Developing Strategic Thinking

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Abstract

Why is strategic thinking so difficult to cultivate within organisations? It is a general observation that organisations rely on either the emergence of strategic thinkers within the organisations or poaching proven strategic thinkers from other successful organisations. Public organisations, like the military, are often restricted in their potential pool of strategic thinkers. Would it not make more sense to grow a strategic thinking capability as one would build an offensive or defensive capability? That is the inputs and outputs of a strategic thinking capability are predictable and robust over time.

This paper hopes to further our understanding of strategic thinking and strategic thinkers through original research and modelling. It will explore the contemporary understanding of strategic thinking from both a business and military point of view. It will then describe the significant characteristics of a strategic thinker that are measurable and developable. Finally, it will propose a capability development model for strategic thinking.
Introduction

'We tend to use strategy as a general term for a plan, a concept, a course of action, or a “vision”…Such casual use of the term to describe nothing more than “what we would like to do next” is inappropriate and belies the complexity of true strategy and strategic thinking'. (Prof Douglas Lovelace Jr., Director of the US Strategic Studies Institute)

Reflecting on Lovelace’s quote we see that the scope of strategy is wide and covers a number of practical and academic fields. This has led to a concern that the use of the term is so varied as to be almost valueless. Notwithstanding this diffusion of the term, or perhaps because of it, strategy attracts significant attention both within business and government organisations. A simple online search revealed over 4.8 million articles containing the word strategy. Since 2015, 17,500 articles with strategy in the title, have been created.

Strategy is popular. But is it important? In a recent text, Prof Lovelace Jr also stated that ‘[n]o subject is more essential in the preparation of national security professionals and military leaders than the teaching of strategy’. While it is an understandable obsession within the security industry, strategy is also fundamental to the success and sustainability of any organisation.

The importance of strategy would be difficult to understate.

Equally, strategic thinking is often cited as being one of the most important abilities to foster within organisations. For instance, a recent report commissioned by the United Kingdom’s House of Commons titled ‘Who does UK National Strategy?’ stated that ‘Strategic thinking is a valued skill in the Civil Service. It is one of the six core requirements in the Senior Civil Service competency framework’. This view is not new. Zabriskie and Huellmantel (1991) stated that ‘[s]trategic thinking is required to secure the long-term future of nations and organisations’. However, despite the touted importance of both strategy and strategic thinking, the majority of CEOs cited the ‘lack of strategic thinking as the main problem in their organisations’. In fact, the UK Chief of Defence Staff, Sir Jock Stirrup, proclaimed that the UK had ‘lost an institutionalised capacity for, and culture of, strategic thought’.

Closer to home several operational reports from the Middle Eastern deployments demonstrated that the Australian Defence Force also lacked
strategic thinking. For example, an operational report from 2012 stated that ‘...the Australian Defence Force (ADF) needs to identify and develop Commanders that think at the strategic (macro) level in order to design and implement effective campaign plans’.\(^{10}\) — while another in 2011 said ‘...there is plenty of room to improve education of military planners and...personnel to think in terms of effects’.\(^{11}\)

It should be unsurprising then that there appears to be an inherent desire by organisations to foster strategic thinking. As the Chief of Defence Force Fellow in 2015, I was asked to research how we should develop strategic thinkers in the ADF. The intent of this paper is to provide a number of relevant insights derived from that research and my research into computational strategic thinking models. The paper will consider what strategic thinking is, who strategic thinkers are, how strategic thinking can be measured and, importantly, how it could be developed as a robust organisational capability.

