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RESTRUCTURING THE OPERATIONAL PLANNING PROCESS AS A PEDAGOGICAL TOOL

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Exercise *Solo Flight*

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RESTRUCTURING THE OPERATIONAL PLANNING PROCESS AS A PEDAGOGICAL TOOL

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The Operational Planning Process is failing the Canadian Armed Forces. Several presenters to the Joint Command and Staff Programme 41 have remarked that the Canadian Armed Forces does not use the Operational Planning Process, in its precise format, but that the process was useful to learn as pieces of it were used in several headquarters.[1] Further, staffs using the Operational Planning Process (OPP) continue to struggle with planning within a Whole of Government or Comprehensive Approach methodology, as the structure of the planning process does not lend itself to easy translation to other governmental departments and public organizations.

What if it is not the elements of the OPP that are at fault, but the organization of these elements into five stages that are completed in a linear fashion? This paper will argue that it is the structure of the OPP that leads staffs and commanders to abandon it, or use only parts of it as suits their needs. Further, it will argue that the OPP ought to be taught as a conceptual pedagogical tool, one that assists in building the understanding of how planning occurs, without directing how planning is to occur. Finally, it will propose a restructure of the elements of the process that should facilitate both learning and use in an operational setting.

Proposing a restructuring of the planning process of the Canadian Armed Forces is a challenging issue. Prejudicial bias and ingrained acceptance of the status quo limit reconstruction of this critical process. In order to demonstrate the utility of seeing a complex process through the lens of a pedagogical tool, a simple illustration, using the

[1] These presenters, on JCSP 41, included BGen Shane Brennan, COS CJOC, Col Mike Wright, J3 CJOC, and LGen Jon Vance, Comd CJOC.

seven battle drills of the infantry section attack, will be constructed. The OPP will then be broken down in a similar fashion to demonstrate its three key failings. Finally, a new structure will be proposed, one which can be used as a pedagogical tool to instruct planning, and also has utility to commanders and planners in a real headquarters.

A pedagogical tool is a device which aids an instructor in conveying a concept.[2] Traditional pedagogical tools include textbooks, chalkboards, and scale models. However, they may include much more complex instruments, such as a microscope, or they may be conceptual in nature. For example, the acronym DIME (Diplomacy, Information, Military, and Economic) can be considered a conceptual pedagogical tool that helps explain the complex, dynamic interplay of a nation's foundational elements of power. To be useful within our military context, a conceptual pedagogical tool ought to both help instruct a key concept, and serve a utilitarian purpose.

An excellent example of a conceptual pedagogical tool in military service is the section attack. As noted in Canadian Army doctrine, it is highly unlikely for an infantry section to conduct a small attack on an isolated enemy as part of its routine business.[3] The section attack, however, has utility for two reasons: first, it meets the potential needs for a small tactical group to attack a smaller tactical group or lone gunmen, and second, it serves a key role in instructing several critical skills-sets essential in combat. The section attack, and its associated seven battle drills, therefore serves both a pedagogical and a practical purpose.

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[2] Systems Dynamics Society, "Pedagogical Tools," Accessed 9 May 2015. http://tools.systemdynamics.org/pedagogical/

[3] B-GL-309-003/FT-001, INFANTRY, Volume 3, The Infantry Section and Platoon in Battle (1996-08-15)

The seven battle drills that constitute a section attack are taught as a series of actions, each of which must be sequentially followed to achieve the mission. They consist of:

1. Preparation for battle.
2. Reaction to Effective Enemy Fire
3. Locating the Enemy
4. Winning the Firefight
5. The Approach
6. The Assault
7. Consolidation[4]

Taken together, the seven drills provide the approved method by which a section commander responds to an enemy in battle. Each drill has key actions that must be undertaken. For example, the reaction to effective enemy fire demands that each member of the section fire a couple rounds in the direction of the enemy (known colloquially as the 'double-tap') then dash, get down, crawl, observe, fire, communicate and move. These actions have been proven to help a soldier get out of the immediate line of fire, get into a firing position, and remind the soldier of his duties to support his section mates.[5] Like the reaction to effective enemy fire, each of the battle drills can be further broken down into specific tasks. The rapid execution of these battle drills is considered a necessary element for success within Canadian Army doctrine.

