

The Conservative Colonel: how being creative killed your career in the ADF

Lieutenant Colonel Leon D. Young, Australian Army

Chair's note: this article will inform the Strategic Leadership Development Program of the Defence and Strategic Studies Course conducted by the Centre for Defence and Strategic Studies at the Australian Defence College.

We assert that creativity is the most important requirement for command.¹

Introduction

Creative thinking is critical to the development of good strategy. It is also an 'essential trait of successful managers' and, as quoted above, an important requirement for command.² Despite its perceived organisational importance, creative thinking appears to be a burden to career progression within the ADF. In fact, to promote to an O6 level (colonel equivalent), it appears that one must be—or at least seem to be—below average in creative thinking.

The title of the article is a playful challenge to institutional perceptions of creativity and its impact on a career in the military. As provocative as this statement sounds, it is based on empirical evidence garnered from the current generation of officers in the ADF. This article reviews

the results of a recent study exploring why this dramatic drop in creativity at the O6 level could be a problem for the ADF. It includes a number of proposals to mitigate or reduce the impact of a loss of creative thinking.

Background

In 2016, as part of a larger study into the development of strategic thinking in large organisations, the author measured the creative thinking capacity of the ADF.³ The rationale was that creative thinking is a critical cognitive characteristic of strategic thinking. The study involved participants from the ADF, members of foreign military services and Australian public servants.

All the participants were sourced from either the Australian Defence Force Academy or the three Service headquarters. Their ranks ranged from officer cadets and midshipmen through to O7 level (brigadier equivalents). The sample of 612



completed responses was large enough to give confidence in the statistical validity of the results.

‘Creativity’ has numerous definitions but could reasonably be explained as a ‘complex phenomenon involving the operation of multiple influences as we move from initial generation of an idea to delivery of an innovative new product’.⁴ Creative thinking has often been strongly correlated with divergent thinking.⁵ However, there is a strong argument that creative thinking involves much more than just divergent thinking.⁶

Divergent thinking appears to be the thinking style that elicits new or original ideas, yet it is convergent thinking that ensures these ideas are assessed as valuable to the problem at hand.⁷ So, for the purpose of this article, ‘creative thinking’ is defined as the ability to produce ideas that are novel and useful in competitive environments.⁸ The obvious next step would be to determine how creative thinking can be measured.

As a thinking process, creativity has three distinct and testable elements: (1) divergent thinking (novelty), (2) convergent thinking (evaluation) and (3) analogical thinking (communication of the idea).⁹ The last element is simple enough to test, as the assessment can be based on a communicated product rather than, for instance, measuring brain activity.

Divergent thinking is often characterised by fluency (the ability to generate many solutions), flexibility (the ability to explore in many directions) and originality (the ability to generate unexpected solutions). Convergent thinking emphasises the requirement to assess the value of the idea against the problem at hand.¹⁰ In this case, ‘quality’ can be used to represent the ability to consider feasibility, value and appropriateness of the solution.

The instrument used for assessing creative thinking in this study was based on these four criteria. Three of these are divergent thinking (fluency, flexibility and originality) while the last (quality) involves convergent thinking.¹¹ Table 1, modified from research on divergent thinking testing in the field of design, was considered the most appropriate assessment tool for divergent and convergent thinking.

Table 1: Creative thinking assessment framework, describing the four main criteria of creative thinking¹²

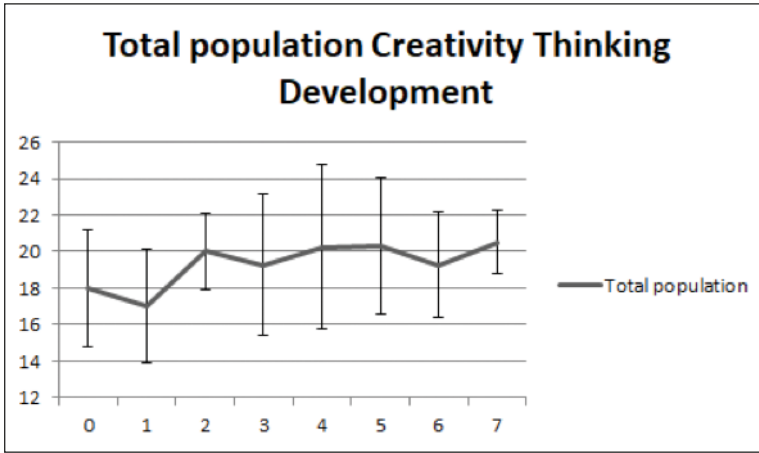
Sub-skill	Definition	Metric
Fluency	Ability to generate many solutions consistently	Quantity of ideas generated
Flexibility	Ability to explore design space in many directions	Variety of ideas generated
Originality	Ability to generate unexpected solutions	Originality of ideas generated
Quality	Ability to consider feasibility, value and appropriateness	Closeness of fit with goals, technical and economic feasibility, and potential value

