Conventional forces on unconventional battlefields

Is military education and training "on track"?

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Resumé

Etter den kalde krigen har vestlige styrker stadig oftere blitt trukket inn i ukonvensjonelle kriger. En fellesnevner i slike operasjoner er at innøvde driller og prosedyrer sjelden er tilpasset omgivelsene. Dette kan forklares ved at vestlige styrker først og fremst er trent og utdannet for konvensjonell krig mot andre lands styrker, som de russiske. Økt globalisering har imidlertid bidratt til å skape et mer sammensatt trusselbilde. I dette bildet avtegner det seg et større mangfold av aktører, intensjoner og kapabiliteter. Kriger som på én og samme tid føres på konvensjonelt og ukonvensjonelt vis flyter over i hverandre. Ettersom stadig flere operasjoner gjennomføres innad i stater – ikke mellom stater – utfordres også de klassiske militærpedagogiske læringsstrategiene. Dette skaper større usikkerhet om hvilken pedagogikk som gir mest relevant trening og utdanning. Å utdanne styrker som fungerer like godt i så vel konvensjonelle som ukonvensjonelle kriger, kan derfor vise seg å være en av de største utfordringene i fremtiden. Tett og vedvarende samarbeid mellom erfarne mentorer og «ferskere» studenter (soldater), i et bredt, tverrfaglig og internasjonalt miljø, viser seg å gi de beste soldatene.

THE POST-COLD WAR era is often seen as a historical period devoid of clear-cut, balanced and objective military advice.[1] How should military education and training systems then orient themselves in order to counter these? In other words, what didactical principles are most useful as Western forces enter unconventional battlefields? These questions arise because unconventional battlefields, i.e. in Ukraine, Afghanistan, Iraq, Libya and Syria "... radically contradict the institutionalized language of control"; there are increasingly few military experiences that can be claimed to be universally true or of an objective nature.[2] On the contrary, as this article seeks to explore, employing Western conventional forces against unconventional opponents, in Eastern Europe, the Middle East or Central Asia, may stir dissent, relativism and subjectivism rather than unity of purpose and unity of command as far as military education and training is concerned.

This article will therefore evaluate the military education and training systems from a NATO and Norwegian perspective respectively. The purpose is to increase our knowledge of which pedagogical principles are the most useful as Western troops prepare themselves for the next war. The background for this endeavour is not only the peculiar mix of conventional and unconventional forces as seen in Russia's hybrid warfare inside Ukraine.[3] It is also the Western operations in Central Asia and the Middle East, where conventional forces have strived to provide favourable political outcomes. In Afghanistan, Iraq, Libya and Syria, compel-

ling empirical evidence signify all the hallmarks of an unconventional battlefield. It is a theatre of operations characterised by unexpected, unique and uncontrollable events. Spurred by numerous improvised but surprisingly efficient non-conventional capabilities, unknown actors with unknown intentions characterise the environment.

Tactical operations thereby tend to occur at short notice. Initiated by opponents that operate autonomously, decentralised and with an asymmetric *modus operandi* and the absence of sufficient preparation time is more the rule than an exception. An asymmetric modus operandi is defined in contrast to Western conventional forces, which tend to operate more centralised. However, under a strict unity of command, with a strict unity of purpose, pre-defined drills and Rules of Engagement, may impede adaptation when fighting opponents with an asymmetric *modus operandi*.

In the post-Cold War period, however, operations have unfolded under circumstances that are not war in a conventional sense. Instead, wars have increasingly been associated with diffuse notions such as risks[4] or crises.[5] Non-state actors have been the most common opponents. It leaves behind a number of questions related to who the *actors* actually are, what their *intentions* might be, and what *capabilities* they actually possess.