**Strategic Thinking is a means-ends way of thinking that seeks to create future value**

As a derivative of the universal term strategy, strategic thinking is also poorly understood. It is common for researchers to disagree on what strategic thinking is.\(^{12}\) Strategic thinking has, it appears, turned into a synonym for almost all of the concepts with strategic as their first word.\(^{13}\) It is these muddied waters that have created considerable debate and confusion in strategic thinking.\(^{14}\)

Thus, at the start of my research, I found myself in a position where there was a recognised idea that was broadly considered to be extremely important, yet there was no agreement on definition. While there are a small number of conceptual descriptions of strategic thinking, none actually measure strategic thinking using quantitative metrics or cognitive logic.\(^{15}\) Finally, a review conducted in 2015 failed to reveal any existing methods to develop strategic thinking as a capability. The review did reveal—what I hope is intuitive to the reader—that strategic planning is not strategic thinking.

Unfortunately, strategic planning is often used as a synonym for strategic thinking.\(^{16}\) It is actually the very utility of the word strategy and its many offspring that seem to create this confusion. The use of the terms ‘strategic
art’ and ‘strategic management’ are two classic examples that serve to illustrate that one of the basic paradigms still widely accepted is analogising ‘strategic thinking’ with ‘thinking about strategy’. This is despite the highly-acclaimed and widely-accepted work of Henry Mintzberg, expounded in 1994, that strategic thinking could be distinguished from strategic planning, with Mintzberg arguing that ‘strategic planning does not mean strategic thinking so much as formalized thinking about strategy—rationalized, decomposed, articulated’.18

This is not to say that strategic planning is outmoded or has no place in contemporary usage; rather, it should never be confused with strategic thinking. Ingrid Bonn is in good company when she describes strategic planning as ‘a process that takes place after strategic thinking’.19 Strategic thinking is not strategic planning, even if it is comprehensive and long-term.

So, if strategic thinking is not strategic planning, what then is strategic thinking? In order to understand the epistemology of the term strategic thinking, a historical review was conducted. What was immediately clear was that the confusion over the meaning of strategy thinking has prevailed for decades. Due to the apparent lack of consensus across other research, a different approach to a simple literature review was required to answer this question. Using over 120 key texts, predominately from the business and military fields, the key concepts of strategic thinking were identified and reviewed using a cluster analysis method. From this review, we could see that strategic thinking is a means-ends way of thinking that is future-oriented and seeks to create value or an advantage for the system.20 While this definition departs slightly from a Defence- or national security-centric paradigm the definition allows us to recognise that there is a process (means-ends way of thinking) and an outcome (future value). Both the process and the outcome become important when we explore strategic thinkers and developing a strategic thinking capability.
What makes a strategic thinker?

With strategic thinking defined, it became equally critical to understand the characteristics of the strategic thinking actors, strategic thinkers. Again, due to the many opinions about strategic thinkers, it was decided that the best way to understand the characteristics of a strategic thinker was through a comprehensive literature review and cluster analysis. Detailed descriptions of the characteristics of a strategic thinker were discovered in 55 sources and 18 characteristics were identified and mapped using a cluster analysis (Figure 1).

The cluster analysis revealed that, despite the use of differing terms, there appears to be a broad consensus on three significant characteristics of a strategic thinker: visionary thinking, creative thinking and system thinking. A fourth characteristic, holistic intuition, was chosen as it appeared to be the glue that connected these characteristics together. Thus, theoretically at least, we should be able to describe strategic thinkers in the terms of the following four cognitive characteristics.

**Visionary thinking.** Genuine vision is a sense of direction that provides the focus for all activities within the organisation. It even goes beyond this as a deep understanding of an organisation’s reason for existence is able to
provide a sense of common identity. Visionaries though are people with a sense of direction. Visionaries look far and wide while planners often focus on the short-term problems.\textsuperscript{23} For strategic thinking to create future value it needs to be intent-focused—it should convey a sense of direction, discovery and destiny.\textsuperscript{24} Strategic thinking is fundamentally concerned with, and driven by, the shaping and re-shaping of intent, often referred to as thinking in time.\textsuperscript{25}

