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The Art and Science of Mental Preparation

On Wednesday, June 11th, 1997, the Chicago Bulls were getting set to tip off against the Utah Jazz in Game 5 of the NBA Finals at the Delta Center Salt Lake City, Utah. This star studded match-up included several future hall of fame players and coaches such as John Stockton, Scottie Pippen, Karl Malone, and Phil Jackson, but none of those giants were prepared to witness what arguably the greatest man to ever play the game of basketball had in store for that night. At about 2:00 A.M. on the day of the Game 5, Michael Jordan's personal trainer found Jordan laying in the fetal position in his hotel room. Jordan was severely sick with a one hundred-degree fever, headache, nausea, and barely even had the strength to sit up in bed. Jordan's flu became a major headline for the game that night because the series was tied 2-2 and the momentum to potentially win the series was on the line. Nonetheless, at 5:50 P.M., Jordan summoned up the strength to get out of bed for a 7:00 P.M. tip-off and went on to have one of the signature moments of his illustrious career in what is now known as "The Flu Game." Jordan became the man on the court who kept his team in the game, even when his team was down after the first half. He would go on to sink the three-point shot that gave his team the lead late in the game, and went on to win the game and the series.

Many people spoke about Michael Jordan's intense focus both on and off the court. In an interview Pat Williams conducted with the Bulls' former publicist Tom Smithburg, Smithburg referred to Jordan's focus as him going into an "invisible tunnel" of pure focus. This "invisible tunnel" was what helped set Michael Jordan from the many players who came before him and after

him in the NBA. Though many people in different professions have similar experiences, when push comes to shove, Jordan was simply leaps and bounds above other people when it came to the level of dedicated focus that he had for the game of basketball. Even when Jordan was not at his best physically, his mind would step in and take over, allowing him to achieve incredible feats of human strength and perseverance such as “The Flu Game.”

As I read about people like Michael Jordan, it inspired me to do more research on the characteristics of people who are successful, and what it is that separates them from the rest of us. This is admittedly a very lofty and complicated topic, but my hope in writing this paper is to provide a little more clarity on the subject by analyzing techniques that help athletes reach their full potential. As a musician, I try to seek out information about athletes - as well as the people who train them - who have had to perform under intense circumstances so that I could get an idea of what they do to prepare for stressful situations. What I have found while researching this subject is that those who were able to *calm their mind and focus on the task at hand* were the ones who went on to be the most successful. I am not suggesting that we disregard the importance of countless hours of physically demanding work on the path to an elite athlete's success, but rather, it is the athlete's unique ability to use their mind to their advantage rather than only relying on physical training to help them perform consistently when they are called upon to do so.

Over the course of my research, the question that I had on my mind was: What do we do when we find ourselves stressed out in critical moments? I did a some research and ended up finding the two books that ended up being the cornerstone of this paper: *The Art of Mental Training* by DC Gonzalez and *Mental Training for Peak Performance* by Steven Ungerleider, PhD. The thing that I found the most interesting is that while the two books seem to highly contrast either, they both

essentially use the same principles when it comes to managing stress and performance anxiety. I found that *The Art of Mental Training* was a book that had a much more artistic perspective on mental training, while *Mental Training for Peak Performance* was a book that was primarily based on scientific research done by the author and his colleagues. The goal of both of these books is to help us form strategies that will help us think clearly and perform at our best. This led me to draw the conclusion that while there are many different approaches to creating an “ideal mental climate” in a performance situation, there is an art and a science to mental preparation, and both are equally valid in terms of helping performers manage their stress during a performance.

The Art

DC Gonzalez is a former Aviator in the Navy, a Federal Agent, Military Cyber-Security Specialist, Brazilian Jiu-Jitsu Black Belt, and is currently a Peak Performance Coach. His book, *The Art of Mental Training* talks about Gonzalez's time studying with his mentor Leo-tai and how his mentor has had a profound effect on his life and is passing the knowledge that he learned onto many of his students. *The Art of Mental Training* describes Gonzalez's personal experience on performance anxiety through the scope of what the "Warrior/Champion" would do when a tough situation arises. Over the course of the book, Gonzalez analyzes individual strategies and binds them together to help form strategies on how we can go about managing performance anxiety.

