

Choking Cures

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“Intensity training can help inoculate athletes from choking.”

The previous installment of this series discussed research into the nature of performance breakdowns, commonly known as choking. [Beilock, 2001] The research also explored possible methods to reduce or eliminate this effect.

The previous installment described choking this way: *In simple terms, the athlete does not trust their process, training, or even their own self. The athlete attempts to “take control” of the performance to monitor, manage, and “check” the process at key points. This slows the process and destroys the timing and rhythm of the performance. It actually introduces many opportunities for additional errors that would otherwise not have occurred. The resultant outcome is at a much lower level than it would have been if the athlete had just allowed the action to unfold on its own.*

Additional interesting information was referenced in the study:

- *Heightened anxiety and/or arousal levels induce self-focused attention, as do concern with external outcome pressure.*
- *Increments in arousal prompt individuals to turn their attention inward on themselves and current task performance in an attempt to seek out an explanation for their aroused state*
- *Pressure caused choking when participants had not adapted to performing in self-awareness-heightened environments*
- *Decrements in performance could be alleviated through the use of a distractor (in this case, counting backward from 100) during real-time performance*
- *Attending to the distractor during on-line performance under pressure prevented participants from focusing attention inward on skill execution processes, thus alleviating the possibility of choking*
- *The notion that performance pressure induces self-focused attention, which in turn may lead to decrements in skill execution, is now a reasonably well-supported concept for proceduralized skills*

It is interesting to note that, in one study, the use of a distractor during the performance did not disrupt the task performance, but did distract from, and thus reduce or eliminate, placing attention on the process of executing the performance. In some cases, this technique in competition may be a useful adjunct to “attentional control” or “self-conscious” training.

In the research, it was found that training without pressure did not help athletes learn to perform well in competition. Training with or without distractions didn't help either. Athletes who trained under “attentional control” or “self-conscious” conditions did not suffer from choking and in some cases performed even better than their norm in competition. This is a key finding and provides insight for practical application of the research results.

The vast majority of shooting training is done without pressure of any kind. Indeed, athletes will often let themselves “off the hook” in training when things don't go as planned. Based on the results of the research, and on observations of the very best athletes in our sport, it is important to have a good portion of the training planned to cause “outcome pressure” or “self-

conscious” feelings within the athlete. At first, the athlete is very uncomfortable and results may actually become worse than average... groups may open up, scores may drop, and so on. This is typical whenever a change is made to the shooting technique or to the training routine. The athlete (and coaches!) must be disciplined enough to realize that improvement will come through proper training, which sometimes involves, or even requires, a temporary reduction in score. This improvement will not happen merely by just practicing the same old easy way and attempting to “preserve” a certain score level.

Training in the face of outcome based pressure allows the athlete to learn to transfer their focus from executing the task in a self-conscious manner to instead focus on their approach to the shooting and allowing the performance to unfold on its own. Having athletes train while being self-conscious, whether in front of spectators or under a coach’s critical eye, often provides a similar benefit. The goal is for the athlete to learn to “just shoot” when they are in a situation that normally causes them to attempt to control the process instead of just allowing it to run on its own.

There are a number of training strategies that can be used to help athletes learn to perform in competition. Some techniques will cause considerable stress while other techniques may cause little or no stress, depending upon the individual athlete. The idea is to use techniques that cause the athlete to go out of their normal “safe” routine and feel stress, just as in competition. Listed here are a few examples. Each is designed to make the athlete self-conscious and/or make them feel outcome pressure. Having a prize (e.g. others sweep brass for the winner) adds to the outcome pressure. There are any number of variations and other kinds of training activities to achieve the same goals. I would love to hear your ideas!

Coach Scrutiny

Video Tape – Video tape a training session with the athlete’s knowledge that the coaches, and possibly an out of town coach, will study the tape. The out of town coach may be no different than the local coach... just the fact that he or she is far away makes them seem like an “expert”, thus raising the athlete’s self-consciousness or anxiety.

Electronic Trainer – In addition to their many uses as a “window” inside an athlete’s performance of the technical shot process elements, electronic trainers are also useful as a different form of “video camera” to record a training session for later review by local and/or out of town coaches.