Results of the study

The results provided a strong baseline of the level of creativity across the ADF. As this was a cross-sectional survey (rather than longitudinal), it displayed the relative differences in creative thinking across ranks and Services for a specific point in time. The trend across the individual Services show a similar drop in creative thinking. However, when taken as a whole, the results are less obvious. For this reason, this article focuses on the Army participants as a general representative of the broader population.

Figure 1 illustrates the change in creativity across the whole sample. The total population included non-officers (considered as rank 0) and participants from all categories. The most significant observation is that creative thinking experiences a sharp increase from officers in training (rank 1) but quickly plateaus. The value at rank O2 is relatively insignificant due to the low sample size compared to the population size.

Figure 1: Development of creative thinking across the total population (with standard deviation represented by error bars)



The second observation is that the variance (as illustrated by standard deviation) demonstrates a continual decrease from rank O4 through to rank O7. The concern is that this reinforces the stereotype of a process-driven bureaucracy, due to the minimal increase in average creative thinking and the reduction in variance. While they can be efficient, process-driven bureaucracies are generally less agile in dynamic environments.

non-commissioned officers, public servants and foreign military officers). The ADF officer results excluded O2 due to low sample size. While there was representation at rank 7, it was relatively small. The graph shows an increase in creative thinking from cadet (O1) to O4 before it plateaus. Interestingly, there is a small dip in creative thinking at O6 across the ADF. The variance also decreases from O3 to O6, which appears to indicate that officers on the extremes are either being 'normalised' or are leaving the service

Figure 2 illustrates the change of creativity within the ADF officer sample (that is, excluding

Figure 2: Development of creative thinking across the ADF officer population (with standard deviation represented by error bars)

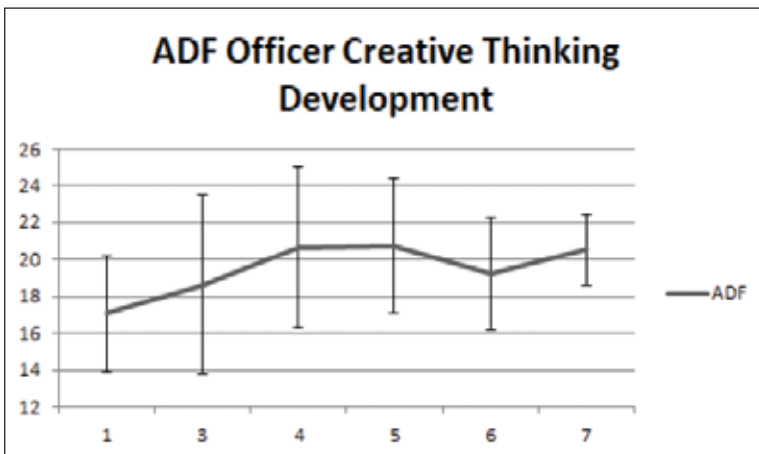


Figure 3: Development of creative thinking across the Army officer population (with standard deviation represented by error bars)

