Teaching Professional Use of Critical Thinking to Officer-Cadets

Reflection on the Intellectual Training of Young Officers at Military Academies

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Abstract

This article reflects on the teaching of critical thinking to officer-cadets at military academies by showing that it should be done from the perspective of its professional use. Teaching critical thinking should not only aim at developing the mastery of this intellectual competence, but it must also lead officer-cadets to learn its use within the framework of their future duties and responsibilities as officers. Framed by clear guidelines and guided by professional purpose, critical thinking can be a very effective tool in the military decision-making process.

There is a fairly large consensus in the literature on the importance of critical thinking for officers (Ayers, 2016; Emilio, 2000; Fischer et al., 2009b; Paparone, 2014). The current operational environment is characterized by great instability, complexity, uncertainty, and unprecedented threats. In this new context, critical thinking undoubtedly constitutes a valuable asset in an officer's arsenal of decision-making abilities. In recent years, most military academies have integrated critical thinking among the learning objectives of their academic curriculum to meet this need. This integration takes a variety of forms, such as specific training dedicated to this intellectual skill, the integration of this educational objective within the framework of courses of existing academic programs, or the development of dedicated workshops. Critical thinking is thus one of the various intellectual skills that officer-cadets must now develop during their initial training.

Learning critical thinking should be done from the perspective of its professional use. Critical thinking training should aim to develop the mastery of this intellectual competence—the university framework of the military academy lends itself well to

this. In an equally fundamental way, it must also lead officer-cadets to *learn how to use it professionally*; that is, within the framework of their future duties and responsibilities as officers. If properly conceived and framed by clear guidelines, critical thinking can be an effective tool in the military decision-making process.

This article does not claim to lay the basis for a pedagogical program to integrate critical thinking in the curriculum at military academies; there exist already several initiatives to this similar end, especially in the United States (Fischer et al., 2009b; Guillot, 2006; McKown, 2012). Rather, it aims to employ a more philosophical perspective to reflect on how to make critical thinking an intellectual tool of choice in the military decision-making process for officers and how to conceive its teaching in military academies. In doing so, I will attempt to counter certain resistances that detract from the development of critical thinking among officer-cadets—specifically, from critics who see this intellectual skill as a potential risk to the integrity of the military chain of command.

Critical Thinking: Intellectual Autonomy

There is no scientific consensus on the meaning of critical thinking. Fischer et al. (2009a) provide an extensive overview of the numerous definitions used throughout the literature, each with specificity, and most of them complementary to the others. For this article, critical thinking is defined as a type of intellectual capacity: the ability to think accurately and reflexively using a wide variety of intellectual tools. In Benjamin Bloom's well-established taxonomy of learning domains, critical thinking occupies the upper part of this hierarchy of cognitive skills (Ennis, 1985). Critical thinking mobilizes a high level of evaluative and creative skills. Above all, the "critical" dimension derives from the ability to reflect upon one's thinking processes. Critical thinking thus implies a high level of intellectual autonomy.

Most studies emphasize logic as the dominant aspect of critical thinking. A critical thinker is capable of avoiding the logical pitfalls of sophistry. Logic is assuredly a central dimension of critical thinking and certainly the most easily measurable one. Critical thinking tests that currently dominate the market focus almost entirely upon this dimension, as is the case with the Cornell Critical Thinking Test, the Military and Defense Critical Thinking Inventory, and the Watson Glaser Critical Thinking Test, among others. However, critical thinking should not be reduced in a "logico-scientific approach" to a simple "algorithm" (Maggart, 2000; Paparone, 2014). Frankly, there is

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nothing particularly critical in following the rules of logic, even though these rules can sometimes show a high level of complexity. More broadly, the "critical" dimension that characterizes critical thinking requires *the ability to reflect upon one's thinking process*. Its true potential for officers lies precisely in the intellectual autonomy it provides. To think critically is to take a step back and look at one's thoughts to avoid certain prejudices and reflexes of thought that lead to a superficial or impartial grasping of reality.

To be critical is to show autonomy in thinking. Autonomy has two dimensions. First, it involves the ability to engage one's thoughts beyond simple ways of thinking, which can be called "automatic mode of cognitive thought" (Gerras, 2011, p. 5). Throughout our lives, few of the daily actions we undertake are the result of critical thinking processes. Most of these actions simply derive from certain thinking habits that stem from the stable, repetitive, and predictable framework in which we live our lives. For example, choosing what clothes to wear to work, what meal we are going to eat for supper, or when we plan our weekend activities only involves a limited thinking process. Critical thinking mobilizes deeper and more complex intellectual processes, enabling subjects through self-reflection to distance themselves from these "automatic" thinking processes.

