

Military teaching for the future

by *Håkan Gunneriusson och Sascha Bachmann*

Resumé

Med nya militära utmaningar ställs frågan vad taktisk utbildning egentligen? Är den taktiska utbildningen något som är tidsbundet och daterat? Tesen är att det centrala vid den taktiska utbildningen är förmedlandet och hanterandet av ett taktiskt språk. För att visa på detta inleds med ett exempel från det första världskrigets kejsarliga tyska armé där relationen stat, krigsmakt, taktik och språk diskuteras. Stora taktiska förändringar kan genomföras på kort tid, under pågående konflikt med miljontals människor inblandade bara förutsättningarna finns. En välorganiserad stat med hög utbildnings och organisationsnivå är viktigt för en militär organisation då den bara är en exponent av samhället i stort. Denna del följs av taktisk utbildning vid två olika tillfällen i Sverige under det nära förflutna, dels vid stabsprogrammet, dels på officersprogrammet. Vid båda tillfällena är det uppenbart att skolandet i ett uniformt och effektivt taktiskt språk är centralt i undervisningen, oaktat den hierarkiska skillnaden vid tillfällena. Sammanfattningsvis kan sägas att på ytan må den taktiska undervisningen se sig bunden av sina scenarion och fall men att den på ett djupare plan uppehåller sig vid något mer allmänt som språk som också i lika hög grad är viktigt.

WITH NEW CHALLENGES in both war and warfare one comes to wonder if we do not need new teaching approaches of warfare for the military as well (with the former of interest to the colleagues from the disciplines of international law and relations). The answer is obviously yes; we like to see progression and symmetry in thinking, developing and evolving with COIN-operations having become commonplace and new threats emerging, such as hybrid threats or a combination of traditional and hybrid warfare – as is presently being witnessed in relation to Russia's aggressive operations in Ukraine/Crimea.

Reflecting on such realities and challenges of 21st century warfare it is hard not to feel concerned regarding the teaching of young officers for tomorrow's conflicts. Can the old military theoretical terms be said to have relevance for tomorrow? Do terms as manoeuvre warfare, movement and fire prepare the

future officer sufficiently for future tasks? The answer might look as a clear no, but it is also a superficial question as it deals with "if" and not "how". As researchers often state, the changing object of a study is merely a change of empirical material, something which is not very fundamental. Methods and perspectives matter more. So the question should then be how practice is taught and not so much what practice is taught. To approach this question one can take a variety of avenues. With respect to teaching it is easy to see that language and the use of it offers a relevant perspective.

It is obvious that language is important with regard to analyses as well as ideas and actions in conflict situations. "The Indirect Method" is in military theory seen as a wise way to affect the enemy without actually engaging him head-on. But the same action can be seen as a negative one if it is looked upon as "evasive". It is easy to fall into lin-

guistic traps if one is unaware of the power of language, and cultural prejudice may come to command interpretations rather than strictly empirical analysis. The Austro-British philosopher Ludwig Wittgenstein (1889–1951) has left a legacy of well-considered ideas of how the meaning of different words has been constructed. He is undoubtedly one of the foremost 20th century European philosophers. Wittgenstein founded a school of thought which had an impact on scientific theory in general, far beyond the halls of Cambridge's academia.

We have found that this line of reasoning is important in the analysis of conflicts in which animosity easily leads to misguided conclusions. One example is the question of how to understand the parties opposing the US led intervention in Iraq in 2003 (Operation 'Iraqi Freedom'). Wittgenstein argues that there is not always a least one common denominator for the different events described using a certain word. The events are interrelated but there is nothing quintessential to connect them other than in part. Wittgenstein exemplifies this by using the concept of "game".¹ We know what the word means as such, but many meanings of this term have very little in common with one another: for example, the Olympic Games and war games (where the latter phenomenon is ambiguous in itself).

It is important to remember this limitation of language when we formulate our questions and form our expectations; language distorts our efforts to describe reality. It would be reasonable to argue that we often cannot even come to a conclusive result, because empiricism will not allow us to. We must also be prepared for this by questioning and conducting research in such a way as to accept empirical realities. In some cases, we might not even be able to speak of one common goal for jihadists, radical

Islamists, fundamentalists; or for that matter the word "Taliban" which, when lent to the English language has basically come to mean "Islamic terrorist" whereas the word in Arabic means "erudite" (when westerners say that they are hunting "Talibans" it can easily sound, to the Muslim audience, as something reminiscent of *Khmer Rouge* or *Mao Tsedong's re-education and extermination policies*). When Muslims, for example, say that they turn to the Taliban for a solution to a problem, a Westerner may interpret this as them turning to the enemy, when they are primarily referring to someone of knowledge.²

We may be investigating a disparate collection of events, to which we have assigned a description in the form of social categories or words, without any deeper understanding. It would be naive to think that this word that we assign to a phenomenon at an early stage can hold its own when faced with empiricism. This would lead to a circular argument in which we consider ourselves able to label something without having investigated it. Now would be the right moment to remember that theoretical terms are simply words, of which a certain effort has been made to give a precise formulation, aiming to arrive at as true a statement as possible regarding the reality that the theory is only, but necessarily, a simplification of.

Wittgenstein instead talks about the concept of a word *family*. It is possible that the phenomena covered by a certain label somehow interlink: not all at once but perhaps they can follow each other in a chain where each part of the group of phenomena has something in common with at least a small part of the group. This idea could be exemplified using yet another *word* such as *vehicle*, a label put on a great number of phenomena which do not necessarily have much in common (other than in the very

basic sense of being a means of transportation). It may be difficult to compare a rowing boat to a fighter jet, but if you add a chain of other types of vehicles in between them it becomes clear that they belong to the same family. The same could be said for the word Islamist. In the same way that the word *vehicle* is collective in fundamentals, the word Islamist has to do with people of similar religious beliefs. This type of statement is rarely helpful to someone interested in using the term Islamist as a designation of an empirically separated group of individuals who form part of the wider umma of Muslims believing in the absolute dominance of the Islamic faith and religion. In this context, Wittgenstein is used to exemplify both a generally scientific approach and as a direct questioning of the empirical data.