When it comes to managing our performance anxiety, Gonzalez lays out three important steps for us that form the basis of how we can train to become our own Warrior/Champion: self-talk, the way we carry our bodies, and breathing. To start off, think about what Warrior/Champion looks like and form a mental of what they look like using these three questions that Gonzalez asks in the beginning of his book: "What would the self-talk of a champion sound like as they prepare for a performance?" "How would this champion's body be moving as he is prepared for battle?" and, "How would this champion be breathing right now as he prepared for battle?" With these three questions, we have just taken the first step towards achieving our goal of being a Warrior/Champion.

From the beginning of the book, Gonzalez focuses on the thoughts that go through our mind when a competition begins as the key to figuring how to best combat our mental struggles. All of our stress and nerves can be related back to the fight-or-flight response that has been ingrained in our genetic makeup for centuries. Though the difference between being put in a life or death situation

and being put in the spotlight can seem quite drastic, it is important to remember that the body triggers a fight-or-flight response every time it is put in a stressful situation, regardless of whether it is actually in harm's way or not. Humans being able to defend themselves in a moment's notice, hunt effectively in order to eat, and finding a mate to pass their genes on were all very real problems that humans faced centuries ago, and unfortunately, they still haunt us to this day in many ways. So when we look what we go through today as opposed to centuries ago, we can start to make the connection that that choking in a performance "is caused by an ego that is afraid of looking bad." This fear of "looking bad" starts to gain traction within our mind and starts to bring on a strong sense of nervousness and anxiety that ultimately leads down a path towards having a bad attitude, negative self-talk, and having unfocused thoughts that distract us from the task at hand.

For the reasons listed in the previous paragraph, when we start to take a step back and look at our poor performances, it is important to understand that the pressure we feel always comes from inside us, as opposed to the situation we perceive around us is what creates the pressure. Leo-tai says that we can start to become a Warrior/Champion by first taking a look at our attitude. What we say to ourselves can have a profound effect on our daily lives if we let it be that way. Once we make it a priority to foster and empower our own sense of self-belief, then we find that we start to make progress towards our goals. We may find that we have to resort to using our imagination to start to building a positive self-worth, especially for younger performers out there who not enough positive experiences to be able to build off their successes. Shortly after situation where Leo-tai and Gonzalez found themselves in the woods surrounded by a bunch of wild and hungry raccoons, Leo-tai says, "You must always start by believing that you have what it takes... Without strong self-belief, the warrior winds up nowhere. You have to believe that you can win, then that self-belief

puts you in a position to win.” Leo-tai later goes on to add that, “Confidence is a by-product of strong self-belief. The more powerful his self-belief, the more confidence the warrior is able to summon up when the pressure is on.” What Leo-tai means by this is that the way we feel about ourselves today is the product of many years of experiences, memories, and outside influences. Anybody can build up a strong sense of self-belief by making what we say when we talk to ourselves more confident and empowering.

After we look at how we think and react to stressful situations, we can now work on how to “gain the mental edge.” Leo-tai frequently spoke of what Gonzalez likes to call, “The Critical Three” when it comes to creating an “ideal mental climate”: breathing, relaxation, and imagery (or Imagineering.)

Breathing may seem like a simple concept, but the Warrior/Champion puts it upon themselves to take breathing to a whole new level. Leo-tai describes the notion of “focused breathing” as: Drawing the air deeply and slowly from the bottom of the lungs through the nose while expanding the diaphragm. Then, after holding it momentarily, slowly push the air out of his lungs by drawing his diaphragm in. When Gonzalez asked what Leo-tai thinks about while he practices this, he simply says “nothing... I just observe my breathing.” Focused breathing is something that Leo-tai could practice anywhere he chose to - even in the middle of a conversation. Leo-tai, however, does not have a specific routine to practice “focused breathing”, it is simply something that he does. Leo-tai is a strong believer in the notion that once we can master our breath, we can master our minds.

Relaxation is a process that, when combined with imagery (or Imagineering), allows us to truly reprogram our minds for success. Being able to relax facilitates and allows our inner (subconscious)

mind to clearly see and feel images of success. We can only achieve this when we are in a deep state of relaxation so that the conscious mind can “quit acting as a filter to the inner mind.”

