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New Wars and Sustainable Security: What should Military Leaders Learn?

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New Wars and Sustainable Security: What Should Military Leaders Learn?

Novas guerras e segurança sustentável: o que devem aprender os comandantes militares?

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Abstract

This paper presents the results of prior studies and new survey research on curriculum content and approaches for mid-career officers. The research was conducted for the International Society of Military Sciences (ISMS), which provides research-based support to defence universities in small democratic countries. Prior studies have described patterns of western professional military education (PME) and common themes in mid-career and senior officer education. A survey asked experts from ISMS and the NATO Conference of Commandants to rate the importance of 22 novel subject areas on a Likert scale and to comment on the selection criteria for new materials to support teaching in professional military education. Thirty four respondents to the questionnaire included senior leaders in PME, serving military officers, researchers, graduate students, and faculty. The subjects of greatest interest for future PME were: Artificial intelligence and robotics; resilience of leadership; defining and conceptualizing war; and designing strategies for small countries. When military educators are looking for materials for higher PME, the most important criteria are that books and articles should challenge current thinking or report new research. The study demonstrates that there is a demand in defence universities and staff colleges for new thinking in response to the changing nature of war. As in other professions, military science relies on a professional and scholarly ecosystem to generate new knowledge.

Key words: Professional military education; curriculum; hybrid war; military science; knowledge.

Resumo

Este documento apresenta os resultados de estudos anteriores e de novas pesquisas sobre o conteúdo e abordagens curriculares para funcionários de carreiras intermédias. A investigação foi conduzida para a Sociedade Internacional de Ciências Militares (ISMS), que fornece apoio baseado na investigação a universidades da Defesa de pequenos países democráticos. Estudos prévios descreveram padrões de educação militar profissional (professional military education, PME) ocidental e temas comuns na formação de oficiais superiores e de carreira intermédia. Um inquérito solicitou aos peritos do ISMS e da Conferência de Comandantes da OTAN que classificassem, com recurso a uma escala de Likert, a importância de 22 novas áreas temáticas, e que comentassem os critérios de seleção de novos materiais destinados a apoiar o ensino na educação militar profissional. Entre os 34 respondentes ao questionário, incluíram-se chefes superiores de PME, oficiais militares no efetivo, investigadores, estudantes de cursos superiores e docentes. Os temas de maior interesse para as futuras PME foram: Inteligência artificial e robótica; resiliência na liderança; definição e conceptualização da guerra; e a conceção de estratégias para países pequenos. Relativamente aos critérios de seleção de novos materiais, o principal resíduo no facto destes deverem ser cognitivamente desafiantes ou reportar novas pesquisas. O estudo demonstrou ainda que, nas universidades da Defesa e nas faculdades em geral, existe uma procura de novas formas de pensar como modo de responder à natureza mutável da guerra. Tal como noutras profissões, as ciências militares dependem de um ecossistema profissional e académico para gerar novos conhecimentos.

Palavras-chave: Educação militar profissional; currículo; guerra híbrida; ciências militares; conhecimento.

Introduction

The International Society of Military Sciences (ISMS) was established in 2008 by a group of defense universities from small democratic countries, with the aim of mutual improvement through collaboration. From its inception, its members sought to understand and support the needs of defense education. Working groups have met annually to present research that would be useful for its member institutions. Data about institutions of higher military education, curriculum (teaching content, student context, and pedagogy) and common challenges have been shared amongst the member institutions. The ten working groups of the Society are repositories of specialized expertise germane to small states. The working group on War Studies, under the leadership of Dr. Zakowska of the War Studies University of Poland initiated a study of the changing nature of war in 2020 with the aim of developing a book that would support mid-career military education in small countries to address the changing challenges of conflict and war in new forms. The starting point for this research was that war has evolved to include a broader range of activities below the threshold of physical violence. Papers presented at recent ISMS conferences were the foundation for this work, and abstracts can be found online (see www.isofms.org). The results of the survey and additional discussions will be used to shape the content of a book of collected research papers for use by defense universities.

An underlying assumption is that small countries cannot fully control their security environment, and must therefore seek to cooperate, align, or ally to meet needs for human security, national security, and international security. New research on the subjects explored by the survey should therefore incorporate collaborative approaches to security for small states.

