



□ The foundations of the operational decision-making culture in France 1/4

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The culture of operational decision-making in the French Army is rooted in the very rich history of Western ideas and strategic thinking. It has undergone notable changes in recent decades, mainly linked to an acceleration of scientific progress and to a willingness, commendable in any case, on the part of military leaders and private and public officials to draw inspiration from good practices observed among them.

The need for interoperability, the need to take account of new forms of conflict and adversity, and the integration of new technologies, especially information technologies, have led the armed forces over nearly three decades, Western armed forces have adopted a command organisation and operational reasoning methods that are broadly similar and very strongly inspired by American doctrine.

Organisations, tools, methods and processes, sometimes highly adapted to the business world, now seem to have taken precedence over the real determinants of decision-making in warfare. In fact, the timeless and universal notions of the fog of war, complexity, adversity, contingency, and the personality of the operational leader, are poorly suited to tools and methods that rely essentially on the acquisition of quantifiable and objective data to enable decision-making.

An information report by the National Defence and Armed Forces Commission recently highlighted the implications of new technologies on command and control procedures for operations.

"As Gérard de Boisboissel, secretary general of the Saint-Cyr cyber defence and cybersecurity chain, explained, "the all-digital world is shaking up the way we operate. Indeed, with the increasing precision of sensors and the improvement of digital transmissions, new technologies almost allow the general or even the President of the

Republic to look over the shoulder of the tactical commander". These technologies for the processing and mass transmission of information are thus changing the balance of responsibilities in the chain of command and even the very notion of subsidiarity. As such, they require in-depth doctrinal studies on the responsibilities of each level of the hierarchy. » 5

While underlining the relevance of the analyses conducted by the armed forces over the past several years, the recommendations of this report invite the entire joint doctrinal community to accelerate its reflections on command in operations and its organisation. Mainly driven by the considerable resources invested in research and development by the digital giants, the AFTAGs 6 The dynamic initiated by the US military is setting the tone, while Russia and China are not lagging behind. The reaffirmation of international ambitions and the impetus given by the Head of State since his election reinforce the tropism of thinking towards new technologies. In this context, the Joint Operations Planning Centre (CPOIA) has been mandated by the Deputy Chief of Operations of the Armed Forces Staff to study the long-term impact of developments in digital technology on joint command. As a result, a working group on joint command of operational engagements (C2IA WG) was set up in September 2017. This study, conducted with all the armed forces, our allies and French companies, has already made it possible to consider initial interesting recommendations based on operational feedback, cross-cutting analyses and experiments. For the French Army, these reflections have also been well underway for several years. The digitisation of the battle space (NEB) had already placed it at the forefront of the field in the 2000s. The lessons learnt from the digitized French and Allied engagements of the early 2000s are still, almost fifteen years later, of great value. 7. In addition, the Land Staff (JSAT) and the Land Forces Command (LFC) are currently conducting an in-depth study aimed at enhancing the agility of command posts deployed on operations. Finally, the preparatory work for the draft Military Programming Law (LPM) 2019-2025 has enabled the EMAT to consolidate a global vision in the field of innovation and research into the integration of new technologies. "Digital transformation, big data, artificial intelligence and the networking of systems are opening up new prospects in fields as varied as 3D reconnaissance and cartography, warfare and the development of new technologies. The digital transformation, big data, artificial intelligence and networking of systems open up new prospects in fields as varied as 3D reconnaissance and mapping, electronic warfare, collaborative combat, autonomous robot navigation, predictive maintenance, decision and command support, operational simulation and human resources. 8. "The Army has therefore taken up this problem in a resolute manner, but it is not a new one.

Before proceeding further with this presentation, let us clarify the framework of the study. Let us begin with the term operational decision-making. The Russian-American business strategy expert, Igor Ansoff (1918-2002), distinguishes three types of decision making. Strategic decisions, taken by the company's general management, concern general orientations and have long-term implications, committing the company's future. Tactical decisions are taken by the company's management staff. They have medium-term implications and important consequences for the structure. They entail a significant risk. Operational decisions are limited in scope and involve minor risk. They are made by management or employees. Under the heading of operational decision-making, we will use, in a less restrictive way in this document, any complex reasoning process related to operational decisions. The study of these processes can be facilitated by reference to theoretical models. This process is characterized by four phases: the acquisition of knowledge, the modeling of the problem, and the choice and control of the action.