The second dimension of autonomy inherent to critical thinking is much more crucial for the military institution: the capacity to think outside of the commonly shared points of view of one's milieu. Critical thinking allows the individual to engage one's thoughts regardless of what others think. To be clear, this is not limited to the narrow view as often applied in the social sciences. Critical thinking predominantly refers to an intellectual posture consisting of systematic rejection of the dominant or mainstream theories in favor of precisely labeled "critical" social theories. On some occasions, to share the majority's point of view when it is the right thing to do and when it results from a thoughtful and reflexive process is to think critically. To be able to resist social pressure—particularly strong within the military—to engage one's point of view independently, through thoughtful, rational arguments, and self-reflection, is to think critically.

Critical Thinking as an Effective Element of the Military Decision-Making Process

Military organizations generally exhibit a high level of social conformity among members. Several factors explain this trend. Their unique nature as "process-driven organizations," their particular end-mission that involves the potential use of lethal force, and the rigid structure of authority that frames the social relationships between members, military organizations inevitably tend to a "standardization of thought" (Maggart, 2000, p. 7) among soldiers, noncommissioned officers, and commissioned officers alike. Moreover, the professionalization of armies during the 20th century, which has led to the bureaucratization of the organization—a phe-

nomenon that has grown in recent years—through the imposition of standardization of tools, training, methods, and procedures, has undoubtedly contributed to this phenomenon. Studies show that this tendency is reinforced by the fact that general and flag officers, whose influence in the maintenance of such a culture is determinant, tend to demonstrate personalities more reluctant to change their minds (Gerras & Wong, 2013). Military institutions are institutions within which we find more commonly a form of "group thinking" (Gerras, 2011, p. 26). This social conformity assuredly serves a purpose, as it contributes to strengthening the esprit de corps and the bond of trust between military personnel, a fundamental requirement of this singular profession. But the downside is that it leads to an organizational culture in which members are less capable of showing autonomy of thinking and thus, in turn, to a form of institutional immobility. Resistance to innovation generally characterized military organizations, as new ideas find it harder to break through in such an environment (Hill, 2015).

This social conformity, the resistance to innovation, and the resulting institutional immobility are highly problematic for organizations that need to adapt to new realities as threats and operational requirements evolve. History books are filled with examples of military powers that were defeated on the battlefield because of their officer's inability or refusal to question their procedures, their techniques, and more fundamentally, their ways of thinking. Criticism shared in discussions and debates helps challenge traditions and established ways of thinking, allowing the rejection of outdated or inadequate ways of doing things and enabling new ideas and innovative decisions. This intellectual skill is crucial for innovation through the creation of new ideas and new ways of thinking when confronted with unpredictable or previously unknown realities. Institutions in which members can exercise critical thinking show a higher potential for innovation than institutions that show a strong attachment to unquestioned habits of thought (Guillot, 2006). In the present operational context marked by complexity, uncertainty, and unprecedented threats, critical thinking among officers is crucial for military organizations.

Professional Use of Critical Thinking in the Military Decision-Making Process

Critical thinking is essential to the military institution in the current operational environment. Some might argue that despite its advantages, critical thinking nevertheless remains hardly compatible with military authority requirements, which implies the duty to obey, as some form of skepticism, curiosity, and imagination fuels this intellectual skill. Isn't this contradiction truer in the military academy's context, in which the primary training objective is to help young men and women understand the true meaning of authority and command? Isn't this training objective presently

more crucial, given that the dominant culture in Western liberal societies manifests a crisis of authority in general? In this case, doesn't the teaching of critical thinking to officer-cadets risk undermining their training as future officers, and ultimately, the military chain of command altogether? In fact, encouraging officer-cadets at military academies to develop their critical thinking skills is highly compatible with learning how to obey and to command. When used to serve the profession of arms, as part of a well-marked practice, *critical thinking can strengthen leadership skills and thus the military institution's authority as a whole.* Even in an organization in which the decision-making process emerges from a power relationship exercised from the top down such as the military institution, critical thinking can be a real asset.

As previously discussed, critical thinking comes with the ability to formulate views contrary to those of a military's milieu; that is, opinions that may differ from those of peers or colleagues and those belonging to a superior. Critical thinking implies the possibility, when appropriate, of questioning the views of one's chain of command. Without such a provision, the benefits of critical thinking for the military institution would only be limited. That said, in order to be a real asset in the military decision-making process and to actually contribute to innovative decisions, this must be done in accordance with some key parameters that every officer-cadet must learn early in his or her career and at the same time as he or she learns to obey authority and to command. The acquisition of this framework in which critical thinking must be exercised for a professional purpose is essential because it guarantees its overall compatibility with the military chain of command and its effectiveness in the decision-making process.