Relaxation through meditation is when we can access the unconscious mind and start to feed it positive and empowering thoughts. This is also known as the period of “success conditioning.” This is done by watching a movie in our mind’s eye where we are achieving the desired outcome we are preparing for as if it were already true. This process gradually creates a fundamental change in how we view our own chances for success. Once that has happened, we will find ourselves more willing to take on the tasks we know will be required to be successful.

Gonzalez references real world example from the writings of the late Gary Mack, a mental sports trainer, who was fortunate enough to hear how Pelé - world famous Brazilian soccer star - described his keys to winning: enthusiasm and a mental edge. Before every game, Pelé had a specific routine that allowed him to focus his mind and gear up for success on the soccer field. For thirty minutes before every match, Pelé closed his eyes, relaxed, and watched a film in his mind’s eye so that could relive his greatest moments playing soccer. He always felt strongly about how important it was for him to reconnect with his joy for the game of soccer and how it was an integral part of his pre-game routine to ensure that played his best. He would also distinctly visualize the scene around him, and about the player that he was about to become on the field. By the time Pelé walked on the field, he was already in the zone because he had primed himself for success. Gonzalez strongly encourages all of his clients to do what Pelé did, and even if they do not have many past experiences to look back upon, he encourages them to use their imagination and make up their own success in their mind’s eye. Using strategies that focus on relaxation, imagery, feelings, and enthusiasm and combining

them into a consistent pre-game routine is what helped Pelé and many other athletes to get into the mindset of success before a competition.

The Science

Steven Ungerleider, PhD, has authored several books and serves on the United States Olympic Committee Sport Psychology Registry, as well as the World Anti-Doping Agency's Education and Ethics Committee. Ungerleider completed his undergraduate studies at The University of Texas at Austin (where he was also competitive gymnast) and holds both his master's and doctorate degrees from the University of Oregon. Ungerleider's book *Mental Training for Peak Performance*, is a compilation of research that he and his colleagues have conducted in the field of sports psychology. The book is split up into three main sections (though this paper will only be focusing on the first two sections): Introduction to Mental Training, Mental Training Techniques that Work, and Sport-Specific Mental practice.

Scientists and psychologists within the field of sports psychology have been able to formulate four different theories as to why mental practice is so effective in competition: the symbolic learning theory, psychoneuromuscular theory, the bio-informational theory, and the dual coding theory.

The symbolic learning theory states that every move we make in life is first coded like a blueprint in our minds and our nervous systems. This means that if we mentally rehearse an event, we are actually blueprinting each move by making our gestures symbolic and thus, making them more familiar to our body chemistry.

The psychoneuromuscular theory states that when we mentally practice, we shoot small impulses to our muscles and tendons. This reminds our muscles and tendons how to perform the action that

we are practicing in our minds. For example, if we were to sit quietly in a comfortable position (such as in an armchair) and practice free throw shots on the basketball court, there are messages that sent to the muscles and tendons that correspond with what action. When these actions were tested in an electromyography machine (EMG), it was found that minute muscle contractions of a downhill skier were firing off at the exact same and in the same order as it would in a race.

The bio-informational theory states that if we imagine how we might respond to a certain event, we can better prepare for it. What this says, is that if an athlete routinely experiences nervousness and anxiety in a specific situation, it could actually be beneficial for them to go home and imagine what it would feel like to perform a certain action while nervous.

The dual coding theory states that athletes receive information by two independent channels or encoding systems: verbal and motor channels. This means that new skills are better learned if they are both explained to an athlete and then actualized through physical practice.

