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**TOM KRISTIANSEN
JOHN ANDREAS OLSEN
(eds.)**

War Studies

**Perspectives from the Baltic
and Nordic War Colleges**

OSLO FILES

ON DEFENCE AND SECURITY—02/2007

INSTITUTT FOR FORSVARSSTUDIER (IFS)

Tollbugt. 10, 0152 Oslo. Norge

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Direktør: Professor Rolf Tamnes

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PREFACE

At the annual meeting of the Nordic Chief Education Officers in Stockholm in October 2005 the Norwegian Defence Command and Staff College was asked to arrange a one-day symposium on trends and traditions in war studies in the Baltic and Nordic colleges. The underlying motivation was to chart the prospects for future cooperation and, eventually, coordination between the colleges in this field of study, tutoring and teaching. The impetus also arises from the fact that the Baltic and Nordic colleges represent a mixed array of competence in and traditions of war studies in a small-state perspective. Furthermore, this might contribute to improving the teaching programmes in our countries. Last but not least, this collaborative ambition flows from a long-standing liaison between the Baltic and Nordic countries that has resulted in exchanges of cadets and teaching staff.

There are several fundamental questions that we wish to address, such as What is “war studies” and are there national variations? How do the Baltic and Nordic war colleges deal with the discipline in terms of institutionalisation and academisation, and how is “war studies” taught? To what extent are there differences and similarities between the teaching programmes a result of the academic status of the colleges within the national educational systems?

These were the core questions that constituted the theme of the symposium that was held in Oslo 24 October 2006 as part of the larger Meeting of the Nordic Chief Education Officers. Although one should not be surprised to find that the discipline of war studies is dealt with differently, it gives me a certain amount of satisfaction that none of the colleges claim to have found the Holy Grail. Certainty of knowledge in such a complex field might be the surest sign of decline.

I hope this anthology will inaugurate a Baltic-Nordic tradition of joint publications on military topics with a bearing on education. The present volume shows that there are national differences in the acceptance of the term war studies. Moreover, it demonstrates that there are different approaches, both in the substance and in the current struggle of institutionalisation and academisation of what military practitioners so often refer to as the business of action rather than thinking. This anthology will hopefully provide some insight into the status and challenges of war studies at the war colleges in the Baltic and Nordic countries, which then might provide the basis for cooperation and improvement over time as the countries continue to meet to exchange ideas on how to educate military officers.

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INTRODUCTION

Wars have occurred from the beginning of recorded time and in all parts of the world: on an institutional scale, they have shaped the international system and promoted social change, and on a more personal scale, wars have provided some of the most intense as well as harrowing of human experiences. Although war is probably the most brutalising of human affairs, it has always been an inseparable part of the evolution of mankind. Paradoxically, wars bring out the best at the same time as they bring out the worst in people. Given the impact of war on humans, society and state it is worthy of studying, but the question is how?

Wars can be studied in terms of experience, that is, what is the common experience to be derived from wars as diverse as the Napoleonic wars and the genocides in Rwanda and Darfur? Or one could focus on the causes of war, be it from a biological standpoint in accordance with Charles Darwin's theory of evolution or from a geopolitical standpoint in accordance with Friedrich Ratzel's view of the state as a living organism that grows, matures, decays and dies. Yet another angle is to study war and the evolution of military establishments, whether one adheres to the liberal theory of industrial society, Marxism or the "neo-Machiavellian" paradigm. Or one could study war's interaction with technology and the ensuing results on operational art. From a more philosophical venture one can distinguish between the science of war and the art of war; one can also distinguish between what constitutes merely a battle, what amounts to a campaign and what justifies being termed a proper war.

There is also the ethics of war and there are judicial aspects that should be explored when seeking to comprehend the phenomenon of war, most obviously in terms of *ad bellum*, *in bello* and *post bellum*. One can also explore wars in terms of their intensity, such as shock and awe or attrition, or in terms of their geographical stretch: from total war to limited war to military operations other than war. How to approach war studies in terms of methodology opens yet another door of challenges.

In the current international situation military power encompasses much more than traditional war fighting. Military power is increasingly used to bring about conflict resolution, to guard peace accords, to relieve humanitarian disasters, to put political pressure on conflicting parties, and to secure national jurisdiction over territories and resources. The list of non-traditional uses of military power could be made much longer, and strong political provisions normally accompany it. The unrelenting need for conventional war preparations in combination with the need to prepare for alternative deployments of military force poses an overwhelming challenge for those concerned with the education of officers and military theory. This constant need for rethinking a variety of military issues, while at the same time preserve competence in traditional military theory

and history has led to many ways of teaching and developing this field of study. When representatives of the Baltic and Nordic staff colleges convene, they do so also with a run of the mill backdrop, namely the process of reform and adoption to current problems in military education.

Although there are inevitably many different ways to approach the study of war, the discipline itself is arguably the most important in the education of military officers. The discipline, despite its obvious importance, is still in its infancy in both academic and military circles in the Baltic and Nordic countries.

John Andreas Olsen and Tom Kristiansen, Oslo, March 2007.

MILITARY STUDIES: DE QUOI S'AGIT-IL?

Lieutenant Colonels John Andreas Olsen and Lars Magnus Eriksson
Department of Strategic Studies
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PROLOGUE

One of the sayings that have come down the centuries, from the time of Rome, is “Si vis pacem, para bellum”: if you seek peace, prepare for war. Expressed liberally, this could be taken to mean that if the individual and society want to have a peaceful world, then it is incumbent upon that individual and society to seek to understand the phenomenon of war.

A proper understanding of war, ranging from a duel between two infantrymen to the atomic bomb, should begin with defining the relationship between ends, ways and means, in which ends is the objective (total victory, conditional victory, stalemate, not losing, etc); ways the pursued strategy (military power, diplomacy, economic sanctions, etc); and means the resources available (people, weapons, money etc).¹ If one is to believe Carl von Clausewitz, one should also distinguish between war's logic (nature of war) and war's grammar (conduct of war). In Vietnam, to illustrate this point, it could be argued that American soldiers did their job, but the US political leadership failed to do its: the North Vietnamese Army did not defeat the US military forces in the field. In other words, the grammar was right, but the logic was wrong.² To complicate matters further one would be well advised to follow Edward N. Luttwak's proposition, that the entire realm of war is pervaded by a paradoxical logic of its own, a logic that can only be comprehended if one accounts for the human dimension of uncertainty, fog and friction at the same time as one systematically approaches war on its four levels: the strategic, operational, tactical and technical.³

These four levels of war, with the human dimension at its core, when seen in the context of the relationship between ends, ways and means and the distinction between war's logic and grammar, can help officers to better understand the phenomenon of war, whether one finds the Roman dictum to be true or false.

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- 1 Alan Stephens and Nicola Baker, *Making Sense of War: Strategy for the 21st Century* (Cambridge University Press, 2006), pp. 1–13.
 - 2 Antulio J. Echevarria II, “Toward An American Way of War”, *Strategic Studies Institute*, March 2004, pp. 10–11.
 - 3 Edward N. Luttwak, *Strategy: the Logic of War and Peace* (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1987).

The subject of this paper is the impasse of military studies at the Norwegian Defence Command and Staff College (NODCSC).⁴ The first part deals with the question of why it is necessary for military officers to engage in military studies and why it is necessary for them to have their own colleges that deal with the subject rather than rely on academic courses provided by civilian universities. The short answer to the first question is that military officers need a reasoned understanding about war as a basis for improving ability *in* war. The short answer to the second question is that officers belong to a unique profession that demands special attention, a profession that is distinct in four ways: it is collective rather than associational; it serves the state; its members are subject to being lawfully ordered into harm's way; and there is a disciplinary system separate from the civil code. These elements distinguish the military profession from other professions so fundamentally that separate command and staff colleges are required. Thus, this paper argues that the skills and core values needed for officership are best developed at military colleges where soldiers, sailors and airmen get the opportunity to meet colleagues in a joint and international environment, tailor-made with a mix of academics and experienced military staff; however, in an attempt to make military studies academe one must never forget that it is first and foremost the conduct of military operations – the grammar of war – that shapes the identity and ethos of the armed forces, individually and collectively. With this backbone in mind, the second part of this paper is descriptive and sets out the structure and substance of the master's degree programme in military studies at the NODCSC.

THE SIGNIFICANCE OF MILITARY STUDIES AND MILITARY COLLEGES

The terminology “war studies” has not been used at military institutions in Norway until recently, but war and its various subgroups have been studied for a long time under terms such as military theory, military thinking, strategic studies, military history, doctrinal studies, leadership & management, command & control and operational art. This is not the place for semantics, but when the NODCSC opened its new master's degree programme in 2006 the term “military studies” was preferred and its focus was, as in the Swedish model, knowledge and expertise *about* war and ability and skill *in* war; where the first part is a basic condition for the latter. Moreover, both countries emphasise that an understanding of war and the use of force requires an appreciation of the

4 In response to the Bologna Process which began in 1998, a Quality Reform was launched in Norway in 2001. It introduced bachelor, master and PhD degrees generally following a 3-year+2-year+3-year model. The new degrees superseded the old Norwegian university system. The Quality Reform also introduced a concept to establish stricter quality mechanisms in higher education, which resulted in the founding of an independent agency for quality assurance in education – the Norwegian Agency for Quality Assurance in Education (NOKUT). In the process the Norwegian Defence Command and Staff College was given the accreditation to run a two-year master of art programme in military studies, starting in the autumn of 2005.

dynamic relationship between the abstract and the institutional; the interaction between the state, society and the military. Such an understanding makes for possibilities, because only by combining theories and experiences will political decision-makers and the executive branch of soldiering have a chance to use the military instrument with desired effect in a given situation, at the same time as such an understanding of war does not afford guarantee against error: every state has fought the wrong war, at some point in time, or it has fought war the wrong way and paid accordingly. This is an important warning to all who fall in love with nice theories: military studies cannot provide guarantee or immunity against error and defeat, but it alone offers the possibility of properly understanding the nature of the war in which a state is engaged, and the nature of the enemy. Dr H.P. Willmott summarizes the caveats of wars studies along the following lines:

Study, even the most careful and deliberate of study, cannot afford guarantee against error of omission and commission, but without study the danger of mistakes that could and perhaps should have been avoided come to centre stage: proper and professional study necessarily provides the basis of considered, deliberate action that, hopefully, would ensure the proper understanding of the nature of the conflict in hand and the proper application of the military instrument in terms of the designation of reasoned and reasonable aim and the correct appreciation of the limitation of force.⁵

Since the military profession is one that requires the combination of multidiscipline research and proven practice, through the lens of an understanding *about* war and ability *in* war, it makes sense to have separate military colleges that focus on particular elements of higher learning. Only in a military academy, where there is a meeting of academe and services, can the military professional find the range of depth of knowledge relating to the international system, world, regional and national histories, economics, technology and operational skills and experiences needed in the process of preparing himself for whatever eventuality may arise. There is this element of hands-on training in the sense that the profession is a profession – academe can provide perspective, but it cannot provide the basis of military professionalism. Civilian institutions and personnel by definition lack the commitment, obligation and ethos of the military; they do not understand the nature of formation, unit and individual limitation (e.g. the difficulty of moving a formation and unit when the individual soldier is obliged to make a parachute jump, march eighty kilometres and then take up position) while military personnel do not have the time – and in too many cases the will – to undertake wide-ranging and deep study. It is therefore imperative for armed

5 H.P. Willmott, discussion with authors, 8 November 2006.

forces to have their own colleges for higher military learning, an environment where special needs are met, rather than to rely on courses that are academe only in their focus: in short, the military college is essential because only it can provide the combination of education and professional training.

An understanding of history is important, for all the obvious reasons, but historical awareness needs to stand alongside thorough professional training and preparedness and an awareness of contemporary relevance in order to provide value and meaning. For example, in *The New Wars* Professor Herfried Münkler argues that today's wars, typically characterised by non-state actors, asymmetry and the blurring between soldiers and civilians, have more in common with the Thirty Years' War (1618–1648) than the inter-state wars of the 20th century. By reading about the Thirty Years' War officers might be better prepared for the challenges of Afghanistan and Iraq in 2006 than if they study the Great War, the Second World War or the Gulf War of 1991. However, it is only when officers translate the academic knowledge into operational art through teaching, seminars and exercises that learning becomes truly relevant. To put it bluntly, what distinguishes a civilian university from a military college is that for the latter war studies are essential in order to render present planning and future intent relevant. Such a requirement means that military colleges should not teach history for its own sake, however interesting and tempting that might be, but rather focus on the implications and consequences it has for the military profession.

The important link between knowledge and skills in the context of the military profession is the basis for our definition of military studies:

Military studies are the studies of war from psychological, sociological, historical, technological, operational and political perspectives; with the overall aim to develop the professional knowledge and skills needed to develop available resources into military capabilities and to conduct military operations in the best possible way.

It is possible to have a more philosophical and abstract approach to the topic, but our view is that this approach is well suited for our military profession.

THE MILITARY PROFESSION: THE CHANGING CHARACTER OF WAR

In the study of war there are elements of constancy and change that are at odds with one another. It is worth stating that “revolutions in military affairs” have often been associated with technological change, but no single development in itself changes the terms of reference of war or the conduct of operations. The introduction of a new weapon to the battlefield is always evolutionary, involving as it must the recognition of the need for this weapon, its production and the development of organisation and doctrine that govern its employment: to bor-

row an observation, technology alone does not make a revolution.⁶ Willmott is of course right when he warns that the West is seriously at fault if it believes that wars can be controlled simply because it has state-of-the-art technology:

The experience of twentieth century warfare would suggest that the ability of any single nation or associated group of nations to control the terms of reference of war is illusory: as Clausewitz had taught us, in war everything is uncertain, and wars invariably assume courses and outcomes very different from that intended by their authors. The whole notion of being able to control warfare, whether it be definition of “end-state” or offensive operations of surgical precision, runs directly counter to the fundamental Clausewitzian element in war – chance. War is not the preserve of the intellect and is not intrinsically rational or scientific. Man made War in his own image, complete with all the elements of human failure, misjudgement and incompetence therein, and, hopefully, thus it will remain. Current doctrine and predictions for the future of war that are now on the table would seem to assume otherwise – that somehow the certainties provided by technology will provide certainties in the conduct of war that will in themselves transform the nature of war.⁷

However, Sir General Rupert Smith is also right when he suggests that sometimes the sum of changes amount to a shift of paradigms in warfare:

War no longer exists. Confrontation, conflict and combat undoubtedly exist all around the world – most noticeably, but not only, in Iraq, Afghanistan, the Democratic Republic of Congo and the Palestinian Territories – and states still have armed forces which they use as a symbol of power. None the less, war as cognitively known to most non-combatants, war as battle in a field between men and machinery, war as a massive deciding event in a dispute in international affairs: such war no longer exists ...

It is now time to recognize that a paradigm shift in war has undoubtedly occurred: from armies with comparable forces doing battle on a field to strategic confrontation between a range of combatants, not all of which are armies, and using different types of weapons, often improvised. The old paradigm was that of interstate industrial war. The new one is the paradigm of war amongst the people.⁸

6 H.P. Willmott, *When Men Lost Faith in Reason: Reflections on War and Society in the Twentieth Century* (Westport, CT: Praeger Publishers, 2002), p. 14.

7 H.P. Willmott, discussion with authors, 8 November 2006.

8 General (ret.) Rupert Smith, *The Utility of Force: The Art of War in the Modern World* (London: Penguin, 2005), pp. 1–3.

Professor Christopher Coker argues along some of the same lines when he suggests that the concept of war changed considerably with Operation Allied Force:

The Kosovo War was not without bloodshed, but the air campaign against Serbia involved far fewer casualties than any similar conflict in history, and a ground war was avoided. Humanitarianism, it would seem, is not just an objective. Western societies can now fight wars which minimise human suffering, that of their enemies' as well as their own.

...

For the moment, the West is still in the war business but it is attempting to change its nature by fighting wars more humanely. Post-material societies fight post-material wars – they try to avoid the material (human and environmental) damage which was essential to warfare for two millennia. They are intent on sanitising war, on purging it of those elements which, through once familiar and accepted without question, now cast it in a light that is offensive to the liberal conscience.⁹

Coker warns that the West's quest for *humane warfare* – humanism and war, humanity and war, and humanitarian wars – may become its burden because it attempts to remove chance, hatred, courage and emotions from war, thus making war into something it cannot be. If the West is trying to eliminate these elements from war, removing human operators from their actions through technology, at the same time as their enemy follows different rules, Coker suggests that war may become ever more inhumane.

If one accepts Rupert Smith's and Coker's arguments, that war no longer exists as cognitively known to most non-combatants, then one must accept that it has implications for what kind of officers armed forces need. Moving from classic home-defence to participating in a broad spectrum of conflicts, sometimes thousands of kilometres from home, requires renewed thinking about what kind of experience, responsibility, identity and ethos officers should have. At a minimum the emergence of the "humane soldier" or "humane warrior" is new to the Western world and the ethos of the military profession has changed significantly: the qualities required for peacekeeping and peace enforcement are very different from traditional home defence.

The consequence is that there is a renewed interest in defining the military profession and describing the demands, skills and ethics associated with it. The *raison d'être* for the military profession has therefore shifted from the defence of national territory, waters and space to the defence of interests more vaguely defined. Interests often defined as to have a seat at the table in relevant forums,

9 Christopher Coker, *Humane Warfare* (London: Routledge, 2001), p. 2, 3.

something that might be achieved by contributing to a permanent alliance or an ad-hoc coalition. This means that the value base for officers as a whole has shifted, or must shift, from idealism and nationalism to professionalism, where the codex or ethos of the profession becomes ever more essential. The complex conflicts in highly nuanced political situations, sophisticated weaponry, revolution in information technology and unprecedented public scrutiny are also factors that set new demands on military professionalism. Again, to restate the major argument of this paper, the character of new wars, campaigns and operations require a revisiting of what the military profession is all about, and there is no real alternative to an arena such as a one- or two-year programme at the command and staff college in which officers from all services come together in an academic setting to discuss their experience, challenge each other's views on leadership and stimulate each other intellectually through lectures, seminars, group-work and individual studies.

THE MILITARY PROFESSION: ATTRIBUTES AND CHARACTERISTICS

In order to identify the characteristics of a profession one might look to the Canadian Defence Forces and their document *Duty with Honour*:

A profession is an exclusive group of people who possess and apply a systematically acquired body of knowledge derived from extensive research, education, training and experience. Members of a profession have a special responsibility to fulfil their function competently and objectively for the benefit of society. Professionals are governed by a code of ethics that establishes standards of conduct while defining and regulating their work. This code of ethics is enforced by the members themselves and contains values that are widely accepted as legitimate by society at large.¹⁰

A profession has as such four attributes: expertise, responsibility, identity and vocational ethics. Expertise describes the body of abstract theoretical and practically achieved knowledge possessed by the members of the profession, the effort to develop the skills needed and the aim for perfection. Responsibility acknowledges the profession's special duty to society and the members' responsibility for the development and status of the profession itself. Identity reflects the members' unique standing within society and their identification with the profession and the pride they put in being part of it. And finally, vocational ethics express the particular values and obligations that form the foundation of the profession, underpinning and binding it together, often called its ethos. For the military

10 The definition is from the Canadian Defence Force's *Duty With Honour: The Military Profession In Canada*, Chief of Defence Staff by the Canadian Academy (Canadian Forces Leadership Institute, 2003), p. 6.

profession in Norway we call these vocational ethics or ethos “verdigrunnlag,” which can be translated into core values.



Figure 1: *The attributes of the military profession*

Figure 1 highlights the critical role of the military ethos in unifying the other professional attributes of the profession of arms. The military ethos reflects how military professionals fulfil their function (expertise), how they relate to their government and to society (responsibility) and how they view themselves (identity).

When discussing the military profession it is useful to revisit the most-quoted writer on the topic. Although Samuel Huntington wrote his major work *The Soldier and the State* around the middle of the 20th century, he is still widely quoted by researchers and institutions of higher learning. Huntington’s fundamental position was that “the modern officer corps is a professional body and the modern military officer a professional man.” Huntington argues next that the military is a profession because the specialized expertise of the military officer is the management of violence. In his own words:

The direction, operation, and control of a human organization whose primary function is the application of violence is the peculiar skill of the officer ... The expertise of the officer imposes upon him a special social responsibility ... his responsibility is the military security of his client, society ... the officer corps alone is responsible for military security to the exclusion of all other ends ... The legal right to practice the profession is limited to members of a carefully defined body ... The functional imperatives of security give rise to complex vocational institutions which mould the officer corps into an autonomous social unit.¹¹

11 Samuel Huntington, *The Soldier and the State* (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1957), pp. 11–17.

A military profession is equal to other professions in that its members develop and apply specific skills derived from a theory-based body of knowledge; perform their function competently and objectively for the benefit of something bigger than the individual; regulate their conduct through value-based codes of ethics; and ensure that their roles and standards are accepted as legitimate by society. Added to this, however, is the fact that the profession of arms has four distinct characteristics, as alluded to but not explained in the prologue.

Firstly, it is a collective profession rather than an associational one. In an associational profession, members can function independently as is usually the case with the medical or legal professions. In collective professions, no individual or even a subgroup of individuals can accomplish the ends sought; rather, it is the collective as a whole that acts. This means that values such as team spirit and unselfishness, and the conduct and development of leadership, will always be of utmost importance.

