

When It Comes to Focus, What Do Elite Athletes Do Differently?

Description

It's been said that at the highest levels of competition, physical ability between athletes is relatively equal. That the difference in performance comes down to what is happening inside the athlete's mind.

For instance, Olympic gymnast and gold medalist Shannon Miller once said "In the Olympic games, everyone is talented. Everyone trains hard. Everyone does the work. What separates the gold medalists from the silver medalists is simply the mental game."

Baseball great Yogi Berra once famously said "Baseball is ninety percent mental and the other half is physical."

And there are indeed [studies](#) of international-level athletes which suggest that there is some truth to this.

But what does "mental game" actually mean? What does an elite performer do differently from sub-elite performers on the mental side of the equation?

Mind over matter

We all have an intuitive sense that the things we think about can affect how well (or poorly) we play. Whether it's worrying in advance about a difficult passage and psyching ourselves out before we even get to it, or being so concerned about a shaky bow that our left hand botches a shift, we've all had experiences where our misplaced focus got us into trouble.

Mental focus is thought to be an important factor in performing optimally, so a team of British researchers decided to compare the mental focus of an elite athlete with that of high-level, but slightly lesser-level competitors, to see what specific differences there might be.

The athletes chosen for this case study were 4 javelin throwers. One, was an elite thrower who consistently competed in World and Olympic finals. The other three were also international-level competitors, and represented their countries in competition on a regular basis, but were ranked between 35th and 80th in the world. Pretty darn good, but unlike the elite thrower, they weren't yet among the absolute top competitors in their sport.

Knees, shoulders, hip, and elbows...

The researchers were curious about the athletes' performance in competition of course, but also their performance in training, and whether their focus was the same or different when executing throws in either

situation.

So the participants were given an opportunity to complete 5 throws in a training session, which was compared with their performance in the most challenging competition they had that season. For the international-level javelinists (yes, that's really a word), that was their countries' national Olympic trials. For the elite thrower, it was the Olympic finals itself.

By definition, the Olympic finalist was throwing further than the others, so to better compare the performance of the athletes on a deeper level, the researchers videotaped every throw (practice and competition) with high-speed cameras, and analyzed the consistency of their throws in a few key areas. As it turns out, javelin throwing is a very technical skill, and there are certain body positions or joint angles that have to be timed to occur at just the right moments to maximize the distance of the throw. Specifically, the researchers looked at knee-hip, left knee-right hip-shoulder, and right hip-shoulder-elbow angles in the final moments of releasing the throw.

Consistency

As you would expect, the elite javelinist's (I swear, you'll [see this term used](#) on rare occasions) key movement variables (joint angles and such) were more consistent overall than the sub-elite athletes. And more importantly, their competition throws were even more consistent than their training throws.

Conversely, not only were the sub-elite javelinists' throws a lot more inconsistent in general, but for the most part, their performance was even worse (i.e. less stable) in competition than in training.

Hmm...so is this because the elite thrower is just better? Or might there be some differences in their mental focus as well?

Mental focus

Since the researchers were primarily curious about what goes on inside an athlete's mind during competition, each of the participants were interviewed after both their training session, and their competition, with questions like "What was your mental focus in competition?" or "What was your aim in this competition?"

Elite javelin thrower

As you can probably guess, there were some key differences between the elite athlete and the others.

Here are some direct quotes about the elite thrower's mental focus in training:

- "I work hard on keeping the whole action 'together'"
- "When [coach] makes a technical point, I work on it for a few throws, then try to slot it into the total movement."

- “Imagery plays a massive part in this, both at the track and away from training. It’s all about getting a really clear and consistent picture of the whole movement.”

And about mental focus in competition:

- “Rhythm...just rhythm. I have to hear the music.”

Sub-elite javelin throwers

And now some direct quotes from the sub-elite athletes about their mental focus in training:

- “Stay springy through the approach”
- “I just try to keep form, stay on the floor and get a good block.”

And in competition:

- “Throw hard, get a good ‘separation’”; “I have an emphasis on a ‘fast arm’ as my key point.”
- “In competition, I’m trying to execute what [coach] tells me to do.”
- “Just throw hard...get it away quickly and things stay respectable.”

What do you notice? Any differences?

If you compare the two sets of quotes, you get a sense that the sub-elite athletes tend to focus on one specific *part* of the throw – the approach, or block, or throw.

On the other hand, the elite thrower seems to be focused more on the *whole* of the movement, and even the rhythm of the movement itself. As in, making sure the movement isn’t rushed; that it’s smooth and every part works together as a unified whole.

Takeaways

Sure, this is just a case study, with only 4 athletes, but studies of elite athletes at this level are somewhat rare, and often, we can learn quite a bit from what they have figured out about performing consistently well. Based on this particular athlete, it seems that focusing on the big picture, the whole movement, and being attuned to the “rhythmicity” of a skill, is important for optimal performance and consistency. For instance, the rhythmical pattern of one’s footsteps, rather than the exact position of the javelin at the point of release.

While the elite thrower did have moments where they thought only of one part of the throw, the part was integrated back into the whole of the movement even in training, and clearly so in competition. The others seemed to fixate on one specific part of the throw both in training, and in competition as well. On one hand, it's important to note that this did often lead to greater consistency *in that one area*, but it came at the expense of the consistency and stability of the overall movement. This seems like another important nugget for the practice room.

Another interesting takeaway is the strategy of focusing on rhythm of the overall movement. The researchers suggest that this could be a helpful way to keep us from focusing too much on the mechanics or technical details of a skill, which could lead to [choking](#), or breakdown of the automaticity of the skill. Hence the popularity of such rhythm-based, holistic movement cues like "[bounce...hit](#)" in tennis, or "[tick...tock](#)" in golf.

How might you apply these takeaways to your own practicing and performing?

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