Scientists and psychologists' have an understanding of the theories behind mental training, but it still is not as easy as it may sound to actually implement them to achieve the desired outcome. The way that elite athletes implement mental training into their routines varies greatly depending on their sport and their own personal preferences. According to a study done by Ungerleider and his colleague, Jacqueline Golding, PhD, elite athletes have different ways of seeing themselves perform when they are mentally rehearsing their techniques. Of the Olympians surveyed by Ungerleider and Golding, there was about an even split between athletes who tend to see themselves from an inside perspective (the way they would if they were actually performing their task), those who see themselves perform from an outside perspective (as if watching yourself on a television screen), and athletes who see themselves from both an inside and outside perspective. There is even a difference

in the clarity of the image (an image that uses multiple senses) that was mentally visualized by Olympic athletes. Mental images that US Olympians visualized were also more likely to be associated with the strong emotions that were tied to the specific action they were mentally performing as opposed to detaching themselves from the action they were performing, even though it was only being mentally rehearsed. However, athletes also reported that they felt that it was easier for them to control an athletic image than it was to control the emotions behind that image. When a javelin thrower prepares for their throw, for example, they already have a sense of the power they need from their muscles to perform well, but it may be difficult for them to control the feeling of stress and tension that comes with being in a competitive atmosphere.

The next part of Unglieder's book walks us through several mental training techniques that he has researched and witnessed athletes do on a regular basis. These techniques are divided up into several chapters, and each chapter includes an extensive amount of information on how to break down and implement each technique into our normal routine.

Past events play a very important role in the thoughts that go through our head when we perform. Extensive research has been done about how our awareness in sporting events actually goes way beyond what is happening in that moment when we compete. If we happen to find ourselves in a similar situation to something we have previously experienced, then we are likely to recall that event and reflect on what happened how much it affected us. A previous situation, regardless of whether it was good or bad, can greatly affect the control of our muscles and even our self-image of how we might perform. Past events have a way of becoming a self-fulfilling prophecy that can be either helpful or harmful to us. Misguided and inappropriate thoughts (i.e. thoughts that are self-deprecating) during a competitive situation can be a very important factor that could result in a

poor performance. Positive outcomes are built from a combination self-confidence and previous successes that have been formed after many years of forming positive affirmations in regards our success.

After looking at past events and understanding why they affect us, Ungerleider believes it is crucial to boost the belief in our ability to perform well. We spend a significant amount of time talking to ourselves and these thoughts can affect how we feel in our performance. Building upon our previous successes by not letting our past failures/poor performances cloud our mind is of the utmost importance to building a positive self-image, and this all begins with genuinely believing in our ability to perform well. For some people, this may mean going back and exploring childhood concerns, fear of failure, embarrassment, humiliation among friends and family, and childhood drama.

To help build the belief in our ability to perform well, it is also important that we look at the difference between “talking to yourself” and an affirmation. It is crucial to understand this difference because it will help us become more effective in how we go about changing our mindset and how we approach our ability to perform. “Talking to yourself” is one of several different types of self-talk. An example of “talking to yourself” would be if I were to mentally say a general statement such as “Matt, stay focused.” An affirmation, however, is a very specific and individualized type of self-talk that is based on our personality and our own unique needs when it comes to performing, and they must be catered to whatever activity that we want to focus on. Instead of telling ourselves, “it’s okay, I got this,” a statement such as, “I am very good at this. I understand how I normally feel and I am going to be very positive in this situation” will be much more conducive to being successful in a performance situation. Eventually, the overall goal of restructuring our self-talk by

using specific affirmations is to make these positive thoughts become automatic, yet intuitive to what we want to achieve. Once our self-talk becomes more natural, we can even start to correct our bad habits and in turn, build our self-confidence.

Much like Gonzalez's book, *The Art of Mental Training*, Ungerleider also heavily focuses on being able to clear our minds with breathing exercises and meditation. Ungerleider devotes a significant amount of time in his book to mastering these techniques because he feels that breathing is a crucial aspect in playing any sport. Ungerleider goes as far as to say that observing your breathing pattern is just as important as making sure that your shoes are tied before you go into competition. While this may seem like an odd assertion to make, it starts to make sense when you start to think about how much the quality of our breathing can affect our everyday life.

It is often easy for us to forget how much tension we put on our bodies on a daily basis. Ungerleider helps get our minds thinking about this concept by asking us to perform a brief experiment: Hold your breath for 30 seconds, let it go, and repeat this process three times. This experiment is a great way to start recognizing where tension lies in our bodies. When I performed this experiment on myself, I found that a lot of my tension occurs in my chest, neck, back, and my calves (which is, interestingly enough, the same places I feel the most tension when I play the trumpet.) The power of relaxed breathing enhances our performance by oxygenating our blood, and energizes our brain, nerves, and muscles. Short and shallow breaths constrict our chest muscles and create a strong ripple effect throughout our entire bodies, thus creating tension.

