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Exploring Metacognition The Key to Exceptional Leadership

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Metacognition, the ability to monitor and control one's own thinking processes, plays a pivotal role in effective leadership. In Hindu mythology, Lord Krishna's guidance to Arjuna on the battlefield of Kurukshetra serves as a profound example of leadership, decision-making, and metacognition. This tale highlights the importance of self-awareness and reflective thinking. The Bhagavad Gita is a sacred text within Hinduism that is part of the Indian epic War of Mahabharata. In this text, there is a famous conversation between Lord Krishna and Arjuna, a skilled warrior facing a moral and emotional crisis on the battlefield. As a result of the conversation, Arjuna undergoes a process of metacognition. He reflects deeply on his thoughts, emotions, values, and the consequences of his actions.

Lord Krishna helped Arjuna to understand his own mind and provided him with a deeper perspective on duty, justice, karma (Gupta, 2006). Arjuna's metacognitive journey is a central theme in the Bhagavad Gita, as he developed enhanced skills of self-reflection, self-awareness, and situational awareness. This story highlights the importance of metacognition in self-discovery and personal growth. It demonstrates how deep introspection and self-awareness can lead to a clearer understanding of one's own thoughts and emotions, ultimately guiding individuals towards making more informed and morally sound decisions. These qualities hold significance not only for leaders within the British Army but also in shaping personal life decisions. By fostering metacognition, we can elevate the performance of leaders, enabling them to make clearer and more substantial contributions to personal growth and organisational success.

Metacognition helps individuals gain a better understanding of how they make decisions. Bastian and Zucchella (2022) conducted research about metacognition based on John H. Flavell's

work on cognitive development. They refer to metacognition as one's ability to think about and have knowledge about their own cognitive processes.

Leadership research often emphasizes cognitive behaviours as a crucial component of effective leadership. Although not always explicitly studied in the context of leadership, metacognition can also have a significant impact on leadership effectiveness. In fact, while leadership literature may not always use the term "metacognition," many leadership skills and behaviours are linked to metacognitive processes. Metacognition involves a heightened level of self-awareness and situational awareness, which enables individuals to operate within their own skill boundaries, pinpoint areas where assistance is needed, maintain composure during challenging situations, handle their tasks efficiently, and exhibit effective leadership (Flavell, n.d.). Effective leaders often have a high level of self-awareness. They understand their strengths, weaknesses, biases, and limitations. This self-awareness is a form of metacognition as it involves reflecting on one's own cognitive strengths and weaknesses, cognitive processes and complexity of decisions making.

According to Eichbaum (2014), improving metacognition benefits from gaining a deep understanding of emotional intelligence. Metacognition focuses on thinking and solving problems, while emotional intelligence deals with emotions and how we interact with people. Emotional intelligence involves recognizing, understanding, and managing emotions in oneself and in others, including skills in relationships and emotional control. However, there is a meaningful connection between the two. People who excel in metacognition tend to handle their emotions well, which strengthens their emotional intelligence and enhances their overall thinking skills.

Another important quality of effective leaders is that they are continuous learners. They need to adapt to changing environments and new information related directly or indirectly to the task. Metacognition plays a role in assessing what knowledge and skills are needed and how to acquire and to apply them effectively. Metacognition empowers leaders to create various mental frameworks on their own and utilise them to effectively adapt to a dynamic change in tasks (Haynie & Shepherd, 2009). Mattingly et al. (2016) say that higher degrees of metacognition empower individuals to skilfully navigate uncertainty by close examination of their cognition alongside their dynamic situation awareness. This heightened self-reflection enables them to adapt and to adjust their strategies in the face of ambiguity, ultimately enhancing their responsiveness to uncertain situations. Through metacognition, individuals can embrace uncertainty as an opportunity for growth, problem-solving, and subordinate development.

A further crucial aspect of effective leadership decision-making involves understanding and addressing cognitive biases. Cognitive biases occur when human brain tries to simplify information processing, leading to errors in perception. Cognitive biases can affect our thoughts and actions leading irrational thinking and poor decision-making (Kahneman, 2011). As per Kahneman, there are many different types of cognitive biases, including:

- Confirmation bias: The tendency to seek or favour information that confirms our beliefs.
- Availability heuristic: The human brain's tendency to rely on readily available information to make decisions. Information that is easily accessible in one's mind due to past experiences and memories can often act as a cognitive bias, limiting individuals from engaging in deeper thinking and considering alternative options.
- Anchoring bias: It occurs when our mind is using the first piece of information encountered when analysing situations and making decisions. This information may arrive from any source such as individuals, news, local allies etc.

These biases can affect how we perceive the world, interpret information, and make choices, often leading to suboptimal or irrational decisions. Leaders with higher degree of metacognition can overcome their cognitive biases because of their deeper self and situational awareness. According to Bastian and Zucchella (2022), metacognition acts as a break to the automatic, intuitive, and irrational decision making. Individuals with highly developed metacognition skills

are mentally better equipped to avoid automatic decision making tendencies and counteract them with rational thinking based on the acquired and learnt knowledge and on their experience of previous similar events. These leaders can actively slow down their thoughts and engage in the analytical process, leading to critical analysis of all available information and – crucially – of their own way of thinking about the issue or task.