How these unknowns – *actors, intentions* and *capabilities* – affect military pedagogy is the focus in this analysis. Why is this so; because unintended accidents or poor judgements on unconventional battlefields seem to be a common theme? Among the most well-known examples are the US Marine Corps operation towards a Fallujah mosque in Iraq 2004; and the German request for US air support against incorrectly identified insurgents in Kunduz, Afghanistan 2009,

leading to more than 90 civilian casualties. Which pedagogical principles are the most useful to such tactical failures in the future? Responding quickly and intelligently on unconventional battlefields – more often than not without pre-defined routines, relevant doctrines or tailored units – may therefore be worth scrutinising. Modern forces are designed, trained and equipped to handle unexpected events, at short notice with a high degree of professionalism; but still, Western military pedagogy struggles with unexpected events and how to add them to soldiers' skill-set.[6]

Previous Research

In Germany, addressing the issues concerning the unconventional battlefield has occasionally been voiced by Ulrich Beck, who claimed "we live, think and act in concepts that are historically obsolete but which nonetheless continue to govern our thinking and acting".[7] In Scandinavia, Helgard Mahrd has also discussed the issues, albeit in a more indirect manner. Through her extensive analysis of Hannah Arendt's works, "reflective judgements" and "concepts of politics" are used to describe the phenomenon.[8] Anders McD Sookermany, emphasises the ontological and epistemological basis for military skill-acquisition, has also produced important works.[9] According to Sookermany, unexpected chains-of-events that tend to characterise unconventional battlefields are a key challenge to traditional military didactics. Even though Western troops have transformed from a conscription-based force to a professional one, adaption nevertheless seems difficult. Much of this can be attributed to an extremely conservative military culture. Traditional deterrence and decisive battles towards other states' conventional

forces seem to dominate military education and training. Symmetrical opponents (i.e. Russian conventional forces with similar *modus operandi* and organisation) seem to be the preferred benchmark. Thus, analysing the tactical outcome of this transformation, Jørgen W. Eriksens empirical works (2011) illustrate how traditional educational principles are challenged. As conventional army units from the far north prepare themselves for Afghanistan, scholastic education strategies dominate: first, a theoretical introduction in the classroom; thereafter, a final practical exercise in the field outside the barracks. Such pedagogy may be rational and stringent in its appearance, but it may be unnecessarily rigid and rule-oriented. It may even preclude rapid adjustment between conventional and unconventional battlefields. Following a rigid set of pedagogic principles may also impede a more dynamic environment for teaching, learning and adaptation.[10]

A plausible interpretation of Beck, Mahrd, Sookermany and Eriksen may therefore indicate that pedagogical reforms are necessary. Western forces need to rethink their didactics. Non-scholastic methods, defined in its simplest terms as education based upon individual experimental learning, often through close dialogue and reflection between students and teachers therefore needs more attention. Preparation for the unconventional battlefield needs to focus on "what works and what does not work". Non-scholastic methods emphasise authentic observations and contextual reflections "here and now".[11]

New perspectives and problem statements

The abovementioned research, however, ignores one fact; that "concepts of politics" and "military skill-acquisition" need to be contextualised. Operational challenges on the ground need to be refined all the way down to those who deal with the enemy. What impact may unknown actors, unknown intentions and unknown capabilities have on military pedagogics? To what extent is military education and training, which tends to emphasise other states' conventional forces, able to address unconventional forces? How may this ambiguity be addressed by updated pedagogical strategies? Most scholars in the field of military pedagogics seem to ignore these questions. Military pedagogics are therefore often analysed in isolation from its fundamental problem; to deal with threats in ways that make political objectives attainable.

The relevance of contextualising military pedagogics should be obvious. At the *tactical* level, didactic models – defined here in its simplest term as efforts trying to teach or instruct others – have proven inadequate in improving soldiers' conventional mind-set. Pre-defined drills and doctrines often seem locked in by scholastic rules, too rigid to compete with a broad array of unknown actors such as in Afghanistan, Iraq, Libya or Syria.[12] At the *operational* level, education and training shortages have come to the fore when staff officers employ forces towards opponents that change from a conventional to an unconventional *modus operandi*, such as in Libya.[13] Unexpected events like these seem to cause more chaos than success, as the huge power-vacuum created by Western forces in Libya illustrates.[14] In addition, at the *military-strategic* level, generals' competence and professional authority are frequently questioned. Politicians often seem hugely disappointed by military intelligence failures and inability to predict "the unexpected".[15]

Based on these assumptions, three questions arise: how can challenges to military

didactics be explained; how are these challenges spelled out in practice; and finally, what can be done about it? Using empirical evidence from NATO and the Norwegian Armed Forces, these 3 questions are addressed consecutively.