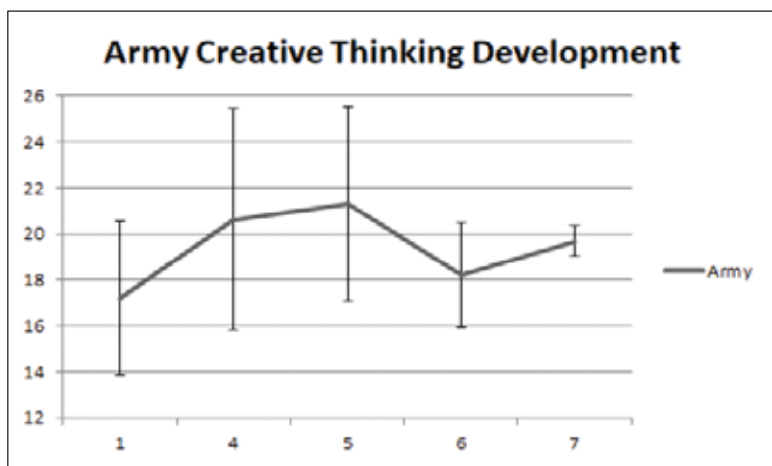


Figure 3 illustrates the results from the Australian Army population and provides a graphic illustration of ‘the conservative colonel’. There is a clear increase in creativity from officer cadet (O1) to lieutenant colonel (O5). However, the colonel (O6) level exhibits a sharp decline in creativity across the sample. The word ‘sharp’ is deliberate as, while the score drops by 3.1 on a 30-point scale, empirically this equates to a drop of 14.5 per cent in average score.

Unlike the other Services, the number of participants at Army O6 was quite high compared to the population size and represented about 33 per cent of that population sub-group. This provides confidence that the results are strongly indicative of the O6 population. It is also very clear that the variance decreases sharply (the standard deviation dropped by more than 50 per cent from O4 to O6). Even more worrying is that it appears that only the bottom cohort, in terms of creative thinking, is promoted from O5 to O6.

This variance flows into the O7 level. While the sample size was relatively small, the results are still valid enough to reflect the population. It can be seen that creativity increases for O7, however, as the variance shows, this is only because the top cohort is promoted. Hence, it could be concluded that the promotional system, at this level, appears to favour the creative officer. Unfortunately, the available pool for promotion is at the wrong end of the spectrum. In fact, the

best of the available colonels (O6) is still below the average of the lieutenant colonels (O5).

At this point, it is worth asking if a decrease in creative thinking can be attributed to age. Due to the linear progression through the ranks, officers are naturally getting older as they are promoted. It would be convenient to assign the change in creative thinking to an ageing body and reduced cognitive flexibility. However, studies have shown that while major creative contributions peak in young adulthood, minor contributions do not fall off until individuals are in their mid-60s.¹³

This peak actually moves up in occupations that require substantial training and life experience—and the profession of arms is one of these occupations. More recent research has confirmed that any difference in creativity assigned to age is in fact related to working memory capacity.¹⁴ Thus, it is unlikely that the age difference between O5 and O6 would have been a significant contributor to the reduction in creative thinking.

Is creative thinking important to Defence?

But what does this mean? Firstly, it is useful to understand the context of the result. The colonels surveyed in this study were all in Army Headquarters. The question could be asked

whether creative thinkers are needed in a headquarters where most of the work is procedural. The counterargument is that while creative thinking may not be the most important quality of an O6 officer in this environment, these individuals are future branch and division heads. Hence the more pertinent question is whether creative thinking is required in senior leaders, not just at the O6 level.

Creative thinking is critical to strategic thinking

Colin Gray has contended that:

[According to Antulio Echevarria] 'critical thinking is far more important to achieving a successful transformation than is creative imaginative thinking'. One could add that the better critical strategist might even dare to question whether transformation is desirable.¹⁵

This argument does not degrade the requirement for creative thinking; rather, it is intended to highlight that new is not always better. Again, it highlights the idea of usefulness. Critical thinking, in this case, is required to evaluate the usefulness of the novelty. Gray precedes this statement by saying that creativity is critical to the development of good strategy. It is also clearly noted elsewhere that, to be a master of strategic art—of all the individual skills—one must be creative.¹⁶

As a cognitive characteristic, creative thinking has been consistently included in the literature as one of the most important characteristics of strategic thinking.¹⁷ For example, strategic thinking has been described as a 'creative process subject to regular examination and necessary readjustment'.¹⁸ One of the key figures in business strategy, Henry Mintzberg, asserts that creativity is required to 'develop new perspectives'.¹⁹ Another influential writer contends that strategic thinkers are required to 'generate imaginative possibilities for action and operate easily in the conceptual realm'.²⁰

The idea of generative thinking, that is, generating new and innovative ideas, is quite common in the strategy literature. Julia Sloan contends that 'successful strategy across the centuries has proven to be dynamic and generative, not static and finite'.²¹ Stan Abraham asserts that 'strategic thinking entails the process of finding

alternative ways of competing and providing customer value'.²² Similarly, Estaban Masifern and Joaquim Vilà argue that conceiving 'the ideal strategy is mainly a creative process, driven by logical reasoning, imagination and the will to transform reality'.²³ The evidence is clear that creative thinking is absolutely critical in strategic thinking and the development of good strategy.