As we start to think about how much tension has an effect on the way we perform, we can start to create our antidote for competitive stress. Proper breathing allows for many mental and physical processes to take place that can help prepare you for a stressful situation such as in a competitive

environment. Ungerleider offers a three step breathing technique that was developed by the late Dorothy Harris, PhD, as a way to help us replenish our bodies with oxygen after stress starts to take a toll on our breathing: Imagine that there are three parts to the lung. Fill the bottom third of your lung and think about pushing out and stretching your diaphragm. Fill the next third by expanding your chest cavity. Fill the last third by gently raising your shoulders. Everytime you exhale, pull in your abdomen wall to get any excess air out, and feel a wave of relief from your tension coming over you. This process should be practiced to where you do it all in one smooth motion. Athletes become proficient at this technique by performing it about 30 to 40 times a day to build a good habit of healthy breathing when under duress. Once we have succeeded at this basic template of breathing, we can think about images that you associate to our respective sport and pair them to the type of breathing that would like to do for a specific activity to help see ourselves succeed.

Meditation is important because gives us a way to quiet our muscles, our minds, and all other external stimulation that could become a distraction. Meditation can be an extremely versatile way of calming our brain wave activity because it can be performed almost anywhere, regardless of whether we are on a plane, a bus, or en route to a competition/performance. Ungerleider suggests using a simple mantra to keep our mind clear of distractions when meditating, such as: “Easy does it,” “Doing fine,” or the mantra I have chosen is “Be free.” We must let whatever is going on in the world simply continue as we give up all control of whatever is going on outside of the mind. When scientifically tested, participants were put in an electroencephalograph (EEG) to monitor their brain activity. These tests have shown that when total calmness has been reached in their meditative state, the operational waves in our brain shifts from beta waves (our normal brain wave state), to alpha waves (a more relaxed and slowed brain wave state). These results have also shown that with

consistent practice, those who meditate can even shift their brain waves to theta waves (where the mind is almost totally inactive), and even delta waves (a trance-like state).

After the basic elements of meditation are practiced and achieved, it is time to transform our “nerves” into energy in a performance situation. We should use a different mantra that does not arouse our emotions (such as “Flow,” or “Zone.”) but one that will let us stay calm and focused during a particular task. Repeat this mantra numerous times with both eyes closed while practicing relaxed, deep, and full breathing. Passive relaxation is getting into a state where we do not force our thoughts or actions. If negative thoughts appear, we should simply let them be. There is no need to argue with unpleasant memories or feelings. Our bodies cannot simply focus on command, it takes practice and commitment to shift our bodies into a more focused state. Once this method is practiced, our bodies automatically respond to the habits we have created for ourselves. The mind goes into a more restful state and signals are sent through our nerves that help us stay cool and calm under pressure.

Imagery is the process of receiving information through all of our senses from our external environment, but they can also be generated as information from our own memories. When we envision and train for our success using imagery, it is essential that the images we see in our head are as clear as possible. This is because it is more likely that we will be able to recall these images in our minds at any time, even in the most stressful of situations.

We do not normally think about sitting in a comfortable chair with our eyes closed as a part of a usual training regimen for an athlete, but it is that kind of mental practice that has been proven to be a very important aspect of many athlete’s careers. Think about what happens when we a rewatch a T.V. series online or hear a song on the radio repeatedly, we start to memorize what we see and hear.

This gives us the ability to recall these sounds and images when we are in various situations such as singing a popular song at a party or imagining making the game winning shot before the buzzer goes off to win the game when are just shooting some hoops with friends. There is a lot we can learn a lot from these concepts when we find ourselves in a stressful environment.

