



Calming The Mind So The Body Can Perform

Robert M. Nideffer, Ph.D.

There's two seconds left in the championship game, your team is behind by one point and you are at the free throw line shooting two shots. You're keenly aware of the situation and you, like everyone else in the sold out arena, know how important these two shots are. You can feel your heart pounding and your legs are a little weak as you bounce the ball and prepare for your first shot. You take a last deep breath and push the ball towards the basket. You watch with considerable anxiety as the ball hits the front of the rim and bounces straight up. It comes back down and starts rolling around the rim, finally dropping through.

As the ball drops through the hoop you feel a tremendous sense of relief. It's as if all the weight of the world has been lifted from your shoulders. The ball is passed to you by the referee for your second shot and you step up to the line and dribble the ball. This time, there is no thought of failure, there is no doubt in your mind. You know that you're going to make the shot. You take the last bounce, look to the basket, inhale, feel your knees bend slightly and begin pushing the ball towards the basket. It's effortless and you're in total control, you know before the ball leaves your hand that it's going through without even touching the rim. You feel the excitement as watch the ball spin through the air in slow motion towards it target. The moment almost seems frozen in time for you.

Just before your second shot, you entered what athletes refer to as "the zone." One of the primary roles sport psychologists have, consists of trying to help athletes get into the zone and stay there. To do that, we have to help athletes quiet thought processes. We have to teach them to shut out distractions, to trust their bodies, to simply let themselves perform.

What is the Zone?

The zone is an altered state of consciousness. When you are in the zone, your normal way of experiencing things is dramatically altered. By examining the descriptions provided by elite level athletes, it's possible to identify some of the common alterations of perception that occur when an athlete has a "peak experience", or enters the "zone" or "flow" state (Ludvig, 1966; Ravizza, 1977; Cohen, 1991; Williams & Krane, 1993).

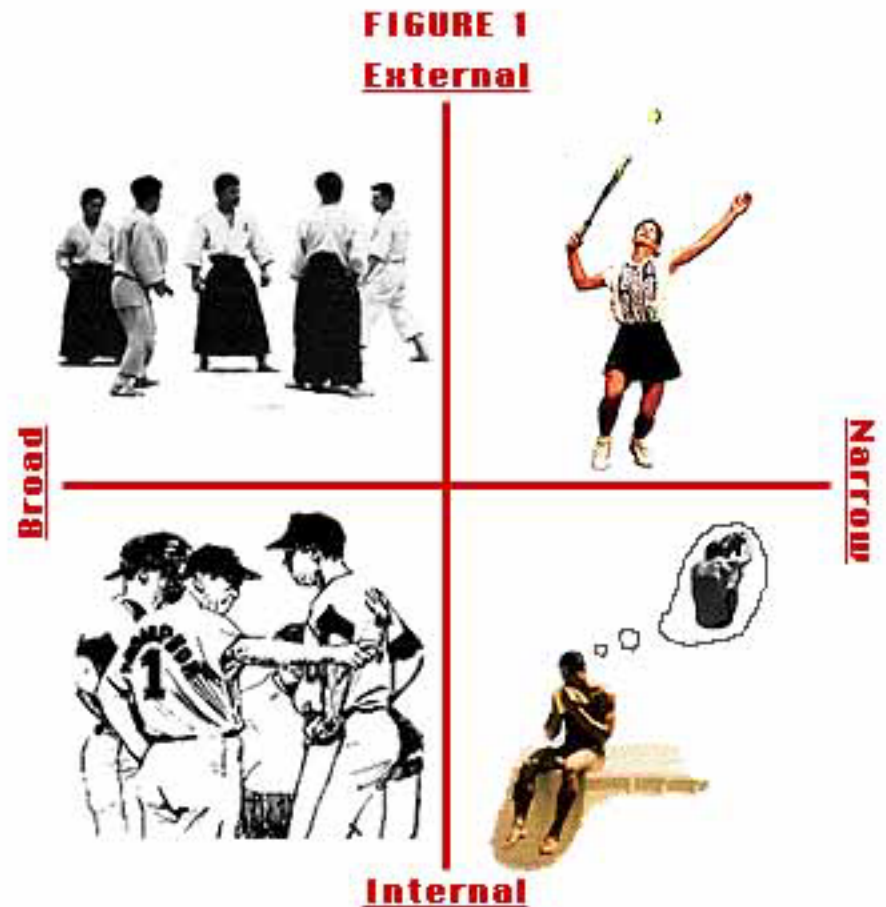
- There is a feeling of complete control, total confidence.
- The athlete knows with certainty what is going to happen before it actually occurs.
- Time is slowed down.
- Objects seem larger and/or more vivid than usual.