Tactics itself should be volatile; it is an approach, the value of which is decided not only by how well it is performed but also in the duel situation with the enemy. The French had no doubt a good tactical plan in 1940, disregarding the duel situation and the subsequent tactical behaviour. Having a tactical approach fitting a drawn-out conflict such as the Great War was not the best tactic when meeting an enemy bent on finishing the conflict come win or lose in a matter of weeks. One can liken the situation with a game of rock-paper-scissors. No matter how well you hone your rock into perfection it will still be beaten by the paper; certainly so if the German paper was even better constructed in 1940 than the French rock.

So how do you get around changing tactics, changing it with your forces on the field pitted against the enemy during the conflict? There are examples of this happening and they might be rather much fewer than one might expect. The problem is that many conflicts end well before reorganisa-

tion in a tactical sense can be seen as realistic. The German Army did during the last year of the Great War reorganise at the operational and tactical levels and reach surprising successes in the process. How did that come about? In the context of teaching and implementation of tactics one can discuss bureaucracy and the nature of language. One might thus wonder what volatility has to do with bureaucracy?

One has to realise that the armed forces are but one exponent in general for the culture in society in general. A state harbouring success in science and industry can give plenty of perks beyond the mere production of high qualitative material meant for war, and plenty of it. The work force, which in many cases is the same pool from which the soldiers are drawn, will be highly trained and able to follow relatively complex instructions. Max Weber was both contemporary with the Great War as well as occupied with research questions regarding success for states and leadership in general. Weber's categories of authority should be seen in the context he lived in. The categories are: charismatic (family and religion); traditional (feudal and patriarchal); bureaucratic (law, state & doctrine).³ As the expert on professions and bureaucratisation professor Rolf Thorstendahl puts it:

The main normative system in society is its legal system, and since early modern times and the rise in the sixteenth and seventeenth centuries of the secular state with military purposes, an important part of the bureaucratic tasks within the state was related to legal questions. In the fiscal field there was ample room for disputes on what was lawful, and in administration of the military, bureaucrats had sometimes to try to impose bureaucratic authority against the power of violence or to yield to unlawfulness.⁴

So the bureaucratic element in the Western military apparatus is significant. It is naturally accepted that the prime task for Western states during many hundreds of years was to control and distribute violence inside as well as outside the nation's borders: "It was not by chance that civil servants had a military rank in several societies in the nineteenth century, for example in tsarist Russia. The parallel between the military and civil bureaucracy seemed obvious".⁵ It might thus be fair to discuss bureaucracy in relation to tactics in strongly bureaucratic countries. Pairing that with the element of language is natural, as the bureaucratic approach demands regulations and a set use of language. We will in the following revisit Germany and the new tactic at the end of the Great War, Swedish tactical education at the Swedish National Defence College (SNDC) in the contemporary, and, finally, an outlook into the tactical challenges of the future.

Germany and the new tactic at the end of the Great War

Imperial Germany legitimised power within and through society in a traditional way, which is true. But even though the nobility still held many senior command positions within the Army there was a strong bureaucracy through the whole organisation, which has a greater explanation value when it comes to the Army's ability to change tactics.⁶ Germany was, during the 1890s, a leading nation not only in light industry but also in bureaucratic reform. Design and production decisions were moved up from the floor to newly conceptualised design and development sections of the companies. One example from the Great War is the engine producer Siemens & Haske

AG.⁷ Not to mention that by the time of the war 'taylorism' had already been in use in Germany for seven years, a strong move towards bureaucratic reform.⁸ The power of bureaucratic reform at the eve of the Great War put the individual at the sidelines and put organisations – mostly companies – in the foreground.⁹ This was something which paved the way for a well-oiled German army which itself was similar to an enormous business concern.

The organised capitalism in early Imperial Germany under Bismarck was a mix of market and state intervention by the state's design, and this was even before these reforms.¹⁰ One can thus see the reforms above as a natural consequence and nothing revolutionary in itself. It is clear that both the military and the civilian society were being changed in Germany long before the Great War. But from the 1890s Germany went through a speedy, bureaucratic reform. For example, the employers CVDI (*Centralverbands Deutscher Industrieller*) were affected by the process – many of the organisation's senior ranks would later be high-ranking officers in the army. But also the white-collar workers were early in organizing themselves – one could talk about "an organisational mania" in the private sector.¹¹ A mania which would make the NCOs and middle-rank officers drawn from the white-collar pool well disposed in dealing with the challenges that the Army would offer in terms of teaching and organising itself. Bureaucratic knowledge is indispensable for any army with a certain complexity. The experiences from the non-military state sector or the civilian sector with bureaucratic experience made the newly recruited soldiers well disposed in being professional soldiers and officers.

The eve of German storm troops

There was a need for action on the German side in 1917, with USA on the verge of entering the war and thus being able to decide the ongoing war of attrition with a new mass of soldiers. The involved nations had so far virtually culminated; there were not any new soldiers to drum up. During the end of 1917 the reform of complete army divisions had begun. The decision to attack in March 1918 was made on 21 January 1918 and the armies' headquarters were informed at the highest level on 8 February.¹² But preparations were already made before the New Year of 1917, when ordinary infantry divisions were reorganised as so called *Angriffdivisionen*, 'thrust or storm divisions' in the autumn 1917.¹³ These divisions were meant to break through the enemy lines with new tactics tried before in a smaller scale. In fact, the preparations had begun even in the summer of 1917. Ernst Jünger himself, then a veteran in infiltration tactics, mentions that he was tasked in July to gather volunteers for a storm troop unit and that he was free to work on the new doctrine himself.¹⁴ So he was in fact part of the new organisation. As a witness of the training, a German artillery officer wrote in his diary on 8 September 1917:

One morning I was sent on duty to Colonel Zechlin's brigade to take command as orderly officer. It was an exercise, just as interesting as the one we had recently, and I watched the Grenadiers perform their infantry assault. I was able to take part in the critical assessment, and was struck with admiration at the way the Staff commanded the exercise: sheer genius! God knows we've simply *got* to be unconquerable. There are an endless number of divisions exercising

here in order to be classified as 'thrust' divisions for attack purposes.¹⁵

The training of the use of combined arms, i.e. artillery and infantry was not completely new but the tactics of the new storm divisions was something else. The close cooperation rather than the previous coordination of infantry and artillery was one of the perks of these new tactics. If we look beyond the form of tactics in itself, it is apparent that the reform of divisions just pulled out of the line of battle demanded that the soldiers were *docilis* in the original meaning of the word, *disposed to learn*. The artillery officer Herbert Sulzbach's admiration of the organized staff work is very much an ode to the bureaucratic authority. He returns to the subject later in 15 March 1918, close to the start of the offensive: "We get the first secret orders for the attack; and again and again you have to gaze in wonder at this careful work which the Staff people are putting in – after all, that is the secret of our greatness".¹⁶ Before the operational decisions were made for a general offensive on the Western front the bureaucracy had already begun to remold the tolls of this anticipated offensive. Sulzbach continued to comment on the tactical development, from 12 October 1917:

The idea of providing us gunners with machine-gun training is that each German battery is now being issued with two machine guns for defence in hand-to-hand fighting. The infantry and the artillery are getting closer and closer to being a single unit. When I get back I will pass the training on to my battery. At home they are supposed to be turning out over 10,000 machine guns a month.¹⁷

The combat range for the artillery was now more or less the same as the one for the infantry, so the need for machineguns

distributed down to the very batteries was a real need. The reorganization of the divisions was done down to the very lowest organisational level and Sulzbach was just a Lieutenant and represented the battery he was in charge of. His understanding of what the reorganisation meant was not limited to the actual practice, but also the *logic of the practice*. He demonstrates that by a change in his diary. During the course of many years he has not mentioned mobile warfare at all, but at the same time that he goes through the re-education he starts to write about it on 5 December, 1917, as: "a breakthrough, and then out of this dreadful static warfare at last, and into a mobile battle!".¹⁸ Or just before the whole of his division is pulled out of the front for a coordinated storm troop overhaul on 2 January 1918: "It would be just unbelievable if it actually came to any mobile warfare!".¹⁹ He returns to the subject on 4 March, mentioning that exercises in mobile warfare tactics are being practised.²⁰ Jünger goes on about the same theme at the same time on 4 December 1917 that new methods will overcome the static warfare.²¹ All of these impressions emanate from the top-down implemented new tactics on a national level. One could say that his language has gone through a change; not only that it has changed, but he has apparently grasped not only the reorganisation by the letter but its true nature:

in 1914 an advance was completely taken for granted, and all that counted then was to win the battle; whereas here and now, it is a question of our being successful in breaking through the enemy's gigantic fortified line and then winning the battle afterwards: in fact, it's a question of two victories.²²

It is astonishing to see this lieutenant suddenly and in clear terms explaining the nature of manoeuvre warfare in 1918, especially so as he has not really touched upon the subject before. He confirms that movement is not mere transportation as previously believed but it is an integral part of the battle itself – a battle which continues in the advance after the clash with the enemy fortified opposite one's own forces on the battlefield.

The German 'Michael' offensive itself went off well and as being part of General von Hutes 18th Army, Sulzbach had his staging point at St. Quentin on 19 March.²³ After two days of fighting "the impossible thing has been achieved; the breakthrough has succeeded! The last night of the four years of static warfare has passed".²⁴ The next day "On our right and left flanks it's the same situation, all the troops pushing forward, taking the advance for granted as though static warfare had never existed".²⁵ The realization of the tactics explained earlier has now happened, albeit for just some days. The offensive didn't really succeed on the grand scale, pushing France out of the war, even if it was a success looking at the idea of transforming the operational and tactical concepts at short notice.

One can conclude that the efficiency on transforming tactics at this grand scale cannot be relied on actors alone, but on a well-functioning structure, drawing its power from a bureaucratic current prevailing in the cultural setting of society beyond the army. A litmus test of the new tactics actually trickling down to the units is the use of language, which not only changed with the change of tactics but also reflected the new tactics.

Swedish tactical education at the SNDC

When performing a participating observation of an exercise in tactics with army captains, one author focused on the use of language and wordings as essential to tactical understanding.²⁶ The exercise consisted of a rather standard scenario, defending a village and the communications around it in the uppermost North of Sweden with the purpose of securing the advance of a coming friendly main force. The means was a regular Swedish Army force with a contemporary TOE (Table of Organization and Equipment).

One thing which stood out was that the seminar was very focused on the use of language and that was intentional from the instructing officer's part. In some instances, the captains used everyday slang words with little precision as non-conventional wordings for commencing attacks, killing or infiltrating through enemy lines. This was caught by the instructing officer and given the proper wording by him, for example to "Put out of action". Furthermore, there were discussions about the exact distinctions of words such as, for example, what "to relieve" actually means.²⁷ One could see a clear ambition to get a homogenous and precise use of the tactical language as a foundation for tactics itself. One can in this case talk about a family of words in Wittgenstein's sense of it. Wittgenstein argues that there is not always a *least common denominator* for words used in a certain event or substantive. The events are interrelated but there is nothing quintessential to connect them other than in part.