**Creative Thinking.** Creativity has attracted broad attention acquiring a complexity that ‘poses major problems for measurement’.\textsuperscript{26} The field itself suffers from the most basic problems, ‘such as lack of definition and limited educational applications’.\textsuperscript{27} This in turns has led to a situation where most measures and methods used to assess the creative processes, products and persons are found to be wanting.\textsuperscript{28} Yet even the most basic assessments of creativity emphasise the ‘production of novelty as the crucial aspect’\textsuperscript{29} when simple novelty on its own is not enough: ‘a product must also be relevant and effective’.\textsuperscript{30} Creative thinking (that leads to future value) produces ideas that are novel and useful in competitive environments. War, as Storr said ‘is evolutionary, and that allows original and novel thought. That is the gateway to creativity for the practitioner’.\textsuperscript{31}

That said, at this point, the distinction needs to be made between innovation and creativity. There is clearly a relation between the two as this definition of creativity demonstrates: ‘creativity is defined as the ability to innovate and move beyond what is already known’.\textsuperscript{32} Innovation though appears to be greater as it has two phases: invention (or creativity) and exploitation.\textsuperscript{33} Creativity in this case sits within the invention process and includes processes such as idea generation, idea evaluation and opportunity recognition. Exploitation meanwhile embodies the concepts of developing and commercialising. Moos et al defined innovativeness as the “ability of a firm to continuously generate and implement innovations”.\textsuperscript{34} Whilst seemingly a circular argument it is clear that innovation requires creativity however creativity is not the whole of innovation.

**System Thinking.** The use of system thinking is not limited to any single domain. It is commonly associated with the field of systems engineering and most often used within strategic planning rather than strategic thinking. The use of systems theory within strategic planning is logical step due to its analytical nature. The use of systems theory within strategic thinking is
based on the association of holistic thinking. Originally it was considered that a system could best be understood through an understanding of the parts—bottom-up approach. System thinking however has evolved to understand that the system can only be understood through the dynamics of the whole.\textsuperscript{35}

System thinking involves a number of steps. It first requires the consideration of the boundaries of the problem or ‘framing the problem’. Note that there is no such thing as a closed system, thus forcing the thinker to consider the wider implications of their decisions. Following definition of the boundaries a system thinker must think in terms of the interaction of components, the inter-relationships of the processes within the system, and the interconnections between systems across time.\textsuperscript{36}

**Intuition.** Perhaps indicative of the elusiveness of strategic thinking, intuition, like the other characteristics, appears to lack a comprehensive, overarching framework.\textsuperscript{37} Most conceptualisations of intuition (the process) though include: non-conscious information processing; holistic associations often stemming from simple cognitive heuristics linked to environmental stimuli; affect associations linked with ‘gut-feeling’; and speed.\textsuperscript{38} A working definition of intuition that appears to fit the strategic thinking framework is ‘a non-sequential information processing mode, which comprises both cognitive and affective elements and results in direct knowing without any use of conscious reasoning’.\textsuperscript{39} Interestingly, there are at least three types of intuition.\textsuperscript{40}

1. Holistic intuition is where judgements are based on qualitatively non-analytical process made by integrating multiple, diverse informational cues into a whole that may or may not be explicit.

2. Inferential intuition refers to judgements based on automated analysis. Inferences and decisions that were once analytical have been automated with practice. This type of intuition is often characterised as expert judgement.

3. Affective intuition where judgements are based primarily on emotional reactions to decision situations regardless of any explicit or rational support. This type of intuition is readily associated with ‘gut-feel’.

Strategic thinkers can be described through these four cognitive characteristics or domains—however, which is more important? That would be a difficult question to address and here I can only provide my
thoughts. By sheer volume of references, one would be inclined to select system thinking as the primary characteristic. This makes absolute sense as strategy utilises the full organisational system to interact with the external environmental system. The ability to understand not just the linkages but also the effects of change over time is crucial to good strategy. Yet this would also apply to strategic planners and we have already established that the two are not the same. System thinking is not the differentiating characteristic—visionary thinking is. A strategic planner develops the plan to bridge or solve the problem. Strategic thinkers find, or even create, the problem so as to achieve a long-term advantage. System thinking provides understanding—creative thinking provides novel solutions—intuition allows for rapid understanding and decisions—however it is visionary thinking that provides direction and purpose.

