shift from quadrant to quadrant. The athlete's attention will shift from broad to narrow.

Immersion simply means that the frequency of shifting has decreased. It has decreased because the internal aspect of her existence is almost forgotten. Her attentional existence now lies in the external, moving fluently from a broad to narrow external focus of attention.

The athlete's attention will now "flow" across the broad to narrow continuum, making smooth transitions from quadrant to quadrant (thus the term "flow" describing the phenomenon). This is a result of the athlete's immersion and her ability to focus her attention to task relevant cues. This process works much like the transmission of a car.

Using a manual transmission is much like performing at a normal level. The time spent shifting is increased because the driver must spend time pushing in the clutch and operating the gearshift. When driving an automatic transmission, the car shifts smoothly, with no time wasted in driver movement. When an athlete is in the zone, time is saved because all attentional shifting is automatic. The time that is saved allows the athlete to pick up on cues that lie outside the normal range of attention.

The athlete's attention may enter an internal focus for slight amounts of time between points. In general, internal thought such as a thought about the score may result in worry and doubt. These two feelings will change the attentional pattern, breaking the flow that exists in the zone. If the athlete focuses her attention internally for more than a brief moment, she is out of the zone.

There are two aspects of attentional behavior that characterize the zone as it applies to sport. First, there is immersion in an external focus. Second, there is increased ability to shift along the conscious continuum between a broad to narrow focus of attention.

Evidence That Supports the Theory of the Zone

Both empirical data and personal testimonials lend support to the theory of the zone. The empirical data analyzed for this paper was based on The Test of Attentional and Interpersonal Style (TAIS; Nideffer, 1976), an assessment designed to measure attention in performance environments. The testimonial comes from Monica Seles, winner of 44 professional tennis tournaments.

Our empirical look at the zone begins with an examination of one particular TAIS scale, called narrowing. This narrowing score gives us information related to the athlete's focus during competition and the athlete's behavior outside of competition. Both of these variables have application to the zone.

Then applied to competition, those who score high on the narrowing scale are seen as "being able to effectively narrow their attention when they need to" (Nideffer, 1976).

That is, she is more likely to pay attention to task relevant cues during competition. She will also be more likely to pick up on a greater amount of task relevant cues. Since all of these cues exist outside of her body, she will need to spend a majority of her time with an external focus of attention. This leads her one step closer to immersion in an external focus, in other words, the zone. Athletes with a high narrowing score will also be more apt to shift from one quadrant to the next at the appropriate moment, following the task

relevant cues. In essence, she is able to move along the conscious continuum quickly. As mentioned earlier, her ease of shifting from one quadrant to another is one characteristic that defines the zone.

We can also apply the narrowing score to the athlete's behavior outside of competition. A high narrowing score suggests that the athlete "will have a high attention to detail and a willingness to participate in behaviors over again" (Nideffer, 1976). She will be more willing to spend extra time in practice, and more willing to give up other aspects of life in order to achieve her goals. She will be more apt to spending the time necessary to make her physical skills "automatic". In other words, she will be more apt to increase the habit strength of the behaviors. This increased habit strength is necessary if the athlete wishes to enter the zone. If she wishes to be immersed in an external focus, she cannot be thinking about technique or strategy. Doing so would take her out of her external focus. Technique and strategy must be made reflexive by repetition and practice. By making these actions reflexive, the mind is free to become immersed in an external focus. This immersion defines the zone.

Data on the narrowing score from the TAIS has been gathered on individuals who have been Olympic medalists and world champions. A recent study hypothesized that the data from the TAIS could differentiate between world champion athletes based on the number of medals they had won (Nideffer, 1999). The study found significant differences between these two groups based on the narrowing score. Those athletes that were consistent winners had significantly higher narrowing scores than those who won only once. The author suggests that "the entire pattern of results show both the skill sets champions need (the need for a narrow focus of attention), and highlights the sacrifices they have to make to be consistent winners (practice time necessary to make skills automatic) (Nideffer, 1999). The research suggests that a narrow attentional focus during competition and a willingness for personal sacrifice out of competition are skills necessary if the athlete wishes to consistently perform at a level that is conducive to the zone. Many athletes can "fall into" the zone and become successful at one time or another. The athletes that win consistently develop the focus and discipline necessary to perform in the zone on a regular basis.