- The performance is effortless, occurring automatically without any conscious direction on the part of the athlete.
- There is a feeling of exhilaration even joy.
- The level of performance exceeds the individual's expectations, making him or her aware of a higher level of potential than he or she would have hoped for.

From the descriptions provided by individuals who have had peak experiences and entered the zone, it's obvious why it is such a desired state. Who among us would not like to feel totally confident and in control, to be able to perform as if in a dream? Unfortunately, athletes' descriptions alone, don't tell you how to get there.

Getting Into The Zone

There is considerable evidence supporting the theory that alterations in an individual's focus of concentration and/or changes in physiological arousal are what precipitate an altered state of consciousness. These changes may be brought about through meditation, hypnosis, the use of drugs, and/or biofeedback (Tart, 1969). To understand how these seeming diverse methodologies lead to similar experiences, you need to understand the role that focus of concentration plays in determining a person's physical, mental (or cognitive), and emotional experience.



Focus of concentration moves along two intersecting dimension in response to the changing demands of a performance situation . At any point in time, concentration can be described on the basis of it's width (broad or narrow), and it's direction (external or internal). Figure 1 shows the four different types, or styles, of concentration we all engage in every day.

- A broad-external focus of concentration is used to quickly read and react to the world around you. A master of the martial arts uses this focus to react to be aware of and react to the movements of a group of attackers.
- A broad-internal focus of concentration is the style used for "big picture" work. Coaches use this focus for strategic thinking, to make decisions about which personnel to play when.
- A narrow-internal focus is used to systematically organize and/or rehearse an activity like a dive, a speech, or a response to an anticipated question.
- A narrow-external focus of concentration is the focus used to hit or kick a ball, sink a putt, or take a shot in basketball, soccer, or hockey.

A narrow-internal focus can be distinguished from a broad-internal focus in that you are attending to immediate issues or problem solving in "the here and now." When you have a broad-internal focus you are traveling across time. You are recalling past information, and blending that with the present to predict the future.

Your Perception of Time Depends Upon Your Focus of Concentration

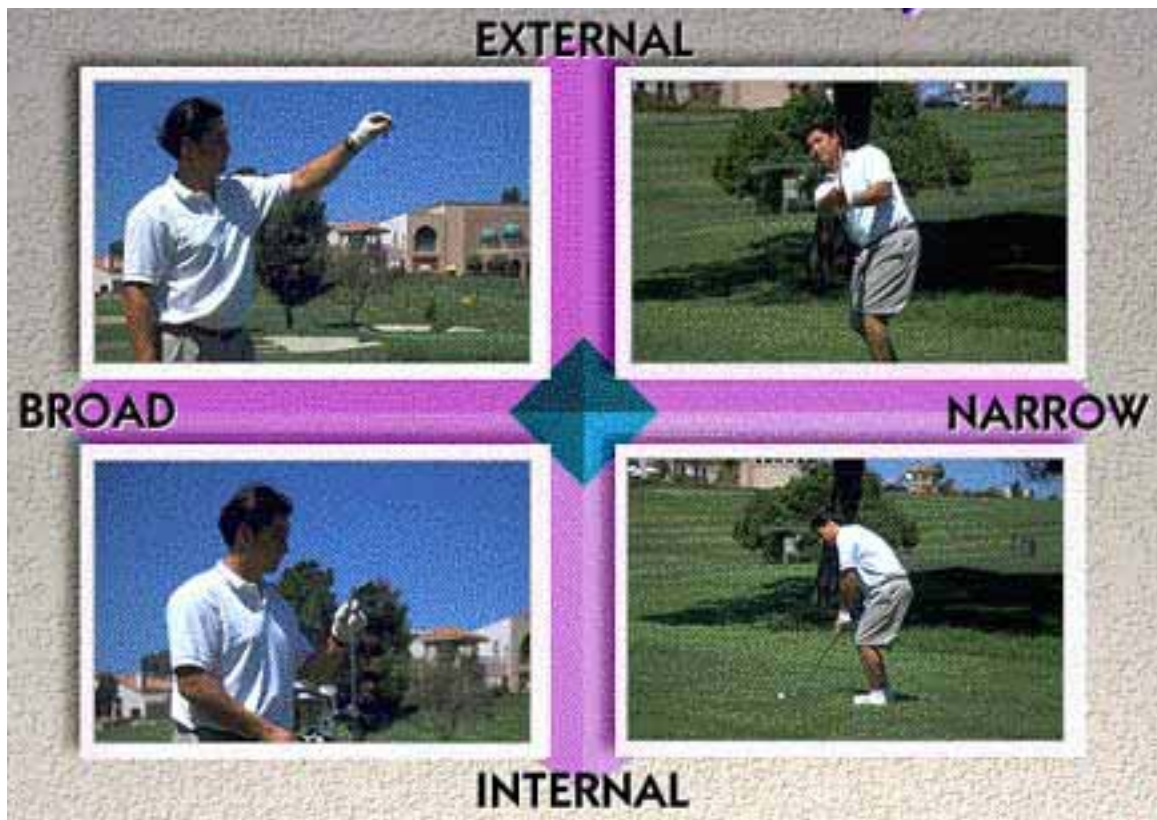
Perception of the passage of time is affected by the amount of time concentration is directed to things going on in the world around you, as opposed to being focused internally, on your own thoughts and feelings. When athletes are able to quiet, conscious, internal thought processes, and keep concentration focused almost exclusively on the game, time is slowed down and they enter "the zone."