Close Observation – Close, direct scrutiny of the athlete is an excellent way for the coach to discern areas for improvement and also raises the athlete’s self-consciousness. Stand 2 or 3 feet away (or closer) to the side of the athlete and watch, really watch, what happens with the trigger finger. Do the same from behind and watch the athlete’s approach, hold, and delivery.

Time Pressure Training

Lift and Shoot – Require the athlete to either deliver a quality shot, or reject the shot, after 10 seconds. Progressively work this down to 8 and then 6 seconds. Either the shot is delivered or the shot is rejected when the time expires. With appropriate shooting techniques (to be discussed in future articles), the times can, and should, be brought down to 4 and 2 seconds.

Stress Match – With all equipment packed, announce the beginning of the ten minute preparation period for a 40 shot air rifle training match. For pistol, this might be a one or two minute preparation period. It is interesting to watch the different approaches athletes take, and to see how many forget to post targets on ranges without target carriers!

Quick Final – Run a final allowing only 15 or 20 seconds for the shot. Other times, allow only 10 seconds.

Multi-Shot Final – Run a final allowing 40 seconds per cycle. Require the athletes to shoot a shot, reload, and shoot a second shot in the 40 seconds. Do this for ten cycles. Other times, allow the full 75 seconds, but require three shots on each cycle.

Competitive Games

First to Five Tens – A very popular game, often causing adrenaline rushes, this has a number of useful variations. In all cases, it is a “race” to see who can count to 5 first. Athletes start shooting and count their shots that score a 10. The count is made out loud so that others can hear it... and feel the pressure of being behind. The winners have their targets scored (no easy grading!!) and if they don’t have 5 shots scoring 10, they are at the bottom of the results! One variation, when time is limited, is to have all shooters racing together. The game ends when three people have reached 5. With athletes of varying skill level, some are allowed to count shots scoring 9 or even 8 for beginners. The game is often used as a single elimination tournament. Athletes are paired by similar skill level and shoot off against each other to advance to the next round. First round winners are paired and so on until two athletes remain to shoot for the gold.

Five and Oh – This game keeps the pressure on for a long time... several hours if two athletes are evenly matched and highly competitive! Other times, a time limit is set. Athletes are paired. After shooting one shot, whoever won that shot (had the higher score) gets a point and leads 1-0. After the second shot, if the same person won the shot, the score is 2-0. Otherwise, if the other person in the pair won the shot, the score is deducted from the leader and the score returns to 0-0. The game is won when an athlete can win 5 shots in a row (for a score of 5-0) against their opponent.

Three Minutes for Score – Fire ten record shots in 3 minutes for score. This is yet another training technique to help athletes find and manage that fine line between rushing and moving along rapidly. This game is often used to set the seeding for First to Five Tens tournaments.

Shooting Golf – Score is kept just as in regular golf... low score wins. Each “hole” has variations. One hole may be for three tens in a row. Each shot counts as a stroke... 3 being par. If it takes more than 4 shots to get the three tens, the stroke count is 5 and the hole is over. Another hole may be to shoot a ten. After 3 shots without getting the ten, the stroke count is set to 5 for that hole. Any number of variations, at any number of difficulty levels, may be imagined and designed to match the athlete’s level of skill.

Training Competitions

Finals – When an athlete makes a final at a competition, they should already be very familiar with how they are conducted and be experienced with shooting finals. Running finals as a normal part of training creates this familiarity. When we began running PTO competitions at the Olympic Shooting Complex in Atlanta after the 1996 Olympics, we invited all competitors to shoot finals as a training and familiarization aid. (Only the top qualification scores have the final scores added to determine ranking.) In the interest of time (and to spare new shooters any embarrassment) only scores of 10.0 and higher are announced. With the closing of the complex, the competitions have moved to Fort Benning where we still have everyone shoot the finals.

King of the Hill or Guts – A popular old game, the guts match is a final where the athlete with the lowest score on each shot, is eliminated until only two remain for the last shot.

The desire to stay in the competition provides outcome pressure. All eliminated athletes attempt to distract the remaining shooters with noise and friendly teasing. (No touching, no covering the eyes, no getting ahead of the shooter... safety first.) While the added element of noise and distraction does not itself help with choke proofing, it does aid in developing skills related to focus and awareness.