Secondly, the profession of arms serves the state. Armed forces in western democracies are subordinate to the elected civil authority and prohibited from operating outside boundaries that have been very carefully defined over hundreds of years. In essence, armed forces are the creation of the state and act as an arm of the elected government. Therefore, the military professional does not practise his or her profession outside the organisational structure of the armed forces. This factor implies that the military professional must understand first, the political system, second, its relationship with the military system, and, third, the role of the military profession in society at large. The state and the military are complementary and depend on one another: the state possesses the sole right to raise military organisations. The military, by definition, is a very tightly disciplined profession, dependent on the state for the definition of its primary aims and objectives and answerable to the state in terms of its organisation, funding and conduct of operations. It is within this realm one must realize that states wage war, services fight and individuals witness combat.

Thirdly, members of the military profession accept that they are subject to being lawfully ordered into harm's way under conditions that could lead to the loss of their lives. This underpins the necessity of discipline, identified core values and high ethical standards. It also explains the necessity and the nature of, and the emphasis put on, Command and Control in the military system. The authority and mandate given by various forms of command, the responsibilities this brings about and the hard work to conduct it as effectively as possible are key elements in the military profession.

Lastly, soldiers, sailors and airmen have a duty to obey orders: if they do not obey legal orders they can be subject to disciplinary sanctions; and if they do not behave in accordance with their code of conduct they can be subject to disciplinary sanctions. Consequently, military personnel cannot obey orders

blindly, but the point to be made is that the armed forces have a military disciplinary system that works separately from the civic one. The command system that one finds in the military is based on disciplinary elements that are very different from other professions: soldiers, sailors and airmen, whose task is to protect the freedom of fellow citizens, do not have the same personal freedom and right to privacy as their civilian countrymen, at the same time as they are exempt from some of the nominal individual liability acts.

The mentioned attributions of a military profession (expertise, responsibility, identity and ethos), combined with an understanding of the distinct characteristics of the military profession (collectiveness, servicing the state, can be ordered into harm's way and a military disciplinary code) provide the basis for how to design a proper master's degree programme in military studies.

MA IN MILITARY STUDIES: PURPOSE AND PERSPECTIVES

For the above mentioned reasons, the master's degree programme in military studies at the NODCSC is a profession based study. This means that the NODCSC's main responsibility is to provide the Norwegian Defence Force with leaders who can meet contemporary and future challenges. Adhering to the dual purpose of military studies (developing knowledge *about* war in order to improve ability *in* war), the NODCSC emphasises that military operations are the overriding purpose of the military profession, a view that shapes the educational programme. This is the main reason why the NODCSC has chosen the understanding and conduct of joint operations to be its core activity. This is also the reason for the master's degree operating in the span between the particular and the general, and the rationale for discussing issues such as the potential and limitation of military power, command and control and operational art in light of three overlapping and mutually supporting perspectives: the philosophical, social and scientific.



Figure 2: Methodological perspectives

These three scholarly perspectives (figure 2), coupled with the required attributes of the military profession (figure 1), provide the bases for content and methods used in the master's degree programme.

First, expertise is developed through comprehensive studies in classic and contemporary military theory, military history, leadership, command and control and the study of and training in joint operations. As mentioned, the conduct of military operations is the core of the military profession; for that reason alone the joint operation course is the college's core activity. Second, the programme stresses the interaction between political decision makers, the population and the military's responsibility to serve and protect, including ethical and judicial perspectives. Third, the programme emphasises the identity of the individual and the officer corps. A master's degree programme at a military college, carried out with colleagues in a joint and international environment, and conducted by a mix of academics and experienced military staff, contributes to the pride and sense of uniqueness of the profession. The core values for professional soldiers, sailors and airmen are also emphasised, that is, the students become ever more aware of what holds the three attributes together – ethos. It is in this realm that the uniqueness of the profession comes to centre stage: it is a collective profession; it is a profession that serves the state; a profession in which officers and men can be ordered into harm's way; and a profession that has its own disciplinary system.

With this baseline in mind, the question on how to design a programme for military studies becomes one of emphasis: what kind of balance should the programme have between theory and practice (exercise); to what extent should one focus on ways (strategy) compared to means and ends; how should one divide the time between the strategic, operational, tactical and technical levels of war; how should one approach the logic of war vs. the grammar of war; and what kind of balance should we have between sub-topics such as military theory, strategic studies, operational art, international politics, leadership, management, methodology, and, perhaps the most difficult of all, matters dealing with command and control?

MA IN MILITARY STUDIES: THE CURRICULUM

The Norwegian two-year MA programme contains nine separate modules, totalling 120 credit points, but before each of the modules are presented three facts are worthy of mentioning upfront. First, the command and staff college is truly joint, with roughly equal representation from all three services, and with exchange officers from other countries. Second, the normal command and staff college course is one year; the follow-on year is only for those who seek a master's degree. Third, the students are carefully divided into joint groups on the first day of school, groups to which they will belong during the whole year. The individual's group is the engine-room for both the traditional command and

staff college course and the master's degree programme and is used for discussions, in-depth studies and sometimes examinations.

The first semester starts with “Scientific Theory and Methodology” in early August. The module gives five credit points with the aim of developing the students’ understanding of various research related approaches within social, methodical and historical studies, thus developing competence within critical evaluation of sources, models, assertions and argumentations. Scientifically theoretical foundation concepts are emphasised as well as theoretical approaches that describe the limitations of the use of models and methods within science, leadership and ethics. There is also focus on developing skills in the writing of scientific papers. This course provides some basic tools that the students develop and improve over time.

Sem 4	MA Thesis (30 credits)			
Sem 3	Research Methodology (10 credits)	The Utility of Military Force in Complex Conflicts (10 credits)	The Applicability of Military Force in Joint Operations	
			The Military, Politics & Society	
			Defence Strategic Management (all 10 credits)	
Sem 2	Joint Operations (20 credits)			Defence Resource Management (10 credits)
Sem 1	Scientific Theory & Methodology (5 credits)	Leadership (5 credits)	Military History, Military Thinking & Technology (10 credits)	Norwegian & International Politics (10 credits)

The second module is “Leadership”. The aim of the module is to lay the foundation for a personal development that will provide the Armed Forces with modern leaders with a high degree of self-consciousness as a person and as a military leader. This takes place through lectures, organised discussions, activities and feedback that give the student a framework for personal development towards a transformational leadership style. The module gives five credit points and can be

seen as an introduction to topics such as responsibility, command and control, and accountability. Students also draft their own Leadership philosophy.¹²

The third module, “Military History, Military Thinking and Technology,” starts in early October. The module gives ten credit points and provides an understanding of the relationship between formative conditions for military power. The students gain knowledge and insight into the fundamentals of military history since 1815, and the main subjects of military theory. The students are introduced to the most influential military theorists regarding land, sea and air power, and the development of joint theory and doctrines. The course has integrated aspects of technology, ethics and international law, and their influence in the development of military thinking. Military traditions and security challenges regarding small nations are dealt with as well.

The fourth module is also at the core of war studies. “Norwegian and International Politics” allows for ten credit-points and has as its basic premise that Norwegian defence and security policy cannot be seen separately from the international context. The role played by military means in Norwegian and international politics pervades both the literature and cases discussed. The students are introduced to different theoretical approaches in international politics. Focus is given to the decision-making process leading to the use of military force. Furthermore, how political considerations both on a national as well as on an international level influence the application of military means are emphasised. Particular attention is given to power politics, international law, ethics and technology.

With this theoretical basis the students take their Christmas break, and when returning they start on the fifth module, “Joint Operations.” The twenty-credit module gives the students a thorough understanding of how political and military strategic aims are translated into military plans. In both planning and execution of military joint operations, an understanding of ethics, law of armed conflicts and the importance of cultural aspects is being emphasised. Basic understanding of service capacities is utilized and developed by enhancing the students’ knowledge about how the services can contribute to achieve joint goals. This module is the core activity at our command and staff college. Considerable resources and efforts are put into this module. This module makes our command and staff college uniquely different from any civilian university, for here theory and practice come together, operational leadership and logistics come into play, and the whole exercise requires the experience that our students already have from international operations and a long career in our armed forces. The module is joint, combined and inter-agency oriented. The module includes

12 There will be some changes for the academic year of 2007/2008. The Leadership module (5 credit points) will be deleted, and consequently, more time will be given to “Joint Operations”, while “Norwegian and International Politics” and “Defence Resource Management” will give 12,5 credit points each.

numerous case studies and two extensive exercises conducted in a real life headquarters environment. Individuals from the outside, from relevant ministries and non-governmental organisations are used in the teaching and incorporated into the exercises. The module also includes a study trip where headquarters at different levels are visited, with the purpose of enabling the students to get an increased understanding of challenges and possibilities associated with being in an alliance or a coalition.

The sixth module, the one that ends the second semester, focuses on management rather than leadership *per se*, and it allows for ten credit-points. “Defence Resource Management” aims at giving the students relevant knowledge within defence related strategy, business economics, human resource management and logistics. The rationale for this particular module is the expectation that the students become better contributors in their future role as managers and decision makers through a better understanding of how to effectively allocate human and material resources. The module examines contemporary management systems and models, with an emphasis on transformation and the challenges of developing and using capabilities in the most effective way.

These six modules, sixty credit points, constitute the command and staff college course. Those students who are enlisted for the full master’s degree programme, return after the summer break to complete three more modules and write a master’s thesis.

The third semester starts with a module called “The Utility of Military Force in Complex Conflicts.” This module focuses on current conflicts, emphasising contemporary changes in the character of war. The ten-credit module is divided into four themes: the essence of terrorism and asymmetric warfare; ethical and judicial aspects of intervention in contemporary conflicts; civil-military cooperations (theory and case studies); and finally how these three themes are of relevance to the Nordic region.

Next, the students focus on “Research Methodology.” Building on the first-term module “Scientific Theory and Methodology”, this ten-credit module goes more into depth, focusing on what will become each student’s master thesis. It discusses a selection of fundamental issues of social science and historical methodology as well as the ethics of scientific inquiry. The module’s main emphasis is on qualitative approaches, but students in cooperation with their academic advisor may make adjustments to the reading list in accordance with their choice of methodological approach for the master’s thesis.

Having completed this module the students are divided into three groups. While all modules so far have been mandatory, the students now specialise towards one of three subjects. In many cases, although not all, the students choose the ten-credit module that will strengthen their knowledge within the topic they have chosen for their master’s thesis.

The first optional module is “The Applicability of Military Force in Joint Operations.” It contributes to the development of a deeper theoretical insight into challenges related to the use of military force. It emphasises new and alternative perspectives in regard to planning and the conduct of operations. The students develop a deeper understanding of perspectives within joint operations, especially in regard to current operations and likely future operations. The students develop an understanding of military theory, joint functions such as command and control, intelligence, special operations, information operations and logistics. The students conduct an independent analysis of a joint function (case study) or the use of effects based approach related to joint operations and campaigns. The students also critically analyse new trends within the development of joint operations, concepts and doctrine on the operational level of war.

The second optional module is “Defence Strategic Management.” This specialization aims at improving the students’ grasp of central strategic management trade-offs, building intuition of what are good strategic processes and results. It does so by using management flight simulators, lectures and discussions. A recurring theme is the use of strategic management concepts demonstrably enabling significant and cross-the-board defence performance improvements. The topic contrasts current Defence Force Planning practice, in particular Structural Planning, with various value configuration theories such as Value Chains, Value Shops and Value Networks. In particular, the programme presents a new Hybrid; a development model for defence strategic management. Various other central management subtopics are presented, such as corporate risk management, balanced score cards, project management and decision theories.

The third optional module, “The Military, Politics and Society,” is an introduction to military sociology. It takes as its point of departure the classic theories of civil-military relations propounded by Samuel Huntington and Morris Janowitz. These are applied to certain historical and contemporary test cases, such as German militarism, third-world military dictatorships and recent Norwegian experiences of overseas operations. Half of the course is devoted to present-day developments which were unforeseen when the two basic studies were written more than forty years ago: the professionalization, privatization and feminization of military forces; their use in overseas peacekeeping operations; relations with the media and NGOs; and confrontations with non-state adversaries. These trends are interpreted in the light of recent literature on “post-modern militaries”. The main objective of the course is to heighten awareness of the changing nature of civil-military relations in the age of globalisation.

Finally, the fourth semester is a semester where the students are given time to conduct research and to write their thesis. The paper equals thirty credit points and is in most cases supervised by staff at the Norwegian Defence Education Command, the umbrella organisation for the Command and Staff College.

CONCLUSION

It might be suggested that the profession of arms is a profession of paradoxes: not only are lives at stake, the profession of arms is the only one in which the individual can take a series of decisions, every one of which is correct, and at the same time still get himself and his comrades killed. Still, if officers better understand the relationship between ends, ways and means, the distinction between the logic of war and the grammar of war, and the four levels of war with their own peculiarities, then we are hopefully better prepared for not only winning battles, but actually winning the peace for which the battles are fought. There is no better way to get intellectually agile than to study war in an environment that takes into account that the military profession has special demands: since the military profession is distinct from other professions, it requires a distinct educational programme. The master's programme offered by the Norwegian Command and Staff College develops the individual officers' expertise, makes him ever more aware of the responsibility that accompanies the profession of arms, encourages awareness of self and others with an emphasis on identity, and challenges him to rethink and improve his military ethos. The Norwegian programme will inevitably undergo changes in the future, and one will be faced with what belongs to such a master's degree and what does not. When in doubt, one might well revisit Marshal Ferdinand Foch's favourite question: *De quoi s'agit-il?* – "what is it all about?" The brief answer in terms of war studies and military studies is that it is all about the profession of arms.

THE RESEARCH BASIS FOR TEACHING WAR STUDIES – OR FOR THE OFFICER PROFESSION

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INTRODUCTION

War studies as an academic subject is being developed at the Swedish National Defence College (SNDC) as part of the academisation of the officer profession in Sweden. It now forms the core subject in the teaching of officers at the college, and will soon be the major subject also in the teaching at the lower levels in the officer training programme.

As an academic subject, war studies at our college is only a few years old. The academic study of war and warfare is, of course, not new. It has been pursued in a variety of academic subjects, most prominently history (where it is a speciality called military history) and political science but also in the behavioural sciences. The reason for developing war studies at the SNDC is not, however, to create an alternative to already existing subjects such as military history and strategy. It is to create an academic basis for the officer profession. Consequently, our understanding of the nature of this profession and its present and future needs forms the most important point of departure for our definition of the subject.

Developing a subject as part of the academisation of a profession, and reflecting the needs of that profession, may be seen as putting the cart before the horse. Should not academic professions be an offshoot of an academic subject?

Starting with the subject may well be the ideal case from a standard basic science – applied science perspective. In actual fact, however, academisation and developing a research basis for the profession seems, historically, to have come after the establishment of the professions as often as not. Indeed, even for our oldest and most respectable professions, such as medicine, engineering and law, the professions existed (in a manner of speaking) before a scientific basis was developed for them. We are now seeing that process being repeated in a number of professions in, for example, health care and law enforcement, to mention two recent cases in Sweden. This is, of course, being undertaken in a more systematic and controlled fashion than was the case when universities were created in early medieval times to serve as professional schools.¹

1 The research university as we know it today is quite recent and dates back only to Humboldt's reforms of the Prussian system in the nineteenth century.

Training and education for the professions now being academised started with professional schools where the curriculum comprised some academic subjects, as well as more profession oriented practical training. This approach characterised the officer profession as well, where the training and education of an officer involved many academic subjects: history, mathematics, and a variety of engineering subjects, as well as more practical training in the profession. The reason for including these academic subjects was not to make academics of the officer candidates but to teach them things that would presumably make them better officers.

Why change this? Why academise by creating new subjects that reflect the needs of the profession? A major reason in our case has been the need to effect change. In the pre-academic stage, a major source of teaching was the personal experience of the teachers, who were serving officers. When professional training is based only on experience, the professions tend to be conservative: Basing teaching on personal experience is, after all, looking backwards. This works well in times of continuity, but it will not serve us well when times change. And ours are times of change.

A SUBJECT BASED CURRICULUM

At the SNDC, we decided, as part of the academisation process, to leave the old, course based curriculum for a subject based one where the central subject was to be that of war studies. The reason for creating a new subject, and for moving to a subject based curriculum generally, was the need for a vehicle for systematic and cumulative growth of knowledge. In a course oriented curriculum, this is hard, or impossible, for there is no “natural home” for cumulative growth of knowledge, so to speak. In such a curriculum, knowledge rests with the course directors, and there is no development of what Karl Popper called “World 3” for the officer profession, i.e., knowledge independent of those who possess it.² If there is no cumulative growth, there is also no *systematic* base for developing the profession. Our reason for choosing to base our academisation process on subjects, rather than continuing with a course based curriculum, was thus the need to create a base for developing the profession by creating vehicles for systematic and cumulative growth of knowledge relevant for the training and education of officers. War studies was, of course, not the only subject developed to support the academisation process. We also started developing a new understanding of the subject of military technology as a subject focussing not only on technology as such, but on the relations between technology, tactics and operations, as well as the subject of command and control science as part of this process. I will have more to say about the latter later in this paper.

2 Karl R. Popper, *Objective Knowledge. An Evolutionary Approach* (London: Oxford University Press, 1973).

WAR STUDIES

In 2005, we decided on the following description of the subject of war studies, after some five years of discussion at the college:

War studies is the study of war, warfare and conflict management where military resources are created and used in operations in peacetime, encompassing the entire spectrum of conflict and at all levels of warfare ... the subject can ... be said to encompass two perspectives, i.e. knowledge about war and warfare (theory) and ability in war and warfare (practice) ... Research must ... relate to the three levels of warfare, that of military strategy, that of operations, and that of tactics, and the three corresponding levels of command and control.³

Note that the central terms “war” and “warfare”, that constitute the object of study, are not defined. This is how it has to be, and it is standard practice in descriptions of academic subjects. A formal and technical definition of the area of study would necessarily involve theory, and theory will change as research progresses; definitions are not the starting point of research, they are the result of research. For example, to base the definition of war on the Clausewitzian understanding of the subject would probably not serve us very well any more; we simply do not seem to have Clausewitzian wars any more, so this definition would quickly render our whole enterprise “academic” in the worst sense of that term: The “utility of force” in international relations is no longer what it used to be.⁴ The same holds for the term “warfare” as well as that of “warfighting”. Warfare is in a continuous flux as a consequence of new technology, and cannot be given a general definition. This is because war and warfare are social processes dependent on history. It creates special problems when developing a research base for the subject of war studies. I will return to this problem below.

WAR STUDIES AS THE BASIS OF THE OFFICER'S PROFESSION

Our subject of war studies is, as already mentioned, developed to serve as a basis for the officer profession. As a consequence, we started our development of the subject by drawing a line of demarcation between those aspects of war and warfare that are the province of the politicians and that which is the proper province of the military. We then asked what it is that officers are actually asked to do by their political masters. This led to a tripartite division of the content of the subject into military strategy, military operations and military theory. These are not terms of the same kind: military strategy and military operations refer to activities, while military theory encompasses distilled military knowledge

3 *Ämnesplaner vid Försvarshögskolan*, vol. 1, p. 6 (my translation).

4 See, for example, Rupert Smith, *The Utility of Force. The Art of War in the Modern World* (London: Allen Lane, 2005).

that presumably serves as a basis for understanding both military strategy and military operations, as well as more fundamental questions such as “What is war?”⁵, “How are wars won or lost?”⁶, and the like.⁶ All these three aspects of the subject can be studied like any academic subject, and do not require military competence.

However, the officer is a practitioner, not a philosopher. He or she is not employed by the state to *think* about war, but to *practice* it (or, at least, have the capability to do so), and the training and education of officers must reflect this. To acknowledge this, we made a distinction between two perspectives: knowledge about war and ability in war. This is, perhaps, the most innovative aspect of our development of the subject, and it reflects our commitment to developing a subject that can actually serve as an academic basis for the training and education of professional officers, and it signals our understanding that our task is not only to produce academics who can think and write about war, but also, and perhaps more important, practitioners who are able to actually practice warfare. That is, the subject of war studies should actually serve as a basis for the training and education of warfighters.

THE TWO BASES FOR ACADEMIC TEACHING: RESEARCH AND PROVEN EXPERIENCE

According to Swedish law, academic teaching should be based on research and proven experience. Before we proceed, we need to pause to sort out these two concepts.

Research as a basis for teaching

What it means to base teaching on research is reasonably well understood, even though the creation of small colleges without a research base of its own has led to various attempts to dilute the meaning of the concept of research based teaching. The idea is simple enough, at least in theory. The point of departure is the academic view of knowledge, i.e., that it is provisional, a hypothesis at best. Its value lies in its justification, i.e., in the methods used to produce it. The academic approach is based on the postulate that teaching should involve both what is claimed to be the case (the hypothesis) and the justification for this claim (the method), and the insight that the only possible way to understand the method is to practice it, that is, to use it both to evaluate what is being claimed

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- 5 It may seem somewhat worrisome to have the very subject of an academic discipline as a research problem in that same discipline. However, if we take the question “What is war?” not to concern the essence of war, but its empirical form, the question is of course a legitimate subject of research. The other questions in military theory must be understood in the same way, if military theory is to serve any purpose in the teaching and training of officers.
- 6 Military theory is not theory in the ordinary sense of empirically tested propositions, but is probably better seen as interpretation to aid understanding. Its function as a guide to practice is therefore problematic. This is discussed further later on in the paper.

to be the case and to produce new knowledge. This requires teachers who know both these aspects. According to time honoured academic tradition, this is possible only if the teachers also do research in the subjects that they teach. It also requires teaching methods that require and enable the students to practice using the methods in discussions and to produce new knowledge. Hence, in a very real sense, academic teaching aims at developing researchers, or at least students who have a researcher's mindset. Teaching that does not produce students who have adopted the academic view of knowledge and who are not able to evaluate knowledge claims and to find new knowledge within their chosen subject must be deemed a failure, and worth neither the effort nor the cost. But if the teaching succeeds, the possibility for change and growth has been created, although there is some risk involved here, for we can never know exactly what changes we are going to see.