How can didactical challenges be explained?

According to the Prussian military theorist Carl von Clausewitz (1780–1831), war's nature is often described as a state of fear, chaos and uncertainty.[16] The characteristics, however, are constantly changing. Opponents' tactics, their means and ends, often seem to fluctuate with the introduction of new technology, new knowledge, or a gradual change in belief- and value systems. Likewise, Western reasoning for employing force often changes from one historical period to another.[17] In contrast to the Cold War scenario of waging war towards Soviet mechanised formations, most wars of today take place inside states. They also often have a limited rather than an existential political purpose.

These wars, which sometimes are called "improper wars" due to their political indecisiveness, are often pursued far from own territory. Most often, they are labelled stability operations or counter insurgency operations (COIN).[18] These wars often develop through protracted campaigns – against actors that do not necessarily operate under a centralised state command (even though they can be, as in the case of Iran's support to Hezbollah or Russia's support to insurgents in Eastern Ukraine). Most often, they tend to operate autonomously, decentralised and on an ad hoc basis. These actors, i.e. the Pasthu tribes in Faryab, Afghanistan, or the Misrata militias in Libya, find fertile ground inside collapsed states. Under such circumstances, conventional forces with insufficient flexibility in drills and procedures, often seems counter-productive.

This is firstly because it is almost impossible to create the conditions in where elusive opponents can be compelled into a corner. A "proper war" – defined as a short and decisive conventional battle – can therefore not be achieved. A definite political outcome therefore has a slim chance for success. As many non-state actors operate without a unified chain of command, unexpected chains of events are likely to exceed the flexibility gained through pre-arranged doctrines and a rigid set of scholastic didactics. The problem often associated with non-state opponents is that they tend to trigger tactical counter-reactions; these tend to occur as Western troops pursue pre-defined drills designed for conventional wars. This response however, may often be unsuited to the local context. Counter-reactions often tend to trigger new counter-reactions and a subsequent chain of new uncontrollable events.[19] This again may exaggerate the already existing social, political or economic grievance in theatre.[20] At the next crossroad, this dynamic may lead to a more cautious approach: as Western troops become less confident, tactical initiatives and operational momentum may be lost. Shortcomings in situational awareness and important details in the operational planning processes often tend to be the outcome.[21]

As military didactics seek to produce more adaptive forces, pedagogical principles energising innovative ideas, creative thinking and diversity inside cohesive units have become more important.[22] Hence, implementing new knowledge and experience into existing procedures is also one of the most demanding exercises for conventional forces. Why is this so? The question demands us to scrutinise the anatomy of unconventional

battlefields. Structural guidance is provided by the 3 variables that constitute conventional forces' threat assessments: *actors, intentions* and *capabilities*.

A myriad of actors

Based upon the empirical evidence from Western operations in Afghanistan[23] and Iraq,[24] it seems clear that actors cannot be dichotomised along a simplified "friend-foe" axis. The diversity of actors operating on behalf of themselves or on behalf of their clan or tribe, do not only lead to simplified and optimistic calculations of expected outcomes".[25] The myriad of opportunists and local power brokers also challenge the objective and unifying consensus that used to characterise military didactics; a battlefield where own troops could be trained to defeat a uniformed, disciplined and cohesive aggressor. Indicators for this didactic are the binary causality between: "friends or foes"; "peace or war"; "us or them"; "all or nothing" – inside a "total war" context. As threats were clearly defined, such an environment provided fertile ground for rule-oriented and scholastic pedagogies. It may even be valid today, as long as opponents operate cohesively under political control inside a centralised and disciplined chain of command. It allows opponents to dress up with a distinct signature according to familiar and pre-defined doctrines.[26]