Another value of the battle drills, however, is that they can easily be taught, and the skills resident within each step can be taught within the context of a section attack. This particular fact is not well understood within the Canadian Army, so it bears some explanation. The section attack and section battle drills are used to teach several concepts

[4] B-GL-309-003/FT-001, INFANTRY, Volume 3, The Infantry Section and Platoon in Battle (1996-08-15)
[5] The Regimental Rogue, "The Canadian Infantry Section Attack," Accessed 22 April 2015. http://www.canadiansoldiers.com/tactical/infantrysection.htm

that independently would lack context. For example, locating the enemy and winning the firefight require the skills of target indication orders and fire control orders, respectively. These two skills are used extensively in larger organizations and in more complex environments than the section attack. However, they would be very difficult to teach in these more complex environments without the previous context.[6]

Further, the fire and movement skills taught as part of the approach and assault drills are a core skill to not only Infantry, but to all Army personnel, and often need to be taught to Navy and Air Force personnel serving on peace support missions. The concept of one person providing covering fire while another moves, once understood, can be extrapolated to much larger organizations doing the same, such as a section or platoon providing support for another section or platoon, etc. Because the section attack provides this excellent context for the training of Army personnel in specific skills, it can be considered a pedagogical tool.

In practice, however, the section attack is not nearly as ubiquitous nor as useful as it is in training in its strict doctrinal format. Sections rarely operate independently as they lack the ability to survive on the modern battlefield. The section may come under effective enemy fire, but the environmental context of that attack is rarely similar to that of the section attack as taught. Challenges that have occurred to forces in combat in recent years include shorter ranges, more complex terrain, an enemy that cannot be found, and an enemy that withdraws rather than becoming decisively engaged. In short, the reality faced in combat is unlikely the section attack as defined in doctrine. Commanders

[6] Author's personal experience.

may need to abbreviate steps, skip steps, and/or repeat steps thought already completed as the situation changes.

The same could be said for the OPP. Agile commanders may require their planning process to re-evaluate elements of the situation as changes occur, and are often faced with significant time constraints. This necessitates a requirement similar to that of the section commander: there is a need for a process which is easy to understand and learn; which teaches core skills; and leaves sufficient flexibility that it can be used appropriately in real-life situations. Because the OPP incorporates subordinate processes such as Intelligence Preparation of the Battlefield, Course of Action Development, and Operational Design, it could be considered a pedagogical tool in much the same way as the section attack.[7]

However, the OPP, as it is currently structured, is suitable neither as a pedagogical tool nor as a dynamic planning tool that can be re-engineered to meet the demands of a particular situation. The OPP suffers from three key failings. It is overly linear in its structure, it is overly analytical in its approach, and it is overly staff dominated as it is taught today. These three failings combine to make the OPP in need of a structural overhaul in order for it to continue to have relevance for operational commanders.

Linearity is a key feature of analytical decision making processes, such as the OPP. Several critics have commented on the linearity of the OPP and similar allied

[7] B-GJ-005-500/FP-000 The CF Operational Planning Process (Change 2) April 2008, 4-1.

analytical decision-making processes, calling it cumbersome and rigid.[8] The five stage process constricts staffs to complete each step methodically, requiring that each part of previous steps are complete before moving on. This methodology does not cope well with highly dynamic situations, nor is it useful in situations where time is compressed, which is common on operations. In addition, the linear nature of the process makes re-examination of a previous step very difficult, reducing the ability to handle changes in the tactical situation. A more effective planning process might be structured to allow for a less strictly linear approach to planning.