Methods

Professional military education (PME) is an aspect of broader security sector education including police and paramilitary forces. Data about security education has been collected for an ongoing project since 2009, through the Global Security Education Project funded by the Canadian Defense Academy Research Program, by a Fulbright Canada Grant in 2016, and through cooperation with the ISMS. Interviews, site visits, external program reviews, online surveys, and content analysis of documents have contributed to a growing repository of data available to institutional members. The collection has been used to address comparative questions for institutional leaders, including common content, research program focus, funding sources and governance. A volume in preparation compares entry-level, pre-commission institutions in a dozen countries to develop a broad picture of this level of PME using a comparative case study approach (Leuprecht et al, forthcoming). Multi-method qualitative and quantitative data-collection on a wide range of PME variables is the baseline against which this specific study was conducted.

The survey aimed to support development of course materials to support mid-career education in small countries: what should be studied? How are reading materials selected? This falls within the general category of descriptive inference (King et al, 1994, 50-53) The respondents were a small and specialized group of leaders involved with mid-career professional military education, including joint command and staff colleges and specialized courses in small countries. Participants were recruited by the key informant method (Marshall and Rossman, 2016, 166), drawing on ISMS and NATO Conference of Commandants contacts. The link to the anonymous online survey was circulated to key informants in 20 countries. All respondent information is securely stored in accredited data centers, which adhere to best practices. Collected data are transmitted over a secure connection. Personal data were not collected, but

respondents had an opportunity to volunteer contact details for further collaboration.¹ Respondents included some graduate students, and most respondents were alumni of professional military education.

The content of the survey was developed in consultation with the War Studies working group and based on a list of subjects addressed in ISMS conferences. The research questions were derived from the purpose of the research, to support training and education. Research ethics were considered under Canadian rules, applying Research Ethics Board guidelines and DAOD 5062-1 *Conduct of Social Science Research*. Social Science Research Review Board coordination or review is not required for information exchange with stakeholders (4.10, e).

The survey, “Nature of War: What should be studied?” collected information on impersonal respondent background, importance of subjects, selection criteria, and contact data for those who wished to be engaged in further discussion of content development. Estimated completion time was three minutes, and estimated completion rate was 49 percent. Estimated completion rate could have been improved by reducing the number of items to be evaluated, but this would have defeated the purpose of the survey. Estimated completion rate was marginally improved by moving the long list from the third to the second place in the question order.

Results

Of the thirty-four respondents (Table 1), the majority identified as serving military, followed by faculty in defense universities or staff colleges. The smallest number of respondents were civilian researchers, graduate students, or recent graduates of defense universities.

Table 1 – Background of Respondents

Background of respondents	Number	Percent
Serving military	18	52.9
Faculty in defense university or staff college	14	41.8
Senior leader involved in PME	11	32.4
Civilian researcher	6	17.6
Student or recent graduate of command and staff college	5	14.7

Source: Survey “Nature of War: What should be studied?” Respondents could select more than one category.

Respondents were asked, “Please rate the importance of each subject on a scale of 1 to 5, where 1 is least important and 5 is most important. Use 0 to indicate that the subject is well addressed by existing materials.” Twenty-two subjects derived from the research of the War Studies working group were listed with the labels: (1) not important at all, (2) not important, (3) somewhat important, (4) important, (5) very important, and (0) well covered in existing literature, low priority for new work. Ranked by weighted average from most to least important, the subjects are summarized in Table 2. The range of weighted averages was between 4.03 and 2.70, with a median of 3.5. Only child soldiers and counterterrorism had a weighted average below (3) somewhat important. Even the lowest weighted average, 2.7 for child soldiers, was just below the “somewhat important” threshold. In the case of counterterrorism, the low ranking is attributed to the highest number of respondents – a total of 11 – ranking it (0) well covered in existing literature.

¹ SurveyMonkey, “Ensuring your data is secure and compliant is our top priority. Here’s how we do it.” <https://www.surveymonkey.com/mp/data-security-and-compliance/> accessed 11 May 2022.

