

On the Mark



In Shooting, match pressure and the demands for athletes to maintain complete mental control over their actions are greatest when eight finalists are alone on the firing line in front of hundreds of spectators and television cameras with an important prize being contested. This is the Women's 50m 3-Position Rifle Final that took place during the January 2016 Asian Olympic Qualifying competitions in New Delhi, India.

An Introduction to Mental Training Teaching Shooting Athletes How to Think

By Gary Anderson, DCME

If two young shooting athletes do similar amounts of training, the one who ultimately advances the highest will be the one who develops the best “mind game.” How an athlete thinks is decisive in determining how they will advance in any sport, but this is especially true in shooting. At the highest competition levels, no shooting athlete can become a consistent winner without incorporating mental training into their development.

Most coaches of beginning and intermediate shooters, however, do not regard “mental training” as a fundamental skill they should teach. To them, beginners’ fundamentals are safety, the shooting positions and basic shot technique. They believe mental training, often described as sport psychology, is advanced training to be presented later.

Mental training concerns how an athlete thinks and applies mental controls when trying to perform difficult skills, especially under the pressure of competition. Many aspects of mental training are fundamental instruction that shooting coaches should teach to beginning and intermediate level athletes. To teach mental training, coaches must pursue personal study to acquire a practical understanding of mental performance so they can develop plans for presenting its essential elements to young shooters.

Motivation

The first mental training foundation is motivation. Why do youth want to learn how to shoot? There are many good reasons:

- *It looked like it would be fun (or interesting, or cool) to learn how to shoot.*
- *Mom (or Dad) wants me to learn gun safety.*
- *Guns and their technical features fascinate me.*
- *It's an Olympic sport and I want to try it.*
- *My friend is shooting and she really enjoys it.*
- *My father (or grandfather) wants me to be a shooter.*

All of these reasons are acceptable starting points, but the coach needs to orient them into truly positive motivations that will encourage long-term participation in shooting. Coming to the range because Mom or Dad or Grandpa wants them to be there is OK, but the young person needs to quickly decide that they are there because they want to be there. A fascination with guns is OK in the beginning, but new shooters must learn that shooting is a competitive sport and that target guns are pieces of sports equipment. Thoughts about becoming an Olympic champion are in the "it's OK to dream" category, but those youth also need to learn that shooting is fun and challenging or they will never put in the hard work



Even the newest and youngest shooting athletes should learn basic mental skills that will become a foundation for their future development.



The relationship of trust and open communication that exists between the athlete and coach is critical in teaching mental performance skills, whether at beginner or international champion levels. The coach here is Yifu Wong, a 5-time Olympic medal winner who is now China's National Coach.

necessary to realize their dreams.

In conversations with young athletes, coaches should affirm positive reasons for becoming shooting athletes like the joy of hitting a ten or the camaraderie that comes from being with other youth, or the pride and sense of achievement that comes from learning difficult sport skills. **To become a great shooting athlete, you have to like to shoot!** It is that simple.

After a young shooter gains experience and becomes active in competition, **MOTIVATION** takes on a whole new meaning that is defined by that athlete's will to win. Some athletes become motivated by an intense will to win that is much more than a simple desire to advance. It is a will to do the exceptionally hard work necessary to win at the highest levels. The coach must be ready to accept and encourage that rare gift when it appears.

Understanding What Shooting Is

A starting point for mental training is making sure new shooters clearly understand what shooting is. Three key concepts combine to answer that question: 1) **RESPONSIBILITY**, 2) **MARKSMANSHIP** and 3) **SPORT**. The coaches must explain these concepts in ongoing conversations with youth and their parents. A great way to do this is to use "**RESPONSIBILITY - MARKSMANSHIP - SPORT**" as a theme for a parents' orientation.

RESPONSIBILITY. This concept must underscore every youth shooting experience. Responsibility starts when a young person realizes that by taking a gun in their hands, even an air gun, they are accepting a grown-up responsibility and that their behavior with guns must fulfill that responsibility. Learning to handle guns safely means holding the power of life or death in your hands. Nevertheless, youth do not need to be frightened or threatened into practicing gun safety and following range rules. The remarkable thing is that youth in marksmanship programs readily accept and respect this responsibility.