The first parameter is that critical thinking must never undermine the legitimacy of the chain of command. To feed discussion, critiques should always focus upon views, ideas, and opinions and never be directed toward the person formulating these views, ideas, or opinions. To clarify, to issue an opinion contrary to that of one's superior must never imply, directly or indirectly, any rejection of this superior's authority as the holder of command responsibility. Early in their careers, officer-cadets must learn that commanding always comes with great responsibility, which makes commanding officers fully accountable for their decisions. Whether a decision has been taken by a commanding officer alone without discussion, or whether it follows extensive consultation with colleagues or even subordinates, the *ultimate responsibility* for this decision always rests upon the shoulders of the officer in command. Critical thinking should never challenge this fundamental principle of the chain of command. In other words, the use of critical thinking in the military decision-making process does not involve any kind of devolution of authority or any change in the traditional top-down structure of command. It should always serve to reinforce the decision-making process by providing views that help to inform a decision.

The second parameter for the professional use of critical thinking in the military decision-making process acknowledges that decision-making is not an exact science. This parameter serves to reinforce the first. Even a well-respected officer can some-

times come up with plans that fail. Failure does not always entirely rest upon the person who made the plan—though some officers may be "better" than others at planning—but upon the elementary fact that any plan, however well thought out, involves a certain level of uncertainty or unpredictability. This situation not only derives from the nature of the information upon which the planning is based, which is inherently imperfect—but it is also an even truer reality on the battlefield, under the effect of the so-called "fog of war." It results from the very nature of reality itself. Without engaging this article into ontological discussions, we must admit that the real inevitably escapes perfect conceptualization. Reality is always elusive. To predict with perfect certainty the effects of an action upon the real is impossible. Accepting that makes it easier to understand that critical thinking should always be directed only toward an idea or a plan and never toward the subject who formulated the idea or conceived of the plan. Criticism must always aim at the potential degree of success of a plan, admitting from the outset that an infallible plan is impossible. Thus, the failure of a plan does not automatically imply the incompetence of the officer who designed it—that said, this in no way affects the fact that this officer remains fully and legally accountable for his or her decision, as discussed earlier.

The third parameter is that critical thinking should never undermine the duty to obey. Critically expressing thought in a decision-making process is a professional responsibility for any officer, including junior officers. But when discussion of an issue has come to an end, as indicated by the commanding officer, all parties must cease criticism and follow the issued orders. Within the decision-making process, there is a time to criticize and a time to obey. When orders are issued, all personnel must do everything in their power to contribute to the success of the mission, even if they may have had some initial reservations on the final decision. All parties must fully commit themselves to the task entrusted to them in their area of responsibilities and authority. Success in military operations, or any type of operations, always depends upon the commitment of everyone toward the achievement of the mission ordered by the commanding officer.

The development of critical thinking for officer-cadets at military academies should always coincide with the acquisition of these three parameters, which can only guarantee its professional application in the decision-making process and its overall compatibility with the military chain of command.

Furthermore, if correctly applied, critical thinking can reinforce the military chain of command, particularly the relationship of trust that must exist between leaders and subordinates at every echelon. The hierarchical chain of command has proven in history to be the most effective management system for military organizations. It is the most capable of mobilizing the resources and forces needed to defeat an enemy on the battlefield and conduct military operations in general. But its effectiveness largely derives from the bond of trust that holds together the hierarchical structure of authority. It rests on the confidence subordinates place in their leaders and vice versa.

As previously mentioned, critical thinking refers to the ability to question asserted truths or norms in one's milieu, and above all, the ability to formulate critiques as part of the decision-making process. Critical thinking thus inevitably implies a certain level of self-confidence; for a young officer, for example, to be able to criticize the idea expressed by a more senior officer, all the more so by the commanding officer. But at the same time, it strengthens one's self-confidence; even in junior roles, officers can take an active, even modest, role in the decision-making process. We all know how capital self-confidence is in the exercise of leadership. It is always crucial for an officer to maintain a certain level of doubt; overconfidence can weaken one's authority, as officers are, above all, human beings. But in general, a high level of self-confidence inspires respect and incites obedience in subordinates. An organizational culture in which all officers, including junior officers, can take an active role in the decision-making process through the use of professional critical thinking can only reinforce the obedience subordinates demonstrate toward their leaders. Thus, they are inevitably less likely to perceive their leading officers as mere "pawns" in a command structure that exceeds them. This requirement is all the more crucial in the current context of the bureaucratization of military organizations, a phenomenon that tends to undermine the officer's authority, and in particular, junior officers. Instead, in an organizational culture in which critical thinking is encouraged, officers, including junior ones, can be seen by their subordinates as real actors capable of playing a sometimes even modest but real role in the military decision-making process.