Time perception can be speeded up as well. When you go to sleep at night, your focus of concentration becomes almost exclusively internal. When you wake up you have the feeling that time passed very quickly. Athletes under extreme pressure in sport situations often have associated changes in physiology which causes concentration to become more internally focused. Breathing rate, heart rate, and muscle tension levels all increase. Those internal changes act as distracters causing the athlete to spend more time in his or her head than usual (Easterbrook, 1959). When this happens, time seems speeded up and the athlete feels rushed. It is this process which leads to that downward performance spiral called "choking."

All of the methodologies used to help athletes enter the zone, work to the extent they manage to help the athlete reduce attention to internal thoughts and feelings, and stay focused on performance relevant external cues. Interestingly, this creates a special challenge to coaches and instructors since most of the instructions they provide and/or the teaching methods they use, cause the athlete to start thinking more, not less!

Shifting Your Focus of Concentration

Different performance situations require different amounts of shifting between the four different styles of concentration. Basketball for example is a very fast moving team sport. During play, there is very little time for analyzing and/or for rehearsing. Instead, the athlete is constantly shifting from a broad-external focus (to see the open man and the position of the defense) to a narrow external focus when driving for the basket, taking a shot, or making a pass. Golf, as the figure below shows is quite different (Nideffer, 1995).



A good golfer uses all four types of concentration on each shot. A broad-external focus is used to become aware of course conditions, wind, position of hazards. Then, the golfer shifts to a broad internal focus to compare the information just gathered with his performance in the past. It is that analysis and the associated strategizing (e.g., should I or shouldn't I take a risk on this shot) which determines club selection. Then, the golfer shifts to a narrow internal focus to mentally rehearse the shot. Finally, attention narrows and focuses externally from the time the golfer addresses the ball until he completes his swing.

Seamless Transitions

When athletes are in the zone, the shifting of their focus of concentration from one style to another is seamless. By seamless, I mean the shifts are made automatically, without any conscious direction from the athlete. Not only that, but the shifts occur in response to, and are perfectly timed with, the changing demands of the performance setting. The basketball player for example has practiced a three on two fast break so many times he doesn't need to make a conscious decision about when to shift from a broad-external focus to a narrow-external focus. Because of the practice his brain recognizes a pattern at a pre-conscious level, and that pattern automatically triggers a shift in the focus of concentration.

It all sounds easy enough, yet very few athletes even at the elite level, manage to get into the zone with any degree of frequency. In sport, shifts in an athlete's focus of concentration are primarily triggered by visual cues (e.g., recognizing certain patterns in the environment), and/or by kinesthetic feedback (e.g., recognizing certain feeling patterns). Let's consider kinesthetic cues first.

When an athlete is performing there are continual shifts in the position of his or her body relative to the bodies center of mass. In golf for example, as the golfer begins her back swing more weight is shifted to the back foot. Once the top of the back swing is reached, weight begins to shift down and towards the front foot as the golfer reverses the direction of his swing. At these two points, the golfer's brain receives a pattern of information that either feels good, or doesn't. The more positive the feeling, the less time the golfer spends inside his head analyzing the feeling. When something feels out of place, however, the golfer has to analyze and make adjustments. That analysis interferes with the seamless transition I spoke about earlier and may prevent the individual from getting into the zone.