Wittgenstein exemplifies this by using the concept of "game".²⁸ We know what the word means, but many games have very little to do with one another: for example

the Olympic Games and war games (where the latter phenomenon is ambiguous in itself). It is important to remember this limitation of language when we formulate our questions and form our expectations; language distorts our efforts to describe reality. It would be reasonable to argue that we often cannot even come to a conclusive result, because empiricism will not allow us to. The use of alternative words is often seen as bringing richness to the language. In the case of tactics one can argue that it might result in different interpretations of the mission. In fact even the use of the same words might lead to different interpretations if these words are not exercised and investigated in the way that it was done on this course. In another instance the instructing officer stated that:

One should be careful in trying to cover it all in a plan, certainly regarding the ability to command, protection and manoeuvre. Basic tactical principles are a higher degree of abstraction. There tends to be an inflation of the use of these principles.²⁹

The context for this rather befuddled quote was that the person who was being examined had circled some areas, such as a road and village, on the map with a big blue pen and written "movement" by a road and "protection" at a village. It is clear that the terms can be understood in different ways for different persons. It is, for example, not possible to distribute the category of protection as an abstract category apart from "movement". The soldiers out in the forest had certainly some kind of protection at hand, at least in the shape of what an infantry spade can provide. As it was pencilled on the map, one should understand the categories as some kind of priorities of the tactical categories, for example the road is crucial for the movement of

the units. What this, in extension, actually should lead one to think about in the situation is not very clear, certainly not so if contextualisation and a common understanding of the tactical language differs.³⁰ What we know is that the tactical categories used are charged with a positive understanding, no matter what the interpretation of them is. There is a risk that the wide use of the categories is a way of reinforcing a plan characterised by intellectual poverty and lack of imagination. Then the categories are just a support and not an enlightening contribution to its precision.

Even seemingly innocent statements such as “seize the village of Karesuando” were the subject of a scathing critique as “take” was not contextualised enough.³¹ Another instructing officer specifically mentioned “the power of words” and meant that each one involved in the planning needed a common understanding, most importantly in the parts of the order concerning “purpose” and “task”.³² The purpose of the tactical teaching did, in other words, have a lot to do with underscoring the importance of the ability to contextualise and create a common tactical terminology for the officers. Pure language skills were brought up as Swedish officers are supposed to be bilingual in a professional context.³³ So, not only contextualisation and precision was discussed, but also tactics as language in a foreign language, transcending both the previous topics.

Curiously enough there is nothing in the course syllabus which suggests that language should have a central role in the teaching. One can see hints of it as the “ability to use, choose and lead tactical methods for planning” and the “ability to choose and lead tactical methods for planning”.³⁴ With that said, there was a bureaucratic tendency in shaping the teaching in this manner. But it seems that it also goes without saying that

there is a tacit knowledge that language and tactical skills are closely intertwined. That this works so well might be attributed to a long tradition of mission-type orders in the Swedish military and that the tacit knowledge links up well with the intentions in the doctrine. By a coincidence, the mission-type order tradition is strong in Germany as well (*Auftragstaktik*).³⁵ This should be noted in combination with bureaucratisation being strong in both countries as well.³⁶

Tactics are more than just decision-making, even if one can see a lone chess player as a performer of tactics. I would agree with that, but one needs to consider two things. First, war is a social practice, even if it ends up in a rather un-social matchup. You need to be able to communicate the tactics and discuss them with a common understanding. Even a military commander who has at times absolute powers otherwise only granted to a dictator – albeit within the construct and constraint of national and international caveats – needs to get his message through to his subordinates. The ability to communicate effectively is even more true in modern military staff work. Secondly, war is a much less of a clinical practice than chess; even the thought process demands more of your language in war than it does in chess. With this said, language is not the sole subject when teaching tactics, but it is certainly more important than one might think in the first instance. The uniformity of language to discuss and understand tactics is created by a formal or informal bureaucratic process.

Another exercise in tactics at the SNDC was at a lower level of progression within the military officer profession than the example above. It was an outdoor exercise with army cadets in full combat gear in an exercise field consisting of stony woodlands. The purpose of the whole course was to train the

cadets in infantry tactics, *jus gentium*, tactical judgment and the issuing of orders at platoon level. In this exercise infantry tactics was the object, not the other parts of the course.³⁷ The task was to advance with the platoon through the hilly wooded area towards a given coordinate. Another platoon had a mirrored task so there would most likely be an encounter somewhere. The soldiers were the other cadets on the course and they shifted positions within the platoons.

So, the cadets had to act as infantry soldiers within the framework of a squad and a platoon. This dealt with the fundamentals of fire and movement and protection, which in Swedish doctrine are mentioned along with the previous two concepts as well.³⁸ The actual success of the exercise from a course perspective is not the subject here, but the logic of practice. Previous courses had dealt with these tactical concepts as theoretical entities so the cadets in theory knew the rights and wrongs and now they would be tested in a realistic setting. The level of tactical progression can superficially be said to be low, but it is clear that the purpose was to operationalise previously learned theoretical concepts. These fundamentals will follow the officers through their career at all levels, even if the empirical settings may vary.

The issuing of orders during the exercise clearly showed the connection between the theory and the exercise. It was clear that the cadets had understood what to say in a given situation – they had earlier been instructed on tactical language, which was then common to them all and to the staff. That was a first step in the exercise, i.e. to recognize the use of language when triggered in a certain setting. The other part of the exercise was to go from *the theory of practice* to *practising the theory*. At the outset of the exercise the cadets were told to reflect on the difficulty of the exercise compared to previ-

ous theoretical and corresponding exercises. Statements of a rhetorical character such as “did you experience this as easy?” after the engagements served to remind the cadets of the problems in transforming seemingly simple theoretical concepts into the tactical logic of practice.³⁹

This puts the spotlight on other military problems both of a very real nature as in how to lead a platoon, but also the expanded theoretical field as in understanding the real meaning of *friction* as a military theoretical concept. The understanding of and dealing with such concepts is also a very real task all through the military career, even if just dealt with indirectly in this exercise. So, how does one deal with this rather autonomous way of teaching while still arguing that there is an ample element of bureaucratic element in the process? Torstendahl means that the bureaucratic authority, which we can see in the military system, is indispensable for the system but also requires professionals because of their knowledge:

This means that there is a tension between the bureaucratic knowledge authority and the professional, but professionals tend to adjust well to the bureaucratic surrounding as they have ample opportunities of favouring their collective strategic aspirations.⁴⁰

One could, of course see, this as a cultural field of power in the words of the French sociologist Pierre Bourdieu. Then one could envisage a power struggle between the autonomous professionals and the system in itself. But the case of such a struggle is an empirical question and there is nothing to suggest such a thing in this material. On the contrary, the professionals are very much in control of the bureaucratic system, which is in line with their performance knowledge with regard to the syllabus

and dealing with it in practice. This rigorous application of the requirements for abstract knowledge and skills are also a basis for the legitimacy of the military officer corps.⁴¹

An outlook into the tactical challenges of the future

Other new threats and responses to such threats are emerging and might warrant new military, legal and educational approaches.

As Sanden and Bachmann⁴² point out in a recent article on new emerging security risks and threat scenarios: “Threats to environmental security (‘eco-threats’) face not only shortcomings of environmental protection during hostilities under the Law of Armed Conflict (LOAC). Considering the new ‘Hybrid Threat’ concept, which had recently been discussed by NATO, the authors recognise from the perspective of International Law the need for adopting a comprehensive legal approach towards such threats.

Environmental issues⁴³ can amount to threats for global security.⁴⁴ Often such issues amount to concrete threats to security, becoming challenges to “environmental security”⁴⁵ If such environmental threats lead to interstate and intrastate conflict, they can turn into threats to world peace and security. There are plenty of examples where environmental issues affect global security: first, the issues of water scarcity⁴⁶ and the effects of desertification were identified as global problems for the international community. Later, the impact of climate change on regional and global security made clear that global environmental protection action was needed.⁴⁷ Resource scarcity,⁴⁸ extreme weather effects caused by climate change⁴⁹ and other environmental catastrophes such as spring floods are all major environmental

threats that warrant a comprehensive and joint response. Such environmental issues cause or intensify poverty effects and refugee situations.⁵⁰ Droughts and floods can adversely affect agricultural production, undermining food security.⁵¹ Altogether, these environmental issues can cause conflict and create security problems.

In 2010, NATO adopted its own dogmatic strategic concept for countering environmental threats to security. The recent Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organisation⁵² contains clear descriptions of new threat scenarios that include environmental issues. Threats such as resource scarcity, the risk of new environmental damage, climate change and water shortages were identified as challenges to NATO’s security environment in the future. The analysis shows as news “their increasing prioritisation as threatening challenges”,⁵³ consequently NATO created, in the summer of 2010, a new division tasked with tackling these new challenges⁵⁴ as so-called “Emerging Security Challenges” (ESCs), and in particular “terrorism, proliferation of weapons of mass destruction, cyber-attacks, piracy, and energy and environmental security”. In order to facilitate a coherent approach to energy security at its organisational level, NATO founded in 2012 the Centre for Excellence on Energy Security (NATO ENSEC COE), which is located in Vilnius/Lithuania.⁵⁵

“New wars” along asymmetric lines of conflict⁵⁶

Hoffman⁵⁷ recognizes “a dichotomous choice between counterinsurgency and conventional war” and identifies (multi-) modal threats as ‘Hybrid Threats’.

The term ‘Hybrid Threats’, coined in the 2006 asymmetric conflict between Israel and

the Hezbollah in Lebanon, refers to multiple dimensions of possible threats to national and global peace and security. In NATO's Bi-Strategic Command Capstone Concept of 2010, we find the definition of hybrid threats as "those posed by adversaries, with the ability to simultaneously employ conventional and non-conventional means adaptively in pursuit of their objectives." NATO, as was stated in a paper on the "Description of hybrid threats within a complex emerging security environment": "should be able to address hybrid threats within the steady-state environment and be capable of conducting early threat identification and continuous monitoring/management in addition to crisis management".⁵⁸

NATO describes such threats in a 2011 report as: "Admittedly, hybrid threat is an umbrella term, encompassing a wide variety of existing adverse circumstances and actions, such as terrorism, migration, piracy, corruption, ethnic conflict, etc. What is new, however, is the possibility of NATO facing the adaptive and systematic use of such means singularly and in combination by adversaries in pursuit of long-term political objectives, as opposed to their more random occurrence, driven by coincidental factors".⁵⁹ The same report underlines that hybrid threats "are not exclusively a tool of asymmetric or non-state actors, but can be applied by state and non-state actors alike. Their principal attraction from the point of view of a state actor is that they can be largely non-attributable, and therefore applied in situations where more overt action is ruled out for any number of reasons." Analysing hybrid threats is more than regarding a "subset of irregular warfare" only: the Military Decision-Making process and the Joint Operation Planning Process need clear legal instructions to set up a "consistent threat model to plan against".⁶⁰

Roy Hunstok, a Norwegian Army Brigadier General, Co-Chairman of the Deployable Joint Staff Element at NATO ACT and CHT/COIN Director,⁶¹ explained that the Alliance was increasingly focussing on potential Hybrid Threat actors who cross borders and defy existing categorisation as a defence, security or law enforcement threat. Hybrid threats "go beyond conventional weaponry and proliferation and now include clear links between piracy, cyber terrorism, threat finance, trafficking and social networking by non-state actors and terrorists", he explained.⁶² B P Fleming characterises such actors as "a practitioner of unrestricted operational art that aptly combines regular and irregular capabilities simultaneously into a unified operational force to achieve strategic effects".⁶³ This follows the hybrid threat definition of the U.S. Army's Operation Doctrine 2011:⁶⁴ "The diverse and dynamic combination of regular forces, irregular forces, criminal elements, or a combination of these forces and elements all unified to achieve mutually benefitting effects." The hybrid approach in U.S. military doctrine was already discussed in 2010 by the U.S. Department of Defense.⁶⁵