On unconventional battlefields, however, tactical operations are often triggered by unexpected counter-moves. More often than not, actors operate autonomously for a variety of reasons. They may even decide to change side or exploit the Western presence as a long-term profitable business. A common feature is nevertheless the bundle of unexpected courses of actions that, according to Flynn, Pottinger and Batchelor, "serves to multiply our enemies rather than subtract them".[27] Orthodox didactical theory, most notably within the scholastic school of thought, may in this sense be too rigid to promote operational flexibility. As pointed out by Eriksen, different cultures, languages and other human factors present a "transfer problem" for Western forces that are employed into unfamiliar surroundings. This problem cannot be bridged by scholastic predefined performance- or simulator-based training at home.[28] This argument is also underscored by a sociological school of thought, most notably in Beck's risk society concept, where educational models, it is argued, must be seen in a broader and more holistic context where opposing actors have become more mobile, volatile and abstract.[29]

A myriad of intentions

As the number of actors increase, the myriad of intentions – defined as "motives for action" – are also likely to multiply. Contrary to conventional battlefields, intentions are no longer authorised throughout a disciplined or centralised chain of command. Hostile motives may thereby go beyond territorial acquisitions and a much-wanted decisive battle. Intentions may also be related to warlords' personal status, tribal prestige or quest for revenge. Hostile action may also be motivated by control of scarce resources. As motives increasingly relate to social, economic or political grievances,[30] military education and training becomes exposed to a broader set of subjective real-life experiences. This contrasts a conventional paradigm consisting of more or less rational calculations from state-centric actors.[31]

Depending on what soldiers and combat units have experienced, military organisations are likely to carry with them different knowledge. Countering rebel strongholds or individual power brokers' influence is therefore likely to fuel different military responses. Each response may favour alternative didactic models. It may therefore seem as if different contexts require different expertise. This again may require a broader spectre of didactic models. Among these could be pedagogical principles that embrace non-scholastic models because they pay more tribute to unpredictable chains of events.

A wider spectre of capabilities

Finally, it may also be claimed that capabilities can no longer be quantitatively defined within the narrow context of physical figures and numbers. The dynamic mixture of new actors and new intentions often leads to new capabilities. These are *means* that sometimes may generate as much political impact as Western conventional capabilities. Examples may be religious faith, local knowledge, ethnic support, cultural awareness or language skills. Numerical preponderance in aircraft, navy vessels or army units may, in this respect, be of lesser relevance.[32] On the contrary, experiences from Afghanistan and Iraq provide compelling evidence for more emphasis on qualitative or "softer" capabilities. Defined as cognitive skills that energise actors' ability to rapidly and continuously adapt to opponents' courses of action, which are increasingly improved as the war goes on. Rather than emphasising mere combat skills based on scholastic pre-deployment training at home, more contextual competence could be built to enhance soldiers' cognitive and contextual performance. Didactic theories that promote clear-cut and rule-orientated

confrontation may therefore be challenged. Non-scholastic approaches that seek to improve flexibility outside a pre-defined framework of drills and procedures could be an alternative way.

To sum up, the three variables *actors*, *intentions* and *capabilities* are instrumental for how forces educate and train themselves. Contrasting the conventional Cold War paradigm, the absence of clear-cut threats presents a fundamental challenge. This is particularly so for scholastic models that seek to address "the unforeseen". An important question is therefore: where does this lead us? How is the balance between conventional and unconventional battlefields addressed inside conventional force structures? Are Western forces able to institutionalise effective skill-acquisition mechanisms on unconventional battlefields? By exploring the multi-national level in NATO and the national level in Norway, some tentative assumptions may be proposed.

Why are NATO and Norway chosen as cases? NATO has just accomplished its first Article V-operation in Afghanistan. This war lasted for more than a decade. The threat consisted of elusive actors with a myriad of intentions and capabilities. It is therefore of value to scrutinise the results while the empirical data is still fresh. It may also be of relevance as NATO refocuses its defence efforts towards some of the same challenges in Eastern Europe. Russia's concept of "hybrid warfare" creates an unconventional battlefield in Ukraine, and may as such have similarities with previous battlefields in Afghanistan. Choosing Norway as a case is somewhat more ambiguous. On the one hand, Norwegian forces are hardly representative of the broader spectrum of Western forces. The validity may therefore be of limited value. During the past decade however, Norway has become a middle-sized military power

in NATO. Historically, Norway is regarded as one of the Alliance's staunchest members, with forces that make a small state "punch above its weight".[33] The Norwegian case may therefore be representative for many smaller states, which strive to adapt towards unconventional threats while also having conventional battle skills in mind.