Can strategic thinking be developed?

Judging from the number of self-help books gracing airport lounges, developing strategic thinking certainly appears to be the Holy Grail within most organisations. Yet it is the inability to quantify the capacity for strategic thinking that reduces them to mere bookends. For, without measures, how can one know that strategic thinking has been either developed or improved? An understanding of the cognitive characteristics of strategic thinkers allows the structured development of strategic thinkers to be considered. This is, of course, based on the presumption that these characteristics can be quantified. Fortunately, the four cognitive characteristics of a strategic thinker appear to be measurable.

Using the four cognitive characteristics (visionary thinking, intuition, creative thinking, and system thinking) as a guide, one could leverage and synthesise other established and successful trait-specific assessments into a single assessment. Unfortunately, it became readily apparent that there has been little work in assigning metrics to strategic thinking abilities. While there were several relativistic models, these appeared to be quite subjective and context-specific. Two of the characteristics though (creativity and intuition) are well studied with a range of applicable metrics that could be used.

Visionary thinking however proved to be quite problematic as most tests were simple judgement-based binary assessments of a vision statement. This resulted in the development of an original assessment for visionary
thinking based on the original review of strategic thinker characteristics. Similarly, the search for generic systems thinking assessment proved minimal. In the end, while a simple test based on Cardenas et al\textsuperscript{43} was used, this area appears to offer options for deeper research.

![Diagram of strategic thinking domains](image)

The ability to measure strategic thinking is an important step—however, there exists a requirement to change the strategic thinking capacity (ie develop it in individuals or organisations). A comprehensive review indicated that each of these characteristics can be developed individually.\textsuperscript{44} For instance, the creative process is generally understood, while system thinking courses are prevalent within most postgraduate programmes. Separately, a number of researchers surmise that strategic thinking is strongly influenced by external events.\textsuperscript{45} The domain map in Figure 2 illustrates the typical understanding of how strategic thinking can be indirectly influenced or predicted. For example, we can see that cognitive ability (general intelligence), experience and personality can be a predictor or influencer of strategic thinking. Note the inclusion of gender is, at this point, speculation. Speculation is based on the two reasons: there is no evidence supporting the null hypothesis; and evidence of gender differences in several of the characteristics is inconclusive.\textsuperscript{46}
Can strategic thinking be described as a capability?

As difficult as it is to develop individual strategic thinkers, creating a robust organisational capability that continually produces future value—a strategic thinking capability—is far harder. Strategic thinking is often dissected at the individual cognitive level with very few researchers exploring organisational strategic thinking. Given the recent paradigm shift in the Defence capability life cycle following the First Principles Review, looking at strategic thinking through a capability lens would be useful.47 What follows is a brief description of how strategic thinking could be described as a capability and how it could be developed.

![Diagram showing the relationship between enablers and why for strategic thinking capability]

Defence views capability as the capacity or ability to provide an operational effect.48 More simply a capability is the ability to do something. In this case, capability is defined as ‘the capacity to be or do or affect something’.49 For strategic thinking to be a capability it must have the capacity to be or do or affect something. The definition for strategic thinking was previously established as a means-end way of thinking that is future-oriented and seeks to create value or an advantage for the system. The product, the effect in this case, is future value. How then do we quantify future value?