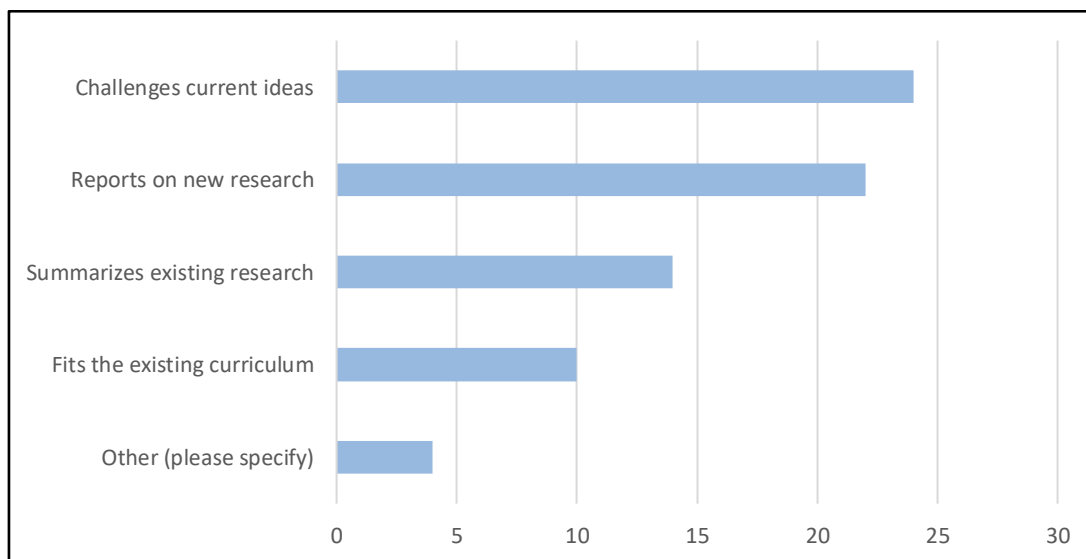
Table 2 – Subjects Listed by Weighted Average of Importance

Top Third	Middle Third	Bottom Third
1. Artificial intelligence and robotics 2. Resilience of leadership 3. Defining hybrid warfare and conceptualizing war 4. Designing strategies for small countries 5. Space - war with, war in, war from (for small states) 6. Command and control, situational awareness 7. Legal frames for warfare	1. Cyber warfare - offence and defense 2. Deterrence options and weapons of mass destruction for small states 3. Information offence and defense 4. Contractors and non-state actors 5. National identity and social cohesion 6. Climate security 7. Crisis management and response short of war 8. Immigration and security	1. Border control operations 2. Proxy war tactics 3. Civil-military relations 4. Expeditionary warfare 5. Public diplomacy and communications planning 6. Child soldiers 7. Counterterrorism

Source: Survey “Nature of War: What should be studied?”

The third question addressed criteria for selection of materials to support teaching: “When you are selecting books or articles to support teaching, what do you look for? (Select all that apply)” Results are displayed in Graph 1. Three comments included under “other” were:

- “Primary references (original documents) from other nations, e.g., Russia or China. But here we face the challenge of availability and readability (language).”
- “Challenges traditional thinking and focus on conventional war fighting.”
- “All of them, depending on the course grade. From basic to a course involving research, by sequence: Summarizes current knowledge - Summarizes existing research - Challenges current ideas - Reports on new research. For all of them should fit the course program.”



Graph 1 – Selection Criteria.

Source: Survey “Nature of War: What should be studied?”

The most important single criterion (24/34) was that sources should challenge current ideas, followed by reporting on new research (22/34). Summarizing existing research (14/34) and fitting the curriculum (10/34) were not important criteria, although the latter was explicitly mentioned in one comment.

Fourteen respondents from seven countries volunteered contact information. The largest numbers were from Portugal (6) followed by three from Finland, and one each from Austria, Canada, Denmark, Netherlands, and Turkey. These respondents will be offered an opportunity to be involved as the project progresses.

Discussion and findings

The findings of the survey should first be put in the context of evolving western models of PME. The research asked PME leaders to identify the importance of subjects germane to contemporary warfare but also to the broader challenges of human, national, and international security. Of these three referent objects for security, national security typically dominates in mid-career military education, but in most countries, some consideration is given to human and international security demands. This takes the form of preparation for domestic operations or assistance to civil authorities, and study of United Nations operations and understanding of international organizations. Writing in 2001, military educator Peter Foot described three models of staff college which had evolved to address increasing uncertainty about the character of war. In 2016, Israeli researcher Tamir Libel published research on national defense universities which extended this model, depicted in Figure 1.