As young shooters advance, responsibility takes on broader meaning. There is the responsibility to regularly attend club or team practices. There is the responsibility that team members have towards each other. There is the responsibility to always follow the rules and reject shortcuts or

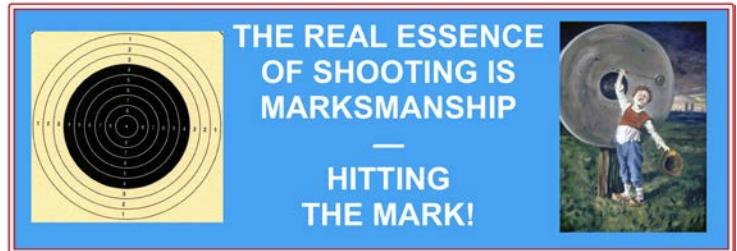
temptations to cheat. When goal setting begins there is the responsibility to actually do the training necessary to achieve those goals. Indeed, a shooter's total experience is one of living responsibility.

MARKSMANSHIP. Youth shooting programs must teach marksmanship as a sports skill. The soccer player uses his/her foot to launch a ball (projectile) to hit a place in the goal that is out of reach of the goalie. The golf player uses a club to launch a ball (projectile) so accurately that it lands in the cup. A shooter uses a rifle or pistol to launch a bullet so accurately that it strikes the center of a target. All are athletes who use sports equipment, a shoe, a club, a rifle or a pistol, to launch a projectile so precisely that it hits a difficult target. **The real essence of shooting is marksmanship, hitting the mark.** Real shooting is not about launching bullets or experiencing big "bangs," it is about skill, steadiness, control and precision. The most important question in shooting is not "did you shoot the gun;" it is "did you hit the mark?" **Real shooting is marksmanship!**

SPORT. Too many people who don't understand shooting think of a rifle or pistol as a weapon. The original purposes of guns were to be tools of survival or weapons of war. But the rifles and pistols used in target shooting are no longer weapons of war. A useful metaphor in understanding how weapons of war became tools of sport is the Biblical plea for peace among diverse peoples that comes from "*turning swords into plowshares and spears into pruning hooks... nor will they train for war anymore*" (Isaiah 2:4). When guns are transformed into sports equipment they become tools for bringing people together in peaceful competitions that generate friendship and human understanding.

Marksman ship is practiced for sport; no other purpose is needed.

This, of course means the word "weapon" should not be used in youth shooting instruction or team conversations. But the instruction must go further. There must also be an explanation about how shooting is a real sport that is a respected member of the worldwide community of Olympic sports. Shooting should be explained in the same context as



Archery, Athletics (track and field), Basketball, Gymnastics, Swimming and all other Olympic sports.

The coach's task is to make sure young athletes understand that the guns used in shooting are sports equipment, not weapons, and that the marksmanship skills athletes practice on the shooting range are sports skills practiced for the same reasons that youth practice skills in all other sports.

Learn About Shooting's History and Heroes

Young shooters may wonder how history lessons could possibly help their scores, but shooting has an inspiring history that can give youth greater pride in their sport. One of the easiest ways to introduce shooting history is to encourage parents and athletes to download a copy of the Winter 2016 **On the Mark** article on "*The History of Marksmanship*" (http://thecmp.org/wp-content/uploads/OTM_History-of-Marksmanship_web.pdf). This article has 20 short vignettes about pivotal and fascinating events in the 3,500 year-old history of marksmanship.

A second aspect of learning about a sport is to know its heroes. Learning about shooting heroes and their competition scores can inspire young shooters to strive for higher scores themselves. There are two good places to find stories about shooting heroes. The USA Shooting quarterly magazine **USA Shooting News** is available online at <http://content.yudu.com/web/y5b2/0A1zosy/May2016Q2Mag/index.html>. This is a great source of information about the best shooting athletes in the USA. The ISSF website at <http://www.issf-sports.org/> is the premier source for information about the world's best shooters.