Monica Seles is a prime example of a tennis player who has won consistently. Of her 44 victories, 9 of were Grand Slam titles. Monica notes that "when I am consistently playing my best tennis, I am also consistently in the zone" (Krug, 1999). This seems to lend support the empirical findings mentioned earlier.

Monica also mentioned "...that once you think about being in the zone, you are immediately out of it" (Krug, 1999). Her statement supports the idea that the zone in athletics is an immersion in an external focus of attention. Once the athlete's attention turns internal, the external pattern is disrupted, and the zone is gone.

The discussion turned to the age when Monica started experiencing the zone. Surprisingly, she mentioned her father noticing "a focus" in her at age seven or eight. This focus may be her God-given ability to become immersed on task relevant cues, even at such a young age. This focus will allow her to shift on the external - internal continuum smoothly, with no internal distractions. The focus will also place her one step closer to immersion. Both of these variables place her one step closer to the zone, allowing her to perform at a high level with consistency.

Applied Interventions Designed to Increase the Possibility of the Athlete Entering the Zone

The preceding research suggests there are many variables that contribute to an athlete functioning in the zone. The most important variable is the athlete's ability to make the physical, technical, and strategic demands of tennis automatic. The second ability necessary to performing in the zone is the ability to shift concentration from a broad to narrow focus on the conscious continuum.

The athlete's abilities related to the physical, technical, and strategic demands of tennis are improved by one thing, hard work. Nothing can replace the hours upon hours of practice that are required to make physical skills automatic. If an athlete wishes to enter the zone with consistency, she must take the court prepared for the match. Her technique must be honed, so she does not have to think during points. Her strategy must be set before the match. She must know her opponent's strengths and weakness. Quality performance results from quality preparation. If the preparation is there, the zone may be close at hand.

There are specific mental skills that can be developed to increase the athlete's ability to enter the zone. Specifically, the consultant can develop drills designed to increase the athlete's ability to shift their attention smoothly on the width of the external continuum.

Chad Bohling has been working with tennis players at the Bollettieri Academy for over four years. He has developed a drill designed to increase the athlete's ability to shift her attention.

The only tool used in this exercise is laser pointer. The athlete lies on the floor of the room, facing upwards, with her eyes open. The consultant turns the lights out, making the room as dark as possible. The athlete is asked to focus her eyes on the center of the ceiling, but to keep her peripheral vision on all corners of the ceiling (broad external focus). The consultant will pick a corner of the ceiling, and touch the pointer so a red dot appears in that corner. The athlete's attention will immediately be focused on the dot.

The consultant then strobes the light and the athlete must count the number of times the dot appeared on the ceiling (narrow external focus). The consultant can repeat this drill as many times as he sees fit.

The difficulty of this drill can be varied fairly easily. The consultant can speed up the drill, as the athlete becomes more adept. Pictures can be placed on the ceiling.

Background distractions such as loud music and crowd noise can be added. These external distractions force the athlete to learn to focus on task relevant cues.

These drills are useless if the athlete does not take them out of the office and onto the court. A good exercise to use on court is taken from Gallwey's (1974) "Inner Game of Tennis." He suggests that the athlete consciously focus on tracking the ball with the eyes.

The consultant to make sure this is happening is by having the athlete yell where the ball is at any given moment. This forces the athlete to focus on the ball during all aspects of the match, thus increasing overall focus.

Summary

The zone is the pinnacle experience. It represents the absence of all that we dread in life. No fear, no worry, no problems. The individual feels at peace, one in body and

mind. Individual movements that took years to master flow together in an amalgamation of body and mind that comes and goes like a thief in the night. Researchers study the experience and our knowledge of the phenomenon increases over time. This article teaches us that the zone is part gift and part grit. It is the reward given to those who spend the time necessary sharpening the skills to consistently perform at a level few achieve.

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