Analytical decision making processes, such as the OPP, allow staffs to break down a problem into its component parts, analyze each part discretely, and then synthesize the results.[9] Within the applied environment of military operations, problem solving "tends to be interactive, iterative, and less linear".[10] Analytical methods work better when solving static problems, but this method relies on the belief that the problem can be fully known, and certainty of results can be obtained. OPP develops several courses of action to solve a problem, without being able to fully understand that problem. Because warfare is a clash of wills, a more effective planning process ought to be structured to encourage problem definition and understanding over the generation of multiple courses of action.

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[8] Colonel James K. Greer, "Operational Art for the Objective Force," *Military Review* 82 no.5 (September 2002). 25.
[9] Matthew Lauder, "Systemic Operational Design: Freeing Operational Planning from the shackles of linearity," *Canadian Military Journal*, 9 no.4 (2009), 42.
[10] Ibid, 43.

The final critique of the OPP to be examined is that it is overly staff dominated, by limiting the participation of the commander in the process to specific briefs rather than integrating the commander more deeply. This tendency is reinforced during the training of OPP, as Directing Staff for both the Army Operations Course and the Joint Command and Staff Programme, acting as the commander, leave the training environment for extended periods of time. As such, staffs learn to become dependent on themselves for feedback and confirmation during the planning, interacting with the commander only during formalized briefs that leave little room for interaction. Staff exclusion of the commander, and by extension the reduction of complexity of a situation to fit on a slide, isolates the commander from problem understanding.[11]

What, then, can be done to modify the OPP and improve its performance both as a pedagogical tool and as a planning tool? To begin with, the Canadian Armed Forces needs to evaluate the suitability of analytical decision making processes for complex, dynamic, and uncertain problem-sets, and accept that there is a role for naturalistic decision making processes in seeking resolution to these problems. Naturalistic approaches to decision making are a complement to analytical approaches. They reject the concept that the problem can be fully understood and analysed, but contend that it may be understood in a much more holistic manner. The key, however, is not to reject analytical approaches in favour of naturalistic approaches, but to apply each approach according to their strengths. Balancing analytical and naturalistic approaches within the OPP would allow the most appropriate tool to be leveraged against the problem. For

[11] Brad Bergstrand, "Situating the Estimate: Naturalistic Decision-Making as an Alternative to Analytical Decision-Making in the Canadian Forces" (Command and Staff Course New Horizons Paper, Canadian Forces College, 1997), 2.

example, much of the process of Intelligence Preparation of the Operating Environment (IPOE), specifically 'Describe the Operational Environment' and 'Evaluate the Adversary' are suited to an analytical approach that refines data and information into intelligence. Conversely, to conduct effective design, a holistic approach to problem framing must be undertaken, often supported directly with the products generated during the IPOE.[12]

Next, the importance of the role of the commander within the planning process needs to be re-established. This ought to occur in operational and tactical headquarters throughout the military as commanders reassert themselves, but it is most likely to begin in the schools, as a bias against direct commander involvement has been established. The increased inclusion of commanders in the planning process is most natural within those processes that are naturalistic in character, for it is here that a commander's additional experience and knowledge is best put to use. Experience is "the basis of recognition of problems and matching of appropriate actions".[13] The emerging field of design within military planning (as distinguished from operational design) is an area in which the commander's participation is essential for three reasons. First, the commander can lead the open discourse required to facilitate design discussions. Second, the commander's experience and expertise is essential to the process of problem framing. Finally, the commander's understanding of the situation holistically will be much deeper having participated in the discussion, and not merely having been briefed on the outcome. While

[12] Brad Bergstrand, "Situating the Estimate: Naturalistic Decision-Making as an Alternative to Analytical Decision-Making in the Canadian Forces" (Command and Staff Course New Horizons Paper, Canadian Forces College, 1997), 2.
[13] David J. Bryant, *Concepts for intuitive and abbreviated planning procedures* (Toronto: DRDC Toronto, 2005), 22.

the use of design in the OPP is not currently doctrine, this process is the one which most clearly suits additional commander involvement.