Understanding Skill Development

One of the most important mental constructs that an aspiring shooter can acquire is a clear understanding of how marksmanship skill is developed. The essential skills in shooting are motor control skills. Getting uncoordinated muscles to work together to stabilize the shooting positions is a motor control skill. Teaching the brain to coordinate sight



Encouraging young athletes to learn about champions' techniques and scores helps them develop higher mental standards. The athlete is Matt Emmons, USA, multiple Olympic and World Championship medalist.

picture images with muscles that control the index finger so the trigger is released when sight picture movements are steady and centered is a motor skill. A fundamental principle in sports training is that **motor control skills are not determined by talent or natural ability; sports motor skills are developed through training**, indeed through thousands and thousands of correct repetitions.

Another aspect of skill development takes place in pistol shooting where the progressive overload principle must be applied to develop the arm and shoulder strength necessary to hold the pistol steady. Strength increases when hundreds of pistol lifts create exhausted arm muscles that then overcompensate and become stronger after a recovery period.

Aspiring shooting athletes must sincerely believe that advancement comes from practice, not natural ability. In oversimplified terms, the more you practice, the better you will become. There is a caveat to this, however. Practice repetitions must always be performed while trying to do them correctly. Just putting shots downrange in order to produce a higher pile of empty brass will not succeed. **Every practice repetition must be driven by a genuine will to make that shot a good shot.** For a new shooter, a good shot may mean hitting the aiming black with each shot. For an advanced shooter, a good shot may mean trying to shoot 10.5 or better on every shot.

Mental Performance and Shooting Fundamentals

How athletes think and discipline their mental processes really does enhance and improve their performance of marksmanship fundamentals. After a new shooter learns gun safety and range procedures, basic shot technique and the shooting positions, the coach and athlete must work together to improve shooting scores by perfecting how the athlete executes the real fundamentals of marksmanship: 1) **STABILITY** - making the firing position(s) more stable, 2) **ALIGNMENT** - precisely aligning the gun with the aiming point and 3) **CONTROL** – releasing the trigger when stability and alignment are optimal.

The Fundamentals of Marksmanship

I STABILITY

- a) Position Structure
- b) Bone and Sling Support (rifle)
- c) Breath Control
- d) Muscle Stability
- e) Muscle Relaxation
- f) Balance

II ALIGNMENT

- a) Sight Alignment
- b) Natural Point of Aim
- c) Sight Picture
- d) Visual Dominance

III CONTROL

- a) Initial Trigger Pressure
- b) Coordinated Smooth Trigger Pressure
- c) Shot Call
- d) Follow-Through
- e) Shot Analysis

Mental skills directly impact how well all three fundamentals are performed.

STABILITY requires both a mechanically correct firing position and the athlete's efforts to relax and balance the position. Achieving relaxation and balance are mental skills initiated by deliberate thought. Athletes must be taught to consciously relax and balance the firing position while preparing to fire the shot. Relaxation techniques involve consciously relaxing or letting muscle tension in key muscle groups go when exhaling. Balancing a position also requires conscious mental focus that must be done before beginning to aim and fire the shot.

The mental discipline of consciously relaxing and balancing a firing position before starting to aim and fire the shot is called a pre-shot routine. Some instructors refer to this conscious evaluation as perfecting the "inner position." Learning to do a pre-shot routine before aiming and firing the shot is not an advanced technique to be learned after years of training; the pre-shot routine is something new shooting athletes should learn as soon as their firing position(s) and shot technique are well established.



A first step in learning to use deliberate thought to better prepare for an accurate shot is to take a few seconds before shouldering the gun to calm the mind and take a couple of deep breaths to relax the body.

ALIGNMENT, in an athlete's early stages of development, starts as a passive action to 'see' a good sight picture where the sights appear properly aligned in relation to the aiming point. This becomes a mental performance skill when a pistol shooter consistently focuses primary attention on achieving sight alignment stability (relationship of front and rear sights) or when a rifle athlete focuses intense attention on precisely centering front sight movements over the bulls-eye. It takes focused mental effort to do either well.

An even more advanced mental performance skill emerges when the athlete's intense efforts to see the aligned

pistol sights stabilize stimulates the brain to better coordinate the wrist and forearm muscles so that sight alignment stability is improved even more. Similarly, a rifle athlete's concentrated efforts to see front sight movements (the hold) more precisely centered over the aiming bull stimulate the brain to teach appropriate muscles to alternately relax or control the body and rifle so that the hold actually becomes slower and steadier.