In June 2012, NATO decided to cease work on Countering Hybrid Threats at its organizational level but continued to encourage its member states and associated NATO Excellence Centres to continue working on hybrid threats. Given NATO's inability or reluctance to address the Ukrainian situation with military force as well as such force residing clearly outside of any NATO Non-Article 5 authority; this decision might turn out to have been made prematurely. Whether the use of Hybrid War by Russia requires a new concept by NATO or the continuation of the work on the dormant Hybrid Threat concept is to be seen. NATO seems at least to be willing to take up with this

challenge as its Wales Summit Declaration of 5 September 2014 shows: "We will ensure that NATO is able to effectively address the specific challenges posed by hybrid warfare threats, where a wide range of overt and covert military, paramilitary, and civilian measures are employed in a highly integrated design. It is essential that the Alliance possesses the necessary tools and procedures required to deter and respond effectively to hybrid warfare threats, and the capabilities to reinforce national forces".⁶⁶

What we currently see in Ukraine is Russia performing an act of deniability of involvement. This opens up a possibility for the EU and NATO to look the other way voluntarily and with an alibi. They do so for two prime reasons. First they are too weak in the region to actually challenge Russia there. A Russia which even if denying involvement does not try to hide the presence of its troops in Eastern Ukraine as evident by a range of indicators as for example weapon systems and badges on military units.⁶⁷ This sends a clear message to, that Russia is already present in Ukraine and EU and NATO should not bother. The second reason is that EU primarily and most importantly is not prepared for waging war in Europe for cultural reasons as it is incompatible with economic progressivity and the weakening of the nation states which have been seen in post cold war Europe. The Russian denial gives other actors a reason to actively look the other way. One can in this speak in the terms of *weaponization of information & weaponization of culture and ideas* which Peter Pomerantsev and Michael Weiss have introduced for this conflict but along a different train of thought.⁶⁸ On top of that one cannot avoid to mention that the events in Ukraine pertain to being a special case as the amount of ethnic Russians in the area

of operations in Eastern Ukraine evidently affects the course of events.⁶⁹

Regarding these definitions, the "Hybrid Threat" concept can obviously cover eco-threats. This is, along with the diversification of security threats, to include environmental threats as part of the two-fold transformation,⁷⁰ which has influenced the definition of security threats. The attack on the burning oil spills in Kuwait in the First Gulf War gave evidence for modern state-actor activities to target the environment alongside acts of conventional warfare. The heavy smoke from the burning oil fields was intended to impact on the Allied effort to liberate Kuwait. The deliberate oil pollution of the Arabian Sea is another example of 'eco'warfare'.

Responses to such threats to environmental security ('eco-threats') and the notion of the new 'Hybrid Threat' concept require the adoption not only of a comprehensive military approach but also in terms of military teaching and education." The discussed new threats require a change of conceptual thinking among the military as such and in particular the military academe as responsible for educating the military leader. Time perhaps, to rethink teaching and training in terms of content and curriculum in order to prepare future military leaders for these challenges. The teaching system itself is well-prepared for this change.

Conclusions

This text has dealt with the importance of language in dealing with the logic of practice for tactics. It is an empirical question exactly how this language should be conveyed. Culture, exact situation and purpose are variables that affect the situation in a contextual way. Those dealing with teaching tactics and changing them need to

have a tactical language they are comfortable with the meaning of. They do not necessarily have to be aware of the language – that is the task for researchers trying to improve the process of teaching tactics and exposing the logic of practice, of which the language is an integral part. As teaching is a formal process it is not to be excluded that a working procedure without a bias is a preferred prerequisite, in effect a bureaucratic authority at its best. The two tactical examples feature two cases where the bureaucratic tradition was and is strong in combination with personnel being well-disposed for working within a system aligned with the bureaucratic elements. The tools for enabling tactical change have, within

these systems, shown to be the communication of and with a *specific professional language*. With all of this said, the future tactical challenges might look troublesome with a fragmented battlefield and muddled borders between peace and war. And it is challenging for sure. But from the perspective of military teaching it is more about providing the specific input of the tactical teaching suitable for the evolving future tactical scenario rather than any revolutionary modus of teaching.

Håkan Gunneriusson is researcher at the Swedish National Defence College and Sascha Bachmann is Associate Professor at Bournemouth University

Noter

1. Wittgenstein, Ludvig: *Filosofiska undersökningar*, Thales, Stockholm 1978 (1953), pp. 58. In general, all of part I of the book deals with thereto related problems.
2. Kilcullen, David: *The Accidental Guerrilla. Fighting small wars in the midst of a big one*, Oxford University Press, Oxford 2009. p. 47 for an example of the word *Taliban* not being fully analysed but treated as a just a synonym to *the enemy*.
3. Weber, Max: *The Theory of social and economic organization*, London and New York 1964, Chapter III.
4. Torstendahl, Rolf: *Bureaucratisation in Northwestern Europe 1880 – 1985*, Routledge, London and New York 1991, p. 13
5. Abrahamsson, Bengt: *Military professionalization and Political Power*, Stockholm (thesis) 1971, p. 8.
6. When discussing tactics one could also include material factors such as equipment as well as morale factors such as the willingness to fight. Both factors, along with the conceptual factor, seen as the foundation for war fighting capability in the Swedish military doctrine, which in its turn borrowed the idea from the British doctrine. *British Defence Doctrine*. 2nd ed. JWP 0-01 picture 4.2. 2001. Also in *Joint Operational Personnel Administration* JWP 1-00. Picture 1A-1. 2003. Swedish Military Strategic Doctrine uses a similar model, although visualized as three pillars.
7. Op. cit. Torstendahl, Rolf, see note 5, p. 98.
8. Ibid., p. 98-99.
9. Ibid., p. 98.
10. Torstendahl, Rolf: "Teknologi och samhällsutveckling 1850-1980. Fyra fasar i Västeuropeisk industrikapitalism" in *Byråkratisering och maktfördelning*, Ed. Nybom, Thorsten and Torstendahl, Rolf, Lund 1989. Only later did the transfer of bureaucratic models travel from the public to the private sector. Kocka, Jürgen: "Capitalism and Bureaucracy in German Industrialisation before 1914", *The economic History review* 33, Chichester 1981, p. 453-68.
11. Op. cit. Torstendahl Rolf, see note 5, p. 85f.
12. Zabecki, David T.: *The German 1918 Offensives. A case study in the operational level of war*, New York 2006, p. 125.