Teaching based on proven experience

"Proven experience" is a less clear concept than research. Although it is part of Swedish law and forms the basis of a variety of professions, it is hard to find a generally accepted definition of it.

Looking at how the concept is used in, for example, the teaching and practice of medicine, one might say that proven experience is the knowledge that underlies professional decisions and professional practice. It should not be confused with experience. Just having "been there and done that" does *not* yield proven experience. Experience in this sense may do in traditional professional education, but as the profession strives to become "academic" the emphasis is shifted from stressing experience as such to emphasizing "proven experience".

Thus, when a doctor chooses a treatment for a disease, this decision should be based on proven experience. If it cannot be shown to be based on proven experience, the doctor is subject to legal action.

To base a decision on proven practice means to base it on the best available knowledge about the problem at hand. For it to be proven experience, it must be formulated experience (it cannot be tacit, even though tacit knowledge is important in most professions, and has to be acquired by experience), and it must have been explicitly evaluated in, for example, a consensus conference, or some other way. The evaluation should be public, so that everyone can partake of it. *All* relevant knowledge is part of the proven experience, relevant research results as well. There is no contradiction between proven experience and research; research is a subset of the proven experience, and generally the most important part.

In a profession, every practitioner is required to know what constitutes proven experience for the decisions that he or she has to make in his or her profession. The field of the profession is defined by that for which there is proven experience. Only those decisions and practices for which there is some form of

proven experience are allowed in the profession. Finding these decisions and practices is not always easy, for what is proven experience may actually be decided only after a mistake has been made, and determining and formulating it may be part of the legal proceedings against the professional who made the mistake.

It is important to understand that relying on proven experience as a basis for teaching is not different in principle from using research as a basis. It simply requires that what is being taught should be based on the best knowledge available, including relevant research findings, and spelling out what that basis is. Just like the teaching of those aspects that are based on research, the teaching based on proven practice involves imparting an academic attitude to what is agreed to be proven experience, that is, the teachers and practitioners are required to continuously scrutinize and update it as new results and new experience becomes available. What is proven practice changes over time, just like research does.

Research and proven experience in the teaching and training of officers

Applied to war studies, what constitutes the research base for teaching knowledge about war is not problematic, for this is part of the already existing subjects such as history or political science. However, these subjects do not define all that is needed for teaching war studies as defined above. For the other aspect, ability in war, which is the aspect that concerns the teaching and training aimed at developing professional competence, proven practice constitutes the most important part. In view of the fact that officer education is aimed at educating and training professionals, finding the proven practice and the relevant research basis for the professional practice is clearly the most important part of finding a research basis for the teaching of war studies in the education and training of officers.

Basing the education and training for ability in war and warfare on proven experience thus requires us not only to decide which aspects of current professional practice have passed the requisite tests and can be included in the corpus of proven practice, but also to find whatever research results that are relevant. Moreover, it requires us to systematically develop the proven experience for the profession.

The question then, is whether proven experience for the military profession exists, and where do we find it? The closest we can come to this is doctrine and regulations, such the Swedish Army Regulations 2. They are based on formulated experience, and they have usually been thoroughly discussed in the Armed Forces. Some aspects are even based on research, or at least testing of various kinds, and experimentation as that concept is now understood. However, as examples of proven experience, these kinds of publications are not always satisfactory, for they do not offer the complete basis for the rules and advice that they provide. This sometimes makes them hard to understand and to evaluate.

In this connection, it is interesting to note that as we started to teach military theory in a more systematic way at the college the students said that, for the first time, they now understood the basis of many rules and regulations that they had earlier just had to memorize.

The question now is how we can produce a firmer base in research for the professional practice of officers. This question was not addressed in the work leading to the description of the subject of war studies given above. That work was limited to discussing the research base for the aspect knowledge about war. This seems to have led some to believe that basing the teaching and training of officers in history and political science was all that was required for the academisation of the officer profession, forgetting the need to anchor teaching and training in proven experience as well.

THE RESEARCH BASE FOR ABILITY IN WAR AND WARFARE

To answer the question of where we are to find the research base for teaching ability in war, we must start by asking another question: What is the officer's core competence, that which sets the officer profession apart from other professions? Or, to put it simply, what is it that officers do as professionals?

To answer this, we must seek the answer to the question of why we have defence forces and what the officer's role in these forces is. Swedish politicians have been clear enough on this point: The task of the Swedish Armed Forces is to have the capability for armed combat. The officer's role is to lead this activity, so we may therefore say that the officer's core competence is to lead armed combat. This, then, is what we are educating and training officers to do. To find the research that can serve as the basis for this is to find that which is aimed at understanding and improving the officer's ability to lead armed combat.

What does it mean to lead armed combat? It seems prudent to keep things simple here. Modern combat is a very complex activity, and it is easy to get lost in detail if we list each and every thing an officers needs to know. Instead, we take a bird's eye view.

What we are interested in here is, of course, not only leading armed combat, but what is required *to* lead successfully. Our question, then, is: what does it take to lead successfully? According to our line of reasoning here, the answer to that question would define the officer's core competence. Sticking to our promise to keep things simple, we can point to two preconditions that would define the officer's core competence:

- To decide what should be done
- To actually get it done.

This may seem simplistic, but it serves our purposes in this context. We have termed the first aspect *command* ("ledning" in Swedish) and the second aspect *leadership*. Thus, we would have three important concepts: *To lead*, *command* and *leadership*.

It may seem strange to separate these two aspects of the activity to lead since in professional practice they are united in one activity, that of leading. However, the technological development has made it mandatory to distinguish between them, for we are now employing more and more technology that affects the one aspect, but not the other. For example, the whole network centric warfare/network enabled capability/network based defence – whatever one wants to call it – is about improving command, but it does not do much to support leadership, as defined here.

Leadership is traditionally part of the training and education of officers, and it is a subject of its own at the SNDC with its own research practices and theories. I will leave that aside for the time being and concentrate on the first question.

COMMAND

To exercise command, that is, to find what should be done, the commander must know what is possible, and that he is able to understand his mission and the situation so that he or she can choose the best course of action among those that are possible. Command and control (C2) science as it is being developed at the SNDC is concerned with understanding this process and finding ways to improve it.⁷ Our research has produced a general model of C2, and this model defines the basic functions that need to be accomplished for successful C2. According to the model, there are three such functions. We call them *sensemaking*, *planning* and *data collection*. Sensemaking is defined as the function that produces an understanding of the mission and the situation in terms of what must be done. The planning function takes the output of the sensemaking function and transforms it into a conception of how that which must be done is to be accomplished in detail (“the plan”). The plan is then transformed into orders (the principal product of the C2 system). The data collection function collects the data required by the sensemaking function. The design of C2 support is create the form (organisation, methods, processes, procedures and support systems) that helps accomplish the function, and the education and training of officers to lead armed combat is enabling them to accomplish the functions by means of the C2 system. This is not the place to discuss our C2 model in detail. For that, the reader is referred to Brehmer only to show that it is possible to describe what is required for successful command, and thus also for the aspect of leading armed combat.⁸ Thus, our model specifies that the officers should be trained to “make

7 For a description of command and control science, see the chapter on “Ledningsvetenskap” [Command and Control Science] in *Ämnesplaner för Försvarshögskolan* (Stockholm: Försvarshögskolan, 2005).

8 Berndt Brehmer (ed.), *Krigsvetenskaplig årsbok 2005* (Stockholm: Försvarshögskolan, 2006) and Berndt Brehmer, *One Loop to Rule Them All*, proceedings of the 11th International Command and Control Research and Technology Symposium, Cambridge, 26–29 September, 2006. [CCRP (online 22 Feb 2007)]

sense” of the mission and the situation (individually or as staff members) so that they can come up with a course of action, to develop this course of action into orders and to know what data they need and how to get them. This is not part of military theory or leadership studies.⁹ However, the three subjects together: military theory (pointing to what the possibilities are), command and control science (by developing methods and systems that help choosing among the possibilities to achieve the mission under the circumstances at hand), and leadership studies (developing methods to get things done) here produce the research basis for the officer’s core competence: to lead armed combat. Thus, the officer’s core competence can be based on research.

TENSIONS IN THE ACADEMISATION OF THE OFFICER’S PROFESSION

Developing an academic basis for the officer profession leads to some tensions, and I shall end the paper by discussing some of them. The first of these has to do with the needs of the present in relation to the need to produce scientific knowledge, the second with the need for normative knowledge, and the third with relation between the scope of war studies, and research generally, in relation to the needs of the profession, as the profession might see them.

Teaching for present needs vs. the need for academically respectable research

There is an essential difference between war studies and the classical examples of academic professions, such as medicine and engineering. Thus, the object of medicine and engineering are physiological and physical phenomena, respectively, neither of which is subject to historical change. Research can therefore be seen as a process of increasing the scientific basis for the profession in a relatively uncomplicated manner. The object of war studies, war and warfare, on the other hand, is a social phenomenon, which *is* subject to historical change. While, for example, doctors have been able to take it for granted that the nature of the body remains constant, officers (and politicians for that matter) cannot take it for granted that war is war. Indeed, current military failures can be understood as the result of a failure to understand that the nature of war has changed not only when it comes to the “utility of force” to use Rupert Smith’s expression, but with respect to where and how wars will have to be fought (for example, Alice Hills) as well.¹⁰ The answer to the question “What is war?” seems to have a new answer depending on when and where it is asked.¹¹ This is a source of frustration when one tries to use scientific methods to develop a cumulative

9 This is, of course, not all the research that is needed. We also need research that perfects the means that the commander has at his or her disposal, such as weapons, logistics, transport, and so on.

10 See, for example Mary Kaldor, *New and Old Wars* (Oxford: Blackwell, 1998); Smith, *The Utility of Force...* and Alice Hills, *Future War in Cities: Rethinking a Liberal Dilemma* (London: Frank Cass, 2004).

11 See John A. Lynn, *Battle. A History of Combat and Culture* (Westview Press, 2003).

body of knowledge, for the standard methods of science may not apply, and it may not be possible to obtain the data that are needed.

Research in military theory, which is currently the best developed aspect of war studies, serves as a good example. As described by Nils Marius Rekkedal,¹² military theory can be studied, either historically, or aimed at understanding today's wars and warfare. A historical approach would investigate what theories have been proposed, the influences, their effects and so on. This makes the study of military theory a part of the history of ideas. An impressive example of this approach is Azar Gat's *History of Military Thought*.¹³ Interesting as this is, its relation to current military practice is not clear, and it raises all the problems pertaining to the role of military history in particular, and the use of history in general, in preparing officer candidates for the profession.¹⁴

An alternative approach is, if I read Rekkedal correctly,¹⁵ to see work in military theory as aimed at understanding today's wars. This makes military theory a part of social sciences, and as such, it is concerned with *understanding* and *interpretation* to derive a basis for action.¹⁶ In the attempts at understanding and interpretation, all possible sources would be used in combination with the standard machinery of critiquing and evaluating these sources, but it would, of course, never be able to live up to ordinary requirements for completeness of sources as demanded in research in, for example, history. That evidence will not be available until some time in the future, when it may be too late, and if we waited for that evidence, we would be doomed to live through yet another example of fighting the last war over again. What the military theorist does is more like qualified journalism than research in the classical sense. In his work, he would probably not be able to rely on established theory, even though research in military theory may well take the form of comparing recent events with classical military theories, such as is being done in the seemingly never ending resurrections of Clausewitz,¹⁷ just to refute him or claim that he is no longer relevant.¹⁸

The second of these approaches is clearly distinct from military theory as an aspect of the study of the history of ideas. It makes military theory a historical fact, not only in the sense that all theories are historical facts, but also because what is studied is war in a given time and place, not war in general, for the

12 Nils Marius Rekkedal, "Nya utmaningar för militärteorin" in Berndt Brehmer (ed.), *Krigsvetenskaplig årsbok 2005* (Stockholm: Försvarshögskolan, 2006).

13 Azar Gat, *A History of Military Thought* (Oxford: Oxford University Press, 2001).

14 See Karl R. Popper, *The Poverty of Historicism* (London: Routledge & Paul Kegan, 1957) for a general discussion of what can be learned from history.

15 Rekkedal, "Nya utmaningar för militärteorin".

16 Smith, *The Utility of Force*...would be an example.

17 See, for example, Kaldor, *New and Old Wars*.

18 When looking at the role of Clausewitz in military theory, one cannot help being reminded of the role of Freud in psychology. Perhaps military theorists would have something to learn from the debate over Freud and his theories in psychology.

changes in war and warfare preclude this. Useful though it may be, it is certainly not science as we normally understand it.

The same goes for warfare and war fighting. How wars are fought (however the concept of war is understood) is dependent on culture and technology,¹⁹ and it has always been difficult for military theory both to keep up with technological developments (the failure to understand the consequences of the machine gun suffices as an example) and to find an understanding of war and war fighting that is not specific to a given culture. While this is not an obstacle to doing research it seems to create an insurmountable obstacle to developing a research based foundation for preparing the officer for today's problems.

There seems to be no easy way to resolve this tension between the two approaches. Those who adhere to traditional scientific ideals, will always be impatient with the more journalistic approach of those who try to understand the present, and those who study the present will find little use for the more historically oriented approach to military theory. This, then, seems to be a tension that we will have to live with.

The normative/descriptive tension

For a subject to have a place in a professionally oriented curriculum, it must contribute to better practice, i.e., it must contribute to the fount of proven practice. This means that it must have clear and well understood normative implications, i.e., it must prescribe certain forms of action and prohibit others, or at least give some form of advice to the practitioner facing a problem.

The normative status of war studies in general, and military theory in particular, is problematic,²⁰ for although military theory may have an empirical basis in that it is derived and distilled from experience, it is generally not tested, and, more important, its range of application, that is, the conditions under which the theory applies, are not known. It is thus very different from the theories that form the basis for the medical and engineering professions. Hence, the "recipes" for action that come from military theory have an uncertain status as guides to action. This is true both for what military theory teaches about war, and for what it has to say about warfare and warfighting. For example, the ten or so "principles of war" are in need of reinterpretation in the information age.²¹

Perhaps the advice and principles that come out of military theory, just like the results of military history, should be understood as pointing to *possibilities* rather than advice to be followed. A choice among the possibilities can

19 Lynn, *Battle...*

20 Jerker Widén and Jan Ångström: "Ska militärteori förstås som teori eller praktik?" in Berndt Brehmer (ed.), *Krigsvetenskaplig årsbok 2005* (Stockholm: Försvarshögskolan, 2006).

21 See Anthony D. Mac Ivor, *Rethinking the Principles of War* (Annapolis, MD: Naval Institute Press, 2005) and Robert Leonhard, *The Principles of War in the Information Age* (Novato, CA: Presidio Press, 1999) for interesting discussions of this problem.

be made only in the command and control process as the mission and situation are analyzed, and possible courses of action are evaluated. If so, the principles from military theory and military history would prove very useful even though they do not have the status of normative theory, viz., that of widening the set of possible courses of action to solve a given military problem. It seems to me that this is what is meant by “art of war” or “operational art” i.e., the use of military theory in practice.

The subject in relation to the profession

The third tension is that between the scope of the subject and that of the profession. As we are developing the subject of war studies to serve as the basis of the academisation of the profession, one might expect that the subject would actually cover the same field as the profession, and cover the whole field as well. As the discussion above shows, we have not succeeded in this. This is particularly true with respect to the second perspective: that of providing a research basis for the ability in war. Even if this perspective is limited to the officer’s core competence of leading armed combat, the subject of war studies is only one of at least three subjects required. The other subjects are command and control science and leadership studies. Therefore, we cannot achieve a credible academic base for the officer profession by putting all our money on war studies. This should not be a problem when it is clearly understood that a number of subjects are necessary to provide an academic basis for the officer profession as a whole, as has always been the case.

But just as the profession covers more territory than war studies does, the subject of war studies will also have to be allowed to cover more, and perhaps also different territory, than the profession currently does. This is imperative if the subject is to serve as a basis for reform and development of the profession. Such reform and development can only spring from research that points to new possibilities outside of the range of current practice. It is necessary, therefore, to be patient, and allow researchers in war studies to work on problems, the relevance of which cannot be seen immediately. This is well understood in the professions that have a longer history of being academically based than the officer profession currently enjoys, although that patience may be limited also in these professions. Medicine provides examples. To resolve this tension should be a matter of time, even though it will eventually probably disappear completely.

CONCLUSIONS

This paper started as an essay on war studies but ended up as a discussion of the research basis for the officer profession. A central theme to emerge from this is the need to find a research basis, not only for the aspect that we have called knowledge about war, but also for the aspect that we have called ability in war. Another central theme to emerge is the seminal role of proven experience,

and the consequent need to assess that proven experience to serve as a basis for the teaching and training of officers. Work towards this end has started at the SNDC, so I am optimistic about the future here, and more so since research is now producing a better base for the ability in war and warfare as well. Our research group in command and control science at the SNDC has provided a new and better method for planning at the tactical level that is now being implemented in the Swedish Armed Forces, to give just one example.

However, it is clear that academisation of the officer profession also involves tensions that are hard to resolve. One is that between the need to understand the present in changing times vs. the need to have results that have been produced by the ordinary research process, another is the issue of the normative status of the results produced by work in military theory and war science generally when our object of study changes with the times. These are tensions with which we will simply have to live, and it will in all likelihood be easier to live with them if they are on the table than swept under the carpet.

ADVANCED EDUCATION OF OFFICERS IN THE 21ST CENTURY: WAR STUDIES OR THE SCIENCE OF WAR AS THE CORE ELEMENT

Major General Karsten Møller
Commandant of the Royal Danish Defence College

NEW BASIC CONDITIONS FOR THE PROFESSION

The theoretical aspect of modern advanced officer education has received much emphasis in recent years. There is – even in Denmark – increasing awareness of the need to know more about the philosophical basis for the officer’s profession. What is the nature of war or armed conflict? This is an extremely relevant question, because since the end of the Cold War, armed conflicts between states have become an exception rather than the rule.

Armed conflicts within states, however, occur increasingly often, together with several other types of conflicts, such as the world community’s policing role in connection with violations of human rights, nation building in failed states etc. These types of conflicts create significant challenges for the military profession as a whole. Unpredictability and complexity are central concepts in modern warfare. The soldier’s role can shift from “emergency aid worker in uniform” to warrior in a split second. The conditions for the use of military force have changed. Media coverage of armed conflicts is intense. A tendency exists among politicians and the public to believe that military force can be wielded with surgical precision, with very few military losses and no or only minimal loss of civilian lives. This is undoubtedly a worthy objective but it is inconsistent with the nature of war, which basically involves forcing one side’s will on the other side, and where the weakest side often systematically uses the civilian population as a shield. The social framework for armed conflicts has changed considerably since the end of the Cold War, which means that military force should be used as an instrument only after serious consideration and with caution at both the political and military levels. Therefore, knowledge of the military profession’s basic conditions is an extremely central aspect of modern officer education on a par with the more practical skills.¹

1 See Janne Haaland Matlary, “Den internasjonaliserte militærmakten: hva kreves av offiseren?” [International military power: What is required of the officer?] in *Festschrift on the occasion of the 175th anniversary of the Royal Danish Defence College* (Royal Danish Defence College, 2005), pp. 80–98; Janne Haaland Matlary and Øyvind Østerud (ed.), *Mot et avnasjonalisert forsvar?* [Toward denationalized armed forces?] (Oslo: Abstrakt, 2005) and Janne Haaland Matlary, *Values and Weapons. From Humanitarian Intervention to Regime Change?* (London: Palgrave MacMillan, 2006).

Research-based

The tendency described above is one of the reasons for the academisation of officer education that is developing in most of the Western world. But equally important is the wish to make officer education comparable to the civilian academic educational system, in order to improve recruiting and create alternative career opportunities for those who are no longer needed in the military system. Academisation demands a research-based education programme.²

Research in study areas that are unique to officer education and are not offered at universities will be conducted by the Royal Danish Defence College. They include such subjects as strategy and military operations, security policy, and military leadership. Research conducted by other academic institutions will be incorporated in the following areas: military psychology; pedagogy and organisation; management and digital administration; military technology; and foreign languages and cultural competence.³

Science or art of war?

The central question concerning the research base for the core competencies leads naturally to the interesting discussion about to what extent a special science of war exists in line with other scientific disciplines. Or is it really the art of war we are discussing? In the Anglo-Saxon tradition, there has been a reluctance to speak of a science of war and, instead, the less pretentious but very elegant term War Studies has been used. The Soviet Union developed a very logical and consistent theory of war founded on Marxism-Leninism and considered it scientific in nature. After the collapse of the Soviet Union and Marxism-Leninism, the Soviet version of the science of war is no longer of interest.