Creative thinking is critical for command

The requirement for creativity at the highest levels is indisputable if command and control are considered the personification of military structure. As Ross Pigeau and Carol McCann contend, structure and process are only possible because of human creativity.²⁴ Therefore, if the organisation is to change or adapt in increasingly complex and dynamic environments, creativity is required.

To drive this point home, a recent study of the US Army demonstrated that individual (leader) creativity was a significant predictor of leading change.²⁵ In this case, leading change referred to forging a new direction, gaining acceptance and implementing change. Simply, 'creative thinking is a key capability that helps individuals and organisations deal with and manage change'.²⁶

As Jim Storr contends, '[war] is evolutionary, and that allows original and novel thought... [which] is the gateway to creativity for the practitioner'.²⁷ Military doctrine is littered with references to adapting and creating opportunities in complex and uncertain environments.²⁸ US doctrine on joint operations, for examples, asserts that operational art, as well as the art of strategy, requires a cognitive approach that is supported by creativity.²⁹

Yet, despite the apparently fundamental requirement for creative thinking, Milan Vego agrees that 'the peacetime environment encourages [the] breeding of officers who rigidly follow rules'.³⁰ This is not to say that every soldier and officer needs to be a creative genius, however, the importance of creative thinking for the development of strategic thinking and for leadership should not be understated.

What can be done about it?

If we accept that creative thinking is important to the organisation, then we must be prepared to change. Unfortunately, some would argue that the 'military authoritarian structure is itself a deterrent to creative thinking'.³¹ The reasoning is that an authoritarian structure generally only permits pressure to be applied down, however, creative thinkers tend to apply pressure up by revealing the need for change. Strengthening this obstruction to creative thinking is the phenomenon where success at the junior level requires conformity that is often hard to shed as one progresses up the ranks. One could argue that even mission command rewards conformity.

So how can the ADF, as an organisation, change and how hard will the change be? Broadly, there are four ways the capacity for creative thinking can be improved, either by changing individuals or changing the organisation.

Continuous development of individual creative thinking

This is, admittedly, a long-term plan that seeks to improve and encourage the development of creative thinking from initial entry. The difficulties in teaching creativity have been analogised with sport—'you can teach someone to play but you can't teach them to win'.³² The employment of creative thinking has been described as feeling like 'a one-armed man trying to hammer together a chicken coop in a hurricane'.³³ However, there is an acknowledgement in the literature and practice that creative thinking can be fostered if not taught.³⁴

The critical antecedent to success is the development of instructors, mentors and commanders with the requisite skills to enable creative thinking in a context-dependent environment.³⁵ The benefits are that the base level of creative thinking increases and thus we can accept a dip in variance at senior levels. The cost is the obvious timeframe for improvement (upwards of 20 years) and the minor modification and coordination needed across the professional military education spectrum.

Discrete development of individual creative thinking

After identifying the lack of creative thinking at specific ranks, it may be more appropriate to apply a discrete treatment that seeks to create an immediate improvement. For example, given that the majority of senior ranks in the ADF complete the Defence and Strategic Studies Course at the Australian Defence College, it would seem reasonable that this course could seek to improve the creative thinking of students to enhance their ability to 'operate at the strategic level in a complex and modern security environment'.³⁶

Fortunately, there is evidence that creative thinking can also be encouraged through a more linear process.³⁷ This can generally be described in four broad steps, namely (1) gathering and analysing the information, (2) ideation and incubation, (3) synthesis, and (4) evaluation and communication. As to content, the greatest success has been from courses that have also 'stressed techniques such as critical thinking, convergent thinking and constraint identification'.³⁸ Importantly, these courses were supported by explicitly and clearly informing students about the nature of creativity.

Change the promotion criteria from O5-O6

The evidence demonstrates that the current promotional system for O6 does not recognise creative thinking as an important selection criterion. This is not necessarily a 'bad thing', as one could argue that the ADF has a demonstrated track record of significant operational success. However, there is a substantial risk that future military leaders might have reduced capacity for strategic thinking when they most need it.