Secondly, this notion of decision-making will be studied mainly through the singular prism of the Army. The terrestrial environment, unlike others, is characterized by its heterogeneity and its very great complexity, both physical and human. However, as we shall see later, since army operations always take place in an air-land or even inter-military context, it is not conceivable to totally dissociate land and joint commands in this study.

As early as 2016, the prospective work leading to Future Land Action 9 (ATF) made it **possible to** highlight among eight factors of operational superiority (FSO), that of command performance ¹⁰. However, as this document points out, while the technological and technical aspects are unavoidable, they are only one aspect of it. The essential work generated in recent years by the impact and potential contributions of new technologies must not obscure the fact that decision-making at the national level is a key factor in the development of new technologies. War is fundamentally, and for a long time to come, based on human factors and, above all, on the ability of an operational leader to take account of the complexity and uncertainty inherent in the phenomenon of warfare. In the plethora of civil and military studies on the subject, it is now imperative to reflect calmly on the fundamental principles of operational decision-making. This document is intended to contextualize the direction currently chosen by the CDEC, which, if it focused solely on a technological dimension, would not provide an appropriate framework for thinking about improving command performance. The stakes are high, since the ultimate goal is to maintain a leading position among the world's military powers. This dossier therefore proposes to return to the historical and theoretical foundations of operational decision-making and to the meaning of this concept. Indeed, taking an interest in the improvement of command systems first invites us to consider their origins and purpose.

"The true school of command is therefore general culture. Through it, thought is put in a position to exercise itself with order, to discern in things the essential from the accessory, to perceive extensions and interferences, in short to rise to that degree where the whole appears without prejudice to nuances. There is not an illustrious captain who did not have the taste and the feeling of the heritage of the human spirit. At the bottom of Alexander's victories, we always find Aristotle. » ¹¹

Let us start with some clarifications. In its broadest sense, the notion of decision-making applies to any entity with a living or artificial neural system. This movement is activated when a need to act is perceived in the face of a problem or need, without the action to be taken in return being assimilated to a reflex. Decision-making is based on complex cognitive processes, which may be based on rational arguments (established and measurable facts) and/or metaphysical arguments (which escape sensitive knowledge and experience). Cognitive processes correspond to perception, attention, sensation, memory, representation, language, reasoning, categorization, recognition, learning, emotion, forgetting, action, individual and collective behaviour, collective phenomena. Numerous theological or philosophical theories and currents deal with this question. Since the end of the 19th century, praxeology has been interested in the study of human action. This term, nowadays mainly attached to the Austrian economist Ludwig von Mises (1881-1973), even if it was not originally coined, refers to the interdisciplinary study of behaviour, from the point of view of choices and performance. This field of study, largely based on the contributions of the cognitive sciences, finds applications through the social, political and economic sciences, business administration (management) and, of course, the art and science of war. It is at the heart of research currently being conducted in the

field of the development of artificial intelligence. It is obviously out of the question to mention all these theories in this synthesis. However, it does seem useful to consider those that, by simply conceptualising and breaking down the notion of operational decision-making, allow us to apprehend the totality of what can be covered by command performance in operations. This first approach thus aims to identify what can be considered as fundamental references of the modern decision-making culture in France. Ultimately, this approach will make it possible to explain what we understand today by operational command, by clarifying the links between the taking of decisions and the performance of the command in operations. decision making (processes and procedures), the means that enable it (a staff and decision support tools) and the decision maker (the operational commander).

The philosophical roots of the search for knowledge and decision-making.