Theoretical scientific thinking within military science

Denmark has no tradition for cultivating the philosophic and scientific theoretical thinking that is the basis for military science. Even though the Danish Society of Military Science has existed since 1871, it is primarily concerned with the art of war. Until now, the service academies (officer schools) and the Royal Danish Defence College have only to a limited extent studied the theory of war as part of military science. But there have been exceptions such as the late Colonel Nils Berg and Lieutenant Colonel K.V. Nielsen. Colonel Berg is especially known for his excellent translation into Danish of *Vom Kriege* and his contribution to the development of modern officer education through the introduction of the

2 See evaluation report from Denmark's Evaluation Institute, *Forsvarets linjeofficersuddannelse* [Professional officer education in the Armed forces](2003).

3 See Karsten Møller, "Forsvarsakademiet 2001–2005" [Royal Danish Defence College], pp. 24–39 and "Forsvarsakademiet efter 2005", pp. 144–154 in *Festschrift...*

model for the basic study of military science.⁴ More recently, Brigadier General Michael Clemmesen has made a significant contribution to War Studies in the best Anglo-Saxon tradition through a series of papers and articles and not least through his work as commandant of the Baltic Defence College. In recent years, his work at the Swedish National Defence College in Stockholm to define military science in relation to the academisation process has received considerable attention and been a great inspiration, also to the author of this article.

Scientific paradigm shift

People everywhere agree that no art or science is more difficult than war. ... This art, like all others, is based on certain fixed principles, which according to their nature are unchangeable. Only their application can vary: But in themselves they are constant.

This quotation is from a book written in 1766, “History of the Late War in Germany”, by Henry Evans Lloyd and illustrates perfectly our dilemma.⁵ Is warfare an art, understood in the sense of experience and knowledge made effective through cleverness and inspiration, or is it a science, based on laws and principles? There can be no doubt that Thucydides, Xenophon, Tacitus and all who wrote about war before the modern era, including Machiavelli, considered warfare an art. With the birth of modern science and the work of philosopher and epistemologist René Descartes and natural scientist Isaac Newton (1642–1727), among others, and within the social sciences, economist Adam Smith (1723–1790), social researcher Adam Ferguson (1723–1816), and historian David Hume (1711–1776), all of the “Scotch School”, came a scientific paradigm shift that also influenced the development of the art or science of war.

Newton’s *Principia* became the model for good science, also within the science of war. Antoine Henri Jomini (1779–1869) attempted through analyses of Frederik the Great’s and the young Napoleon Bonaparte’s campaigns to deduce “Newtonian principles” for warfare. His ambition was to create rationality in an irrational environment through the theory of warfare expressed in *Precis de l’Art de Guerre*, a textbook characterised by clear and logical methodology and terminology, which had significant influence on the scientific thinking on the subject of warfare well into the 20th century.

4 Carl von Clausewitz, *Om krig* [On war], translated and edited by Nils Berg (Copenhagen: Rhodos, 1986) and Nils Berg, *Landkadetakademiet og Hærens Officersskole 1713–1988* [The Land Forces Cadet Academy and the Military Academy] (Hærens Officersskole, 1988).

5 Quotation from K.V. Nielsen, “Krigens principper. En historisk oversigt” [The Principles of War. An Historic Overview], *Militært tidsskrift*, vol. 98, May (1969): 204.

Carl von Clausewitz

Jomini's contemporary, Carl von Clausewitz (1780–1831), was primarily interested in the nature of war and its role as a social phenomenon. One could say that Clausewitz consciously chose not to involve himself in developing a system, whereas Jomini developed a fixed system for warfare with a clear and logical context. Clausewitz tried to create a scientific connection between theory and reality in the form of war experiences. In my opinion, he has held such a dominant place in the field of military science, because no one else has investigated war as a social phenomenon to the extent he has; therefore, he is still relevant and uniquely inspiring for military thinkers – and civilian thinkers as well, of course. Clausewitz's scientific ideal is strongly influenced by Immanuel Kant (1724–1804), who claims that the social sciences should also follow Newtonian principles.⁶ Clausewitz recognizes, however, that it is hardly possible to apply this scientific ideal completely to warfare:

The concept of law in relation to knowledge can justifiably be dispensed with in relation to warfare, because war's complicated phenomena are not that regular, and the regularity is not so complicated as to be able to achieve much more with this concept than with the simple truth.⁷

His main work, *Vom Kriege*, can well be considered to comprise the only comprehensive and consistent theory of war to date.

J.F.C. Fuller

In his book published in 1925, *The Foundations of the Science of War*, J.F.C. Fuller also presents a positivistic view of science. Through studies of Napoleon's campaigns, he had earlier deduced some principles for warfare that he believed were verified by World War I, and in this book, he attempts to verify these principles in another way, through a philosophical analysis of the human being and its characteristics in general and by formulating a law that he calls "The Law of Conservation of Military Energy". Fuller's "scientific" work is not described or commented further here but is just mentioned to provide an example of an impossible project: to establish a theory of war that is based only on a positivistic scientific ideal. It is and remains a Procrustes' bed.⁸

6 See Johannes Witt-Hansen, "Clausewitz – videnskabsteoretisk set" [Clausewitz – in a scientific-theoretical perspective], in Clausewitz, *Om krig*, vol. III, pp. 877–85.

7 Clausewitz, *Om krig*, vol. I, ch. 4, "Om metoder" [On methods], p. 135.

8 J.F.C. Fuller, *The Foundation of the Science of War* (London: Hutchinson & Co. 1925).

Definition of the science of war

We have now reached the main point of this article, which is by no means epoch-making: to define what is meant by the science of war. It is a social science; it is inter-disciplinary; and uniquely synthetic. As a consequence, it is extremely difficult to define and delimit this field of endeavor, and disagreement exists among those who study it. In addition, no commonly recognized conceptual universe or methodology exists. Clarification of these questions requires comprehensive analytical work using a theoretical scientific perspective.

Basic curriculum in military science

Difficulties in defining military science, or rather the scope of the field of military science, are well illustrated in the model for a basic curriculum in military science, which was developed as mentioned above by Colonel Nils Berg in the mid-1960s in connection with a thorough revision of the officer training programme existing at that time. Nils Berg posed the question: What is the officer's main function? Answering this question led to the identification of what he called the core disciplines: operations and management. But since the officer serves the state unconditionally in relation to the use of force, deep insight into this aspect of his role is necessary. Therefore, political science, including international politics, is part of the core curriculum. In addition, there is the history of warfare, which forms the empirical basis for a scientific treatment of war. See figure 1.⁹



Figure 1: *Core curriculum.*

The second question was: What means shall the officer use to carry out his functions? And the answer was that the means provided the officer to carry out his functions are human beings and materiel.

This led to the addition of two key subject areas to the core curriculum: Human sciences (comprising basic knowledge of physiology, psychology and pedagogy) and natural sciences (comprising biology, mathematics, physics, chemistry etc.). See figure 2.¹⁰

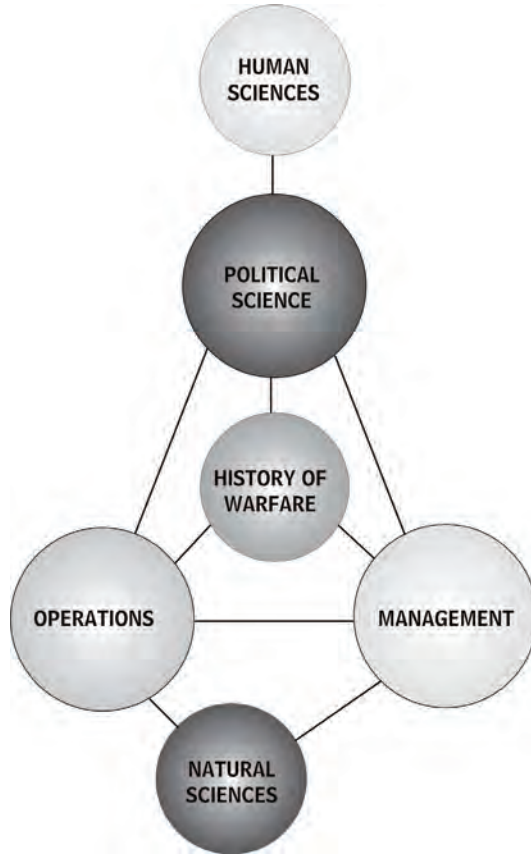


Figure 2: Core curriculum with key subjectareas.

The third question Berg posed was: Which skills must an officer master – to a greater or lesser degree – in order to carry out his main functions? The answer was: physical skills, foreign language skills, and several manual skills. The answers to these three questions form the model for the basic curriculum in military science. See figure 3.¹¹

10 Ibid., p. 96.

11 Ibid., p. 98.

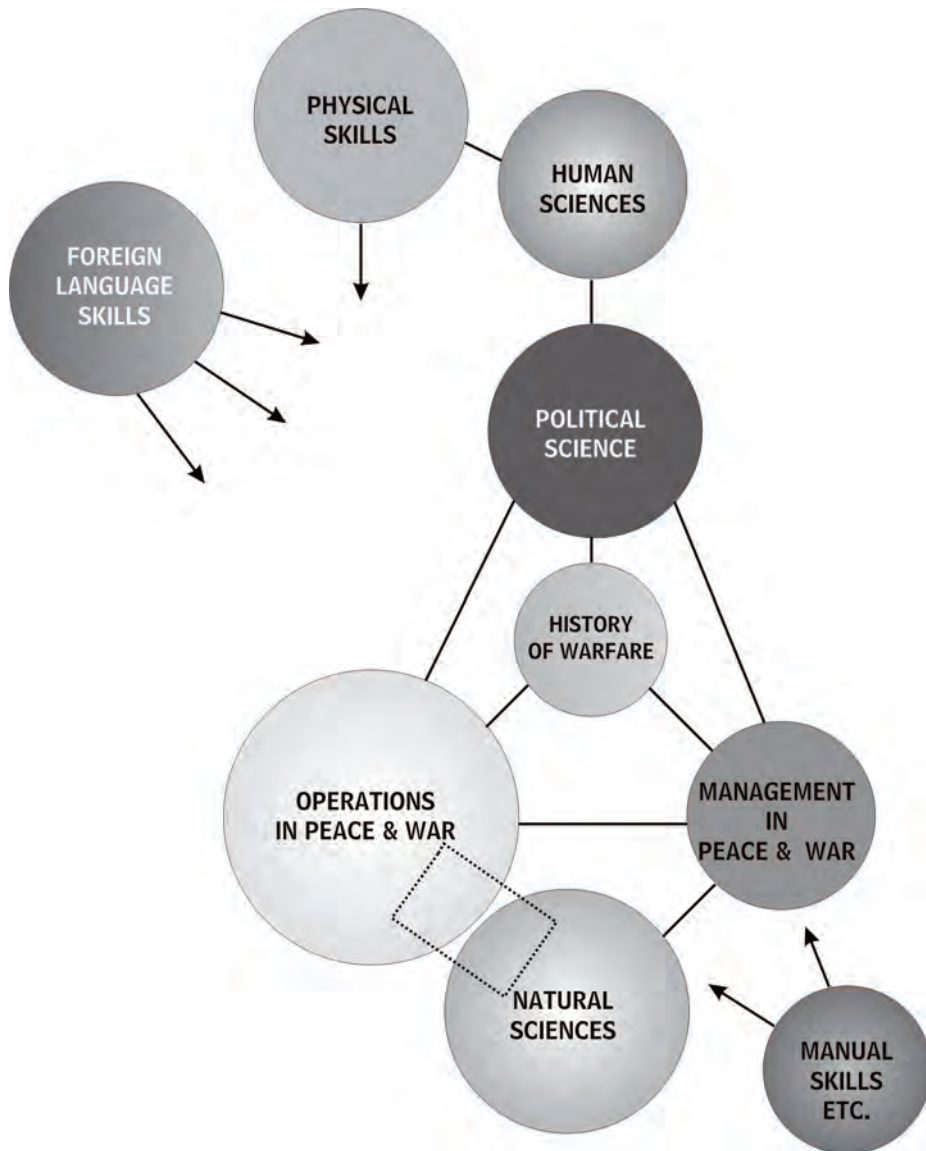


Figure 3: *Basic curriculum in military science.*

The co-evolutionary cycle of warfare

The broad area of study can also be illustrated by another model developed in the mid-1960s by Lieutenant Colonel K.V. Nielsen and called the co-evolutionary cycle of warfare. This cycle consists of three main components: Doctrine, technology and organisation. Under ideal circumstances these three components are in balance, but developments, typically in technology, bring the system out of balance until the two other components can be adjusted. In addition, there are developments in the outer environment, society's ideology,

political structures and economy. Often, changes in the outer environment bring the cycle out of balance. This illustrates the familiar truth that the societal framework plays an important if not crucial role in developing the armed forces and their capabilities, and thus in the conduct of warfare. See figure 4.¹²

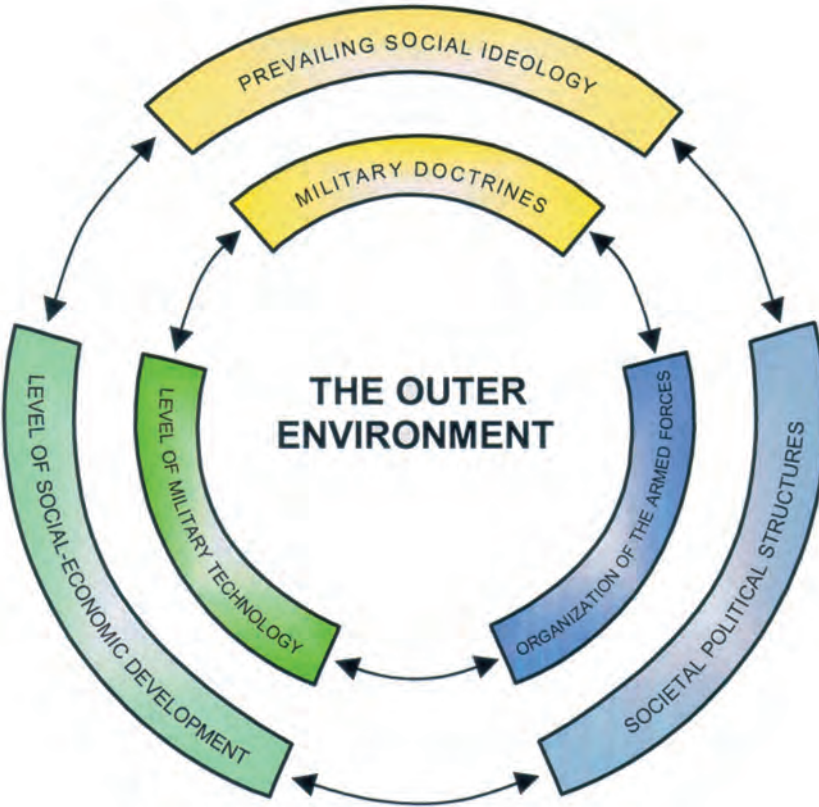


Figure 4: *The co-evolutionary cycle of warfare.*

It is therefore reasonable to ask whether the area of study should be narrower if studying the science of war is to have any meaning.

Identifying the concept of military science

What would it mean if we were to limit ourselves to the concept of the art of war, which is not clearly defined either? Or perhaps it would be easier to just talk about War Studies? But we must not just give up when confronted by challenges that seem insurmountable. A Swedish officer, Colonel Johan René,

12 Mikkel Storm Jensen, "Krigsførelsens kredsløb" [The co-evolutionary Cycle of Warfare], pp. 176–201, *Militært tidsskrift*, vol. 133, April (2004).

has formulated a good definition of the art of war that can also be used as a point of departure for approaching an understanding of the concept of military science: “The art of war, which may be understood as a unifying concept based on military science, is the use of military force to achieve the goals defined by the political leadership”.¹³ The art of war, in this definition, is connected with the professional skills necessary to wage war. Colonel René then defines the science of war as the summarizing term for the discipline that is concerned with war, warfare, the goals, means and methods of war, and the nature of war in the broad sense. Military theory, military history and logistics are part of military science.¹⁴ Every resourceful student attending the advanced courses provided by the Royal Danish Defence College may search the Internet and find the definition in Wikipedia, The Free Encyclopaedia:

Military science is the study of the technique, psychology, practice and other phenomena which constitute war and armed conflict. It strives to be a scientific system that if properly employed, will greatly enhance the practitioner’s ability to prevail in armed conflict with any adversary. To this end, it is unconcerned whether that adversary is an opposing military force, guerrillas or other irregulars, or any adversary who knows of or utilizes military science in response. Military science encompasses six major branches as follows: military organization, military education and training, military history, military geography, military technology and equipment and military strategy and doctrine.¹⁵

This excellent definition also contains elements of the old Soviet concept in the form of its six main elements. According to this definition, the aim of military science is to provide practitioners of the profession of arms with the laws and principles necessary to achieving victory. Such an aim is not completely unproblematic.

A definition of the science of war

One of the best thought-out and operational definitions of the science of war is to be found in the material written by the Defence High School in connection with its application for authorization to give accredited examinations: “The science of war is learning about how to use military means of force.” It continues:

The definition comprises all military actions that are carried out in times of peace, crisis, and war for the purpose of influencing another party’s will or capa-

13 Johan René, “Införande av huvudämnet krigsvetenskap vid Försvarshögskolan” [Introduction of the Course on the Science of War at the Swedish National Defence College], *Kungl. Krigsvetenskapsakademins Handlingar och Tidskrift* (2001): 76.

14 *Ibid.*, p. 76.

15 See *Wikipedia. The Free Encyclopedia* [online 3 Jan 2007].

bility. Military actions are thus preparations to threaten to use force and to use force. These actions cover the whole spectrum of activities from the planning, preparation and execution, to the conclusion of military operations. The science of war comprises the research-based and systematized knowledge of warfare and also includes aims, means and methods as well as the use of military forces as an instrument of security policy. The science of war is based on modern theories of warfare, and primarily includes the areas of tactics, operations and strategy. The main aim is – as far as possible – under specific, given or deduced conditions to foresee changes to the doctrines guiding future warfare.¹⁶

With this definition we have come far, even though it is still open to discussion. It implicitly covers the generation of military forces and their use throughout the whole conflict spectrum at all levels of warfare, and it is therefore sufficiently broad. The definition delimits the term appropriately. Research and knowledge within the framework of the definition will be able to and should influence such central areas as concept and doctrine development and education of both officers and civilians working in the field security and defence policy.

Link between theory and practice

The theoretical basis of military science thus gives it the character of a traditional academic discipline. However, this basis must be closely linked to the military profession's more practically oriented skills if it is to have any meaning. Knowledge of the (theoretical) nature of war and the practical skills necessary to wage war must interact. Research must therefore be based on scientifically and empirically based knowledge. Research can support and in some instances also guide and inspire the military practitioner, who in turn contributes with empirical findings in the form of practical experiences, and in this way develops and expands the theoretical basis in a hopefully fruitful synthesis. Research must necessarily operate on three levels: the strategic, the operational and the tactical.

The theory of war

The theory of war is the central element of the science of war. It deals with general theoretical questions concerning war, warfare and conflicts. It embraces all the levels of warfare and includes analyses of the nature of war and warfare, analyses of preparation for war and conflict, and considerations about how wars and conflicts can be concluded and won. The theory of war thus attempts to impart an understanding of war, warfare, and conflict solution with military means, and of how the development of doctrine, technology, leadership and

16 Swedish National Defence College, *Ämnesplan för kirgsvetenskap 2005* [Lesson plan for the Science of War], p. 2–5.

organisation, education and military exercises and logistics influence warfare.¹⁷ In addition, there is the influence of security policy and societal factors, as illustrated in figure 4, the co-evolutionary cycle of warfare. According to Colin Gray, changes in the outer environment often have a decisive influence on the elements at the core of the cycle. Therefore, the science of war must necessarily base its research and the education connected with it on results and methods from other disciplines.¹⁸ As mentioned above, the science of war is characterised by a great degree of inter-disciplinarity and synthesis. In summary, the theory of war focuses on the effectiveness of military means and their appropriateness with regard to achieving political goals.

Ideographic or nomothetic theory?

A very central problem regarding the theory of war is to whether it is a descriptive and explanatory theory or a normative theory. Descriptive and ideographic theory explains the elements that determine the outcome of specific battles, campaigns, wars and conflicts. The methods are known from the study of history. Normative theory seeks to contribute knowledge of how battles, campaigns, wars and conflicts should be conducted in order to achieve the political goal. It seeks to classify objects and concepts in order to search for general laws and is therefore nomothetic. Empirical data is derived in both cases from military history, including, of course, the history of warfare, and in addition, from military technology and organisation, doctrines and actual warfighting experience. In practice, the difference between the two approaches is not as distinct as it might seem from this simplified description, but there is a clear difference between military theory and military history.¹⁹ Military theory primarily seeks to identify and analyse general military problems and create a scientific framework for military thinking.