Critical Thinking for Officer-Cadets?

Let us admit that critical thinking can be an effective tool in the military decision-making process. But why include it in training offered at military academies? And why so early in an officer's career? Some may claim that it is only much later in one's career that an officer will be called upon to make real use of critical thinking. Junior officers' field of duties and responsibilities are usually limited to enforcing orders at the tactical level. It does not normally include a contribution to the design of strategic plans. Why bother trying to teach critical thinking at military schools, where officer-cadets already have so many other skills to acquire?

The first reason has to do with the way one conceives of the primary mission of military academies and the professional development of officers. Are military academies established first and foremost to train officer-cadets within the limits of the tasks, duties, and responsibilities that await them immediately upon graduation; for example, as infantry platoon commanders? Or is it rather to prepare them for the broader range of tasks, duties, and responsibilities that await them on a longer perspective throughout their careers as officers? In other words, are military academies primarily producing lieutenants or career officers?

If it is primarily to train lieutenants, one could question the overall investment needed to support these institutions. On the one hand, training at military academies usually lasts four or five years. On the other hand, an officer may hold a junior position only for a few years during his or her career. How can such a long training for such a short job assignment be justified? There are undoubtedly differences in the qualities and skills required by flag or general officers for the accomplishment of tasks and duties and those required by junior officers. However, these differences remain within the general requirements of the officer's profession; they are not absolute. Young lieutenants are potential generals, and generals were once young lieutenants. In my opinion, military academies are institutions that provide the initial training for officers to prepare them for their first command responsibilities at a junior level, but more fundamentally, to be ready, through further training and education combined with practical experience in units and selection processes, to occupy all the great variety of positions reserved for officers, up to senior military appointments.[1]

The second reason why critical thinking should be part of the training curriculum at military academies derives from the admission that this intellectual skill can only be learned or acquired through an extensive learning process and diverse life experiences (Halpern, 2014). Unlike the intelligence quotient, which remains relatively stable in a person throughout life, critical thinking can be developed through education and training (Paul & Elder, 2019). Cognitive research tends to show that critical thinking is hard to teach; it is not an intellectual competence one acquires as a technique, like knowing how to knit, swim, or drive a car (Willingham, 2008). Critical thinking teaching represents an undeniable pedagogical challenge if one compares it to other subjects taught in the classroom. Furthermore, this difficult-to-acquire intellectual capacity has a better chance of being strengthened if individuals are exposed to it earlier in life and if military institutions provide them with actual opportunities to exercise it regularly during their professional career. Military academies that welcome young candidates for their initial training are thus the ideal milieu in which future officers can develop their critical thinking skills and acquire the professional framework so that this type of thinking contributes to the military decision-making process.

Conclusion

In the current operational environment, military institutions must remain agile and innovative. To that end, they must rely on an officer corps, which has developed the ability to think critically, so that they may quickly adapt to new realities and introduce changes when needed by criticizing outdated thinking habits. Professional use of critical thinking training should thus constitute an integral part of the education provided to officer-cadets during their initial training at military academies so that

they can be provided with all the opportunities to develop this difficult to acquire, intellectual skill and to put it to good use in the military decision-making process.

The teaching of critical thinking to officer-cadets in military academies does not guarantee the actual use of critical thinking by all officers. Nor does it guarantee the dissemination within the entire military organization of its use in the decision-making process. Military academies must acknowledge the difference between acquiring the ability to think critically and developing the disposition or the willingness to apply critical thinking (Halpern, 2000). This skill refers to an attitude, a disposition, or habit of thought that can develop and strengthen throughout one's life. Still, teaching critical thinking to officer-cadets in military academies and encouraging them to make good professional use of it after graduation does not mean that it will automatically translate into a chain of command willing to make greater room for this intellectual skill in its decision-making processes. Critical thinking thrives only when a milieu or organizational culture encourages its free expression. Critical thinking should be part of a well-established professional practice and guided by well-integrated procedures governing its usage. The chain of command at every echelon must embrace this practice so that officers of all ranks may apply it and provide the military with an increased capacity for innovation.

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Note

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