Because it appears that the promotional requirements for O7 recognise the value of creative thinking, it would be worthwhile adjusting the 'filter' for O6 to allow a greater variance through this promotional gate. This would ensure that the available pool for promotion to O7 remains large enough. The benefit is that there would be

no cost to the professional military education system, although there is a risk that some of the O6s are not necessarily the right 'organisational fit' for that rank.

Organisational fit offers a counter-argument to change. Organisational fit refers not only to the suitability of O6s at that rank, and their potential for future ranks, but also how the individual fits in the organisation. Thus, promotion could involve a trade-off, where creative thinking may be 'sacrificed' for other qualities deemed to be more important. These qualities are likely to change as the organisational requirement changes and could include qualities such as compassion, leadership, realism and ambition.

Recognise the value of organisational creativity

Perhaps the answer lies less with individual creativity and more with a 'creative organisation'. There is a valid view that creativity is not so much the product of an individual or individual intelligence; rather, it is the product of a collective exchange of ideas.³⁹ However, if this is the aspiration, care would be needed to ensure there is a diversity of ideas available. A homogeneous population would logically be detrimental to creativity, due to the decrease in the number of distinctly different exchange types, and a lack of diversity would encourage 'group think', the antithesis of creativity.⁴⁰

In this final option, we accept the potential deficit of creative thinking at the more senior ranks. The requirement of these leaders is not to be the creator but the facilitator of creative thinking in their organisation. The advantage is that we would be leveraging existing organisational strengths of team-work and clear direction with little disruption to the organisation. The challenge would be to recognise the barriers imposed by rigid authoritarian structures that are potentially populated by individuals who embrace a top-down approach to change. Overcoming this situation is not in the scope of this research but presumably could be mitigated through a shift in the cultural acceptance of divergent ideas.

Conclusion

The title of this article is a light-hearted reflection of an institutional perception of 'grey beards' and the empirical evidence suggesting that above-average creative thinking is not beneficial to a career in the military. There is an argument that based on recent operational successes, the ADF is doing well and, therefore, the counter-theory that creative thinking in senior leaders is not as important as other qualities is a valid hypothesis. However, this article has argued that creative thinking is critical to both the development of strategic thinking and for effective command. Without either of these two, the ADF is unlikely to enjoy long-term success in highly dynamic and complex environments.

Given that creative thinking is required at all levels, this article has provided a number of options to either mitigate or improve this capability. Two of the options involve the development of individual creative thinking. The first seeks to increase the lower bound of creative thinking by an organisation-wide, context-dependent education program. This option, while highly beneficial, is long term and relies on capable instructors, mentors and commanders to facilitate ongoing learning. The second seeks to create discrete interventions aimed to 'fill the gap'. This option, admittedly, is more immediate and likely to foster or support the first.

The remaining options look to amend the organisation to encourage the influence of creative thinkers already in the military system. Of these, one looks to amend the promotional requirements from O5 to O6 to ensure that creative thinking is a valued criterion. The last recognises the flaws, and seeks to reinforce the leader's role in facilitating teams and encouraging creative thinking. The challenge would be in aligning the worldview of a leader who has achieved success through conformity to accept divergent responses. Of the remedial options presented, while the first is preferred due to the enormous long-term benefit to the organisation, the second option is the recommended one, as it presents a more realistic cost-benefit ratio.

One of the key constraints to this research is that the creativity score is relative, not absolute. While the scores allowed for direct comparison across the ADF population, it is unable to be compared with an equivalent commercial organisation or even another military. Further work would need to gather data on these types of organisations to better understand organisational constraints across different fields. Additionally, it would be useful to investigate the differences in culture in the ADF's present population to better understand causation for change in creative thinking.

Lieutenant Colonel Leon Young was the 2015 Chief of Defence Force Fellow, and has been Managing Editor of the Australian Army Journal and the Futures Journal. He has over 20 years of military experience in operations and strategic policy development. He has taught postgraduate courses on strategy, capability and future studies, and spoken internationally on futures and strategic thinking development. He is a full member of the Association of Professional Futurists, a Fellow of the World Future Society, and a Visiting Fellow of the Centre for Defence and Strategic Studies. He holds a Bachelor of Science, Master of Science in Operations Research and has submitted his PhD dissertation in computational strategic thinking models. In 2016, he was awarded the Leo Mahoney Bursary for his contribution to national security research.

Notes

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