Methodological approaches

Many methodological problems are connected with the development of military theory. It is presumably clear from the above that military history as an aspect of military theory is not completely unproblematic, since they comprise two different theoretical and methodological approaches, the nomothetic and the ideographic. In this connection, there is an interesting interface between historical analysis and reduction, just as the hermeneutic approach to research is a central

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- 17 Niklas Zetterling, "Varför militärteori?" [Why Military Theory?], *Kungl. Krigsvetenskapsakademins Handlingar og Tidsskrift*: 59–65; K.V. Nielsen, "Krigens teori og krigens principper" [The Theory of War and the Principles of War], *Militært tidsskrift*, vol. 98, June (1969): 234–246; K.V. Nielsen, "Den klassiske krigsteori" [The Classical Theory of War], *Militært tidsskrift*, vol. 108, October (1980): 374–87.
- 18 Colin S. Gray, *Recognizing and Understanding Revolutionary Change in Warfare: The Sovereignty of Context* (U.S. Army War College, February 2006).
- 19 Swedish National Defence College, *Ämnesplan för krigsvetenskap 2005*, pp. 2–5.

question. There is in addition the question of legitimate knowledge within military theory: How do we gain empirical knowledge? Are military history and military studies sufficient sources or is practical military experience also a requirement? These questions indicate that the problem areas and questions must be investigated from several perspectives, using various empirical and analytical methods individually and in combination.²⁰

Research paradigms

It can prove fruitful to take our point of departure in E.G. Guba's paradigm definition: "A basal set of values that determine our actions – both daily actions and actions connected with disciplinary investigations", and in his thesis of four general research paradigms, which he identified as follows: the positivistic, the neo-positivistic, the critical (critical theory), and the constructivist. Each paradigm answers in its own way three basic questions deriving from the basal values of Guba's definition: ontology (what is reality?); epistemology (how do we identify reality through investigation?); and methodology (how do we investigate reality?).

Figure 5 illustrates the assumptions based on the four paradigms about ontology, epistemology, and methodology. All four paradigms are to a greater or lesser extent applicable to military science, but neo-positivism and constructivism are of interest as two possible and essentially different approaches. However, since I am more of a practitioner than a theoretician, I will leave this interesting subject to professionals who are schooled in scientific theory.²¹

	ONTOLOGY	EPISTEMOLOGY	METHODOLOGY
Positivism	Realistic	Objective	Experimental manipulating
Neo-positivism	Limited realistic	Modified objective	Modified experimental, manipulating
Critical theory	Limited realistic	Subjective	Dialogical, transforming
Constructivism	Relativistic	Subjective	Complex

Figure 5: *Paradigms and their assumptions about ontology, epistemology and methodology.*

20 Zetterling, "Varför militärteori?": 59–65.

21 Per Darmer and Claus Nygård, *Paradigmatänkning (og dens begrænsning)* [Thinking in Paradigms (and its Limitations)], pp. 23–25 in *Samfundsvidenskabelige analysemetoder* [Social Science Analysis Methods], ed. Claus Nygård (Forlaget Samfundslitteratur, 2005).

The methodology of the science of war

It must be emphasised that some of the methods used in studying the science of war will be a core professional competency, although on another level: staff procedures, decision-making processes, operational analyses etc. It is of great importance to the military profession that the scientific foundation of the various methods are constantly being developed. The understanding of methods to create and apply new knowledge, including the strengths and limitations of these methods, is fundamental to the ability to evaluate and utilize the new knowledge. Rational methodological criticism is an important part of the research process. The methodology of military science will make it possible to produce knowledge about war and warfare that is scientifically substantiated. This leads us back to the question of whether the science of war is nomothetic or ideographic. A specific war or conflict will be unique but will most often contain more general or generalizable aspects. Consequently, the method will contain both ideographic and nomothetic aspects. The methodological possibilities are almost legion: Both quantitative and qualitative methods can be used as well as explanatory and interpretive methods. The methodology used can thus actually encompass the whole scale from actual experimentation to hermeneutic-based research.

The strategic, operational and tactical levels of operations

An important and complicated aspect of military science is that it has three classical, separate levels of operations: the strategic, the operational, and the tactical. The Anglo-Saxon tradition also often refers to Grand Strategy, which is understood as a nation's total political and military strategy and has been very descriptively called *Stratègie Totale* by André Beaufre. Classical Soviet military science distinguished between the following levels: tactical, tactical-operational, operational, operational-strategic, strategic, and strategic-political. In order not to further complicate the issue, the following discussion will only deal with the three "classical" levels named above.

Military strategy involves to a great extent describing and analysing the connection between the highest political decision-making level and the military operational leadership. Research in military strategy is primarily concerned with the use of military force in support of and as an integral element in the total overall national strategy to achieve politically defined goals. The use of military force ranges from the threat to use force and deterrence from the use of violence to coercion and actual use of force.

Military strategic research often attempts to clarify the more general strategic principles and their implementation in practice. Research also investigates the decision-making processes of the highest political-military level, not least because the military-political level advises the political level regarding the employment of military forces and the determination of military tasks and goals.

The military strategic level translates and formulates the overall goals into missions to be accomplished at the operational level.

The military operational level describes and analyses the planning and execution of operations, and the coordination of the deployment of various military assets, including coordination with civilian resources, to the area of the conflict.²² Research is primarily aimed at joint operations, i.e. operations conducted by two or more services, and what is called operational art in Germany, Russia and the Anglo-Saxon nations. Operational art is a very broad term and actually embraces all areas in which military means are employed, and it often also forms the basis for developing and formulating doctrine. The operational level was “conceived” in Prussia, and its primary aim is to bridge the strategic and tactical levels. The operational level is characterised by larger-scale, complex joint operations, whereas the tactical level is characterised by smaller-scale operations and battles. Both levels require practical military skills, i.e. practical military competencies on the part of officers to develop solutions to specific military tasks in order to achieve aims defined at higher levels of command.

Research areas

As implied in the presentation of the co-evolutionary cycle of warfare, technological and military-technical developments are an essential strategic parameter. Therefore, new technology primarily information technology, and, in the near future, nano-technology, are the focus of intensive research. It is interesting that the development of these technologies has been driven by the civilian sector, whereas the most important technological developments during most of the Cold War were primarily driven by military technological requirements.

The basic research connected with the Revolution in Military Affairs (RMA) and the discussion it has sparked, is interesting, since for the most part it concerns the application of civilian technologies to military concepts, such as Network Centric Warfare, Effects-Based Operations and Rapid Decisive Operations, or whatever is in vogue just now. (They all seem to refer to the same basic concept. This seems to be a characteristic of modern management literature – by inventing new names for well-known concepts, one can become the guru of the month, and even make money on it, a lot of money).

Research is still going on – fortunately – in the field of conventional warfare in the broad meaning of the term. The problems of manoeuvre theory and manoeuvre war are still relevant, as are the new forms of warfare: low-intensity conflicts, asymmetric warfare, terrorism and counter-insurgency operations (COIN), as these types of conflicts have manifested themselves in Bosnia, Kosovo, Afghanistan, Iraq, Somalia, Darfur, Rwanda, Congo, Sierra Leone etc. It is clear that research in peacekeeping, peace support, peace-enforcing operations

and military operations in the grey areas of humanitarian intervention, nation building, and civil-military co-operation (CIMIC), which includes cooperation with non-governmental organisations, is of increasing importance.

Finally, the third factor in the co-evolutionary cycle of warfare, leadership and organisation, which also includes the human factor, are also the objects of extensive and important research. There can be no doubt that military leadership will undergo considerable changes as a result of the general social developments in society, but also due to the character of modern conflicts, which demand new competencies, as described so well by Janne Haaland Matlary and by Katrine Nørgaard and Wilhelm Holsting.²³

The academisation of the education of Danish officers

Such great emphasis is placed on the development of military science, because it is, of course, a vital component in the academisation process in officer education. In this connection, it is necessary to choose between two different courses of action.

Already established academic areas such as political science, economics, technology, history, psychology and organisational theory can form the basis of the academic programme. This would involve purchasing research-based expertise at existing universities. A large share of the teaching would thus be based on external research, while teaching in the core military competencies would be carried out on the basis of more or less systematic studies that hardly qualify as research. This would often be based on a more or less normative tradition. In principle, this is the way in which the advanced officer education at the Royal Danish Defence College has been conducted for many years, until it was decided in 2001 in accordance with the Royal Danish Defence College's vision to create a research-based university-level education programme which includes the core military competencies and leads to the award of an accredited Master's degree.²⁴

Another possibility would be to let academisation comprise the traditional core military competencies such as strategy, operations etc. with the aim of bringing a certain degree of academisation into the officer profession – only a certain degree due to the fact that the officer profession is traditionally practically oriented, and a good officer must have mastered the basic professional skills. But in the complicated modern conflict environment an officer must have additional competencies. In addition to being a warrior and a military leader, he

23 See note 1 and Katrine Nørgård and Wilhelm Holsting, *Fokus på internationale operationer* [Focus on International Operations] (Royal Danish Defence College, 2006).

24 This and the following section are based on my articles in the festschrift on the occasion of the 175th anniversary of the Royal Danish Defence College, see note 3.

must be able to fulfil the role of diplomat in international operations and serve as a manager in the national military bureaucracy.

The modern officer

The basic assumption is that the modern officer – in any case, above a certain level – must have an insight into what characterises a scientific approach to war and warfare. The officer must understand the profession's core theories, be able to make critical analyses, have a thorough knowledge of the profession's methodology and its associated strengths and weaknesses, and be able to adapt these methods to the conduct of military operations and to create new knowledge regarding war and warfare based on his experiences. He must also be able to compare and evaluate different methods and critically evaluate their results. He must also have in-depth knowledge of the limitations and uncertainties that characterise the discipline of military science. Finally, he must be able to make use of scientific publications and source material.

Through the use of relevant analysis and research methods, the officer must also be able to apply different theoretical models to the solution of complex problems. He must be able to justify his choice of solutions to such problems by applying scientific methods and exploiting the results of research in relevant disciplines.

Challenging the traditions

The academisation of the officer education system will have extensive consequences that challenge time-honoured traditions regarding the education of officers. A systematic officer education has a long history in Denmark: the Naval Academy was founded in 1701 and must be the world's oldest naval officers' school; the Military Academy (the army officers' school) was founded in 1713; and the Royal Danish Defence College was established in 1830. It must be stressed that academisation is not a goal in itself. It is one of several elements needed to create the right type of education. There can be no doubt that the emphasis on military skills in the officer education programme is a great advantage and should be maintained, also in the future, but this means that finding the correct balance between general academic and professional military competencies presents a serious challenge. It is stated in the introduction that the strategic environment is characterised by a fundamental unpredictability and by the fact that armed force is used in many different types of conflicts characterised by a significant degree of complexity. Obviously, the ability of an officer to manage this complexity demands a comprehensive understanding of the function and application of military force as well as knowledge about the context within which this force is to be used. Understanding of the national and international political systems is therefore a crucial and fundamental element. Therefore, the officer's profession requires a solid theoretical platform, including an understanding of the theory

of war, conflict, and the use of military force, as well as an understanding of the premises on which a given military doctrine is based, and, not least, the ability to deviate from the doctrine when the premises change.

In addition, steadily increasing demands are made on the military bureaucracy to justify its activities and to carry out its tasks economically and in accordance with civil administrative standards. As is the case for the government administration as a whole, the use of public finances by the armed forces must be accounted for in a systematic and credible way. This requires a broad and detailed understanding of management methods based on analytical thinking as well as the necessary management skills to deal with complex issues that are not necessarily military in nature.

Academisation is also a means of creating a flexible officer corps that is capable of critical thinking and unafraid to express its thoughts. The unpredictability that characterises the situation of the armed forces today requires the ability to quickly adjust and adapt doctrines, technology and organisation to the challenges of the future. A broad theoretical platform can contribute to such a readiness for change, supplemented, of course, by more practical professional skills.

The demands placed on the officer to be able to act decisively and effectively will continue to increase. The officer is primarily trained as a leader and must therefore be able to act. In contrast to other professions, the armed forces cannot recruit a military leader or commander from the street. It takes 15 to 20 years to train a military leader, from the moment he or she completes the basic officers' course until he or she is qualified for promotion to lieutenant colonel or commander and thus qualified to command a battalion, wing or mid-sized naval unit (e.g. frigate or destroyer). The officer's education consists of a combination of practical training and advanced academic education. This means that the officer must prove that he or she has acquired the required skills before being promoted. This sets the military profession apart from other professions, since its ultimate consequence is the destruction of human life, which may include the loss of one's own life or the lives of one's subordinates. Obviously, academisation cannot be divorced from the interaction between theoretical education and practical service, which is the cornerstone of the officer's education. This interaction is also a prerequisite for including experience-based teaching in the advanced education of officers, because synthesis and synergy with the theoretical education are so important. The students thereby have the opportunity to draw on their personal experiences and reflect on them in a relevant theoretical context and at a relevant professional level.

It can be said that the impetus for academisation is, in this light, functionally and technically and not only institutionally motivated. The issue of "academic or soldier" is often presented as a contradiction and a dilemma. This is not an especially fruitful approach. It is rather a paradox – two partially different forms

of logic that must be synchronized and at the same time balanced. On the one hand, the armed forces must be able to participate in, for example, international operations with officers who, as leaders, can act professionally and competently. On the other hand, the armed forces must have an officer corps that can develop the armed forces, for example, through studies, research and development.

The economic conditions for the armed forces require considerable focus on expenditures – as is the case for the whole public sector. The research base for the training must therefore be concentrated on military core competencies, with the military profession as the focal point. This is the discipline that we have identified as the science of war or War Studies, with its basis in studies of military operations, strategy, doctrine development, the history of warfare, security policy, international politics and conflict theory as well as military leadership. The armed forces must not copy the educations offered at civilian universities but must focus on areas that can give the armed forces a unique and professionally competent profile.

Accreditation of the Joint Staff Course

It is the intention that the advanced officer education should be accredited, so that after completing the Joint Staff Course, officers can receive a master's degree in War Studies. This is most likely to be accomplished in close cooperation with Copenhagen University. There is at present increasing interest in the military dimension of security policy that can develop into a fruitful cooperation between the two educational institutions. The content of such a master's programme will focus on the core military competencies, as described in the discussion on the science of war. These are largely the same disciplines taught to students on the present Joint Staff Course. The course has developed continuously through the years, primarily within the areas of foreign and security policy and defence policy. During the last five years, the teaching of operations has gone through a very dynamic development after officers with experience from the Balkans, Iraq and Afghanistan have been posted as instructors.

Since 1993, the Joint Staff Course has been organised in a decentralized and project-oriented syndicate structure, where learning is done by a combination of plenary lectures and subsequent work in syndicates. The students' own professional knowledge and experiences therefore come into play in a relevant way. Each syndicate is assigned one instructor, a syndicate leader. This structure is used in most comparable institutions in the West. Originally, the course lasted nine months, and the students were selected after making an application. In 1999, the course was extended two months in order to teach technology and organisation and leadership, due to a large extent to the introduction into the armed forces of DeMap (Danish Armed Forces Management Project, a management and enterprise resource administration model) and DeMars (Danish

Armed Forces Management and Resource Management System, an IT platform for DeMap).

It is the declared aim of the course to develop an officer who has a joint orientation, and who can serve as a staff officer in a major tactical headquarters as well as in national and multinational headquarters at the operational and strategic level. A further goal is to develop the ability to serve as the chief of a section, branch and division in a headquarters. The course is divided into four modules and a number of inter-disciplinary projects. The module structure ensures focus on the individual disciplines.

The Institute of Strategy is responsible for a module that teaches the students about the international system as well as the actions of states in relation to foreign, security and defence policies. Studies include the development of strategic concepts and the formulation of strategies; theories and concepts in international politics; developments in the theory of war and the art of war; international law; the strategic environment and its actors; and the origins of inter- and intra-state conflicts and how they may be managed. This module also includes a course in methodology to prepare the students for writing a thesis.

The Institute of Military Operations teaches a module on joint operations, including logistics, in a national and NATO/EU context as well as under a UN or OSCE mandate. The students' ability to evaluate larger complex operational and logistic problems is developed and exercised, often under considerable time pressure. Furthermore, students learn to work with various tools needed for duties service in international staffs.

The Institute for Operational Support and Simulation conducts a module that gives the students the necessary theoretical, methodological and analytical skills to be able to understand and contribute to the solution of technological problems in the armed forces.

The Institute of Leadership and Organization teaches a module that gives the students the necessary theoretical, methodological and analytical skills, so that they – in light of the distinctive character of the armed forces – can understand and assume general organisational, leadership and management responsibilities, with emphasis on development and leadership in relation to change.

A significant portion of the instruction and work is in English, which is consistent with the priority that international operations have in the Danish armed forces. This creates a dilemma, however: Undoubtedly, globalisation and internationalization create the need to master at least one of the main foreign languages – primarily, English. This makes it also easier to create an international study environment attracting teachers and students from other countries. On the other hand, this lessens the depth of learning in some areas. In-depth assessments and analyses cannot be made in a foreign language, unless the students are especially well qualified, which requires some years of study. This is a very time-consuming course for the individual student and requires a

considerable capacity for study. The course contributes to a deeper knowledge of the basic conditions and demands of the military profession; and teaches the students to work in an analytical, methodical and disciplined way; and develops their social skills – which is facilitated by the syndicate structure. The course is highly important to the development of the personal and professional qualities required of staff officers and future leaders.

To sum up, the content of the Joint Staff Course and the methods of instruction are commensurate with the high intellectual standards and academic abilities of the officers selected for course. The aim of the course is to foster the ability of the individual student to think and act independently and to develop his or her capacity for critical, constructive and creative thinking; and to provide a thorough understanding of the theoretical foundations of the military profession. The ability to think “outside the box” is a decisive quality in a modern staff officer, but social competencies also carry great weight. The ability to cooperate and communicate with others is cultivated through the teaching and learning methods used in the course.

In addition, the officers are indoctrinated in staff ethics, which entail that the staff officer presents his superiors with solutions that are based on a sound (scientific) and professional operational assessment, rather than on his ideas about what his superiors might like to hear. The training is conducted in the best traditions of the Prussian general staff, and like the general staff course at the Kriegsakademie in Berlin under Moltke the Elder, it is an elite education with an emphasis on academics. This is not a popular view everywhere today, but it is the core of an advanced military education which inculcates professionalism; analytical ability; systematic, methodical and independent thought; and personal integrity in the officers who will lead the way and drive the development of the armed forces.

Challenges in the academisation process

It is hopefully clear that the basic elements required in the Master of War Studies programme are present to a great extent. The relevant disciplinary modules have a qualitative level that in almost all areas is as high as the education offered at universities, and in certain cases even higher. In addition, the methods of instruction used on the Joint Staff Course are generally more advanced than those of the universities. The learning process is, therefore, more effective. This is also due to other factors: The students on the Joint Staff Course are older than university students and often more mature and better motivated. They receive their normal salaries during the course, but they also often have family responsibilities, which can be a great burden during a demanding course of study and thus require considerable self-discipline to manage successfully.

The academisation process will have many consequences that in the long run will break with the traditional educational culture within the armed forces.

We must primarily accustom ourselves to an academic approach to knowledge: Knowledge shall in principle derive from a hypothesis, and arguments are for the most part more important than solutions. It is important to be able to produce and systematize new knowledge as well as to continually evaluate this knowledge critically. Finally, it is important to communicate new knowledge to the relevant research environments and to a broader audience.

Also the form of teaching demands a certain cultural transformation. The Joint Staff Course at the Royal Danish Defence College is, as mentioned above, characterised by significant intellectual demands and hard work. Attendance is compulsory, which is not the case in other institutions of higher learning. There will be a demand for increased freedom to design a more individual course of study perhaps consisting of more seminars, workshops, projects and fewer lectures. There will be an understandable demand for greater opportunity for in-depth studies. These demands may collide with the understandable demands on the part of the armed forces for maximum effectiveness, so that the education programme takes as little time as possible away from active service. To address this issue, the prudent use of distance learning looks promising; however, fostering a professional ethos and developing networks can only take place when the students attend the course in person. Therefore, the correct balance must be found between the two methods of instruction. Also, distance learning at this level has not yet been sufficiently developed and would require considerable investment.

There is a tendency in the Danish university community – and in any case, in the government – to critically examine the effectiveness of institutions of higher learning, with the exact same aim: generating greater efficiency at less cost. Hopefully, it will be possible to meet in a fruitful compromise between more independent study methods and effectiveness.

As referred to above, the teaching in the core competencies must be research-based if the Joint Staff Course is to be accredited as an academic education. This requires employing researchers with graduate degrees and documented research experience. This is not a problem with respect to civilian employees. The large number of qualified applicants for positions in the newly established Danish Institute for Military Studies confirms this. However, there is a problem regarding the recruitment of academically qualified military personnel, i.e. officers. The Royal Danish Defence College has until now benefited from the fact that the officers who are posted as teachers and syndicate leaders are the elite of the officer corps.

However, it is a problem that these excellent officers with promising careers only remain at the College for a short period of time, typically two years. Such a short tour of duty is completely insufficient for carrying out research. Therefore, efforts are being made to find a number of officers who have the

intellectual capacity to engage in research, and provide them with the necessary education to conduct research at an academic level.

These military researchers will have to accept an alternative career path in which their research background is developed through service in the Danish Institute for Military Studies, the Danish Institute for International Studies, the Defence Intelligence Service, the Defence Ministry, and possible participation in exchange programmes with universities, and, if financial resources are found, exchange programmes with comparable foreign institutions. It is, however, important that these officers maintain and enhance their professional qualifications by serving regular tours of duty in international operations, which could be part of actual research projects and contribute invaluable empirical data. This illustrates the problem of balancing the theoretical/academic approach and the practical approach to professional development.

