



Maximizing Multi-Disciplinary Team Impact in High-Performance Sport: Exploring Problem Solving, Decision-Making, Expertise, & Team Performance.

Part 4: Individual Ability or Diverse Repertoires?

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Overview

This paper discusses the concepts of ability and talent, and when it is useful to have talented individuals versus a diverse team. It explores how individuals' cognitive repertoires and heuristics can impact problem-solving and decision-making, and how cognitive diversity within a team can be advantageous in solving complex problems. We also examine the challenges in deploying cognitively diverse teams and problem-solving approaches in high-performance sport environments.

Ability and Talent

What does it mean to have ability or talent? When is it useful to have talented individual practitioners over a diverse team? There are clear situations when individual ability trumps diversity (Page 2017; West & Dellana 2009) and this is likely when there is a specific job requiring specific skills to deliver it.

Individual repertoire

Individuals contain specific abilities also known as a cognitive repertoire. Information, knowledge, tools –

also called heuristics, perspectives, and mental models make up an individual's repertoire and this can be applied in situations and across contexts (Page 2017). If the requirement is to simply get an athlete to develop strength, then a diverse team is not required. In simple terms you would need an individual with the correct tools and knowledge to deliver the task or function. Having several individuals with the same or similar abilities and tools (homogeneity) will not enhance the process of getting the athlete stronger because it is likely that there will be minimal differentiation in the approach to executing the task however, you could have a homogenous group of practitioners (perhaps an S&C team in an Institute or professional club) and there will be some minimal differentiation between team members. Their tools and knowledge might be similar because they have shared mental models, learned through similar educational and professional paths and yet their experiences might be quite different giving them different perspectives. Consider the S&C Coaches working across Track and Field, Swimming and Rugby, they will



fundamentally have similar tools and knowledge and yet their perspectives will be quite distinct based on their experiences. Going back to our example of getting the athlete stronger, the perspectives might be different based on their applied contexts, but the ability to execute the task is the same or similar.

Individual Heuristics

If perspectives are how individual practitioners make sense of the world and perceive it from their vantage point, heuristics are specific tools, rules of thumb and evolved bundles of expertise that enable us to interact with it (Page 2014). Heuristics are cognitive shortcuts and 'rules of thumb' that enable us to deliver skills and execute tasks without overloading our computational capacity (Lyle & Muir 2020). Heuristics make complex multifaceted real-world scenarios and situations simple and without them, we simply wouldn't be able to interact with our surroundings. Heuristics are however susceptible to systematic thinking errors and cognitive biases (Kahneman 2011) that can reduce accuracy, skew perceptions and because heuristics are usually environmentally, contextually and ecologically shaped, they do not always work in different situations or provide the right solution (Gigerenzer 1991; 2008).

If we consider for example the anchoring heuristic (Epley & Gilovich 2006) through the lens of two different S&C Coaches. Our first has no real strength training experience (personal or applied), has worked with team sports athletes where they spend

most of their time monitoring running speeds and training volumes whilst delivering warmups and cooldowns whereas the other was personally an Olympic Weightlifter, has coached weightlifters and works in a Pro Rugby environment; what might 'strong' look like to each of them? Is it possible that our first coach anchors towards a different value of 'strength' than our second? Does this kick up some interesting considerations when we consider differences in individuals with similar repertoires from homogenous groups? How can we differentiate between two individuals with similar knowledge and tools when they have very different perspectives and mental models and how can we ensure we have the best individuals with the most talent? When we have tame simple problems, we need the best and most talented individual, but how do we establish this?

Collective cognitive repertoire

MDTs are made up by a heterogeneous group of individuals. Each members information, knowledge, tools, perspectives and heuristics create cognitive diversity or a collective cognitive repertoire (Page 2017). When working with VUCA problems it is acknowledged that diverse teams create more and better solutions, come up with solutions faster, are more creative and innovative in their approach and can evaluate quicker (Horwitz & Horwitz 2007). We can see that if deployed properly, this could be highly advantageous to true performance problem solving. The challenge is whether cognitively diverse teams are ever really deployed to VUCA high performance problem solving or, are they simply tasked with



skilled doing, delivering individual tools and perspectives within their own discipline through process orientated work.

In high performance sport, training is delivered through methods and means by a process. There is usually a clear structure to how the team operates, and this is dictated mainly through the plan-do-review cycle which is supported by ongoing and deliberate meetings of support staff and coaches. By its definition this is skilled doing because once practitioners have learned the process and understood their function within the team, there is very little need to problem solve. Simply doing will suffice and might even create safety for practitioners in what are highly competitive results orientated environments.

It is only when there is a break from the normal routines where practitioners might be challenged to think and act differently. In situations out of 'tolerance' when the routine is not recognisable, not predictable, challenging or ambiguous that deploying a problem-solving approach is required. Even then, how do we 'catch' that the situation needs a different set of solutions? Do we deploy processes within our normal operations that enable teams to 'think' and be creative before doing? To problem solve teams need time to collectively think and then to purposefully do. How do we orchestrate a process to enable this to happen? Do we give practitioners the time, space and voice to develop and generate lots of ideas (divergent thinking) before focusing in on what are

perceived to be the most viable solutions (convergent thinking) and then purposefully do? This approach to problem solving can give teams a very clear structure to enable more creativity but it requires deliberate management of a process having identified clear problems which, is a process within itself.

Summary:

The paper discusses the concepts of ability and talent and when it is beneficial to have talented individuals versus a diverse team. It delves into how cognitive repertoires and heuristics of individuals can impact problem-solving and decision-making, and how cognitive diversity within a team can be advantageous in solving complex problems. Additionally, the text examines the challenges in deploying cognitively diverse teams and problem-solving approaches in high-performance sport environments.

Conclusion:

In conclusion, the paper highlights the importance of cognitive diversity in teams when it comes to solving complex problems. While it may be tempting to focus solely on individual talent and ability, having a team composed of individuals with diverse cognitive repertoires and heuristics can lead to more effective problem-solving and decision-making. However, deploying cognitively diverse teams and problem-solving approaches in high-performance sport environments can pose challenges that require careful consideration. By recognizing and



addressing these challenges, sports teams can build teams that maximize the potential of each individual while also leveraging the power of cognitive diversity.

About Blended Intelligence

Blended Intelligence is not just a consultancy service, it's a game-changer for high-performance sports organizations. By leveraging the power of diverse teams and innovative technology, Blended Intelligence enables collaborative problem-solving and delivers tailored solutions to complex performance challenges. With a focus on shared intelligence and a commitment to maximizing competitive advantage, Blended Intelligence is helping teams think differently and achieve brilliant outcomes.

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