Visual cues are important because they provide the external information the athlete needs to determine when to shift the focus of attention. Once again, practice and experience contribute to the development of visual patterns which indicate things are going as planned, or they are not. A hitter may recognize that the ball is coming faster than expected and have to make an adjustment in his swing. Again, that adjustment requires conscious attention and a corresponding internal focus of concentration.

Whether or not an athlete will be able to make minor adjustments and still get into the zone depends upon his or her interpretation of the visual and/or kinesthetic feedback the brain receives. When confidence and skill levels are high, the information is evaluated objectively and interference with transitions is kept to an absolute minimum. When confidence is low and/or when the athlete loses control over emotions, however, it becomes impossible to get into the zone because transitions are interfered with.

The Mind Body Link

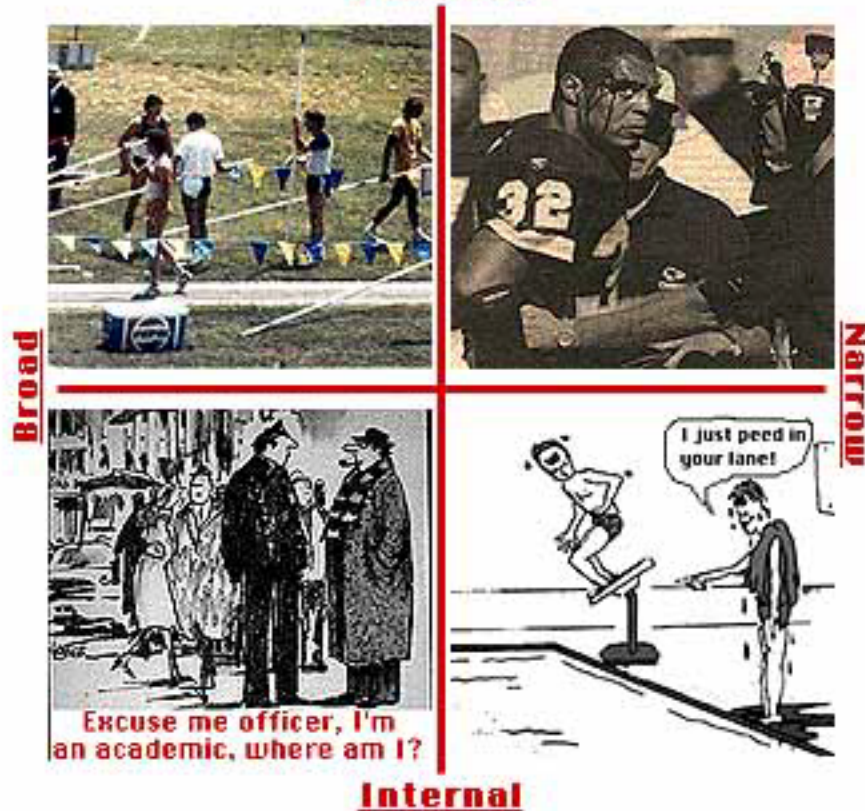
There has been a tremendous amount of research demonstrating that thought content affects physiology (Suinn, 1993; Mahoney & Meyers, 1990), as well as the athletes focus of concentration. Angry thoughts and images, like thoughts and images associated with worry and anxiety, affect heart rate, muscle tension, and respiration rate. The changes in muscle tension levels and respiration rate can have a direct and very negative effect on the athletes fine motor coordination and timing.

Even emotionally neutral thoughts lead to physiological changes that interfere with performance and the athlete's ability to make smooth transitions. "Consider the confusion that occurs when your body gets competing messages. I remember playing a game on the diving board at the local swimming pool. I would bounce on the end of the board and then, as I left the board, a person on the side would shout either "Jump," or "Dive." More often than not, I would be anticipating one thing and he would shout the

other. As a result of these competing messages, I would try to do both, accomplishing neither. I ended up being trapped between the two, landing on my stomach (Nideffer 1992)." Those competing messages occur all the time. A tennis player tries to change where she will hit a shot while she is swinging. An athlete will try to pay attention to a coaches instructions and his own ideas at the same time.

To focus on the right things, and get into the zone, athletes have to be able to let go of the kinds of distractions shown in Figure 3. Distractions that occur because the pressure they are under causes them to over analyze, or because an opponent gets them to attend to the wrong things, or because they lose control over anger and/or worry and self doubt.

