Dear Colleagues

**An Australian physician – I can’t see myself shoot**

**Problem:**   Australian shooters, including a physician, are unable to see themselves shoot. They are generally unaware when:

* the forward elbow is moving between shots (hence, change of the natural point of aim) [TR]
* tight fingers or white knuckles occur, which reveal that the forward arm muscles are tensed ( hence, group extends from top to bottom of the bullseye) [TR]
* the barrel is waving around the countryside during reloading (hence, forward bodyweight shared across both elbows, makes it difficult to shoot with forward arm muscles limp with arm bones solely utilised for dead still support) [TR]
* the forward elbow is balanced as far as 12cm out from the rifle (hence, arm muscles pull arm sideways while supporting it vertically, making it impossible to shoot with muscles of the forward arm completely limp, to rely upon bones for support) [TR]
* it is difficult when moving the natural point of aim sideways because a leg is pulled up (hence, must move one buttock, then the other to move the foresight sideways for even the slightest adjustment of natural point of aim; occurs as a result of the forward elbow moving during recoil) [TR]
* the second imagined stage of trigger release is too fast (hence, bodily tremors occur and the group widens to the width of the bullseye and even wider) [TR, F Class]
* the release of a pinched trigger results in both excellent and poor shots (hence, unaware that the thumb often absorbs recoil at the rear of the trigger guard) [F Class].

The shooter is completely unaware of these things happening. He/she should be, but when performing serious techniques, they are not noticed. Worse still, those watching the shoot are equally unaware. This occurs because most shooters have never been taught and so have little idea how each body movement can affect their group.

This article describes the experiences of an Australian physician who shoots. He stated that he is unaware when many muscle movements are occurring and damaging his groups. It also describes what the writer saw when asked to observe shooters, a TR and two F Class. He plotted their shots and afterward, let them know what they did not know they were doing. Each shooter knew immediately what had to be done to rectify what was happening. It is normal that the senses cannot make us aware of everything that happens while shooting.

**Techniques recommended in order to shoot:** both TR and F Class shooters should hold the pistol grip with the two large palm muscles and the muscle behind the index finger, using an even, light contact upon the grip (uniformly for each shot); the thumb is positioned lightly (anywhere) so that upon recoil, the grip is not held by it but slides under (hence, no bearing upon a thumbhole grip or grip around the rear of the tang); fingers 3-5 should lightly contact the grip and anchor the position of the hand in exactly the same place; shooters should not create cheek pressure against the butt, but use the thumb knuckle to exactly position the head at the same position, e.g. at cheekbone, canine tooth, lower jawbone.

The TR shooter: should position the forward arm vertically, with the elbow directly under rifle; the body has both legs straight (one anchors the barrel and the other moves the foot a cm or so to shift the natural point of aim sideways); the wrist is straight; the sling bears firmly against the forearm at a point back from the wrist (over the cuff); arm muscles are limp; forward body weight is balanced on the forward elbow; the natural point of aim is observed upon raising the rifle for each shot and adjusted; the  rear sight has the aperture set at the smallest hole which just allows ambient light intensity to enter the eye; the foresight is seen to be jet black and focused, whereas the aiming mark is slightly less-focussed; the trigger is first released quickly at the imagined first stage,  then slowly during the second stage, keeping the aiming mark exactly in the centre of the dead-still foresight, while the mind is occupied calculating progress of the second stage release; if a shot hits near the edge of the bullseye, the second stage of release is increased by 1-2 seconds; the group is centralized by moving ½ MOA for a shot near the bullseye or ¼ MOA if near the V-bull line.

The F Class shooter: should consider setting the butt so that recoil is not absorbed by the shoulder; the aiming mark is kept at exactly the same point on the scope element; the mind is occupied thinking of progress of the second stage release; if a shot is near the edge of the bullseye it can be centralized if the second stage of release is increased by 1-2 seconds; if a shot is near the edge of the bullseye, the group may also be centralized by moving ½ MOA; if near V-bull line, move ¼ MOA and if near the X-ring line, move 1/8 MOA.

**Observations:** Shooter 1, **The shooting style of the majority of TR shooters**– dead still flags, overcast light, 600m; forward elbow positioned 11-12 cm at side of rifle; forward arm muscles appeared tensed; weight of body was spread across both elbows; large movements of the body occurred when reloading with butt on the ground; rifle barrel waving around while disassembling and reassembling; body moving about elbow during each reload; leg pulled up and individual buttocks being moved in two steps to adjust natural point of aim sideways; produced a hollow group with inners at corners; score 45.1/50

Shooter 2, **F Class shooter with hand loosely held on pistol grip**– dead still flags, overcast light, 600m, butt not in contact with shoulder; trigger released very quickly, possibly with little control of the second stage of release; eye removed from scope too soon after shot released; hand resting on grip using only the two rear palm muscles; thumb at side of grip and appeared difficult to set exact tension of hand upon returning after each reload; produced a group with several shots in X-ring, with other shots at edge of bullseye ring; score 53.2/60

Shooter 3, **F Class shooter using pinched-trigger technique**– dead still flags, overcast light, 600m; trigger released by pinching between trigger finger and thumb behind trigger guard; butt in contact with shoulder; group with several shots within X-ring, but several were also around edge of bullseye ring and across into the inner ring; score 52.4/60. It appeared that this shooter was able to group within the X-ring, but shots also appeared across the bullseye and inner rings. It appeared that the absorption of recoil by the thumb may have resulted in wider shots.

**Conclusion**:  at club level there is a need for a shooter to be assisted by a coach who sits behind without discussion, who plots shots and notes the shooter’s muscular movements which affect the group. This can enable the shooter to later become aware and take precautions during subsequent shoots. Without this simple unspoken assistance, it has been shown that a club can grow, both in skills and members upon shooting techniques enhanced in this way.

Best regards

Geoff