The very concept of future value appears to be intangible and nigh impossible to measure in the present. Historical analysis will allow us to understand the effects of a decision or a way of thinking provided the
effect has already occurred. Future value then creates enormous problems for those used to developing hard, quantifiable capabilities such as weapon systems or major platforms. These traditional hard capabilities are common throughout the modernisation programs and are relatively easy to understand. Soft capabilities though are defined by their intangibility and reliance on people. Strategic thinking capability is a soft capability that can still be created and described through fundamental inputs to capability.50

Through an understanding of soft capability and the inherent key characteristics of strategic thinking we can hypothesize a developmental model for strategic thinking. In this case, we use the Thinking Capability Analysis Technique (TCAT).51 TCAT extends the Function Analysis System Technique (FAST) in System Engineering. FAST has demonstrated a great deal of success as a decision-aiding tool to map-out functional interdependency for Requirements Engineering. TCAT replaces the ‘how’ question in FAST with ‘enablers’, it extends the notations to include ‘responsibility’ or the ‘whom’ question to establish a line of accountability simultaneously, and increases the flexibility of the representation to cover multiple scopes. While still in draft form, a proposed TCAT for strategic thinking capability is represented in Figure 3.

When read from right to left, we articulate why we are conducting certain actions. For instance, command and management is developed in order to support a capacity for strategic thinking. In this case command and management would seek to ensure both that personnel are enabled through the appropriate guidance and also that personnel have supporting policy that allows strategic thinking to be effective. When read from left to right we understand how certain effects are enabled—future value is derived through the development of both emergent and deliberate strategy which, in turn, is enabled by the capacity for strategic thinking. While simplistic, this diagram allows for a systematic understanding of how to build the capability through enabling components and why the capability is designed with specific structures.
Conclusion

Strategy appears to be a loaded term. It has acquired a universality beyond the military that has diluted the original Greek meaning. Yet, despite this apparent confusion, it is commonly agreed that the need for strategic thinking continues to be high both within the private and public sectors. The need is driven both by the organisation’s requirement for strategy and the apparent lack of ‘depth’ in organisational strategic thinking. This situation is compounded by the lack of consensus amongst experts on what strategic thinking is and what defines a strategic thinker. This paper provided a definition of strategic thinking, derived from contemporary business and military texts, which acknowledges that it is a way of thinking that creates future value.

The cognitive characteristics that define a strategic thinker as the agent of strategic thinking, are system thinking, creative thinking, visionary thinking and intuition. While system thinking allows the understanding of the effect of change over time—a crucial element of successful strategy—it is visionary thinking that provides the direction and purpose to strategy. Each of these characteristics is not only measurable but also able to be developed. Understanding that strategic thinkers can be developed is an important step in building a robust strategic thinking capability within an organisation.

Strategic thinking is a capability that is difficult to describe in the traditional ‘hard’ capability paradigm. Strategic thinking is best described using a ‘soft’ capability framework that acknowledges both the intangibility of the capability and the centrality of people as the capability ‘agent’. Using the TCAT it is possible to model the development of strategic thinking as an organisational capability. This model allows for a systematic understanding of how to build the capability through enabling components, and why the capability is designed with specific structures. Strategic thinking is definable, measurable and able to be developed as a robust, enduring capability.
About the Author:

Major Leon Young was the 2015 Chief of Defence Force Fellow and currently works in the Army Research Centre. He has deployed on operations, been part of joint, coalition and international operational planning headquarters and provided input and advice on strategic policy. He has taught post-graduate courses on strategy, capability and future studies and is an international speaker on futures and strategic thinking development. He is a Fellow of the World Future Society, Committee Member of the Australian Society of Operations Research and a full member of the Association of Professional Futurists. Leon holds a Bachelor of Science, Master of Science in Operations Research and is completing his PhD in computational strategic thinking models. He was awarded the Leo Mahoney Bursary in 2016 for his contribution to national security research. His professional interests include quantifying risk through scenario development, futures education and strategic decision making.

Endnotes


21. Young, L.D., 2016, *Developing strategic thinking as a soft capability within the Australian Defence Force*, Centre for Defence and Strategic Studies, Canberra, Australia (accepted for publication)