Finally, the OPP needs to be restructured conceptually to be less linear, and to facilitate iterative approaches to planning. Studies of Canadian Army planning staffs at the Brigade level have illustrated that many lower functions within the planning process were repeated as required, and that this repetition increased the degree of intuitive decisions taken. [14] What is missing from the OPP as it is currently structured is a model which facilitates feedback and review in the course of planning. Cyclical models such as Boyd's 'Observe, Orient, Decide, Act (OODA) Loop' are conspicuously absent from the OPP.

It is proposed that the CAF needs to rework the OPP as a set of cycles. Illustrated in Figure 1, this new process would consist of four principal cycles: Intelligence Preparation of the Operating Environment; Design; Plan Development; and Execution. Each cycle would feed information into the next cycle, but would continue to turn and produce additional information into the process.

[14] David J. Bryant, *Concepts for intuitive and abbreviated planning procedures* (Toronto: DRDC Toronto, 2005), 12.

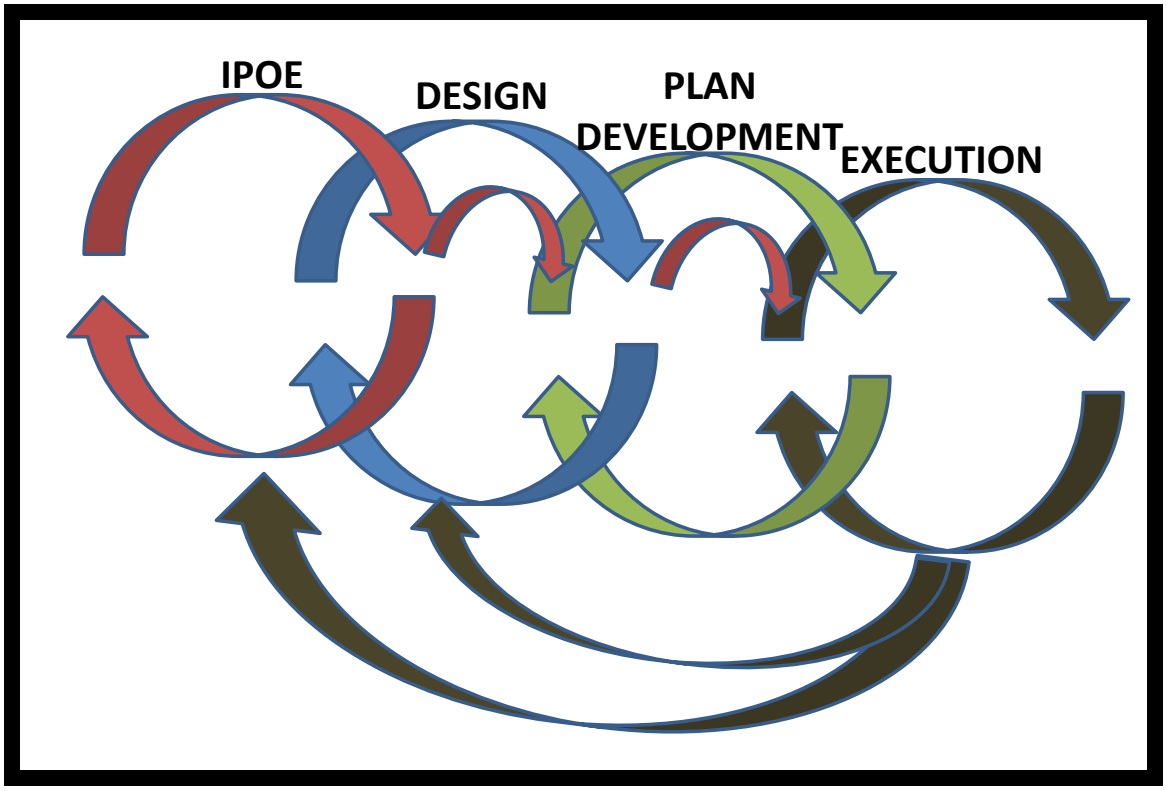

Figure 1. The Operational Planning Process as a series of inter-related cycles.