Before we go into how we can use the imagery in our head to our competitive advantage, it is important that we understand how our brain takes a picture. Imagery is the process of receiving information through all of our senses in our external environment, but they can also be generated as information from our very own memories. Ungerleider likes to think of our brains as a kind of DVD player. Our brain scans for images and sensory input before they are collected and transported to create a mental image in our mind's eye, much like what happens when a disc is put into the DVD player and it shows up on the television screen. However, according to research done by Martha Farah, PhD, a professor of cognitive neuroscience at the University of Pennsylvania at Philadelphia, "mental capacities such as memory, perception, imagery, language, and thought processes are rooted in complex structures in the brain." This suggests that imagery is not part of language symbols but is part of our visual perceptions. What this means is that if we see something, the image of the object travels into the retina, then to the visual cortex in our brains, and then to the higher centers of the brain until it is recognized. To put that into perspective, it means that we are essentially "seeing things in reverse" when we sense things in our mind.

Ungerleider gives an example of this that we can try out on our own to give us a glimpse of how we store images in our brains. Sit quietly and think about a soccer ball, once your image is found, the image appears in your mind's eye (your visual cortex). Now think, is the ball rubber or leather? This question shifts the image to another database in the brain to get more detailed information about the

visual image! Now let us dig a little deeper, does the soccer ball have any writings or any imprints on it? Once again, this shifts the brain to a new database for it to recall, and another signal is sent from the visual cortex for another image in our mind's eye. Now let us imagine Venus Williams and her explosive serves on the tennis court. While we imagine this, we break down every aspect of that athletic maneuver. These visual signals are being sent, coded, and imprinted in a specific database, and research shows that there is a very specific database that gets used throughout our physical and mental practice of tennis. So when we practice our serve on the court, we further strengthen our memory of this specific database (and vice versa for mental practicing.)

Elite athletes do not simply acquire the skills to use their imagery overnight. Imagery practice involves using as many five of our senses (see, smell, taste, touch, and feel) as we can. If we want to use imagery to help cope with performance anxiety, reduce pain, and control frustration, then we must be able to *create memories and emotions in our own minds*. For example, a mental practice session may include practicing how to manage our impulse controls so that we do not get angry in a tough situation. While we practice this imagery, we must be able to use emotions associated with a performance to help us better understand and cope with the competitive experience, and like with many other activities, this comes down to building good habits within our minds so that we can acquire these skills anytime that we need them. When athletes practice using mental imagery and find them successful, they tend to describe a sensation of "floating," being completely "in-sync," or even a feeling of "effortlessness" to the quality to their performance. Unfortunately, using imagery when practicing can also hinder us as well. If we miss scoring a crucial point, or misdirect a shot, then it is important that we correct this imagery or else our performance can get worse or else we

simply create a bad habit, and breaking a bad habit is much more difficult to break than forming a completely new habit.

In order to properly master imagery techniques, they should be personalized to an individual. A specific technique called “guided imagery practice” is a skill that can help us deal with fear, anxiety, and becoming too aroused when it comes to performance. The major components of a guided imagery model in any training program include: developing vivid images, controlling those images, and understanding the perspective of the imagery (such as do we see ourselves performing in first person or from an outside perspective?) Ungerleider starts to break down how we see what we see, and what type of imagery is appropriate for our specific sport by asking three questions: “How do you experience images?” “Do you perceive an image by sight, hearing, touch, or feel?” and “What are the sensory modes that allow you to experience an image (i.e. do you define yourself as a visual, auditory, or tactile learner)? We can get a perspective on this by asking questions how different people experience images, such as: How do you see yourself walking down the street? How do you see yourself throwing a football, or running around the bases in a baseball game? Or we can even ask a child, to describe their favorite kind of food.

Psychologist Robin Vealey, PhD, designed exercises to help assist athletes at any skill level with controlling images and how to make those images vivid: Have a friend sit in front of you. Close your eyes and try to make a very detailed image of this person (i.e. face, hair color, mannerisms, etc.) Then imagine that person talking and the quality and timbre of their voice. Next, imagine their facial expressions. And finally, think about your emotions towards this person (i.e. anger, respect, love, etc.) Next, sit quietly in your home or office and imagine yourself at a gym, workout center, or even the place where you will be competing. You are completely alone in this place. Now imagine details

about this place: smells, height of ceiling, temperature, the sounds, and the feeling of the floor. After that is completed, shift the focus of your imagery of this same place, but with a very large crowd on competition day. Now observe the same details from the previous step and how they were different. But now, how do you feel different? Notice your heart rate, perspiration, breathing, and your sense of excitement. Then, sit quietly and close your eyes, check your breathing and make sure it is very full and relaxed. Lastly, go through the skill one more time and emphasize the five senses and its vividness while you perform. This is achieving a high level of mental imagery.

