Why some players can't visualise and how do we as coaches support them.

What is visualisation and why is it important?

Visualisation in sports or mental imagery is a way of conditioning your brain for and mentally rehearse your performance, the more it becomes trained in your mind the higher the chance of a successful outcome.

Think of visualisation in sports as a pregame walk-through. Many teams conduct rehearsals or walk-throughs the day before a big game to fortify their game strategy and become familiar with what to expect during game situations.

When athletes visualise or imagine success, it stimulates the same brain regions as you do when you physically perform that action.

There is a neurological reason that some people visualise better than others, if visualisation is not your strength, don't despair! As someone with this condition known as aphantasia, I am going to help you with ways you can support yourself or your athletes and help enhance their ability to visualise.

The reason some people can't visualise.

As the results of a study conducted by Cathy Cassata(1) that revealed that there's a reason some people can visualise better than others. Dr Adam Zeman(2), a cognitive neurologist, and his team of researchers at the University of Exeter in England investigated why an estimated 1–3% of people lack the ability to visualise. In 2015 Zeman termed this inability "aphantasia(3)".

He found that people with aphantasia, a condition characterised by the inability to voluntarily visualise mental images, may struggle with visualisation tasks.

He wrote "There are big invisible differences between us in the ability to visualise, and these are linked to differences in the ways our brain work,"

People with aphantasia often describe their experience as being unable to "see" images in their mind's eye, even though they may have normal vision. People with aphantasia may struggle with tasks that require them to visualise images, such as creating a mental map. Despite these challenges, people with aphantasia can still succeed in fields that require visualisation.

Here is a simple test to establish whether you have aphantasia. Close your eyes and think of an apple. Imagine its round shape, the red colour, the smooth shiny skin. Can you see the apple? Or if you are like me and many others it is impossible to see the apple, I see nothing but black? While some people can picture the apple more vividly.

If you or your athletes have aphantasia here are some tips that may be of assistance to ensure you and your athletes are able to perform at their best.

What impact does aphantasia have on athletes?

There are 3 main areas where athletes with aphantasia may be affected.

Performance Challenges: Athletes often rely on mental imagery for skill rehearsal, strategy development, and pre-competition visualisation. Being unable to visualise what is required can hinder the athletes processes, making it challenging for them to mentally rehearse their actions or visualise what the successful outcomes looks like.

Motivation and Goal Setting: As many athletes draw motivation from visualising their goals. For those of us with aphantasia, setting and pursuing visualised goals can be very challenging, this may have an effect on their long-term commitment and ambition in sports.

Anxiety and Stress Management: Mental imagery is also essential for stress management and anxiety reduction. Many athletes with aphantasia struggle to employ visualisation techniques to alleviate pre-competition nerves or anxiety, as coaches we all know the impact that this may have on an individual's performance.

What are the challenges faced by a sports coach with aphantasia in terms of visualisation?

Coaches like myself with aphantasia may encounter various challenges in terms of visualisation, which can significantly impact our coaching methodologies and the overall effectiveness of our training programs.

Some key challenges faced by coaches with aphantasia in terms of visualisation include:

Limited Tactical Planning: Aphantasia can hinder a coach's ability to mentally simulate and plan drills, complex game strategies and tactics. The inability to visualise player movements and anticipate various game scenarios may limit the coach's ability to devise comprehensive and dynamic game plans, potentially impacting the team's competitive performance.

Difficulty in Conveying Visual Concepts: Coaches with aphantasia may face challenges in effectively communicating visual concepts and strategies to their athletes. Being unable to visualise intricate game plans and technical instructions has the potential for misinterpretations and a lack of clarity among team members. This often leads to having to change drills in session as "it doesn't look like what I wanted to achieve".

Impaired Player Assessment: Aphantasia can impede your capacity to mentally visualise and analyse athletes' performances and technique. This limitation may hinder the coach's ability to provide accurate and detailed feedback in game, I often need to review footage before being able to provide effective feedback to players.

Reduced Use of Visualisation Techniques: Coaches with aphantasia will often encounter difficulties in implementing visualisation-based coaching used to enhance athlete performance and mental resilience. Being unable to visualise successful outcomes and guide athletes through mental rehearsal exercises limits the coach's ability to instil a strong mental approach and confidence in their athletes.

Communication Barriers: Being unable to convey visual concepts and instructions to athletes in a clear and concise manner can sometimes cause issues and may lead to a breakdown in communication, this can potentially affect the team's overall understanding of strategic game plans and training objectives.

Understanding these coaching challenges is crucial in developing our coaching strategies and fostering effective communication methods to support each other as coaches.

Once I was aware of this condition and my potential limitations, I was able to implement alternative coaching techniques, such as verbal and tactile coaching methods, to ensure effective communication and the successful implementation of training programs for athletes.

Advantages and disadvantages of aphantasia for a coach

Certainly, coaches with aphantasia encounter both advantages and disadvantages in our coaching endeavours. Understanding these can help coaches leverage our strengths while

effectively addressing our limitations. Here are some key advantages and disadvantages of aphantasia for a coach:

Advantages:

Emphasis on Alternative Coaching Methods: To compensate for our inability to visualise many coaches with aphantasia will develop and emphasise alternative coaching techniques, such as verbal communication and tactile demonstrations. This approach creates a deeper focus on verbal instructions and hands-on guidance, this style helps to promote a more immersive and interactive training environment for my athletes.