This mental skill has variously been described as "attention," "concentration" and "visual dominance." It is often said that good shooting requires concentration, but an athlete cannot concentrate on concentrating, an athlete's visual attention must have a point of attention. That comes when the athlete concentrates, with resolute mental intensity, on pistol sight alignment or rifle sight picture perfection.

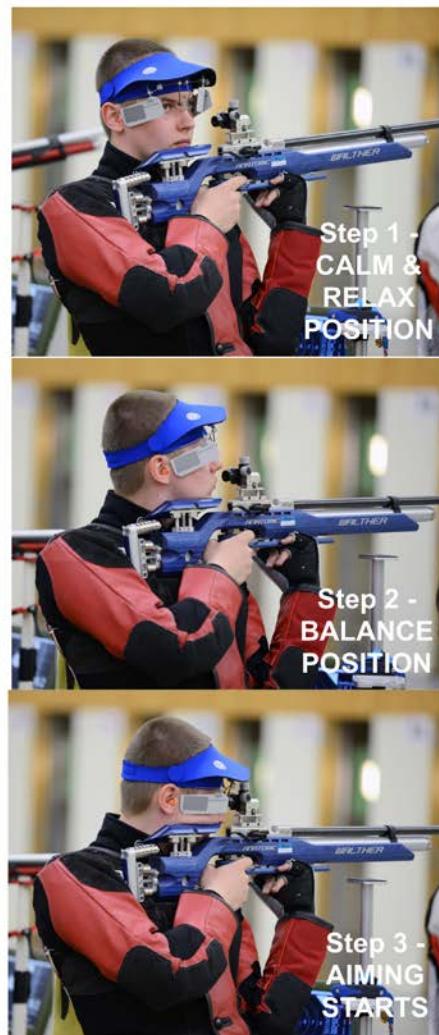
CONTROL is defined by how the athlete releases the trigger and finishes each shot. This process is also governed by what the athlete sees and thinks so it is very much a part of mental performance. The release of the shot by pressing the trigger must be coordinated so that it occurs when the athlete's visual control determines that sight alignment (pistol) or sight picture (rifle) movements are optimal and signals the index finger muscles to add smooth pressure to the trigger to complete the shot.

When the hammer falls, the athlete must see how the sights were aligned so he/she can call the shot. The shot call must be followed by a quick mental analysis of that shot. Seeing an accurate, honest shot call and using that information to analyze whether the shot was performed correctly or whether a sight correction is needed for the next shot is another mental performance skill. Being able to identify a position or performance error and make a correction is an advanced mental skill that separates great shooters from good shooters.

The Shot Plan

One of the real difference-makers for great shooters is having a shot plan and the mental discipline to follow that plan for every shot, whether

The Pre-Shot Routine



Rifle and pistol athletes achieve better holds (stability) by consciously calming, relaxing and balancing their firing position before starting to aim.

in training or competition. Shot plans are detailed, step-by-step descriptions of what an athlete does to fire a shot. They begin with loading the gun and proceed through assuming the position, firing the shot and post-shot analysis. Shot plans should always include the position relaxation and balancing steps described above.

Shot plans should be carefully thought out, written and meticulously followed. When an athlete develops the mental discipline to actually follow his/her shot plan for each shot, this becomes a pathway to consistent excellent performance. The shot plan is also the best way to withstand the pressures and distractions of competitions and to stay focused on positive, performance related actions when match pressure is greatest.

Tools for Responding to Adversity

An important part of a shooting athlete's mental game is the complex of attitudes he/she uses to deal with frustrations, challenges and adversity. All shooters have bad shots. A few scores will be embarrassingly low. Sometimes things just do not go well in competitions. Part of the coach's responsibility is to help young athletes embrace a viable recovery strategy for when disaster strikes. Athletes should develop a complex of attitudes that will help them confront adversity and become better because of it.

Keep JOY and FUN in Shooting.

There must be joy in the shooting experience or adversity will win. A primary source of joy in shooting is the simple satisfaction that comes from shooting a great shot or score. Coaches must recognize those moments and encourage their youth to enjoy them. Almost all youth in organized shooting programs like the contacts they have with their friends. Shooting sessions should be organized to provide opportunities for social contacts. When young shooters know happy moments are sure to come, it's a lot easier to face bad times with optimism and to continue to do the hard work necessary to advance.