It is, however, quite crucial that both personnel and financial resources be allocated to establishing and maintaining a fruitful research environment that can produce new knowledge that supports the vital interaction between research and teaching. The Royal Danish Defence College is in this respect a small environment that must necessarily enter into strategic alliances with relevant universities at home and abroad, just as alliances with foreign military education and research institutions are necessary if an international research environment is to be established. This is judged to be a necessity in a globalised world. It is also a requirement that the regulations governing academic institutions are followed and that criteria regarding e.g. appointments to scientific positions and to leadership positions such as heads of institutes are met. Norms for the expenditure of time and resources must be defined for the research and educational activities conducted by each individual researcher, and funding for research must be provided to the institutes. A corps of external examiners, which should be expanded to include academics from international institutions, must be formed in order to ensure the quality and integrity of the examinations conducted by the Royal Danish Defence College.

THE VISION OF THE ROYAL DANISH DEFENCE COLLEGE

Since 2001, the Royal Danish Defence College has gone through an extensive transformation process with the aim of establishing an organisation that could realize its vision, which was formulated in the spring of 2001, and which, with minor amendments was incorporated in the defence agreement passed by Folkettinget, the Danish parliament in 2004. The vision is as follows:

The Royal Danish Defence College will be the internationally oriented knowledge centre of the Danish armed forces fulfilling the needs of the armed forces, the total defence, and Danish society for research-based military training, de-

velopment and consulting and knowledge dissemination at the university level within the fields of:

- Security policy
- Strategy and military operations, and
- Military leadership

The Royal Danish Defence College will as the knowledge centre also fulfil the need for training, development, consulting and knowledge dissemination based on research by external institutions within the fields of:

- Military psychology, pedagogy and organisation
- Management and digital administration
- Military technology, and
- Foreign languages and intercultural competence

The Royal Danish Defence College was one of the institutions of the armed forces that were noticeably strengthened in connection with the defence agreement of 2004. The organisational structure that was implemented on January 1, 2006 is tailored to support the Royal Danish Defence College's vision. When the organisation is fully manned with, among others, civilian academics who will comprise the cadre of researchers until they can be augmented with the necessary number of qualified military researchers, steps will be taken toward achieving accreditation. The foundation has been laid, but it is still shaky. A policy change in the administration of military personnel is necessary, and a minor extension of resource allocations is a prerequisite for completing this process. The transformation of the Royal Danish Defence College is vital to the future recruitment of qualified officers, their retention in the armed forces, and last but not least, the development of the armed forces in an unpredictable and complex world. In 1842, the daily newspaper, *Fædrelandet* [The Fatherland], wrote this comment about the predecessor of the Royal Danish Defence College, the Royal Military College.

[the Royal Military College] must provide the Army not only with Officers who can skilfully conduct the sundry and peculiar Affairs of the Military but also with a permanent and forceful Cadre of Men of Science, who have completed the full Studies of the Disciplines in which they shall soon work and who will participate in the higher Education that can lift their Eyes beyond the narrow Limits of practical Military Service, and who have the ability to grasp and understand the Military Organism in its entirety. When such an Education is lacking, every fundamental reform of the Military is fraught with insurmountable Difficulties.

This was written in 1843, and it still holds true.

WAR STUDIES AT THE FINNISH NATIONAL DEFENCE UNIVERSITY

Professor Pasi Kesseli

The Finnish National Defence University

This autumn the Finnish National Defence University entered the joint European academic education system introduced a year ago. This led to changes in the division of the subjects offered and in the contents of the university's educational programme, including establishing a subject called War Studies.

To emphasise the academic character of the Finnish Defence University the current name, "War College", will be changed at the beginning of 2007 to the National Defence University.

INTRODUCTION

The Finnish National Defence University is an academic establishment that plans and organises active officer education in Finland. We concentrate on researching into military sciences.

The research and teaching at the National Defence University play a role in forming Finnish national security and defence policy and contribute to both national and international security. As far as research is concerned, the National Defence University emphasises both basic and applied research in all our university's disciplines. The university also offers its expertise, know-how and teaching to other areas of Finnish society.

Pedagogy was the first academic and scientific discipline at Cadet School. From the 1970s onwards, every cadet read pedagogy – not a lot of it – but enough to give the exam an academic flavour and to improve the cadets' educational skills. Second, this laid a foundation for the further academisation of the exam. Another cornerstone in the cadets' education included everyone having to write a study on a chosen subject. This was not restricted to pedagogy; tactics, security policy, logistics and physical education were also permitted. This demanded, albeit implicitly, scientific approaches to all disciplines and subjects. Various scientific traditions did thus already exist when the current National Defence University was founded at the beginning of 1993, and when the next steps along its academic path were taken.

The seven faculties at our university represent the following scientific branches: strategy, operational art and tactics, military history, military pedagogy, management and leadership, military technology, military psychology, and military sociology. Therefore, when the National Defence University was established by merging several separate military schools, it was not necessary to invent a new system of science in the Finnish academic community, as the disciplines of human and natural sciences which already existed could be applied for military purposes.

ON MILITARY SCIENCES

Defining military sciences precisely is a difficult task. They are a complicated entity bound together by security threats, crises and wars, and the aim of preventing such. It is, however, expected that in the changing world globalisation, population growth and increasing pressure on nature will strengthen the possibility of different crises emerging. In addition, changes to the world of business and employment caused by globalisation and huge developments in information technology will further accelerate global instability. Military sciences can thus no longer focus solely on military security and military defence issues; they have to be capable of analysing present and future threats on a wider security scale than just in the context of traditional conventional warfare.

As a military scientific university, the National Defence University is responsible for all the research, education and training challenges that a constantly developing security environment poses to defence organisations and military installations, to officers and soldiers, as well as to other players who lend substance to defence issues. The National Defence University also tries critically and actively to define its role, position, status and the assignments associated with security, crises, wars and defence in a changing world.

The National Defence University's research and educational activities also take into account today's cultural, political and economic challenges that influence the development of national and international academic education. For example, this autumn the Finnish National Defence University joined the joint European three-level academic education system when our youngest cadet course initiated its studies according to the new programme, the Bologna process. However, the transition to a point at which the new system will cover all levels of our officer education will take years. This is why, for example, the cadets who began their studies this autumn will begin their staff officer and general staff officer studies only after about ten years. Until then, the older education system will produce cadets and later officers alongside the cadets and officers who are studying on the new programme. Nevertheless, this will not hinder collecting and transferring experiences from the new system to the ongoing programmes.

In the Bologna process, the contents of the education programmes were revised. The division of the subjects offered at our university was also altered because it soon became apparent that some subjects – including strategy and military history – had too few study weeks to qualify as separate subjects in the new programme. This would have made it impossible to write theses about areas from these subjects. To retain all the subjects that were deemed important to officer education, the existing subjects were combined into four new entities: War Studies, Management and Leadership, Military Pedagogy and Military Technology.

Establishing a multi-disciplinary subject called War Studies was an important change, and this entailed combining the administration of strategy, opera-

tional art and tactics and military history. Nevertheless, these subjects have been retained as independent yet mutually complementary disciplines.

The Finnish language has but one word, *sotataito*, for the terms *war studies*, *military art* and *the art of war*. How then do we define war studies and military art or the art of war, of which the two latter may be regarded as synonymous? This is a rather important question.

The basis of War Studies as a subject was constructed broadly based on the definition of the term military art. This allowed us to link research and education which go hand in hand in the academic community in that research provides education with the newest knowledge. However, War Studies as a subject should not be confused with the term *military art* in warfare. At the National Defence University, War Studies is not a discipline or a branch of science, but a multi-disciplinary subject which contains three independent disciplines: strategy, operational art and tactics and military history, which all have their separate scientific philosophies.

Military art, which is usually divided into strategy, operational art and tactics, may be defined as “the skill to lead military forces to achieve war aims”. If we define the term in this way, it also mirrors the aims of War Studies at the Finnish National Defence University, which are to give our students the skills to face challenges during peacetime and during different types of crises (including war) at all levels of the military hierarchy. From our point of view, the definition of *military art* determines which kinds of entities and sectors we concentrate on while researching into and studying strategy, operational art and tactics and military history, to ensure we always have the freshest knowledge possible in our educational programmes.

In Finland, researching into and teaching War Studies are carried out within a rather complex framework. War Studies provides students with knowledge of how questions regarding waging war and international security, including related theories, have developed, how they appear today and how one might anticipate their developing in the future, as well as the knowledge to explain and understand the art of war. In addition, War Studies provides students with the necessary skills to research into the area of military art.

If we open up the definition of the art of war it might help the reader to understand the research and educational interests at Finnish National Defence University. At present, military art is usually divided into three levels, according to way of action into tactics, operational art and strategy or according to influence or effect of action into tactical, operational and strategic influence.

A rather commonly used definition of military art stems from the Prussian general and military theorist, Carl von Clausewitz. According to him, military art is the skill of using given resources in a battle. In addition to the actual fighting, using given resources includes preparing for battle, planning, mobilising, armaments as well as equipment issues and training. In order to

separate the battle and the preparations for battle from war and the preparation for war, Clausewitz divided military art into two levels: tactics and strategy. According to him, tactics was the use of armed forces in the battle and strategy correspondingly the use of battles for achieving war objectives.¹ Despite the fact that Clausewitz is still a very regularly quoted military theorist, his definition of military art no longer fully meets current views. Today, we divide military art into three levels. In addition, Clausewitz's idea that military art is the skill of using given resources in a battle is too restrictive as a definition, as today military art also includes the preparations for and prevention of war.

The Clausewitzian way of defining military art and the levels of military art in particular was, however, the prevailing model of thinking in the Anglo-Saxon world up to the years following the Second World War. If the element "art" in "military art" may seem to contain such mental aspects of military art as doctrines or principles of war, military art has evolved throughout history whereas the development of military technology seems to have happened through great changes. However, as technological and social development enable new innovations in military issues, knowledge of the development of military art is extremely important because military technology influences military art and vice versa. When we study the past, we are able to understand which phenomena characterised warfare in different eras, why these phenomena were in charge of the development, and why and how they led the development of military art to new ground.

As late as at the end of the 18th century, wars consisted of two entities: temporally short tactical battles and strategic force concentrations from one place to another to get the advantage of amassing troops in the battle itself. In Napoleonic France at the beginning of the 19th century, thoughts surfaced that gave rise to a new definition of the art of war, operational art. As the strength of the armed forces grew remarkably after universal conscription was adopted, the need also grew to organise the goals and results of individual battles into a series of battles with broader aims. In other words, the overall goal of combining the aims of separate battles was to neutralise the enemy's fighting power so that he would be incapable of continuing fighting. Thus separate battles with combined aims formed operations that linked goals and gains in the battlefield to war objectives.

The idea of having the third operational level in the art of war between tactics and strategy initially spread from France to Prussia, and later on to Germany and the Soviet Union. A triangular division was not, however, completely unknown in the Anglo-Saxon world, where the "march manoeuvres" of the Prussian Field Marshal Helmut von Moltke the Elder had occupied the thoughts

1 Carl von Clausewitz, *On War*, translated by Michael Howard and Peter Paret, (Princeton, New Jersey: Princeton University Press, 1984), p. 127–128.

of military theorists ever since the end of the 19th century up to and including the Second World War. Although this division into tactical, operational and strategic levels was perhaps not at all as clear in the Anglo-Saxon world as in Germany or the Soviet Union, a triangular division also existed in Great Britain and in the United States, only with different names.² This was also the situation in Finland. Operational art as a definition which originated in Germany and the Soviet Union had already appeared in Finnish military thinking by the 1920s. However, before the World Wars a great proportion of Finnish officers had divided military art into two levels. This raises a question: during the Winter War and the Continuation War how were we Finns able to plan and carry out a number of rather big operations? Presumably in practice Finns also divided military art into a triangular style like the Germans or the Soviets, and only had different names for operational art and strategy. Before the Winter War, the term “strategy” was quite proximate to the definition of operational art. This may be seen, for example, in the division of subjects at the War University. In the 1920s, subjects were grouped so that tactics formed its own entity and strategy was a part of military history, which included aspects that are linked today to both operational art and strategic studies. At the end of the 1930s, the increasing role of industrial and economic issues behind warfare forced us to change the division of subjects at the War University. This marked the birth of military geography, a subject that included, for instance, military-political issues and geopolitics, issues that are included in strategy today. Strategy at that time was mainly a synonym for today’s operational art, for example the inclusion of front operations in the curricula of strategic studies.³ After the Second World

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- 2 J.F.C. Fuller, *The Foundations of the Science of War* (London: Hutchinson & Co., 1926), p. 88–89; Glantz, David M.: “Soviet Operational Formation for Battle: A Perspective”, *Military Review* February (1983): 4; Stephen P. Aubin and Robert E. Kells Jr: “Air, Land and Battle Doctrine: Soviet Strategy Revisited”, *Military Review*, October (1985): 50–51; John J. Mearsheimer, *Liddell Hart and the Weight of History* (New York: Cornwell University Press, 1988), p. 17 and interview with professor Brian Bond at King’s College, London 12 November 1998.
- 3 Christopher Bellamy, *The Evolution of Modern Land Warfare. Theory and Practice* (London and New York: Routledge, 1990), p. 60–61; Paul Albert Dyster, “In the Wake of the Tank: The 20th Century Evolution of the Theory of Armoured Warfare”, doctoral dissertation (Baltimore, Maryland, University Microfilms International, Dissertation Information Service, Michigan 1988), p. 221; Pasi Kesseli, “Sotataito [The Art of War], Maanpuolustuskorkeakoulu-lehti”, *Review of Finnish National Defence College*, no. 2 (2005): 7; an e-mail letter from Docent, Colonel Vesa Tynkkynen to the author 14 October 2005 and *Sotakorkeakoulu 25-v. 1924–1949* [War College 25 Years] (Kustannusosakeyhtiö Otavan kirjapaino [Otava Publishing House], 1948), p. 45 and 66. The highest level of military art in the Anglo-Saxon world above tactics and strategy was grand strategy, which was almost equivalent to our present day definition of strategy. Tactics/strategy/grand strategy thinking refers to British Sir Basil Liddell Hart who was one of the military theorists who had an influence on mechanized warfare in the early 20th century. According to Vesa Tynkkynen, at the end of the 1920s operative home exercises at the Finnish War College were a part of strategic studies. One of these exercises was, for example, “Defensive army operations in the Karelian Isthmus”.

War, overlapping definitions led to a situation in which operational art stabilised its position between tactics and strategy, and strategy extended from military matters to social issues between political-military decision-making as well.⁴

After the Second World War, the content of strategy began having more and more political influence, and differences in the definitions in Western countries grew. Finally, at the turn of the 1960s and 1970s, after the Vietnam War, definitions were standardised so that the Anglo-Saxon world also assumed operational art between tactics and strategy was defined to cover the political level and political issues of war.⁵

Operational art today is generally defined in two ways: by describing the aims that are pursued in an operation or by describing the components that form an operation. The Swiss military theorist Antoine Henri de Jomini represents the first way when he writes that “grand tactics connect individual tactical battles to operations, where the goal is to make the enemy incapable of continuing fighting”. The thoughts of the British theorist of mechanised warfare, John F.C. Fuller, comply with this view. He wrote that “a grand tactician does not try to destroy his enemy physically but more to paralyse him mentally”. In the terminology of both Jomini and Fuller, grand tactics may be seen as equivalent to today’s definition of operational art, something between tactics and strategy.⁶ Helmut von Moltke the Elder represents the second, more pragmatic way of defining operational art. According to Moltke, operational art is the “ability to recognise changes in the situation, anticipate necessary orders and carry out preparations according to the plans”. British researcher Christopher Bellamy expresses similar views. According to Bellamy, operational art is the “skill to deploy and use (military) forces in the battlefield in accordance with the demands of the situation and plan these manoeuvres in the map”.⁷

In Finland, a much-quoted definition of military art stems from the *Handbook of Strategy* (1983) by the well-known military historian, Colonel Sampo Ahto. This definition, which in itself is close to Clausewitz’s definition, also takes into consideration the operational level of the art of war. According to Sampo Ahto, military art, which is usually divided into strategy, operational art and tactics, is the “skill to lead military forces to reach war aims”. When this

4 An e-mail from Docent, Brigadier Vesa Tynkkynen to the author, 6 September 2006.

5 A number of things had an influence on the adoption of the definition “operational art” in the Anglo-Saxon world. The Vietnam War was one of them, the Yom Kippur War in the Middle East the second and distinction between definitions in the NATO countries the third. To make a consistent way of thinking possible, the definitions had to be unified.

6 Fuller, *The Foundations of the Science of War*, p. 88–89 and Henri Jomini, *Art of War* (Westport, Connecticut: Greenwood Press Publishers, 1971), p. 69–70. Both Fuller and Jomini, who is one of Fuller’s central sources, speak of tactics, grand tactics and strategy.

7 Bellamy, *The Evolution of Modern Land Warfare...*, p. 60–61 and Richard E. Simpkin, *Race to the Swift. Thoughts on Twenty-First Century Warfare* (London: Brassey’s Defence Publishers, 1985), p. 24.

definition is complemented by the interpretation of the Department of Tactics at the Finnish National Defence University of the contents of strategy, operational art and tactics, we can form some kind of an understanding of how military art has been understood in Finland over the few past decades: “Strategy is the preparation and use of all states’ resources aimed to reach security goals directly or indirectly both in peacetime and wartime and set down by political leaders”. In this context, operational art is the “skill to plan, prepare and lead series of tactical battles”. However, this rather pragmatic definition is rendered complete with an additional attribute: “Operations and campaigns (a parallel definition to operation) include offensive and defensive battles and delay action”. In addition, in Finnish military art, the Army, Navy and Air Force have their own interpretations of operational art but, when needed, the actions of services have been combined. Operational art has also often been linked to formations, in Finland to brigades and Army corps. Today this view is no longer that pragmatic, but operational art is also defined according to operational aims. Tactics in Finnish military art has been understood as “planning and preparations for battles, skills to fight and leading troops in the battle.”⁸

The invention of the operational level between the tactical and strategic levels in military art in the 19th century is, however, certainly not the endpoint in classifying military art. In fact, references that concepts are being reinterpreted are reappearing. In the US 2030 doctrinal concept it states that an attack will be started from a strategic distance, the basic idea being to change an operational attack into tactical defence, in other words seize targets, from which it is possible to control the battle space with firepower and finally to destroy (with precision weapons) the opponent’s forces that were compelled to move. According to this, operational and strategic targets can be achieved with tactical success. If this is true, why do we need the operational level of military art, if strategic aims guide tactical battles? In fact, defining the term “military art” becomes even more difficult, as the framework of the term becomes blurred. In addition to the operational and tactical levels of warfare overlapping in the new US military concept, the operational level of military art also blends more and more with the strategic level, including civil-military planning, decision-making and the use of resources.

What was said above urges us to consider whether, in the future, there will be battlefield operational aims or a need for operational art at all, if the amount of troops is reduced so much that the goals of wars can be achieved in single battles in the same way as when large conscription armies came to the theatre of war in the beginning of the 19th century. If we can no longer perceive

8 Sampo Ahto, *Sotataito* (The Art of War), Strategian käsikirja (Handbook on Strategy), Valtion painatuskeskus (National Publishing House), 1983, p. 121 and concepts of the definitions of military art at the Department of Tactics at the Finnish National Defence College.

any operational aims, have we returned to the Clausewitzian way of understanding war in two levels so that tactics equates to the use of the armed forces in battle and strategy the use of battles to achieve war objectives? Or is it so that the operational level has always been a part of military art, and we have only associated it in various ways; in some places operational art has been regarded as fighting at planning level, i.e. how to use forces in the battlefield, whilst elsewhere it has been regarded as deploying forces and organising different military functions in the area of operations. If we appraise the role of operational art in the future battlefield, it is useful to consider it from the viewpoint of the latter part of the compound noun “operational art”, i.e. art that may be regarded as the skill of doing things connected to operations. Therefore, is skill an ability to apply doctrines, tactical and operational principles and lessons learned on the battlefield? If it is, we can speak of a game eye, i.e. the skill to adapt tactical and operational principles to existing resources according to the demands of the situation. So, is operational art a skill to combine the view of the situation, doctrinal principles and future expectations on the battlefield? Is this the operational art of the future that provides answers to the challenges on today’s and future complex battlefield? How does this deviate from our traditional operational art and tactics? In theory, from the point of view of the philosophy of military art, obviously very little.

Regardless of what has been said above, definitions of the levels of military art have existed in Finland without formally approved terms. There are probably many reasons for this. However, one of the most important reasons might be that definitions in warfare on the whole have been understood in Finland to be so ambiguous that a common system of definitions has been considered either unnecessary or too complicated to construct. This does not mean that there have been no definitions in the research of military art in Finland. We do have definitions, but they have usually been defined in each research field according to the needs of the researchers or the research.

