PERCEPTION ≠ REALITY

Consider these statements:

- "Thando is the best soccer player in our club because he scores the most goals."

- "Michelle is the best tennis player in our academy because she is ranked highest in the national rankings."

- "Sizwe is the fittest rugby player in his division and is never far from the action."

- "Ashleigh bowled poorly in the cricket finals and her figures for the game were disappointing."

- "Coach Lydia was a successful athlete so she will definitely be a great coach."

- "Coach Angus is a terrible coach because he doesn't motivate his athletes."

What do you think is the common thread across all the statements above? They are certainly positives, but they all only show one part of the full picture:

- Thando may score the most goals, but that may be because another player sets him up with the best assists.

- Michelle may be ranked highest but she is lazy and does not respond to coaching.

- Sizwe may run the 12km to rugby practice every day and be the fittest out of no choice of his own, but have a high injury profile and poor athletic control.

- Ashleigh may have bowled really well but not had the support in the field when opportunities were created or been on the receiving end of some exceptional batting.

- Coach Lydia may have the experience of being a good athlete, but may find it very difficult to teach others or build relationships.

- Motivating his athletes may be something that Coach Angus does not do because he believes in developing a culture where the athletes are self-motivated and driven, and not dependent on him for their performance.

If you take a more holistic view toward the analysis and measurement of performance, it is easy to see that there are many factors to consider when vetting the accuracy of conclusion. Is the perceived conclusion an accurate conclusion? Has all the information available been used to draw this conclusion?

You don't know what you don't know...

Ever heard that expression? It confused me when I first heard it, but then it fascinated me! So you know that you don't know how to cure hiccups or why moths are attracted to lights or if animals think consciously like we do. Those are things you know that you don't know. It is information that you know exists outside your own realm of knowledge.

But then there are things that you don't even know. Those are what we call blind spots, and blind spots are notorious. Imagine a problem you don't even know you had, yet having it hurts you, or your sporting performance.

Think about this example. A swimmer who worked tirelessly and endlessly for years to achieve their goal of qualifying for the Olympic team, had no idea that they were already swimming more than fast enough to achieve this and more until they underwent an in-depth performance analysis. This analysis highlighted the blind spot that was limiting the swimmer's performance: not the swimming speed but rather the turns performed during the race. He had no idea that his turns were below

Cover all bases to confirm assumptions...

Amy Bathgate: Biomechanical & Video Analyst

par, but rather believed they were his strength. On the flip side, he always believed his swimming speed was below par, and realistically it was his strength. As a result, he was able to better focus his attention on his weaknesses and improve his overall performance.

You see, the right coach and support team is able to identify your blind spots, and point them out to you, and with that awareness, you work together on a solution that makes sense for you. Without this insight, you remain ignorant about your blind spots, and thus could miss out on huge opportunities in your performance.

Science does not belong to scientists...

In elite sport today, being the most talented is no longer enough. Top athletes also have to ensure they are the better prepared. The technology used by performance analysts provides the opportunity to measure every force, dissect every movement and time every action with absolute precision. Despite this, not everything that is measurable should be measured. And not all information that can be collected should be collected. Careful assessment of the data and what is essentially important prevents "paralysis by analysis" which occurs when abundant information is confusing or overwhelming. This is the true skill behind the science – deciding what is important and what feedback is valuable. Good feedback allows coaches and athletes to find areas for improvement and aids the learning of new skills, and the mastery of basic skills.

With that being said, despite the responsibility of filtering through the data to provide valuable feedback being firmly on the shoulders of the performance analyst, the drive for this data should start with the coaches and athletes. Getting a performance analyst excited about new data is easy. Collecting data and finding new ways to improve sporting performance is what they do and essentially what they are passionate about. But the real key to the system is getting the coach and athlete to ask questions and use the analysis provided constructively to aid the performance pathway. It takes time to break through this mindset and build the type of relationship whereby a performance analyst can be an invaluable piece in the puzzle that is the coaching support staff instead of just an interesting provider of ad hoc information. Coaches need to want the data, use the data, draw conclusions from the data and make certain decisions based on the data. They then need to provide valuable and understandable feedback to their athletes, from which they too can learn and improve. This feedback is the preparation that trumps talent in most cases.

If the data starts with the analyst, and ends with the analyst it is a waste of time. If data is interesting to a coach but not used constructively in any way to influence decisions, then why bother? Providing answers to questions which the coach has already answered and moved on from helps nobody. And lastly, if the data is provided to all the intended parties, but not understood, we again have a dead-end. Data collected is only valuable if it is used and used well.

The goal of good science is to assist athletes to gain a competitive edge, correct faults and maximize their strengths and skills!