

On the Firing Line (Forty-ninth in a series)

Statics & Dynamics – Part 2

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**“The Pieces are Static.
The Whole is Dynamic.”**

We continue now with our discussion of hold and stopping the gun. Understanding the dynamics, in addition to the statics, makes all the difference.

What Does NPA Really Mean?

An aspect of shooting that is constantly taught – for very good reason – yet is not often understood in sufficient depth by many coaches and athletes, is the ubiquitous concept of natural point of aim (NPA).

NPA is not about being on target! We are so concerned about being on target, and adjusting our position so that our NPA is on target, that we often miss the essence of NPA. Again, NPA is not about being on target.

NPA is about sensing where the gun wants to point when we are fully established in our position – without external reference to anything, including the target. One coach's mantra is: “Position, balance, NPA, optimize them together.” When the focus is on discerning “where the gun wants to point” the athlete can easily sense the actual NPA, make appropriate adjustments, and end up with the NPA corresponding exactly with... the target. Note that the athlete is focused on sensing what the gun wants to do and then adjusting, rather than imposing the athlete's will on pointing the gun at the target. This is a very important distinction in the required mindset of the athlete.

NPA is not about getting the gun on target – NPA is about truly sensing where the gun wants to point... and only then making adjustments until... the gun arrives on the target of its own accord.

With the appropriate mindset, an athlete can align their NPA with the target to an incredible degree of accuracy. Even the slightest misalignment results in muscle tensions, often undetected, that open up the hold. In air rifle, for example, a misalignment on the target of only 2 or 3 millimeters is more than enough to profoundly change the dynamics. Pistol shooters who apply NPA to this same degree report a dramatic decrease in their hold movement. This has a profound effect on their confidence and their performance.

What does all this discussion of NPA have to do with the topic of whether or not the gun “stops” moving? Everything! When the athlete is able to approach NPA this way they quickly learn to get exact alignment between NPA and the target. When this happens, they are stunned! “Coach, the gun stopped and it was right on target!”

One day at practice, a coach noticed that an athlete was struggling. Watching her front sight, he could see all sorts of movement and difficulties in shot release. They talked for a few moments and then he asked her another question “How well did you set up your position, balance, and NPA?” She looked up with a sheepish grin and said “Ummm... I could do better!?” Both laughed and the coach left her to her work while he worked with other athletes. A few

minutes later he came back to her firing point and watched her front sight... it came straight down from above the target, settled and almost immediately seemed to stop, and the shot went off at exactly that instant. Shot after shot she did this – 5 shots per bull on 4 consecutive bulls.

Upon going downrange and seeing only one shot hole per bull, she exclaimed “Oh my gosh! How did I miss the target that many times? There is no way!” The coach assured her that each was five shots, as he had watched carefully while she shot. Only after showing her that one of the targets had a hole that was a tiny bit bigger than a one shot hole did she believe what she had done.

How can a 13 year old girl do this? How can a middle aged coach, in street clothes, pick up an athlete’s rifle (with permission), establish a standing position, and a few seconds later hear from the athletes who are just behind and watching the coach’s front sight exclaim “The gun stopped! How do you do that?!” In both cases, the “secret” is nothing more than sensing where the gun wants to point – and allowing it to do so, instead of imposing the person’s will. Then adjust accordingly – and doing this to a degree far more than the usual perfunctory NPA checks. The vast majority of athletes do not sense and adjust NPA to the required degree.

Committing To The Shot Process

Many athletes arrive on their area of aim, “check” to see if their hold is “good enough” and then finally allow themselves to start on the next phases of their shot process. This is a very tentative technique.

When one first arrives on their area of aim, that is most likely the steadiest hold they will see. As they hold, there is a normal pattern of relative steadiness, then more movement, then steadiness, and so forth. Each time the steadier part of the hold occurs, it is less steady and of shorter duration than the previous steady state.

With that knowledge, many top shooters are already fully committed to the shot before arriving on the area of aim. They reserve the right to reject the shot, yet they are fully committed to the process. They are able to release the shot almost when they arrive on the area of aim, or on the very next steady state. All of this takes place in a very few seconds. Sensing and adjusting NPA to the fine degree discussed earlier facilitates this style of shooting. This is what the 13 year old did in the example above.

A Natural Progression

A rather interesting progression often takes place naturally (over time) as the athlete builds toward ultimate performance:

1) They notice that some moments are steadier than others... that is... there is an ebb and flow to the body and gun movement. (This is outer and inner position, balance, and NPA all starting to work together.)

2) Then, when they have really mastered NPA and treat “hold” as a noun, they notice that sometimes the gun seems to stop for a fraction of a second. (The deeper parts of the mind are at work and the active part of the mind is starting to be quiet for a change.)

3) Then they try to make the shot in that stop state... which usually results in a pulled shot. (The active part of the mind woke up, took “control” and the athlete jerked the trigger.)

4) Then they break the habit but catch themselves admiring the stopped sight picture, yet still not able to get the shot off. (Trying too hard for score or perfection... the kiss of death! Or, they are just incredulous that the gun can actually be that steady and “forget” to shoot.)

5) Later, they are able to "sense" that the gun is going to stop. This is fun! Eventually they trust this and are able to release the shot in the steady state. (This may sometimes involve somewhat active thinking at first and not the desired end state of full quiet mind... however, it is ok to walk before running!)

6) Finally the day comes where they realize that the gun went off seemingly "by itself" at exactly the instant that it stopped... and right on the center of the area of aim... and after only a very, very short time on aim. WOW! This is really fun! (The athlete will often describe it happening in front of them... almost as if they were a detached spectator.)

We must do things to facilitate this... we cannot force it.

We must allow it to happen... we cannot force it.

Trying to make it happen will cause a regression... sort of like chasing the cat. Chasing a cat is the hardest way to catch it. Sitting quietly on the floor is the easiest way. Tens are like cats that way.

Many people find it difficult to trust a style of shooting, such as was just described, where they do not take “control” of the process. Welcome to Applied Sports Psychology! Indeed, this or any style of shooting requires the dynamic combination of numerous physical, technical, mental, and emotional aspects of the game and the athlete.

The stage is now set to explore stillness in the hold, the topic of the next article, and finally answer the question “Does the gun stop moving from the athlete’s point of view?”

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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(Biographical information as of August 2014)