To some extent, internationalisation also confuses the definition of military art. Because Finnish units are nowadays essential elements of multinational troops on different peacekeeping missions, we prepare to take part in Rapid Deployment Forces (RDF) in the European Union, and global cooperation in Multi National Experimentation (MNE) exercise has also started, so it is only natural that definitions of military art must be standardised. The first steps have been taken, including translating Guidance for Operational Planning (GOP) – including definitions – into Finnish (FINGOP). In addition to standardising definitions, FINGOP’s has been to try and take into consideration local special demands as well. However, learning about a new culture does not occur overnight. This also poses – and has already posed – challenges to both the research into and teaching of military art, as our traditional understanding of the levels of military art is changing, or at least we can say that the scale of military art is

changing by virtue of internationalisation. However, it also has to be said that somehow the Finnish practical way of tying the levels of military art to the size of the organisations or to the range of the areas of responsibility helps us to revise the definitions. It remains to be seen whether the definitions described above are enough, if ever-smaller and more scattered forces will have more and more challenging tasks on an ever-larger battlefield.

A lucid system of definitions is one of science's basic issues. Thus military-scientific research needs at least disciplinary definition analyses and science philosophies. Probably also some kind of universal definition analysis would be necessary to perceive the main know-how in research both in the National Defence University and in the Finnish Defence Forces. The disciplines that apply the philosophies of common sciences – for example, military history (history), military pedagogy (pedagogy) or military technology (technology) – have not had any special difficulties in creating their scientific philosophies because they can be constructed on the same philosophical basis as their “mother” sciences. As far as the subject of War Studies is concerned, the situation is slightly different because two of the three disciplines in it are multi-disciplinary. Therefore the idea that War Studies as a subject could have a universal scientific philosophy seems at least challenging, if not impossible. We therefore came to the decision that War Studies includes three independent disciplines that all have their own scientific philosophies. Definitions and scientific philosophy in strategic studies are based on the philosophies of political sciences and history, international politics, and military strategy. In military history, the scientific philosophy is sought from general history. It should, however, be noted that at the Finnish National Defence University, the research into and teaching of military history concentrates on the history of operational art and tactics, and therefore its scientific philosophy is also partly based on the scientific philosophy of operational art and tactics. The question of a scientific philosophy in particular is important in operational art and tactics, because even within the subject of War Studies, operational art and tactics are already a multi-disciplinary spectrum of anthropology and natural science applied to military purposes. Partly because of this fragmented and multi-disciplinary character, the scientific philosophy of operational art and tactics is still being defined and in part this has been a conscious choice. The construction of a general definitional system has, however, been started. The aim of this work is, by means of discussion analysis, to introduce the central definitions in operational art and tactics into research and teaching both at our National Defence University and in the Finnish Armed Forces.

Regardless of the above, people who are familiar with the disciplines within War Studies may be concerned with the possibility to unify strategy, operational art and tactics and military history in War Studies to form just one discipline. Perhaps we should ask ourselves how we can acquire scientific knowledge of strategy, operational art and tactics and military history? This question might

help us to get on the track of a general scientific philosophy in War Studies. Today, however, we do not think like this. It would be useful to ask ourselves why three or four disciplines (strategy, operational art, military history and even tactics separated from operational art and tactics) have now been combined? Does War Studies as presented above consist of the right combination with which to unify the levels of military art as a subject? Is something central in military art still missing, such as leadership and command issues or perhaps something else? Or is our way, the Finnish way, of studying and teaching military art only an administrative entirety? So far, we do not know. But we must be ready to consider these matters with an open mind.

War Studies is an administrative entity where the concept of the art of war combines the three separate disciplines and their aims. Responsibilities in research and education in War Studies are also divided into three faculties; the Department of Strategic Studies, the Department of Tactics and the Department of War History, each representing distinct perspectives and methods of studying war and international security.

Strategic studies in War Studies are an approach and a line of action that focus on the promotion of the security objectives of a state or an alliance. Thus, strategic studies are concerned with political, military and economic issues. One special sector in strategic studies is military strategy. This can be defined as the means of using armed forces to attain security objectives of a state or alliance. In addition, strategic studies are closely linked to political science and international relations, and they contain matters from these disciplines as well.

The second discipline, operational art and tactics, is in itself already a multi-disciplinary branch of science that applies the philosophies of civilian sciences to the study of warfare. The research philosophy of operational art and tactics is based on a rather wide range of philosophies, methods and scientific traditions of common human and natural sciences. In this framework, operational art and tactics focuses on war and crisis environment and the actual planning and execution of operations and battles. Objects of the research into and teaching of operational art and tactics include operational doctrines, battle-technical and tactical principles ranging from individual soldiers to units, military organisations, different weapons, command, control and communication and reconnaissance systems, mobility, logistics and systems of war economy, and the interaction between them.

Military history is a logical part of this. It uses tactical, operational and strategic analyses to try to shape our picture of warfare of the past to help us understand the national and international art of war today. In military history at the Finnish National Defence University we examine how wars and crises have changed and how the Western art of war has developed. Military theories, thoughts and phenomena that were typical of various eras in the past and that have headed the development of military art from one era to another, play a

central role in this. The history of military organisations in a social framework is also included in the field of military history, as well as contemporary military history and the development of research methodology.

FROM RESEARCH TO EDUCATION

As the main task of the Finnish National Defence University is the education of officers, research is closely linked to education. Therefore, the research ambitions of the faculties that represent the different disciplines in War Studies mostly run parallel with the contents of the curricula. Research at the National Defence University produces different types of research work to two main clients: ourselves for teaching and to the Finnish Armed Forces.

Research at the Finnish National Defence University is divided into basic research and applied research. Within War Studies, each discipline has defined its own aims of research, bearing in mind how we can offer our students the latest knowledge possible. This know-how is acquired thanks to the research our lecturers perform by taking part in various research projects and by guiding our students' research activities to topics where the acquiring of new knowledge is deemed to be important.

The overall aim of research at the National Defence University is to link the themes to the research aims and projects of the Finnish Armed Forces. This is performed in two ways: first, our lecturers and researchers are involved in many joint research projects with the Armed Forces. Such projects are usually supervised by higher echelons, but the research also produces new knowledge that is transmitted to the contents of our teaching. Secondly, methodological research education carried out at the National Defence University produces academically trained experts for various planning, command, training, research and development tasks within the Armed Forces. Theses are written at every level of officer training at the Finnish National Defence University, during bachelor and master studies, on staff officer courses and in general staff officer courses. Moreover, in further education the students write different types of essays and reports. Our faculties – bar one – have their own doctoral studies programmes and at the moment the last one is also preparing one. All the papers mentioned above are able to produce at the very least a limited amount of new knowledge if their aims were defined properly.

Today, the research conducted at the National Defence University still pursues its role within our Armed Forces. At the National Defence University, we of course emphasise that the research should be academic, open, autonomous and objective basic research which produces, for example, definition researches, doctrinal analyses and background investigations of various defence systems. It would be desirable if such research works were ordered by our higher echelons and the themes of these studies were connected to the long-time development of our Armed Forces. This would enable us to link the newest research and

education. Doctoral dissertations serve as good models for this kind of research, and regardless of whether they are independent basic studies or applied research linked to wider research projects, they produce new knowledge both to develop the Armed Forces and to improve officer education at our National Defence University.

If our higher command sets the deadlines for the completion of our research tasks far enough ahead, the National Defence University can find suitable persons to head these research tasks. In addition, we can divide the tasks into smaller units that can also yield theses at different levels of officer education. We are thus able to achieve three important goals in research and education in War Studies. Firstly, our instructors can perform their own independent research according to given research goals which makes our instructors prepared to lead our student officers to the newest knowledge in the areas in which our instructors have specialised. An ideal situation would be if the person in charge of a research area were an officer preparing his or her doctoral dissertation, in addition to being able to motivate the student officers who are preparing their theses in sub-sectors of the research project. The Armed Forces could thus also develop experts in the research projects that they deem important. Secondly, even during the research process, our student officers can be taken as members into our scientific community and be committed to the planning of education. Thirdly, but by no means least importantly, by combining research and education we can develop our students' independent thinking in military art. The final goal is an academic approach to everyday working life, so we do not pressure our student officers to learn particular issues but rather provide a broader view.

Applicative research at the Finnish National Defence University plays a minor role than that of basic research because of the less academic character of applicative research. Typical examples of applicative research of military art at the National Defence University include research projects into the areas of futurology and networking where our personnel have the best and latest knowledge in our Armed Forces. Tactics of branches and services also belong to this category. In this way, applicative research also furnishes education with new know-how. In addition, we utilise knowledge produced elsewhere in the Armed Forces and at civilian universities.

REVIEW OF THE CONTENTS OF THE EDUCATION

War Studies is divided into compulsory basic studies and subject studies that include a main subject and at least one secondary subject. In addition, the students at all levels of officer education prepare research work connected to their main subject. The aim of War Studies in our officer education programme is – depending on whether War Studies is the students' main subject or secondary subject – for our students to achieve at the least sufficient skills in their officer careers in all disciplines represented by War Studies. In addition, on the master's

and postgraduate study programmes our students are taught to apply academic knowledge and scientific methods in their professional lives, and thus become experts and developers in their own special area. War Studies has to be chosen as either the main subject or secondary subject, but otherwise students can choose their combination of subjects at will. Compared to our former educational system, all officers do not now receive an identical education, but they specialise in the main subject selected.

The curricula of the faculties involved in teaching military art at our university reflect the desire to maintain freshness in the teaching. The targets of research activities are based on our own disciplinary interests. However, the research runs parallel to the aims mentioned in the overall strategy of the National Defence University. In addition, the needs of our clients – for example, studies in current affairs and expert opinions – can also be linked rather well to the educational aims of strategy, military history and operational art and tactics, if we have set the goals far enough ahead and have the patience to give time to the research.

Disciplinary perspectives to War Studies govern, however, the contents of the research activities and teaching. One crucial perspective is the definition of the art of war. Tactics includes phenomena on the battlefield, operational art covers planning and the use of armed forces in military operations, and strategic studies are linked to overall security issues. Military history supports all of the above so that the main focus is on the history of operational art and tactics, while the history of strategy is connected more to research and education in strategic studies.

Despite the different disciplinary perspectives of strategy, operational art and tactics and military history from the viewpoint of the levels of military art, the disciplines do also overlap. According to traditional thinking, operational art, an effort which aims to prevent the opponent's battle according to plans, combines tactical goals and results on the battlefield to strategic war aims. In any case there is reason to remember that tactical results may also influence war aims, that a successful operation can lead to a situation that ends the war and that security aims can be reached by strategic means without using armed force. In itself drawing a dividing line between strategy, operational art and tactics is difficult especially if military art is seen to be military action aimed at a certain destination: it is not easy to answer the question where the dividing line runs between tactical and operative action or between operative and strategic effect. We do not, however, consider the overlapping of the levels of military art to be a problem. First, the viewpoint comes from the disciplines that our faculties of Strategic Studies, the Department of Tactics and the Department of War History represent. Therefore, the danger that the same areas are taught or studied by more than one department at the National Defence University is theoretical. However, it might be an advantage that education in certain important issues

such as military theory or some regulations in warfare, for example the principles of war, overlap when viewpoints differ. That indicates that the sectors of military art are firmly linked to one another.

The Department of Strategic Studies prepares research into strategy, security policy and international cooperation and is responsible for teaching them. It is also the only research unit preparing basic research into and professional analyses of military strategy in Finland, although some research institutes and universities also prepare research close to military strategy. Strategic research produces new knowledge for teaching strategy and security policy but also know-how for long-term perspective planning, development and decision-making in the Finnish Armed Forces. The Department of Strategic Studies has defined the central regional and functional areas of research as follows:

- Foreign and security policy in Finland
- Finland's strategic environment
- Development of European security policy
- Global security issues
- Basic research in strategy.⁹

The task of the Department of Tactics is to produce knowledge with which to develop armed national defence. The results of the research form a theoretical base for operational art and tactics including for example definition analyses, analyses of research philosophy and research methodology of operational art and tactics, the use of research results in education, the use of the results in development programmes, national and international publications (including articles) and doctors in military sciences in the area of operational art and tactics. The research into operation skills and tactics also aims to strengthen our instructors' academic approach to everyday working life and thus their participation in the development of national defence in the area of operational art and tactics.¹⁰

Operational art and tactics is divided into six extensive research areas. These are:

- Theory in operational art and tactics
- Changes in the social-technological environment of the total national defence and its effect on the battlefield
- The influence of changes in the main weapon systems on operational art and tactics
- The influence of joint armed operations and joint total national defence operations on information

9 Research at Finnish National Defence University 2005–2008, Finnish National Defence University, web-pages, 18 September 2006.

10 A concept on the goals of the research of operational art and tactics in 2006. Passages of this article that deal with operational art and tactics are based on this concept.

- The use of simulation methods and simulation systems on the development of tactics and on education of tactical thinking
- Research methodology of operational art and tactics.

Currently and in the near future the research areas listed above cover both the interests of the National Defence University as an academic university and the needs of our Armed Forces to develop operational art and tactics. The research is strongly future-oriented and aims to improve the performance of the total national defence by developing ideas and functional models that help us to create the best relative performance at different structural levels and optimise their use.

Perhaps the most important research area is the theory of operational art and tactics. Research on the basis of military art and operational art as a part of military art forms the foundation for all research activities. In this programme, we try to find out which kind of military theoretical thoughts are topical today and analyse their influence on Finnish strategic, operative and tactical thinking.

In the second area of research, we try to study the changes in the social-technological environment of the total national defence and its effect on the battlefield. The field of armed defence is changing constantly, because aims to change the size of functional structure and communication systems at all levels are prevailing. When the total national defence is changing, this also brings pressure to bear to study operative and tactical thinking in the new battle environment. Network enabled defence is connected to this area of research.

The third research area concerns the influence of changes in the main weapon systems on operational art and tactics. The development of technology and the increase of international and internal changes of states cause pressure on the development of different systems of national defence. Within this research area, the aim is to survey what kind of challenges the technological development poses to operative and tactical thinking and action, and also to define the role of operative and tactical planning when optimising the use of the technical innovations.

The fourth research area studies the influence of joint armed operations and joint total national defence operations on information, the exchange of information and on the development of information transmission. Changes in threats, technological development and internationalisation have roused the need to study the action of armed national defence as a part of a more and more complex national and international social-technological system. In order to understand the complex and time-critical functional environment in the future and create and direct resources with effective costs, we must know what the role is of information passing between the players in the system.

In the fifth research area, the use of simulation methods and simulation systems on the development of tactics and on teaching tactical thinking are exa-

mined. It is said that war is a laboratory of the art of war. Because wars and battles are, however, to be avoided, most countries have few realistic experiences of the application of military art. Nevertheless, lessons learned from countries that have been at war are one method of studying warfare. Because lessons learned are, however, relatively rare, simulation is one viable method of studying the art of war. Using simulation methods, especially if the parameters are constructed on the basis of lessons learned, the basic structures of complex and interactive phenomena, critical points and marginal terms can be pinpointed. Accordingly, using simulations we can find basic information derived from the background of decisions made in different situations, understand realities and develop tactical thinking.

The sixth and final research area, which is of great significance, comprises methodology of operational art and tactics. Studying methodology is important in addition to developing a scientific philosophy of operational art and tactics from the viewpoint of research education too. Operational art and tactics as an interdisciplinary and multi-method discipline is constantly changing. This poses challenges, to which we try to find solutions by following international developments in operational art and tactics, but also by following the general development of methodology in different disciplines. In this way it is possible to produce knowledge of new approaches to the research and education of operational art and tactics to apply the best possible methods in research.

The third faculty responsible for teaching military art is the Department of War History, which is the only research and education unit in the Finnish academic community that exclusively concentrates on military history. In Finland, the term military history is often associated mainly with the history of war events. The Department of War History has, however, defined 'military' in a more comprehensive way to correspond to foreign definitions that also include the history of the art of war, history of military institutions, military traditions, and sociological and civic dimensions connected to military matters.

Research and teaching offered by the Department of War History supports the teaching of operational art and tactics; in other words, the department focuses its research and teaching on subject areas which produce background information for the teaching of operational art and tactics. In addition, the Department of War History follows the development of methodology in history. On this basis, the research areas of the Department of War History are as follows:

- Military history of post-Second World War era from the viewpoint of military art
- Development of the theory of military art
- Finnish military history.¹¹

11 Research at Finnish National Defence University 2005–2008. Passages in this article that deal with military history are based on this concept.

In these extensive areas, research at the Department of War History concentrates on five sectors. The subjects are chosen according to current needs, and the research conducted in these areas and by the department also tries to foreshadow the research if possible. The present research areas are as follows:

- Development of military art. This sector includes both Finnish and foreign military art and theory. A special object of interest is the theory behind present-day military thinking
- Russian/Soviet military art. This subject area is just one part of a larger entity in which we follow the development of military art in our neighbouring countries
- Special forces and the principles by which they are used. This sub-research is chosen because of the topicality of asymmetric warfare.
- History of the Finnish Armed Forces 1944–1974. This is a long-lasting publication project that will be finished in the course of this year. The book will be the second volume in a publication series of the Finnish Armed Forces during peacetime.
- Influence of the Cold War on military decisions in Finland. This sub-area of research is loosely connected to the History of the Finnish Armed Forces 1944–1974 project, and also to some research projects in Finland concerning the Cold War. In addition there is international co-operation within this subject.

THE CONNECTION BETWEEN RESEARCH AND EDUCATION

Education supported by research is the main task at all the faculties at the National Defence University in spite of the fact that our faculties also have their own research ambitions. The teaching is based on educational aims that have been predefined, but the curricula have been made flexible so they can face the challenges of the future. On the whole, War Studies forms an ascending entity from the candidate's examination to the general staff officer's examination.

The Department of Strategy is responsible for teaching theories of strategy and international and national security issues. The focus of the teaching is on Finland's security environment and international military cooperation. Strategy and security policy as a discipline include political sciences, security policy, economics and strategy.

The Department of Tactics is responsible for teaching operational art and tactics. The main aim of the studies is to make student officers prepared for war-time activities and give them up-to-date theoretical knowledge and high-quality practical skills.

The Department of War History analyses war using historical methods. It also develops research methods with which to understand the characteristics of contemporary national and international history.

Bachelor studies in military art prepare students for tasks as instructor and specialists in the Armed Forces and Border Guard and to function as company (equivalent) commanders in wartime. Basics in military art are the first phase of War Studies. The aim of this period is for the students to get an impression of the disciplines in War Studies so they can understand the development of military art and warfare in a historical context, i.e. as they are now and how they might be in the future. In addition, the students familiarise themselves with the basic definitions of military art, i.e. strategy, operational art and tactics, and the general principles of national military defence.

The basics of military art are followed by studies in tactics. The aim of this period is firstly to familiarise the students with elements and tactical principles on the battlefield in their own service. The content is then extended to the battles of a company (equivalent) in today's and future battlefields. This period helps the students understand how a company functions and is also a base for studying tactics.

In addition, the students familiarise themselves with military elements that affect Finland's security, so that they are able to understand and analyse the issues behind Finnish decision-making in matters of security policy.

Subject studies in War Studies follow the basic studies. Studies in tactics, bachelor theses including methodological studies and research seminars, and literal exercises form the core of this period. During this phase, the students learn about the principles of war and the planning process, after which they familiarise themselves with applying the tactics of their own service or branch in different situations and environments. The students also practise their skills in orientation-decision processes and decision-making. The aim of research studies is to familiarise students with research and the methodology of their chosen discipline and to practise academic argumentation at seminars and prepare to write a thesis. In addition, the basics for an academic approach to everyday working life are laid down in research studies, i.e. the students will acquire the basics with which to analyse independently and critically their everyday work from the viewpoint of military art.

Master studies in military art prepares students for the tasks of company (equivalent) commanders during peacetime and for officer tasks at company level in international tasks, and readiness to wartime officer tasks at battalion (equivalent) level in the Armed Forces and Border Guard. The master studies mark the beginning of advanced studies in a chosen main subject and secondary subject(s). Within War Studies, it is possible to choose advanced studies in three disciplines: strategy, operational art and tactics, and military history. Methodological studies are linked to subject studies, and the final outcome is a master's thesis. This study period is common to all students and begins with a phase that assesses the development of military art. The aim is to deepen knowledge of the nature and mutual interaction of strategy, operational art and tactics learned

during bachelor studies. Students familiarise themselves with the nature and development of the modern battlefield, changes in warfare, the development and future of the Finnish defence system and with the development of military art in Finland and abroad. In addition, students familiarise themselves with topical challenges in military art.

After these studies, students who have chosen strategic studies as their main subject deepen their knowledge of Finnish security policy and developmental tendencies in the European Union, the central contents of Russian military strategy, and classical realism, liberalism and geopolitics. In military history, discussions about military art are linked to a historical framework and international discussion. The students are supposed to learn to understand the historical and theoretical background of the battle of services and be able to combine Finnish military art with European military art. In studies of operational art and tactics, the students extend their skills in tactical thinking by familiarising themselves with the planning of action and commandership in different environments at battalion (equivalent) level and also take into consideration the current picture of war and challenges to the defence system posed by new threats.

Studies in different disciplines in War Studies also support the students' preparations to write a master's thesis. In addition, the students deepen their knowledge of research trends, methods and sources in areas that serve their own research and theses. Secondary subjects should be chosen so that they also support research studies. They deepen interdisciplinary thinking and therefore the students choose their secondary subject in our seven faculties so that they can support the themes of the theses and methodological choices.

The general staff officer course is an entity in the postgraduate studies in our officer education. Officers who have taken a degree in military science will be detailed to the staff officer course about ten years after their graduation. At the end of the staff officer course, the most successful student officers continue their studies on the general staff officer course, which together with the staff officer course form the first degree in the postgraduate studies of our officers.