On didactic controversy

Based on the actor-intention-capability logic, it should not come as a surprise that scholastic and causal-oriented education models have become increasingly ambiguous. On the one hand, Western politicians, i.e. in the Scandinavian countries, expect their soldiers to perform quickly and intelligently on both conventional and unconventional battlefields.[34] On the other hand, military organisations still seem to emphasise conventional operations based on a rule-based and scholastic education. This leaves little room for experimental learning in a "here-and-now" context.[35] Balancing the two seems to be too demanding. Challenges may be identified both at the multinational and national levels of analysis. How can this be explained?

At the multinational level, empirical knowledge from NATO finds explanatory support in the organisational school of thought. Explanatory mechanisms developed by James G. March and Johan P. Olsen (1989) claim that large organisations tend to "freeze"; deeply rooted in the early years of an organisation, institutionalised patterns of behaviour become formative. How organisations learn, adapt and eventually address new challenges tend to follow a sort of "path dependency".[36] This logic seems to be applicable to NATO as the alliance was originally built to counter Soviet conventional forces on a clearly defined European battle-field. How pre-defined drills, standard operational procedures and war-fighting capabilities adjust to non-European theatres – and generate new knowledge from unconventional battlefields – has therefore become a key challenge. This again, as in the Afghan case, has significantly reduced NATO's operational relevance and even its legitimacy.[37] Emilie Simpson's argument, that NATO-forces have little knowledge about the complex mixture of actors, intentions, capabilities in southern Afghanistan, and that "a traditional polarised view of the conflict" dominates the operational approach,[38] finds fertile ground in March and Olsen's perspectives. Here, NATO's "path dependency" from the Cold War leaves few incentives for more adaptive didactics, i.e. by means of non-scholastic experimental or "learning-in-doing"-approaches.[39]

At the national level, Norway's retention of scholastic models finds support in the works by Philip Selznick. Inside a rational chain-of-command, different sub-units have different roles and different responsibilities. Land-, sea- and air forces have separate reasons to exist. The services are designed to accomplish different tasks with different capabilities. This variety often generates strong organisational diversities. Inside the various services and combat units; sub-cultures, norms, identities and even own agendas and hidden objectives thrive. Sometimes these mechanisms coincide with official statements from the Minister of Defence or the Chief of Defence. But more often than not, they create division between "informal norms" and "formal institutions".[40] While land forces operate in Afghanistan, naval forces operate against pirates in the Gulf of Aden. At the same time, air forces deter Russian fighters along the Norwegian and Baltic borders. These differing roles have a great impact on how services and soldiers interpret threats, and how

threats are addressed didactically at home during pre-deployment exercises.[41]

The two perspectives from NATO and Norway are far from new. The American political scientist Graham Allison has nevertheless elegantly encapsulated them. Allison claims that "Where you stand depends on where you sit", meaning your organisational seating may often influence didactic standpoints.[42] How does this friction come into practice, and how does it affect soldiers' skill-acquisition?

Skill-acquisition in NATO

Following a six-year "enemy-centric" strategy in Afghanistan (2003–2009), ISAF's key imperative was "... to adapt more dynamically in order to grasp the essence of previous lessons".[43] As NATO strived to overcome the legacy of a conventional battlefield in Europe, the Afghan context seemed to challenge the causal correlation between violent destruction of the enemy and the political outcome in the country. NATO-operations unfolded inside an environment where the combat performance was interpreted differently by various social and ethnic groups (actors). It led to numerous unexpected and uncontrollable chains of events. It ultimately contributed to undermine ISAF's presence. This was, according to Emile Simpson (2012), because Western forces' drills and doctrines communicated the wrong intentions. However, the rule-based education- and training system at home prescribed a conventional military context that hardly went beyond physical destruction. As pointed out by Simpson, "[...] war does not therefore provide the strategists with an apolitical domain whose rules are fixed, within which the use of force relative to the enemy is the only variable which influences the outcome of war".[44] Rather, the unconventional complexity – as described in the previous actor-intention-capability logic – stirred numerous individual meanings and subjective interpretations. The term *meaning*, defined here as the local individuals' personal perception of ISAF's appearance, went beyond ISAF's preoccupation with rule-oriented skill-acquisitions.