THE IPOE CYCLE

This cycle would contain the first three steps of the current IPOE, which are Define the Operational Environment, Describe the Operational Environment, and Evaluate the Adversary. Added to this cycle would be an evaluation of friendly forces, as well as evaluation of other actors in the environment. This information would be generated not only by the Intelligence element but by all relevant staff within the headquarters, and would emphasize an analytical approach. As is currently the case, feedback, in the form of ISR reporting and intelligence analysis, both from subordinate and superior organizations, would drive the cycle to continually turn and generate information.

THE DESIGN CYCLE

Design would be a new cycle, one not currently present within the OPP. While its eventual outputs would be similar to that of the current Operational Design, the development of those products would be significantly different. Drawing heavily on the U.S. Army current doctrine on design, this cycle would seek to frame the problem and develop a common, holistic understanding of what the problem truly looked like.[15] This cycle draws directly from the IPOE cycle to provide the information that allows design to occur. Some planning processes, at the tactical level, may require very little within this cycle as the problem may already be well-framed, either by a higher headquarters design process or because the problem does not require framing. As noted previously, it is in this cycle that the commander must make his/her presence felt as proper framing of the problem ought to lead to better potential solutions to the problem. The expected outputs of the design cycle would be a diagram and narrative of the problem, mission and task analysis, and a statement of the commander's intent with respect to the defined problem space. This design cycle ought to also prepare expected narrative of adversaries within the problem space, and the expected actions that they will take.[16]

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[15] Adam Elkus and Crispin Burke, "Operational Design: Promise and Problems," *Small Wars Journal* 2010, 3-4.

[16] Lieutenant-Colonel Celestino Perez, Jr., "A Practical Guide to Design: A Way to Think About It, and a Way to Do it," *Military Review*, March-April 2011. 44.

THE PLAN DEVELOPMENT CYCLE

Given a clearer understanding of the problem-space, and the statement of the commander's intent, staffs will be able to use the plan development cycle to develop and refine options, conduct war games, and synchronize activities within the force. This cycle would incorporate elements of both Stage 3 – COA Development and Stage 4 – Plan Development and its final output would be orders for the force.[17] It should be noted that courses of action, both friendly and enemy may or may not be required, and the commander may direct the development of one option coming directly out of the design cycle. The plan development cycle may also turn many times without the design cycle fully turning again, provided the problem space as framed remains relatively stable.

THE EXECUTION CYCLE

Execution of the plan is the reason planning processes exist. Through this cycle, the organization conducts actions within the operating environment, and provides feedback to the entire planning process. It is the feedback from execution that drives each of the cycles to continue to turn, and therefore generates a new planning cycle. The feedback may drive the cycles to turn at different rates: it could be expected that both the IPOE and the Plan Development cycle may turn faster than the Design cycle, until such time that the system has been sufficiently altered as to require another Design cycle.

[17] B-GJ-005-500/FP-000 The CF Operational Planning Process (Change 2) April 2008, 4-13.

As a pedagogical tool, a planning process as described consisting of four distinct yet inter-related cycles may provide a better understanding to the student of how planning occurs. As a model, the four cycles and their interactions are clearer. The steps within each cycle would need to be validated by both further research and by experimentation; however, they do encompass all of the current elements of the OPP and add the concept of Design. Further investigation of the design approach is warranted as a method by which complex, dynamic problems can be understood within the planning process.

This paper sought to address three failings of the current CAF OPP: too much linearity, too little command involvement, and too much analytical dependency. The proposed restructure of the current CAF OPP would provide a model of the OPP as both a planning tool and a pedagogical tool, and therefore bridge the gap between what is taught and what is practiced. The iterative cycles would decrease linearity, and potentially dogmatically linear thinking about problems. Increased command involvement would facilitate effective problem framing, through the adoption of a design approach. Finally, a balanced approach to analytical and naturalistic approaches may help planners of the future arrive at better decisions to solve future problems.

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