13. For further references, see Gudmundsson, Bruce: *Stormtroop Tactics: Innovation in the German Army, 1914-1918*, Praeger Publishers, Westport 1989.
14. Jünger, Ernst: *I stålstormen, (In Stålgewittern, 1920)*, Atlantis förlag, Stockholm 2008, p. 151. He also mentions 1st of December 1917 (p.237) that he was appointed teacher in the training battalion for Storm-troops.
15. Sulzbach, Herbert: *With the German Guns. Four years on the Western Front*, Pen and Sword, Barnsley (1935) 2003, p. 129. From the 5 of December Sulzbach note another instance of combined arms, the training of co-operation of artillery and air forces for artillery observation, p. 137.
16. *Ibid.*, p. 146.
17. *Ibid.*, p. 132.
18. *Ibid.*, p. 136.
19. *Ibid.*, p. 142.
20. *Ibid.*, p. 146.
21. *Op. cit.* Jünger, Ernst, see note 15, p. 240.
22. *Op. cit.* Sulzbach, Herbert, see note 16, p. 147.
23. *Ibid.*, p. 145.
24. *Ibid.*, p. 150.
25. *Ibid.*, p. 151.
26. Notes from the Tactical Staff Course (SU7) at the SNDC, 110309, in Gunneriusson's possession.
27. "Commencing attack" and "killing" slang from seminar 1, presentation 3 and the slang for "infiltration through enemy lines" and 2 "relieve", notes from seminar 2 presentations 2 and 3, in Gunneriusson's possession.
28. *Op. cit.* Wittgenstein, Ludvig, see note 2, pp. 58. In general, all of part I of the book deals with thereto related problems.
29. Notes from 110309, Tactical staff Course (SU7) at SNDC, in Gunneriusson's possession.
30. The Cambridge-based professor Quentin Skinner is one of the most prominent supporters of contextualisation as a theoretical perspective in itself – his apprenticeship to Ludwig Wittgenstein is in this apparent. In principle one can state that Skinner wants to contextualise everything and that it is impossible to make generalisations. The perspective is in one way deconstructive, but from a totally empirical approach some contemporary deconstructions (e.g. Jaques Derrida) are not very well known for making a generalisation. For an example of Skinner's discussion on generalisations, see his discussion about the term "Virtu" in *Visions of Politics Volume I Regarding Method*, Cambridge University Press, Cambridge 2002, pp. 48.
31. Notes from the Tactical Staff Course (SU7) at SNDC Seminar 2; presentation 3, in Gunneriusson's possession.
32. Notes from the Tactical Staff Course (SU7) at SNDC Seminar 2; presentation 2, in Gunneriusson's possession.
33. Notes from the Tactical Staff Course (SU7) at SNDC Seminar 1 and 2; presentation 4 and 5, in Gunneriusson's possession.
34. Course Syllabus SU7, agreed on 100511, Swedish National Defence College.
35. See, for example, Samuels, Martin: *Command or Control?: Command, Training and Tactics in the British and German Armies, 1888-1918*. London 1995. For those who want to connect Samuels' book with a longer German tradition of auftragstaktik, see also White, Charles: *The Enlightened Soldier: Scharnhorst and the Militarische Gesellschaft in Berlin, 1801-1805*. London 1989.
36. *Op. cit.* Torstendahl, Rolf, see not 5, p. 36. Torstendahl argues that the degree of bureaucratisation was high in SWE/GER and low in FRA/UK. The degree of centralisation, on the other hand, was high in SWE FRA and low in GER UK.
37. Syllabus 1OP215, Determined 110627, SNDC. Only 4 cadets issued orders as the two-sided encounter was only repeated once; in Gunneriusson's possession. The progression was clearly lower regarding infantry tactics at the soldier level.
38. The purpose was confirmed by one of the umpires, Jarko Leionen, transcribed conversation date: 111116; in Gunneriusson's possession.
39. Notes from the exercise, Leionen, Jarko 111116; in Gunneriusson's possession.
40. *Op. cit.* Torstendahl, Rolf, see not 5, p. 22. On p. 20 he argues that the professional knowledge is *performance knowledge (Leistungswissen)*. This gives both power over the actions themselves as well as power over those which the professionals, in this case the military officers, are in charge of.
41. *Op. cit.* Torstendahl, Rolf, see not 5, p. 28. He does not specifically mention being a military officer as a profession and might not even consider it a true profession. But the