Different interpretations of how ISAF should conduct itself on operations also led to intra-allied discord. This again hampered the troops' adaptability and flexibility, particularly so in terms of how new knowledge was exploited by more innovative and non-scholastic skill-acquisition models. The consequence seemed to be a dysfunctional learning-process. This again, it can be argued, has been detrimental for future contingencies' pre-deployment training.[45] The empirical findings that underscore this perspective may indicate the following: proceeding beyond scholastic rigidity towards a more flexible "learning-in-doing-logic" is difficult. This is a great paradox as unexpected events on unconventional battlefields have been a primary undertaking for almost two decades; it has even acted as a compass for European defence reforms aiming to become more relevant through an expeditionary design.[46] Non-state actors seem, at least to some extent, to be spared from bureaucratic and inter-allied discord. Compared to NATO, they seem to adapt more effectively and rapidly. Contrasting NATO-forces' state-centric "friend-foe"-rationale and its subsequent rule-oriented didactic, non-state actors seems to be less tied to scholastic pre-defined rules and regulation. In terms of learning and adaptation, we may conclude that NATO-forces seem to be worse off than their opponents are.

It may also be argued that skills on unconventional battlefields are less vital than

conventional combat skills for national defence within Europe. The unwillingness to re-arrange education- and training facilities may therefore explain some of the reluctance towards so-called "out-of-area" operations. These sentiments may have intensified as Russia has become increasingly self-confident. NATO's strategic concept from 2010, which signalled that the Alliance should "return to its roots", may have made the balance between conventional and unconventional battlefields less important.[47]

Skill-acquisition in Norway

How can the national level be described? What is the main didactic controversy inside the Norwegian Armed Forces? According to Inge Kampenes (2011), the military *Lessons Learned*-regime builds on a 3-step logic. First, personal experiences from returning veterans are written down. This is done either by an officer in charge or by an expert group that has been personally involved. Second, the reports are sent to the Norwegian Operational Headquarters, which is tasked to scrutinise the content and decide what is important. Based on this judgement, concrete action points are – most often – extracted. Third, the action points are disseminated to education and training units that might have an interest. The recipients are most often military organisations at the lowest tactical level, with other personnel and institutional affiliations, for follow-up and preferably mitigation.[48]

Intuitively, this logic seems to follow a rational procedure in accordance with scholastic deductions of pre-defined remedial action-points. Different people, at different levels, nevertheless interpret the reports differently. Some education- and training centres will find them useful and exploit them for further learning and experimenting, while others will dislike them and ignore them. Some may not even care or even work against them. Again, "where you stand depends on where you sit". In accordance with explanatory mechanisms briefly elaborated on by March, Olsen and Seltznick, the Norwegian system seems to run into some of the same difficulties as NATO: the absence of unifying criteria for success throughout the chain-of-command; the absence of clearly defined roles and responsibilities; and diverse contextual interpretation– all contribute to a so-called "post-modern school of thought". This school is often characterised by relativism and individual interpretations. This myriad of subjectivism impedes combat units' adaptability towards new experiences and new knowledge.[49]

This may in part be due to the absence of a unifying set of mutually reinforcing threat perceptions. More precisely, it means the absence of a conventional *actor-intention-capability* logic that constitutes a quantitative and objective fundament for cohesive and collective learning processes. However, it may also be due to a post-modern absence of collective and unifying benchmarks; standards that during the Cold War used to cement cohesive force structure across service branches. As small European states are forced into roles as providers of niche capabilities in US-led coalitions, collective benchmarks for *objective lessons* have faltered. Despite ambitious goals of thinking creatively "outside the box", Norwegian sub-units tend to preserve pre-defined rules, own regulations and individual procedures.[50]

Russian assertiveness in Eastern Europe, however, may have bolstered the conventional mind-set. The scholastic pedagogy used in military education and training may have impeded flexibility between conventional and unconventional battlefields. Norway's

return to the far north , as a primary strategic area of interest since 2005,[51] may as such contribute to explanations where unconventional battlefields and their adjacent pedagogics lose relevance, momentum and attention.