Joy is an essential ingredient in sports. When young athletes know there will be happy moments in their shooting they will continue to do the hard work necessary to succeed.

POSITIVE SELF-TALK. The best athletes are positive about how they see and describe themselves. In a very real sense, **we are what we say we are**. Coaches must intervene when young athletes react to adversity with negative self-talk, “I can’t do this,” or “I’m never going to be that good.” Coaches should encourage positive affirmations like:

- *I will remain cool and calm no matter what happens (SELF-CONTROL).*
- *I will never stop trying to do my best (DETERMINATION).*
- *I can solve this problem if I continue to work on it (PERSISTENCE).*
- *I like to shoot in bad weather because it's an extra challenge.*
- *I'm not afraid to be nervous in competitions because I know I can stay focused and still shoot like I do in training.*

The comments 21-year-old Lucas Kozeniesky made after he won the 2016 USA Olympic Men’s Air Rifle trial are instructive: *“I stayed positive and kept everything simple – I didn't overthink anything, and I let the training I've been doing over the last couple of months just take over, I gave myself a lot of straight self-talk. 'Lucas, you need to be 100 percent here.'”*

EMOTIONAL CONTROL. One of the most destructive responses to bad shots or poor scores is acting out. Profanity, angry outbursts or throwing things should never be tolerated on the shooting range. More importantly, young athletes must be taught that controlling their emotions is the most constructive way to deal with frustrations and setbacks. Tell them their reactions after a bad shot should be no different than their reactions after a good shot. There is, of course, a time to celebrate good scores, but that should come after the last shot is fired and the gun is cleared.

RESILIENCE. The concept of resilience is not well understood in shooting, but it should be. Every athlete will have times when disaster strikes. Resilience is the ability to



There is a time to celebrate great scores—after the last shot is fired and the gun is cleared!

come back after a devastating match or experience. Resilience is believing in yourself so steadfastly that when disaster strikes you can say "*this is not me; I am better than this; I just need to evaluate what went wrong, correct my mistake(s) and work hard to come back from this.*"

The Role of Positive Analysis

Every athlete's mental game should be supported by a dedication to analyze each shot, each score and each day of shooting, whether in training or competition.

POST-SHOT ANALYSIS. After each shot, the athlete must call the shot and quickly note if it was performed correctly or if any adjustments are required. Then decide if the shot was on-call or off-call and a sight correction is required. If the shot was performed correctly, proceed to the next shot. If shot performance was not correct, decide what step in the shot plan must be emphasized to ensure correct performance on the next shot.

RESPONSIBILITY. It is a wrong to tell an athlete to forget a bad shot or score or to throw a bad target away. Bad shots and scores potentially teach very important lessons. The athlete's mental training must lead him/her to accept full responsibility for every bad shot or score and to try to analyze why this happened. When a reason is found, a position correction or point of emphasis in the shot plan can be used to prevent a recurrence.

SHOOTERS DIARY OR JOURNAL. Analysis is a fundamental mental performance skill that every serious shooting athlete should master. The most practical tool for doing this is to keep a diary or journal record of every shooting training and competition session. Making regular journal or diary entries teaches the athlete to think about their shooting performances. Journal entries should note things done right because that reinforces correct shooting performance. Journal entries should also note any problems or errors that need to be corrected through positive performance measures in the next shooting session.



The most elementary form of post-shot analysis and correction is to decide that the shot was off-call and to make the required sight adjustment.

There is nothing mystical about mental training for shooting. It should begin during a new shooter's first days on the range when athletes learn to think of shooting as "responsibility, marksmanship and sport." It continues when young athletes truly understand how marksmanship skills can only be developed through correct repetitions. Athletes must learn how mental processes enhance their performance of marksmanship fundamentals. Attitudinal concepts like joy, self-control, determination, persistence, emotional control and resilience become decisive when athletes must respond to adversity. A big pay-off comes when mental discipline in the form of analysis yields continuing improvements in scores and rankings. **How a shooting athlete thinks is indeed an indispensable part of how a shooting athlete shoots.**