Having gained insight into metacognition and its advantages within leadership, the next crucial inquiry revolves around the methods for cultivating metacognitive abilities in military officers and soldiers. According to the most recent research findings (Rivas, Saiz and Ossa, 2022), there are several approaches to improve the metacognitive abilities of both individuals and groups. The implementation of a meta-knowledge questioning strategy is one important way to strengthened metacognition. Individuals pose profound inquiries regarding a given task and think carefully about all the aspects and stages involved, challenging themselves not to simply repeat past thought processes. This questioning method facilitates active contemplation on all accessible information, accumulated knowledge, and prior experiences, ultimately assisting in arriving at the optimal decision for task completion. This is pertinent for military leaders because the process of meta-knowledge questioning bears resemblance to the military's established approach known as the "Combat Estimate 7 Questions" technique. The 7 questions technique serves as a tool for commanders to assess military scenarios comprehensively, enhancing their grasp of the mission, available resources, timing, concurrent activities, support from allied forces, and constraints. By addressing these seven questions, a wealth of information is generated, facilitating the identification of optimal courses of action from which the commander can make selections. A leader possessing well-honed metacognitive abilities can employ the Combat Estimate method to engage in critical analysis of a task or problem, question their own presuppositions, and carefully contemplate the potential outcomes of their decisions.

The Think Aloud Technique is another strategy proposed by Hayes and Flower (1986) to help individuals to understand their thoughts and achieve higher metacognitive skills. It involves individuals verbalising their thoughts while solving problems or performing tasks, offering insights into their cognitive processes. Individual or group "thinking aloud" techniques offer the opportunity for the active exchange of ideas, the sharing of thoughts, providing active feedback on decisions, facilitating dynamic shifts and improving situational awareness. This method has found extensive use in education and psychology, enhancing learning and revealing metacognitive processes. Research like Pressley and Afflerbach (1995) underscores its effectiveness in improving comprehension, problem-solving, and strategic thinking.

Riva et al. (2022) also suggested self-reflection as another method to enhance metacognition, when leaders take the time to reflect on their recent decisions and on the thought processes that led to them trying to understand what pushed them in certain directions and what could be improved in the future. Additionally, one can foster reflective dialogues through senior-initiated feedback sessions for junior members, enabling them to gain insights into both the strengths and weaknesses of their task performance. This concept aligns closely with the mentoring process, which has also been explored to bolster leadership abilities among Army officers and soldiers.

According to Boban Simonovic and colleagues in their 2023 study, promoting the development of strong cognitive argumentation skills, could be essential for enhancing cognitive abilities. Consequently, a central strategy in critical thinking interventions should focus on helping individuals cultivate the cognitive tools required for intentional problem-solving. This involves providing them with critical thinking abilities, including metacognitive argumentation and logical skills, which empower them to avoid cognitive biases and heuristic thinking, ultimately leading to rational and sensible conclusions. From the viewpoint of the British military, it is crucial to educate our personnel in a manner that enhances their capacity to engage in reasoned debates, backed by data and statistics. Fostering the skill to respond with thoughtful inquiries will cultivate more proficient future leaders, as they will possess greater knowledge and expertise in scrutinizing facts for improved decision-making. This educational process must

commences during phase 1 training and must persist throughout phases 2 and 3, ensuring their ongoing growth and advancement.

Conclusion

Leaders who understand their own cognitive biases and thought patterns can make more informed decisions and adapt to changing circumstances. By acknowledging their limitations and seeking continuous self-improvement, leaders can foster a culture of learning and innovation within their teams. Current research underscores the significance of metacognition development in nurturing potential leaders. This synergy between metacognition and leadership ultimately results in improved individual and collective performance, guiding organizations toward success. Within the British Army, several existing techniques, such as the 7 Questions approach, already contribute to enhancing the metacognitive development of individuals. Additionally, there are mentoring programs within the Ministry of Defence that can be further refined to specifically target metacognition as an additional benefit for mentees. However, there remain some unexplored avenues, notably the cultivation of metacognitive argumentation among military personnel.

Encouraging cognitive debates within the Armed Forces can foster greater cognitive resilience and enhance the operational effectiveness of the British Army. Of course, it is worth noting that there might be operational constraints that hinder the establishment of an argumentative culture within the forces, but this is beyond the scope of this discussion.

Questions:

1. To what degree do commanders allow the opportunity to have open discussions across their teams? When and how can this be achieved?
2. What methods can commanders employ to promote deeper contemplation of thought processes among junior officers and soldiers?
3. How can the Army as an organisation foster an environment that encourages and challenges the leaders' cognitive thought processes?

Resources

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