Conclusions

In this article, the *actor-intention-capability* logic has been used to visualise pedagogical challenges to soldiers' skill-acquisition on unconventional battlefields. It can be argued that two points have become clear: (i) Western forces prefer to maintain scholastic and rule-oriented approaches even though operations on unconventional battlefields dominate; (ii) any didactical preparations for unconventional battlefields seem to generate institutional ambiguity and friction. This controversy seems to be evident at the multi-national and national level of analysis. The two points may be of interest as they contradict Ulrich Beck's analysis, claiming that enemies tend to unite societies, induce cohesiveness and ultimately bridge other societal divisions.[52] This analysis has indicated the opposite. It has claimed that the most prevalent enemies after the Cold War have had a fragmented effect on military organisations. Consequently, Western forces have been reactive and reluctant when it comes to changing their *modus operandi* after the Cold War.

However, if the *actor-intention-capability* logic is valid, one final question remains: what can be done about it? How can military organisations counter the unpredictability permeating 21st Century combat? Based on the previous analysis, four principles may be deduced and serve as preliminary conclusions: *Mentoring, networking, probing* and *experimenting*.

Mentoring

Closer and more persistent interaction between young skill-acquiring participants and mentors that are more experienced may overcome rule- and regulation based education. Designed to reflect and elaborate on practical skills in small seminars, discussions of battlefield experiences may create a more dynamic and innovative learning-process. This knowledge can be tested among participants – or students (soldiers) – in real-life operations. Thereafter, the experiences can be reflected upon, conceptually refined, and re-funnelled into non-scholastic seminars and pre-deployment training. This educational design promotes a more authentic context. It may also pay more attention to "here-and-now" situations. As such, it may contrast the more abstract narratives that pre-deployment training tends to emphasise before troops are sent to unconventional battlefields.

Another argument is the following: coupled with the students' subjective consciousness, mentors' personal experiences may facilitate learning processes that are more open-ended. It may allow soldiers to gain more knowledge because abstract concepts are validated and empirically tested. Guided by a team of specially educated mentors, soldiers' military units may even start to develop a common point of reference: a shared operational framework from where new experiences and innovative knowledge ultimately leads to transformative performances. This is not due to individual or subjective statements from strong individuals, which often set the premises for what is acceptable and what is unacceptable knowledge. On the contrary, as new experiences are deduced into more abstract, universal and long-term knowledge, it is because soldiers are allowed to share a common framework.

Mentors are however, like anyone else, biased. Prejudice often influences mentors' knowledge and prejudice often stems from intense socialisation-processes. These mechanisms seem to thrive inside military rule- and regulation oriented cultures. Diversity among mentors is therefore crucial to overcome stigma, politically correctness and servile discussions. This may be particularly so among career officers who are apprehensive of sanctions further up in the chain-of-command. It is therefore important to widen the possible outcome for reflection and elaboration. Active mentoring may as such increase soldiers' consciousness and subjective experience. These characteristics have often been neglected by scholastic pedagogic because "emphasis to acquisition, manipulation, and recall of abstract symbols" has dominated.[53]

Networking

Diversity is firstly generated through networking – or "a community of practice".[54] This network emerges between participants, mentors and students with different experiences and perspectives. Associating own learning- and pedagogical models to other education- and training centres may therefore create a more dynamic "community of practice". A common feature in these networks would be real-life diversity of knowledge. This is a kind of skill-acquisition that cannot be generated inside smaller and isolated milieus at the tactical level. Volume is critical for creating knowledge, and small European forces may easily experience educational fragmentation rather than educational reinforcements through larger and more robust milieus. Hence, lack of real life experience may be a real challenge for smaller nations that seldom perceive national interests at stake far from

own territories. Crucial input to soldiers' skill-acquisition and learning processes at home may thereby be missed.[55]

Clusters of mentors and students from various national and international institutions may nevertheless challenge preconceived perceptions. Based on interdisciplinary discussions on a regular basis, interaction through discussions and practical field studies may be feasible. The pedagogical outcome may be a more dynamic knowledge environment that takes a more dynamic stance towards unexpected events on unconventional battlefields.