In the beginning was... confrontation. Dialectics (from the ancient Greek *diagesthai*: to converse, and *diagein*: to sort, to distinguish) has held an important place in Western philosophy since antiquity. Formalized by the pre-Socratic thinker Zeno of Eleaea (circa 490 - 430 BC), Plato's dialogues ¹² have spread the use of it. It designates a movement of thought which, through opposition and confrontation, makes it possible to attain knowledge. It is at the same time a method of discussion, reasoning, questioning and interpretation. Plato's work is characterized by the refutation of all forms of empiricism, because the world puts too many different obstacles in the way of understanding. Knowledge can, according to him, only be the product of pure reason. Dialectics, as a rational and methodical approach, allows us to verify successively concepts and proposals in order to attain knowledge and allow action aimed at the Good. Plato uses both types of reasoning proper to dialectic. The first is the method of division, which consists in breaking down the object that one seeks to define. He then uses the method of consequences, which consists in examining and testing all the implications of a hypothesis. Dialectic has since become, particularly through its assimilation by the Middle Ages, a classical technique of reasoning, which generally proceeds by the opposition of a thesis and its antithesis, and which tries to overcome the resulting contradiction by developing a final synthesis.

The interested reader may, however, usefully refer to the Banquet, in which the thinker discusses the particular subject of knowledge acquisition. The Banquet, Flammarion, reprinted 2016.

One of Plato's disciples, Aristotle ¹³ The fact that he was also the tutor of the young Alexander of Macedonia refutes Plato's purely rationalist approach. He distinguishes between two phases in decision-making. The first is a phase of situation analysis and deliberation. It highlights possible options, with their advantages, disadvantages and risks. The second is a phase of concrete choice of action. To use modern military decision making terminology, the deliberation phase is concerned with the study of the general framework for action and leads to the development of an operational concept, while the choice phase is concerned with the selection of a mode of action. In this process of questioning, Aristotle insists on the necessary recourse to the moral virtue of prudence, or practical wisdom known as *phronesis*. According to Aristotle, *phronesis* is the part of the rational soul that concerns the realm of contingent things. It is opposed to the other part of the rational soul, which he calls *sophia*, the theoretical wisdom whose domain is that of established things. *Phronesis* is an empirical knowledge rather than a learned or inferred knowledge (the one given to us by the *sophia*). It is of the order of the reasonable rather

than the purely rational. It appeals to the subjectivity of the decision-maker and can oppose or complement the exclusive objectivity required by the sophia. Phronesis is thus oriented towards action in situations of uncertainty. In the decision-making process, it allows the analysis of the context, the various possible actions and their consequences. It establishes the framework for the second phase, that of choice. As suggested by Lieutenant-Colonel de Gaulle in 1934, one is tempted to think that Alexandre's decision-making in war has its origins in the teachings of his tutor.

5 Becht, Olivier and Gassilloud, Thomas, Mission d'information sur les enjeux de la numérisation des armées, Assemblée Nationale, 30 May 2018. <http://www2.assemblee-nationale.fr/documents/notice/15/rap-info/i0996/index/rapports-information>.

6 Google, Apple, Facebook, Amazon and Microsoft.

7 Goya, Michel, Des électrons et des hommes, newsinformation technologies and operations management, CDEF, 2005. <https://fr.calameo.com/read/00000977935074d93824c>.

8 The French Army is preparing for the 2020s. Interview with General Jean-Pierre Bosser, Chief of Staff of the French Army (CEMAT). Interview by Joseph Henrotin, 14 May 2018, published in DSI special issue no. 60, June-July 2018. <http://www.defense24.news/2018/06/08/larmee-de-terre-se-prepare-aux-annees-2020/>.

9 Action Terrestre Future: demain se gagne aujourd'hui, EMAT, 2016. <http://www.defense.gouv.fr/content/download/487834/7804552/file/2016AdT-ActionTerrestreFuture.pdf>.

10 ATF: The FSO of the day "the performance of command" <https://www.defense.gouv.fr/earth/medieval/documentations/earth-action-future-the-future-factors-of-superiority-operational-fso/atf-le-fso-du-jour-the-performance-of-command>

11 de Gaulle, Charles, Vers l'Armée de métier, Berger-Levrault, 1934, reprinted. Le fil de l'épée and other writings, Plon, 1999.

12 The dialogues refer to the whole of Plato's work (c. 428 - 348 BC).

13 Aristotle (384 - 322 BC), Ethics at Nicomacheus, Vrin - Library of Philosophical Texts, 1990.

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