- reasoning fits in very well with this case study.
42. Sanden, Joachim and Bachmann, Sascha: "Countering Hybrid Eco-threats to Global Security Under international Law: The Need for an Comprehensive Legal Approach", *Liverpool Law Review*, 33 (3), Liverpool 2013, pp. 261 – 289; copyright of authors and publishers is fully acknowledged.
 43. Referring to the Human impact on the environment, also referred to as the anthropogenic impact on the environment.
 44. Brennan, Ellen: *Population, Urbanization, Environment, and Security: A Summary of the Issues*, Woodrow Wilson International Center for Scholars, Washington D.C. 1999.
 45. Hulme, Karen: "Environmental Security" in Fauchald, Ole Kristian, Hunter, David, Xi, Wang (Eds.): *Yearbook of International Environmental Law*, 19, Oxford University Press Oxford, New York 2008.
 46. Gleick, Peter: "Water and Conflicts: Fresh Water Resources and International Security", *International Security*, 18 (1), 1993, pp. 79-112; Wolf, Aaron T.: "A Long Term View of Water and Security: International Waters, National Issues, and Regional Tensions", pp. 3-19 in Lipchin, Clive, Sandler, Deborah, Cushman, Emily (Eds.), *The Jordan River and Dead Sea Basin*, in *NATO Science for Peace and Security Series C: Environmental Security*, XXI, Springer Press, New York 2010.
 47. Op. cit. Hulme, Karen, see note 46, p. 14; Pumphrey, Steven C (ed.): *Global Climate Change: National Security Implications*, Strategic Studies Institute United States Army War College, Carlisle, PA, 2008, available at <http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=862> (2015-02-20).
 48. Homer-Dixon, Thomas F.: "Environmental Scarcities and Violent Conflict: Evidence from Cases", *International Security*, 19(1) 1994, pp. 5-40.
 49. German Advisory Council on Global Change (WBGU): "Climate Change as a Security Risk" *Earthscan*, London and Sterling, Virginia 2008, p. 158.
 50. Christiansen, Scott M.: *Environmental Refugees – A Legal Perspective*, Wolf Legal Publishers: Nijmegen 2010.
 51. Sullivan, Gwen: "Climate Change: Cooperation and Human Security" in Kurtz, Lester (ed.): *Encyclopedia of Violence, Peace and Conflict*, San Diego Academic Press, San Diego 2008, p. 305.
 52. NATO (ed.): *Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organisation*, 2010, pp. 10 -13 at <http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf> (2014-04-25).
 53. Hatzigeorgopoulos, Myrto: "The EU, NATO and Emerging Security Challenges in 2012", *European Security Review*, ISIS Europe, Brussels 2012, pp.1-6, at http://isis-europe.eu/wp-content/uploads/2014/08/esr_54.pdf (2015-02-23).
 54. *Ibid.*, p4.
 55. See <http://www.enseccoe.org/> (2014-04-25).
 56. Lamp, Nicolas: "Conceptions of War and Paradigms of Compliance: The 'New War' Challenge to International Humanitarian Law", *Journal of Conflict & Security Law*, 16 (2), OUP 2011, p. 223.
 59. Hoffman, Frank G.: "Hybrid Threats: Reconceptualizing the Evolving Character of Modern Conflict", Institute for National Strategic Studies – National Defence University, *Strategic Forum*, 240 2009, p. 1; see as well Hoffman, Frank G.: "Hybrid Warfare and Challenges", *Joint Forces Quarterly*, 52 (1), 2009. pp. 1-2 and Hoffman, Frank G.: "Hybrid vs. Compound War: The Janus Choice of Modern War: Defining Today's Multifaceted Conflict", *Armed Forces Journal* 2009, pp.1-2.
 60. Cf. NATO: "Countering Hybrid Threats", workshop 1 (16/17.11.2011, Bruxelles), <https://transnet.act.nato.int/WISE/CHTIPT/UpcomingEv/CHT/Events0/Workshop1> (2014-04-25).
 61. Miklaucic, Michael: "NATO Countering the Hybrid Threat – ACT", at <http://www.act.nato.int/top-headlines/nato-countering-the-hybrid-threat/pdf>, p. 3 (2014-04-25); see nearly identically: Aaronson, Michael; Diessen, Sverre; de Kermabon, Yves; Long, Mary Beth and Miklaucic, Michael: "Nato Countering the Hybrid Threat", *PRISM*, 2 (4), National Defence University Press, Washington D.C. 2011, p. 115.
 62. Fleming, Brian P.: "The Hybrid Threat Concept: Contemporary War, Military Planning and the Advent of Unrestricted Operational Art", at <https://www.bsdl.org/?abstract&did=700828> (2015-02-20).

62. Countering Hybrid Threats Integrated Project Team: <https://transnet.act.nato.int/WISE/CHTIPT> (2014-04-25).
62. Dowdall, Jonathan: *Security and Defence Agenda* (ed.), The New Global Security Landscape, Brussels 2012, p. 34, http://www.cior.net/getattachment/News/2012/Numerous-CIOR-members-participated-in-Security-Jam/2012_Security_Jam_Report_COMPLETE.pdf.aspx (2014-04-25).
63. Op. cit. Fleming, Brian P., see note 61, p. 1.
64. U.S. Army: *Field Manual 3-0 Operations C-1* (GPO, Washington, DC: February 2011), pp. 1-5.
65. U.S. Department of Defense: 2010 *Quadrennial Defense Review* (Washington, DC: GPO 2010), p. 8.
66. http://www.nato.int/cps/fr/natohq/official_texts_112964.htm?selectedLocale=en [150603]
67. Czuperski, Maksymilian; Herbst, John; Higgins, Eliot; Polyakova, Alina and Wilson Damon *Hiding in Plain Sight: Putin's War in Ukraine*, Atlantic Council, Washington 2015. https://www.dropbox.com/s/pmyqqzre1wlobea/Hiding-in-Plain_Sight_0529.pdf?raw=1 [150603]
68. Pomerantsev, Peter and Weiss, Michael "The Menace of Unreality: How the Kremlin Weaponizes Information, Culture and Money" in *The Interpreter*. Institute of Modern Russia, New Jersey 2015. <http://www.interpretermag.com/the-menace-of-unreality-how-the-kremlin-weaponizes-information-culture-and-money/> [150603]
69. For a more elaborate text on the special case of hybrid warfare in Ukraine and otherwise see Bachmann, Sascha and Gunneriusson Håkan in "Hybrid War: The 21th -Century's New Threats to Global Peace and Security" in *Scientia Militaria. South African Journal of Military Studies* Stellenbosch, 2015. <http://scientiamilitaria.journals.ac.za/pub/article/view/1110/1107> [150603]
70. Op. cit. Hatzigeorgopoulos, Myrto, see note 54, pp. 1.