Probing

The various education- and training centres must, however, constantly probe other colleagues' experiences and didactic methods. This method often seems to be the most effective incentive for continuous improvements. As pointed out by Helgard Mahrdt, "the art of conversation" is key for any political – and we may add *military* – judgement.[56] Those education and training units that have no culture for probing "what went wrong and what went well", have slim prospects for success. As was pointed out by Sookermany and Beck, Western forces have become expeditionary in their nature. Modern combat units are therefore expected to act intelligently to unforeseen events on short notice. It can therefore be argued that by demonstrating proactive probing as a normal habit – or even as an expected procedure – a more dynamic environment is likely to emerge. This again may make it easier to attract more innovative mentors and students that are more open-minded. Under such circumstances, pedagogical theory development and theory modelling will find fertile ground.

This principle may be instrumental because it challenges the conventional scholastic principle of pursuing clearly defined learning-goals. As Western forces often tend to emphasise the net *outcome* of education and training programmes rather that the *process* leading up to improved performance, learning tend to lose authentic relevance and become contextually detached. The key problem may be, according to Jennifer A. Moon, the neglect of "reflective learning phases".[57] As most Western forces confront an almost chronically resource-shortage, focus on outcome tends to be more important than learning processes. Probing as a pedagogical principle may therefore provide added-value because it pays more attention to how soldiers learn rather that how training programmes should be. This logic is consistent with the definition worked out by David A. Colb (1984), claiming "learning is the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping experience and transforming it".[58] However, as Colb points out, the experiences must be transformed in order to be of usable value. This leads us to the last principle, which is experimental learning.

Experimenting

As unforeseen chains-of-events cannot be predicted, skill-acquisition needs to stimulate a sort of learning where soldiers are allowed to "try and fail".[59] By learning from personal errors and mistakes, non-scholastic models that encourage the accumulation of personal failures are likely to prevail. The art of experimenting throughout military education and training is therefore neatly correlated to a culture of questioning. As any experimental action needs to be accompanied by "reflective learning phases",[60] experiments and reflections could develop into more iterative and mutually reinforcing processes. This may, however, be a too ambitious goal for forces that by and large tend to focus on the imminent performance in war. As pointed out by Alexander L. George, "whenever a war-threatening crisis erupts, military leaders regard it as their most urgent task and highest priority to get ready to fight if war erupts".[61]

It may nevertheless be claimed that a more conscious use of the mentor-principle may make the goal attainable. By employing experienced non-commissioned officers as mentors for the younger or less experienced recruits, older colleagues may create a more open-ended learning process. This is partly achieved by asking the right questions to their younger comrades before, during and after a "try and fail" exercise. Partly also by assisting younger colleagues in deducing valid knowledge leading to empirically tested and grounded conceptual clarity.

The principle of experimenting is vital. Its importance goes beyond educating soldiers with necessary self-confidence on unconventional battlefields. Experimenting is about spearheading new educational reforms that challenge conservative cultures inside scholastic and rule-oriented doctrines. Soldiers and units that have had the privilege of building confidence, based on personal failures may therefore be key agents for a more diverse military pedagogic. This again, it can be argued, may challenge the didactic hegemony attached to Western preference for "a proper conventional war". This does not only stir creative outcomes and more innovative solutions on unconventional battlefields. It may also provide educational incentives for reforms that stir performances that are more flexible *outside the box*. Pedagogical reforms may as such be the best remedy for

conventional forces operating on unconventional battlefields in the 21st Century.

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Notes

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