The construction of War Studies in our postgraduate programme has not yet been completed. At the moment on the staff officer and general staff officer course, advanced studies according to chosen main or secondary subjects do not yet exist but all officers studying in Army, Navy and Air Force classes have the same studies in their own classes. In the future, when bachelor and master studies progress and produce experience and demands to develop postgraduate studies in officer education, curricula of the staff officer and general staff officer courses will also be revised to face the challenges of the Bologna process. In the future, our officer education will be an upward-trend entity extending from the basic studies at bachelor level to a much deeper understanding of defence systems on the general staff officer course.

However, as a subject War Studies already exists also in our postgraduate studies, and study periods have been revised to correspond to challenges set by bachelor and master studies. On the staff officer course, studies of military history form the base of strategic, operational and tactical thinking. The students familiarise themselves with the thoughts of military theorists from the recent past. Strategic studies include basics in Finnish security policy and total national defence and critical factors that influence our military-political situation, such as important elements in strategy, problems in current research, operative principles and the resources of military alliances and means of international crisis management. The studies also prepare students for participation in international tasks within their own expertise and services. Studies in operational art and tactics prepare students for peacetime operational planning tasks in their own services and for many wartime tasks in formation (brigade, army corps) headquarters, such as chief of operations or branch commanders.

General Staff Officer Studies concentrates on Finland's total national defence at different phases of a possible crisis. One central point is Finland's strategic situation, how it is developing and international security-political cooperation. Student officers also build up the skills for different tasks in international cooperation, such as planning and command tasks in exercises and operations. The aim of studies in operational art and tactics is that those who have graduated from the course should have a good command of officer tasks in wartime formations, performing both in peacetime and wartime demanding planning, development and command tasks in service staffs, in formations and in supreme headquarters. Military history supports both strategic studies and studies in operational art and tactics by pondering the thinking behind joint operations in Finland and abroad.

Postgraduate studies also include a thesis on the staff officer and general staff officer course. On the latter, the thesis completed during the staff officer course forms the basis of the so-called diploma thesis. Today the themes of theses can be chosen rather freely from within the interests of our faculties, but in the future the theses must in general be relevant to the main subject, as is the situation already on bachelor and master studies.

The second degree in postgraduate studies in officer education is a doctor's degree. Today we have doctoral studies, excluding one faculty, in all faculties and the last one – the Department of Behavioural Sciences – is setting up its own programme of doctoral studies. Students apply to our doctoral programmes with similar principles as at civilian universities. Today the pre-condition, with some exceptions, to get onto our doctoral studies programmes is that the candidate must have passed the general staff officer course. In addition, the theme must serve the interests of the Finnish Armed Forces. Access to doctoral studies will, however, be changed to correspond to the practice of civilian universities so that masters of military sciences may also apply to our doctoral studies program-

mes. What happens to those candidates who have taken their masters degree at universities other than the National Defence University remains to be seen. For disciplines that apply philosophies of common sciences such as military history or military technology, adapting the aims and academic demands should not be a problem. In the case of operational art and tactics and perhaps also in the case of military strategy, the situation is different because the pre-condition for postgraduate studies is the kind of tactical and operative knowledge that can be achieved only at the Cadet School at the National Defence University. Whether Cadet School might open its doors to civilian students someday also remains to be seen.

In addition, foreign students can apply to the programmes of military sciences. We have already had foreign officers at all levels of our officer education, as well as on the doctoral programme which today includes three Swedish officers who are preparing their doctoral dissertations.

ON LEARNING

In addition to the changing contents of the curricula of our officer education, to face future challenges we have been forced to rethink how we can guarantee pedagogically that the contents of teaching and research can be accessed. Teaching tactical, operative and strategic thinking is no easy task. Teaching military art only by lecturing and through military exercises does not meet present or future expectations. Today, the starting point is that learning does not happen by listening to lectures but by absorbing new knowledge in many different ways. Only a deeper understanding accumulated from teaching and learning makes it possible to acquire the analytic abilities to study military art both in theory and in practice in everyday life. We call this an academic approach to everyday working life. Critical study and analysis have a central place in tactical and operational exercises as well, where the main emphasis will be more and more on teaching tactical and operational thinking instead of learning staff routines, which are of course an important skill underlying the application of tactics and operational art.

Pedagogically, teaching War Studies is a combination of different types of acts of teaching. We still have lectures, because absorbing basic matters which are crucial demands the help of lecturers and explanation. At its best, a lecture also contains conversation, which helps students shape relevant new perspectives through a combination of guided argumentation and their own views. In addition, our students are encouraged to self-guidance in collecting and analysing sources. They prepare literal exercises both individually and in small groups. They write diaries of the things that they have learned, paying special attention to how they understand what they have learned and how these details are linked to wider entities. Usually, this kind of diary or a part of it can be marked as exam papers. In evaluating students, instructors focus on his or her

abilities to understand how things are linked together and what kinds of effects they have on each other, while remembering details does not have central value. Illustrative learning, such as study trips, picture and video material, simulators etc., are also used in the teaching when possible. In operational art and tactics, exercises are important as they combine theory and practice. Leadership and management skills are closely connected to these exercises. On the whole, War Studies is constructed so that the trend is upward and from theory to practical exercises, where military history forms the ground for learning operational art, and tactics and strategic studies give abilities to understand the framework of the planning and use of military power. In addition, research studies and research seminars support all this by giving our students methods for the academic approach to everyday working life.

It is said that science is of age only when it starts to examine its own past and development. In this work the National Defence University is in many ways merely in the initial stages of its life cycle, when its own cultural traits and science philosophies of some disciplines are just forming. War Studies as a subject is also still being shaped. Especially challenging in building War Studies has been, and still is, the development of the academic traditions of operational art and tactics, because this branch of science is, when compared to other disciplines at the National Defence University, the most interdisciplinary, and because of its military character models cannot be gathered from common sciences. This does not, however, mean that we have not studied military art in Finland. We have. Our War University and its successor, the National Defence University, have performed academic research ever since 1924. Other military schools have also been doing research; we have had and still have various research projects headed by the General Staff and the General Headquarters, we have research institutes, and so on. Many innovations have emerged on the basis of these studies – innovations which have been of value to our Armed Forces during the past decades. From an academic point of view, the research into military art and education based on this research has been scattered, the nature of military knowledge has not been examined, and a systematic academic organisation of military issues – above all an exhaustive definition system – has been quite incomplete. Today this work has, however, been started. The National Defence University has adopted its role as an academic university that according to its best abilities strives to show the science community both in Finland and internationally that education and research at the Finnish National Defence University meet academic criteria. This does not exclude the possibility that while striving towards academic aims, we can also produce competent officers and high-quality research. As mentioned at the beginning, education according to the Bologna process was started at the Finnish National Defence University this autumn. The youngest cadets will finish after three years. Their Master of Arts studies will begin in 2011. The post-graduate studies of these young men and women, in other words staff officer

and general staff officer studies following the staff officer course, will not start until approximately 2015. It goes without saying that new challenges will arise on the way from master's studies to postgraduate studies, challenges that we cannot even imagine today. The curricula have, however, already been formed so that the subjects take into consideration academic standards and goals at each level, and they have been arranged so that the studies form an ascending entirety. Flexible curricula are also prepared to face current changes. Therefore today we are already planning the content of education. While doing this, our instructors also have to make the newest know-how available to the educational programmes. This is a much more ambitious challenge than has been the creation of the framework, the curriculum, where the education is carried out. Nevertheless, we have to be open-minded enough to change the platform also, if needed. How all this will work out will be seen in the future.

THE FUTURE OF WAR STUDIES IN THE BALTIC STATES

– “CINDERELLA” OR “PRINCESS”

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INTRODUCTION

War studies, a multi-disciplinary field focusing on all aspects of the phenomenon of war, is becoming a fashion in some countries of Europe. There is a growing acknowledgment that wars are not going to disappear, no matter how much the “de-bellified” European societies wish that to happen. Pacifist, post-military, post-heroic European societies cannot isolate themselves from the turbulent world, where the use of force is still seen by many actors as producing political benefits. Once hidden behind politically correct euphemisms such as “conflict studies” or “strategic studies” or confined to the UK universities, the war studies discipline is asserting itself as a field of new opportunities in Europe.

The Baltic states – Estonia, Latvia and Lithuania – stand out as an interesting case study to examine the potential of war studies. Their military development and tradition were interrupted by the Soviet occupation, which profoundly shaped the views of people towards the utility of military force in times of great national danger. Their come-back to the international arena was precipitated by entirely peaceful resistance in the late 1980s. And their armed services, regenerated from scratch, are so small that the population barely registers their existence, let alone importance to national security. Therefore, these are societies deeply sceptical about the value and utility of military force and, consequently, about the need to study the main business of the armed forces – war.

However, membership in NATO and the EU, which came at a time when both organisations were forced to look far beyond their borders and prepare to project military power globally, has altered the strategic framework in which a discussion about military force takes place in the Baltics. Their forces are deployed in the regions ravaged by wars and even have to engage in combat. War is now a reality for many servicemen and servicewomen as well as their political masters, who make commitments to the allies. Does this development warrant the emergence of war studies as a separate, independent field of academic studies in the Baltic states? Or will research and study of war remain submerged into and overshadowed by other related fields such as international relations and security studies?

In order to answer these questions we should analyze the current situation of war studies in the region and, based on that, see what could be the possible drivers and inhibitors for the development of war studies in the three Baltic

countries. This idea guides the framework of this paper: we will start with the discussion of the institutions and programmes dealing with war studies in the region, then move on to discuss the possibilities and obstacles for the advance of this area of research.

CURRENT SITUATION OF WAR STUDIES IN THE BALTIC STATES

At the moment, we could say that the situation of war studies in the three Baltic countries is pretty bleak. Only a handful of institutions were created during the last fifteen years that would deal with security and defence issues. In Lithuania, Strategic Research Centre and Centre for Strategic Studies could be mentioned in this respect. In Latvia, Baltic Strategic Research Centre under the Academy of Science, Defence Research Centre of the National Defence Academy and the Latvian Institute of Foreign Affairs are the main centres of research dealing with the strategic and security studies. In Estonia, recently the International Centre for Defence Studies was established, Foreign Policy Institute has a limited number of publications on security and strategic issues, and at the National Defence College there is some research being done on issues concerning security and defence. These research centres, however, are a great deal more concerned with different aspects of security studies than with war studies as such. The research publications they provide on war studies can be counted on the fingers of one hand.

However, there are some indications for a change in this trend. At the moment, two programmes in the Lithuanian Universities – MA in Military Diplomacy at the Lithuanian Military Academy and MA in War and Peace Studies at the Institute of International Relations and Political Science of Vilnius University – are envisioned. The first one already started, the second will take off from the academic year 2007/2008. In Latvia a similar programme, an MA in Military Science has its title approved already, however, it remains unclear when exactly it will be launched. The existence of these programmes creates expectations that the research in the topics pertaining to war studies will also have their place in the academic life of these Universities and Institutes.

What needs separate mention is the Baltic Defence College. Our College could currently be considered to be the main driver of war studies in the region both in terms of research and in providing academic teaching and expertise in the area. Speaking about research, at the moment, in our research plans there are five areas, some of them pretty general, that involve people from other institutions in the Baltic countries. The approved research directions are:

1. New trends in war and warfare
2. New security issues and the utility of military force
3. Strategic culture
4. Military transformation and defence reforms
5. Armed forces and society.

The first direction is envisioned to involve scholars from the Baltic states research institutions in network type research projects on the issues that deal with both the theories of the changing warfare, such as the 4th generation warfare theory or Effects Based Approach to Operations. Under the second direction we supported research by Prof. Lopata on the Kaliningrad region, a book having been published in relation to that. Under the third, a book will be published dealing with the research by our colleague Margarita Šešelgyte, “The problem of European Defence identity” that deals with the strategic culture and identity of the European Union.

In the sphere of academic teaching, our college has the connections with the MA programmes planned in the other countries, especially those of Lithuania, at the moment. The modules that we are offering for the officers at the college are incorporated in the MA programmes in Lithuania, so that the officers who also want to pursue a Master’s degree can obtain some credit points for their studies at the Baltic Defence College.

ENVISIONING THE FUTURE 1: OBSTACLES TO THE DEVELOPMENT OF WAR STUDIES

Slow build up of war studies in the region begs an answer as to why this is the case; what are the reasons this discipline has such difficulties taking off. Some of the reasons are shared by most smaller countries, having participated mainly in defensive wars or relying on civil resistance, not developing any sophisticated military science. The others, however, are particular only to the special historical circumstances that our countries have lived through. Yet other reasons apply to one of the countries that comprise the Baltic region (there is no space nor time here to get into a discussion whether or not such a term is valid at all) but not to the others. Having this in mind, we can structure our discussion of the problems that war studies are facing in the Baltics by going from the ones that can be more generally applied to small countries as such, to some specific problems in this area that the Baltic states face due to their historical legacy and finally discussing problems in separate countries.

Talking about the problems that arise in many countries confronted with the necessity to develop the discipline, two could be mentioned: first, the participation of smaller countries in military operations around the world is a pretty new phenomenon, most of them having participated almost exclusively in defensive wars and never creating a very elaborate scientific view of the military and its job. The population in these countries is either ignorant of their army missions (as in Eastern Europe) or often hostile to them (as in many countries of Western Europe). And secondly, there is a resistance to “academising” an outwardly purely practical endeavour. Thus, to dedicate scarce resources (financial, but especially human) to such a seemingly unnecessary discipline often appears to be a luxury these states can hardly afford.

These problems are evident in the Baltic states as well. However, there are also numerous others which are more related to our countries. In analyzing these, we have to start from the problems of social sciences in general. The three states gained independence and did away with the communist systems only 15 years ago. The fact that we had the communist systems meant that the social sciences in general were in great neglect and, after the changes in regimes, we had to start creating them from scratch. Having in mind that most of the education in social sciences was limited to the Marxist-Leninist theory, Marxist-Leninist economy, Marxist-Leninist history and other Marxist-Leninist disciplines, it took some time to start covering the distance that the social sciences travelled in the Western world during the last 50 years. Even such disciplines as political science or international relations seemed exotic at the beginning of the nineties, and even to the present day most of these sciences are still lagging behind the level of the education and research in Western Europe by some 20 years. The situation is improving, even though it is hardly possible to expect such leaps forward that would allow for the social sciences in the region to be on an equal level with their counterparts in such a short time.

One of the reasons for this is the lack even more acute than in other small countries of human resources. With the changes that happened after the collapse of the Soviet Union and the regaining of independence for our countries, it appeared that numerous positions at the ministries, bureaucracy, governmental and non-governmental institutions, and academia had to be filled in by a very limited number of qualified people. Eventually, the same persons act as the advisors to presidents and ministers, as public figures and are teaching at the universities. In these circumstances, though there are notable exceptions, the research and work in the academia suffers and ultimately is abandoned altogether.

Similarly, there is a problem of brain drain. Especially after the entry of our countries in the European Union there has been a growing trend of emigration. Of course, it is not such a problem with social scientists as it is, say, with doctors or interpreters, but if nothing is done to improve the situation, the same fate awaits academia. People who are interested in war studies prefer to leave the country to study abroad, obviously, because of the higher level of development of these studies there, but also, if they intend to engage themselves in academic work, they have little incentive to come back to their native countries – jobs in academia are poorly paid and any “new” trends are especially looked at with great suspicion and irony. The amount of financial resources allocated for research is small in all three countries. The part of it that could be used for the further development of war studies is even more negligible.

There are also problems that can be related exclusively to war studies. At the moment, the title “war studies” itself, to the ears of the people in our countries, sounds like Tolstoy’s *War and Peace*, and therefore more like literature than a serious academic discipline. This may seem to be a merely semantic issue,

but semantics sometimes rules the world and in this case, may rule the finances and interests of the people. Thus, if there is any impulse to the development of war studies from within the academia, it is more likely to be subsumed under different titles, such as conflict studies, or to make up a part of security studies because of the resistance to the name itself. One example of this occurred in the recent discussions of the Master's programme in War and Peace Studies of the Institute of International Relations and Political Science, Vilnius University, where some of the opponents argued against the programme precisely because of its title.

Also, again as a legacy of the past, there is a problem of mistrust which takes on different forms. First of all, due to the Soviet past, society does not look very favourably towards the armed forces in the first place. All issues related to military and power are looked at with a deep suspicion. Secondly, there is also a mistrust of the academia towards the military. This is again related to the Soviet past, though it conforms to a pretty widespread tendency in other countries as well to view the military as a world apart, a world which has its rules in extreme opposition to those that the people within the academic circles cherish. In this situation, issues related to the military are not considered worth research and even the people doing such research are looked at with suspicion as the ones selling their souls. Finally, there is also a mistrust of the military towards academics. An officer expressed this particularly well when he wrote in one leading magazine of the defence community in Lithuania that "military people are practitioners, not dry academics." As long as that is the case, it is hard to imagine that the military would seriously consider making use of the academic research.

Even though so far we have talked about the three Baltic states as one entity, it must be mentioned that there are differences between the three, and there are different approaches to the problems. So far, it could be said that the research in war studies has most potential in Lithuania, due to its wider engagements on the world scene in general and in military operations in particular. The political sphere and society in the country are also more in favour of the pro-active foreign policies, less hostile to the deeper development of the armed forces. Finally, the study of international relations, which can be the basis for the development of war studies, experienced the greatest growth here. Consequently, there is more interest in research in war studies in Lithuania than in other two countries. This can be well exemplified by the launching of the two mentioned MA programmes. With this being said, it is time now to look for the reasons for optimism in the development of war studies in the region.

ENVISIONING THE FUTURE 2: REASONS FOR OPTIMISM?

The first of the possible drivers of development of war studies in the region could be the presence of our armed forces in Afghanistan and Iraq. These and similar missions can stimulate a new perceived need to study the phenomenon of

war. Seeing events from close by, it becomes obvious that there is a lack of comprehension of the nature of these new wars and the ways to fight them. And the need to foster this comprehension is slowly being recognized. Thus, the defence community may signal the need for more studies to the academics. This could be the main reason why war studies will catch up in the Baltic states.

Demand/supply laws function in the case of science as well. It is obvious that if there is no expressed need for more specialists in the sphere of war studies, there will be no future for those studies either. It could be said that this need is now being expressed in at least two of the Baltic countries: Lithuania, as we mentioned, already has two prepared programmes that could broadly be called war studies programmes, and Latvia is preparing one as well. It remains, though, to be seen whether these programmes will be successful, whether they will attract enough attention from students and scholars alike so that we could say that the new, reversed, trend of interest in war studies has appeared.

Here we should once again mention the role of the Baltic Defence College as an initiator and driver in these trends. Currently our College relies to a great extent on expertise from outside of the Baltic countries. However, according to the initial design, it will have to depend more and more on the potential that is there in the Baltic countries. Put into such a situation, the College has a great incentive to foster the growth of war studies and, by so doing, to act as a constantly barking dog for our defence communities, reminding them of their commitments to high level officer education and therefore the need to promote the home growth of the specialists in these fields. Though this barking does not often go to heaven, eventually, we believe, the need for the creation of a strong academic core in order to strengthen the developing of modern, professional armed forces will be recognized. This is what our College itself needs. It could be reiterated: we will not keep up with our institutional standards if we do not manage to promote the scientific research in our countries and rely on the research done in the Baltic states themselves.

Having this in mind, the College tries to develop a network of researchers who will contribute to the creation of war studies as a discipline in the three Baltic countries. By our research initiatives we aim to support the scholars working in the related fields and foster their interest in turning their gaze also to the study of war. Moreover, our project for the research direction on the New trends in war and warfare, mentioned above, is organised in such a way as to create a meeting point of all those interested in the topic to share ideas and work together on a regular basis, communicating between themselves in the virtual space between the meetings themselves. Such a framework, we believe, would facilitate the creation of war studies as a separate field of inquiry with the number of scholars dedicating their time to research in the area, following the trends of investigation in the world and consequently adding our small, but, hopefully, significant input to the war studies field at large.

CONCLUSIONS

During fifteen years of existence as independent states, the Baltic countries had to travel a long way in development of its political, economic systems, institutions and not least, the academic inquiries. War studies appear here as a new, unploughed field, which has been under investigation only recently. As can be seen from this paper, there are numerous obstacles to the development of these studies in the Baltic states. However, even if we do not have a very favourable starting point for this development in strategic cultures, traditions are not carved in stone, but exist in the minds of the people and it is the people who can change them if they consider that necessary.

We believe that regarding war studies, such a need for change is slowly being recognized, and there are steps being made to overcome this long lasting disdain for all things military in the academia and vice versa, as a result of which we may well see the flourishing of war studies as a discipline in the region. Of course, we do not think that these studies may gain prominence in each and every one of our states separately and be completely self-sufficient in each of them, but that pan-regional and multi-institutional solutions and initiatives, just as in the case of staff officers' education, can well do the miraculous job. In fact, due to the lack of financial and human resources a "princess"-like future for war studies in the Baltics probably lies in joint degree programmes and "virtual" regional war studies centres, not conventional war studies departments within the universities or staff colleges. We hope that this new approach to the development of the discipline will bear fruits, driving the research on war studies in the Baltic states to the heights that were achieved in other parts of Europe.

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