Outcome Training

All Tens – Appropriately applied, this can be a very powerful training aid that helps an athlete bring a higher level of determination to bear and learn how to channel that into appropriate ways of approaching their shooting. (Inappropriately applied, it can very easily demoralize and demotivate an athlete. As is always the case, coaches must responsibly and sensitively be aware of their athletes and their individual situations.) The game is deceptively simple... shoot all tens. One young athlete needed to bring more to her 3 position air rifle prone shooting. Assigned to “Shoot a hundred”, she hung a 12 bull target and prepared. With success in her grasp, she “let up” and dropped the last shot for a total of 99. Congratulated on her work ethic and effort, she was told to do it again. Dropping a 9 on the first shot, she was told that the card had to be completed... another 99 resulted while the emotions started to heat up. Without asking, she posted 2 more targets and went back to work. Upset with herself and the situation, she allowed herself to “try harder” and take control of the process... with the expected dismal results. By the end of the 4th target, emotions were running high and frustration was intense! Calming herself, she posted yet two more targets and improved to her earlier form, though still missing the outcome goal of shooting a 100. Sensing exhaustion in the athlete, the coach called a halt to the drill, encouraged her for her effort and they discussed how the emotions had hurt the middle targets and commented on how she had calmed herself for the latter targets. Even though the outcome goal was not reached, much was learned! A few days later, after some thought and “processing” of what she had learned, she self-imposed the same training drill and was able to start shooting clean prone targets.

Competitions – There is no substitute for shooting in competition. Also sometimes know as the “Lones Wigger Mental Management Plan”, he described it something like this: “Shoot in every darned match that you can.” Regardless of skill level and experience, competition provides an opportunity to test what has been learned and trained.

It is important to remember the need to vary the training mix and invent other techniques. The usefulness depends on the athlete caring about the outcome.

These techniques are not a magic solution on their own. One still needs mental and emotional techniques to reach the top levels of this or any sport, such as were discussed two installments ago and will be again in future articles. These training ideas augment a broader training program incorporating physical, technical, mental, and emotional areas. At the elite levels, working with a knowledgeable coach and sports psychologist will enhance the athlete’s progress.

Most shooting training is too “easy” on the athlete. Certainly, it must be that way as skills are learned or problems solved. At some point, however, the athlete needs to take what they have learned, incorporated into their shooting, and ultimately test it in competition. This won’t happen by itself. Doing “hard” training prepares the athlete. Jamie Beyerle and Dan Jordan have both repeatedly said that most training sessions are “not hard enough” if the goal is to perform at the

top levels of your sport in competition. These two athletes (and a few others) have a very high level of knowledge and an unusually strong work ethic. They voluntarily put themselves into “hard” training situations. It shows!

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Reference:

[Beilock, 2001] "On the Fragility of Skilled Performance: What Governs Choking Under Pressure?"; Sian L. Beilock, Ph.D. student, Departments of Psychology and Kinesiology, and Thomas H. Carr, Ph.D., Department of Psychology, Michigan State University, East Lansing, Mich.; *Journal of Experimental Psychology - General*, Vol. 130, No. 4. (American Psychological Association, December, 2001)

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The “On The Firing Line” series is published by the national governing bodies for Olympic shooting in Japan and the USA, and has been adapted for archery as “On the Shooting Line” published by USA Archery. Olympic Coach Magazine, the National Association of Soccer Coaches, and others have referenced selected articles. The entire series is available online at www.pilkguns.com.

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Based in the Atlanta, Ga., area, JP O’Connor (jpoc@acm.org and <http://www.america.net/~jpoc/>) is involved in rifle and pistol target shooting as a competitor, is a former Assistant National Coach – USA Paralympics Shooting Team, is a Level 3 coach, serves on the National Coach Development Staff, and coaches the rifle and pistol teams at North Georgia College & State University. He enjoys working with a number of pistol and rifle athletes from around the country, ranging from beginners to the highly advanced, in clinics and one-on-one private coaching, all on a volunteer basis. He also works with musicians and athletes in a variety of sports.

(Biographical information as of October 2009)