FIGURE 3
External



Bad News - Good News

The bad news is that what an athlete attends to, particularly if he or she lacks confidence and/or skill, can cause changes in breathing and muscle tension which destroy coordination, timing, and performance. The good news is that the relationship between focus of concentration and emotional arousal is a reciprocal one (Mahoney & Meyers, 1990). This means that by teaching and/or helping athletes attend to neutral, task relevant cues, you can slow breathing and reduce muscle tension, allowing them to get back in the flow of the game.

Performance Enhancement

I want to outline the specific steps you can take to enhance performance and increase the likelihood an athlete will get into the zone. Before doing that, however, I need to summarize the main points I've been trying to make and to show you why learning is a much slower process than it needs to be.

To get in the zone, an athlete has to be able to shift his or her focus of concentration from one focus to another in response to the changing demands of the performance setting. The ability of the athlete to automatically make those shifts is directly related to his or her skill level, level of self-confidence, and ability to avoid and/or let go of the kinds of distractions shown in figure 3.

From a coaching and/or teaching perspective, the challenge is to provide information to the athlete in a way which does not increase the individual's distractibility! Most coaches are more technical and analytical than the athletes they coach. More often than not, they provide too much information. The information creates the very problem the coach is trying to overcome, paralysis by analysis. The athlete's attention becomes internally focused and for a while, performance gets worse rather than better. If the athlete becomes frustrated by the initial deterioration in performance, things will go from bad to worse and he or she may give up all together.

Another problem occurs when coaches become frustrated and/or angry at the mistakes players make, especially if those players aren't very confident. Emotions are like viruses, they pass quickly from one person to another. A coach's anger elicits either anger or anxiety in the athlete. Those emotions cause the athlete's attention to narrow and when an athlete lacks confidence, he or she becomes focused on the wrong things.

Steps to Aid The Learning Process and Get Into The Zone

- Help the athlete recognize the need for practice. You can't expect to get into the zone if you haven't learned behaviors to the point that they can be performed automatically.
- Create a positive, supportive training environment.
- Keep technical and tactical instructions to a minimum.
- Help the athlete learn to recognize the kinesthetic and visual patterns that indicate things are "okay" and/or dictate the athlete's next move.
- Teach the athlete to use simple breathing techniques to let go of distractions, center, and refocus on the task (Fried 1990; Nideffer, 1993).

- Get the athlete to mentally rehearse all of the visual and kinesthetic aspects of his or her performance as often as possible.

Bibliography

Cohen, P.J. (1991). An exploratory study on peak performance in golf. *The Sport Psychologist*, 5, 1-14.

Easterbrook, J.A. (1959). The effect of emotion on cue utilization and the organization of behavior. *Psychological Review*, 66, 183-201.

Fried, R. (1990). *The breath connection* (pp. 73-96.). New York, N.Y: Plenum.

Ludvig, A. (1966). Altered states of consciousness. *Archives of General Psychiatry*, 15, 225-234.

Nideffer, R. M. (1989). Anxiety, attention, and performance in sports: Theoretical and practical considerations. In D. Hackfort, & C. D. Spielberger (Eds). *Anxiety in sports an international perspective* (pp. 117-136). New York, Hemispheres

Nideffer, R. M. (1993). Attention Control Training. In R.N. Singer, M Murphey, & L. K. Tennant (Eds). *Handbook of research in sport psychology* (pp.542-556). New York, NY: Macmillan.

Nideffer, R.M. (1995). *Focus for Success*. Carlsbad, CA: Compton's New Media.

Ravizza, K. (1977). Peak experiences in sport. *Journal of Humanistic Psychology*, 17, 35-40.

Suinn, R. (1993). Imagery . In R.N. Singer, M Murphey, & L. K. Tennant (Eds). *Handbook of research in sport psychology* (pp.492-510). New York, NY: Macmillan.

Tart, C.T. (1969). *Altered States of Consciousness*. New York, N.Y: John Wiley & Sons.

Williams, J.M., & Krane, V. (1993) Psychological characteristics of peak performance. In J. M. Williams (Ed). *Applied sport psychology* (pp.137-147). Mountain View, CA: Mayfield.

This article is courtesy of Robert Nideffer, Ph.D. founder of Enhanced Performance Systems in San Diego, Ca. Website: <http://www.enhanced-performance.com>