Enhanced Focus on Non-Visual Aspects: Prioritising of non-visual coaching aspects, such as auditory cues and kinaesthetic feedback, this approach helps to create a more holistic coaching approach. By emphasising these sensory inputs, we cultivate a comprehensive understanding of athletes' needs which helps to facilitate a more personalised coaching experience.

Disadvantages:

Limitations in Conveying Visual Concepts: This limitation may impede our capacity to provide athletes with a comprehensive visual representations and detailed tactical instructions, this can often lead to potential challenges in skill implementation and execution.

Impact on Coach-Athlete Relationship: Our ability to create coach-athlete relationship can sometimes be harder, due to our ability to provide athletes with personalised and visualised feedback. This limitation could potentially hinder the establishment of a strong rapport and mutual understanding between the us and our athletes.

Recognising these advantages and disadvantages can help to guide us in adopting tailored coaching strategies and communication methods that empathise our strengths while being able to minimise the challenges posed by our condition.

Being able to recognise and acknowledge these factors, helps us to cultivate a supportive and adaptive coaching environment that encourages effective athlete development and performance enhancement.

I recently reached out to former Wallabies Mental Skills coach Dave Diggle and asked for his thoughts and advice on athletes with aphantasia.

"Dave what about athletes that cannot visualise.

Do you have any suggestions / practices for those athletes.

Would love to hear your thoughts.

Great question, as in my experience learning to visualise effectively can take some practice and time, most people initially don't see the necessary clarity in the visualisation process or struggle to conceptualise.

So, if there is a lack of clarity or an impatience, I will use 3 strategies.

1) Mental imagery - so accessing a memory of a past experience

2) get the athlete to draw the skill in as much detail as their drawing ability will allow them, and

3) articulation, having them explain it to me in as much detail as possible, then asking them to imagine that.

it is more common than most people think, there are of course degrees of Aphantasia, and because of this "some" people with mild Aphantasia have "some" ability to create partial or limited mental imagery. The 2 strategies we discussed previously would be the starting point to create the mental blueprints required for replicability. I would also suggest increasing the emotional association to these by increasing the frequency of your "Recognition and Reward" process."

Practical Strategies for Coaches:

To support athletes with aphantasia, we can implement the following strategies:

Verbal and Kinaesthetic Instruction: Emphasise verbal and kinaesthetic cues during training to replace the reliance on mental imagery. Use descriptive language and physical demonstrations to convey techniques and strategies.

External Visualisation Tools: Provide athletes with visible aids such as videos, diagrams, or physical markers to help them understand and remember plays and strategies.

Repetition and Muscle Memory: Focus on repetition and muscle memory during drills to develop skills that do not rely on mental imagery.

Game Situation Simulations: Create realistic game scenarios during practice to help athletes with aphantasia adapt to competitive environments and make decisions based on their kinaesthetic awareness.

Mindfulness and Stress Management: Introduce mindfulness and stress management techniques to help athletes with aphantasia stay focused and reduce anxiety during competitions.

Individualised Coaching: Recognise that athletes with aphantasia may require some one-on-one coaching so be able to adapt training plans accordingly.

Goal Setting Techniques: For athletes who struggle with visualised goal setting, promote alternative methods, such as written or verbal goal setting. These techniques can help athletes clarify their objectives and stay motivated.

As experienced coaches many of these strategies will already be part of our normal coaching practices so making any minor changes to what you do now should not be very difficult, but the outcomes for all your athletes will be noticeable.

Despite all of this remember that athletes with aphantasia can still memorise and recall information.

Researchers, such as Dame Gill Morgan(4) from England, believe the lack of mental images may enhance the ability to memorise, as memorisation is necessary for recalling information. Athletes with aphantasia need to see pictures more frequently to implant the knowledge for future recall. They are typically visual learners and auditory or material that is just read to them is less likely to be absorbed as they cannot make a connection as easily.

As coaches we may never know which athletes truly lack the ability to visualise. Because as we know most of our athletes want to appear like their peers, they may never let on that they can't see images in their mind.

Bearing in mind that aphantasia has only been recognised since 2015, many of your athletes may not even be aware of the condition, so as coaches we may not be able to identify these athletes.

If coaches want to reach every type of learner, they should provide supports without singling out any player or labelling any condition. By implementing different methods of providing information and skill development such as pictures, videos, and other visual images coaches can provide support for all their athletes.

Conclusion:

Aphantasia is a cognitive condition and although it is a relatively new condition it is more common than you may think, and it can impact athletes' performance, training, and mental preparation.

Coaching athletes with aphantasia requires an understanding of the challenges they face and a commitment to adapting training methods to cater to their unique needs.

As coaches we play a vital role in recognising and supporting all our athletes, so by emphasising verbal, kinaesthetic, and external visualisation strategies, we are helping all our athletes thrive and reach their full potential.

By being able to adapt training approaches, promoting alternative goal-setting techniques, and integrating non-visual mental skills training can help athletes with aphantasia overcome challenges and excel and ultimately reaching their full potential.

This inclusive approach to coaching not only supports the development of individual athletes but also promotes inclusivity and diversity within our teams.

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