MIND OVER MATTER?

Alistair Whittingham examines why some archers perform better than others

Why do some people perform better than others? The obvious answer (or at least the one athletes hope for) is superior talent and technical skill. But this does little to explain the successes of less talented athletes. Such achievements are often attributed to mental toughness or greater concentration, yet these explanations don't really cut it. So what is the reason? One theory is that less talented athletes see their movements as a whole and are subsequently able to perform them to the best of their ability. In contrast, individuals with superior technique who view their movements as separate actions will never perform as well. This theory helps explain some of the major issues facing recurve and compound archers; including debilitating technical problems such as punching with a release aid and poor clicker control for recurves. When attempting to rectify these issues it is important to remember it's not what you do but how you've learnt it that counts.

If the problem is with a target, bare boss shooting proves nothing

American Jack 'The Golden Bear' Nicklaus is commonly regarded as the best professional golfer of all time, accumulating 18 professional majors in his 25-year PGA tour career and a further eight in his six-year senior tour

As a coach I value good technical execution; however I realise that it is not the whole story. To support this claim I will refer to Neurophysiology and motor skill acquisition theories. Archery, (compound or recurve) is a closed skill. This means that as the skill is not manipulated between shots, there is very little cognitive (thinking) control over this skill. Subsequently, any level of cognitive control will be as destructive to the performance as thinking about walking is to an individual. Now for the next piece of terminology: archery is an open loop skill, meaning it is performed without reference to feedback. To clarify; the execution of the shot, (the point after set up), where aiming is done and a clicker or other stimuli (in the case of compound, an effect that happens without use of processed feedback; either somatic feelings or visual) is used to release the shot. Simply proven by the time taken for the stimuli to execute; it is too quick to have been influenced by feedback. Let me take a moment to develop this idea. Many archers believe they execute a shot because of aiming. With good execution however, this is not the case. The time taken in reaction to the clicker is too short to support the idea of aiming causing execution. The only way of explaining these times is that the archer is looking for a picture with respect to the sight and the target. They accept that this will occur and they do not use cognition to check that it will or has occurred. This is akin to the way one picks up an item from a table in front of them. You do not measure the distance, constantly checking where your hand is in reference to the object; you merely have an image in your head as to how picking up an item works. Accordingly, an archer need not aim but instead picture their desired outcome. This also explains why experts talk about being comfortable with sight movement in the target area, where novices are desperate to hold the sight rock steady.

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Good archery technique can be likened to throwing a ball; we look at the distance, prepare our muscles, draw on experience, and then execute. Once movement has begun there will be no alterations made to it: if the skill is not there or if things change we will fail. Although harsh sounding, it is actually a great ally to effective skill learning and execution. During learning and skill acquisition the individual must begin by trusting their skill. Although drill work is involved in making relevant parts of the skills easier, ultimately one must learn by performing the skill in an uninhibited way, analysing their performance after each shot.

I hope to have shown that skill failures occur when one divides the skill, focusing on elements of it rather than the skill as a whole. Every British archer is taught to break up their shot routine and tick off boxes upon completing each stage. This practice puts incredible stress on the skill, using up a tremendous amount of processing power available to the

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individual. Imagine having to describe your actions, from when you get up in the morning until you arrive at work as you perform them. As these actions are done automatically, by recounting them out loud you would become at best, ineffective and probably late. At worst, you would experience a total breakdown. So it is in trying to control the various aspects of shot execution and this breakdown is manifested in being unable to execute the shot at all, punching for compound archers and clicker problems for recurves.

To alleviate these worries all you have to do is concentrate on the skill as a whole and stop focussing on the aspect that most concerns you. "If only it were that simple!" I hear you say, but in essence it is. When suffering from these problems people take respite from punching when shooting blank boss, or close up with their eyes closed. Compound archers who claim they can not rest their thumbs on a trigger can do it comfortably when they have no arrow on the bow even while aiming. In each of these cases we have broken the cycle of panic and enforced cognitive control. Many people advocate long periods of bare boss shooting to regain the skill; yet just as many say this is pointless and proves nothing. This is fairly ambiguous, as both are right. If the problem is with a target, bare boss shooting proves nothing. It merely checks that the required skills are present and fully functioning. It takes only half a dozen arrows for the archer to rediscover the skill they believe has degraded or deserted them. This is vital and must be done until the archer understands this. This acceptance is the most important part of affecting a cure; failure is due to a lack of trust in the skill. The archer must realise that their recovery can be achieved by assuming the blame for their failure and reviving their trust in the skill. To cure this 'problem' many compound archers have changed to shooting back tension release aids. Although for some it works, it is not for the reasons they think. It is often easier for athletes to accept physical skill failures than it is for them to believe that they're failing due to a poor mental approach. An archer successfully shoots a back tension release aid, because they have removed their own cognitive control over shot execution. Ultimately they always had this ability and their actual technical skill has not improved.

So how does this relate to my earlier point of it being advantageous for archers to view the movement as a whole? Good teachers and practitioners refer to this by saying: "think of follow through" or "imagine the arrow landing in the middle." I have always liked pro golfer Jack Nicklaus's statement that upon standing over a ball he imagined it doing exactly what he wanted it to. The crucial thing to remember is to trust your skill; no matter what your level, let the movements happen, and you will achieve the execution you desire. Try to control a single aspect of this skill and it will fail. In order to achieve the desired outcome and continue to improve the archer must manage their desire to control. The skill that they have spent so much time perfecting must be trusted.

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Archery is termed a 'closed skill' as there is little cognitive (thinking) control involved