Being relaxed is a crucial key to physical and mental skill development, but in Ungerleider's research, he asks: How do athletes achieve mental comfort levels that allow them to use imagery and visualization strategies effectively? The answer he found had to do with relaxation. Nearly all Olympic competitors Ungerleider asked in his research said that that they had to achieve a state of relaxation to be able to practice effective imagery and visualization skills. The techniques that these elite athletes use combined deep breathing with muscle relaxation strategies. Some athletes simply go to their favorite chair, close their eyes, and breathe deeply when they find themselves tight and wound up before a competition. Ungerleider stresses, however, that combining relaxation and imagery is the key to success in competition. One can not be successful without the other.

When preparing for a mental training program, we prepare ourselves for the actual event, as well as the feelings and emotions that we have that surround the competitive experience. Gymnasts, for example, have to maintain a very high amount of focus while they perform. They have many different variables that they have to deal with when they perform at a competition. There are often many other events going on around them at the same time which can be dangerous because what they do requires a very precise amount agility, balance, strength, and timing. If we can imagine

ourselves in a calm place such as a sunny day at the beach or in the forest exploring nature, this may help induce a feeling of relaxation and calmness that is conducive to our mental practice. Ungerleider relates visualization practice to fine tuning a DVD/VCR player that have static lines on the screen. Practicing imagery means that you are in the process of cleaning up the picture so that it is clear, focused, and in sync with the images projected from the tape or disc. The signals are always strong when a VCR/DVD player is playing, but stray thoughts and negative signals can cause fuzziness in our personal mental screen and therefore interrupts the image from the memory part of the brain.

The last mental technique that Ungerleider talks about in his book is Visual Motor Behavior Rehearsal (VMBR.) VMBR is the process of creating a mental video before and event and then using it to analyze and correct errors that may have occurred in both real and imagined events. Richard Suinn, PhD, describes VMBR as a “technique combines relaxation and imagery in a format that that allows individuals to desensitize themselves to a stressful situation.” VMBR is used to remove unwanted and undesirable movements that can affect a performance. Studies have shown that practicing VMBR can have a positive effect on free throws shooting for basketball players, putting for golfers, removing thoughts of pain or discomfort in cross-country skiers, and many more.

A VMBR session typically involves: picking a quiet place to practice focused breathing, going to a relaxing and familiar place to conjure up a very clear and vivid mental picture using the five senses, and immediately flipping a mental switch to turn off the image into blank screen in the mind's eye and return to focused breathing. Ultimately, the goal is to be able to mentally switch this relaxed image on and off in our head whenever we need to relax. The next phase of the VMBR process involves going through all the same steps as before, but now imagining that we are already a

very successful performer in a competition. We should successfully finish the competition while still being tuned into all five senses (i.e. crossing the finish line, the feel of the tape, the refreshing taste of water, etc.) in order to effectively use the VMBR technique to its fullest potential.

With the plethora of research and resources available today in the field of sports psychology, there are numerous ways that we can go about managing our performance anxiety. Some of us may find it easier to tackle performance anxiety by reading a book from a more “artistic” approach from a highly experienced student and teacher of mental training like DC Gonzalez in his book, *The Art of Mental Training*. Other people, however, are looking for a more “scientific” based approach based on the work and research of people like Steven Ungerleider, PhD, in his book, *Mental Training for Peak Performance*. Regardless of whatever we prefer, we can see that while these two books have differing styles of the way they present their information, they are both strikingly similar in regards to the principles that they teaching us. We all start off with similar issues when we make the decision to go out of our way to improve our performance in front of other people when the audience is seated and the stage is set. All it takes to become more successful is enthusiasm, dedication, and a willingness to sit down and practice the concepts laid out in these two books in order for us to achieve our goals of being the best performers that we possibly can.

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