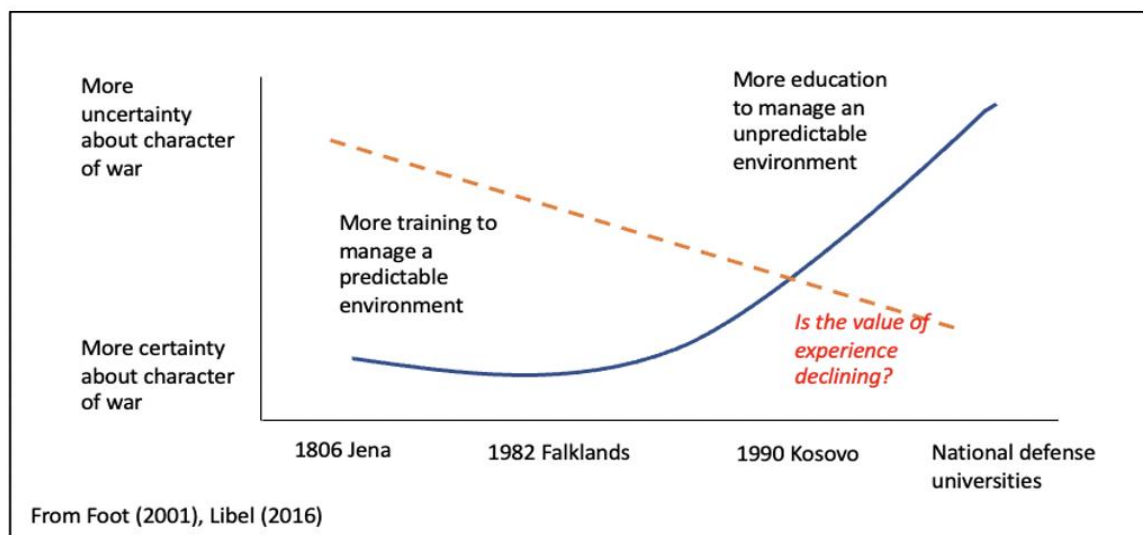


Figure 1 – Staff College Models

The main point about Figure 1 is that rising uncertainty about the character of war demands more education to manage an unpredictable environment. The value of experience doesn't necessarily decline, but the investment in education necessary to interpret and use experience increases.

Foot's model drew on the large European powers of the day, mainly France, Germany, and Britain. Libel (2016) included Britain, Germany, Finland, Romania, and the innovative trinational Baltic Defense College as case studies, drawing conclusions about a new generation of European military culture driven by education. Whether the defense and security focus of European higher military education Libel identified in the early 21st century will survive the Russia-Ukraine war is doubtful. Pressures to return to a war-fighting focus were already evident in the staff colleges and civilian governance of the Bucharest Nine by the time of its founding in 2015. Members Bulgaria, Czech Republic, Estonia, Hungary, Latvia,

Lithuania, Poland, Romania and Slovakia are all former members of the Soviet Union or Warsaw Treaty Organization and have closely watched developments on Russia's borders (Pawłuszko, 2021, 21).

One comment from the survey echoed this focus: "Challenges traditional thinking and focus on conventional war fighting." On a map, the Bucharest Nine look like a bulwark against Russian westward expansion.

Not only is the character of war increasingly uncertain, but the role of the military and security services in general is less clear when we consider the challenges to human and international security in addition to national security. Smaller countries outside the context of European geopolitics are less likely to be committed to expeditionary or regional wars. They are more likely to be involved in domestic operations and international peace support. They are also more likely to be structured for close cooperation between national police, paramilitary, and military forces the smaller their size.

The subjects identified for study should fit into the major units or modules typically included in mid-career staff colleges. A 2016 study compared staff college curriculum in 14 middle-powers (including Nigeria and Egypt as large-population regional powers, and Jamaica as a small-population state serving as a regional hub. The study identified nine common subject areas in recent curricula (Last, 2016). These are summarized in Table 3.

Table 3 – Mid-Career Staff College and Senior Officer Course Content

Subjects (Derived from open-source curriculum documents, available in 2016)	Number (of 14) omitting this subject from mid- career staff course	Number (of 14) including in senior officer course	Deduction about common understanding of target audience
Strategic studies and national strategy	3	10	Col/Gen
National foreign and defence policy, usually in international context	4	10	Col/Gen
Political, economic, and social studies of the state and/or international system	8	7	Maj/Col (National staff)
Operations, including environments (land, sea, air) and joint operations – This is the core common content for mid-career military education	0	3 (b)	Maj/LTC
Organization and capabilities of armed forces	1(a)	(b)	Capt/Maj
Regulations and procedures of armed forces	4	(b)	Capt/Maj
Management and budgeting for defence	8	7	Special staff
Analytical tools, operations research, and research methodology for military science	5	5	Special staff
Peace support operations, conflict analysis, and conflict management	6	8	Special Duty

Source: Last, 2016; revised for Last, 2021. Countries in the sample were Argentina, Australia, Chile, Egypt, Ghana, Italy, Jamaica, Kenya, Malaysia, Nigeria, Poland, South Africa, Sweden, United Arab Emirates. See Last 2016a (a) Italy addressed this in environmental or single-service staff colleges (b) this may be offered at senior courses for civilian participants but is generally assumed knowledge for military participants, who may be asked to brief about their own services.

Ten of the 14 staff colleges studied in 2016 were functioning more like universities than training institutions. They had both military and civilian instructors with academic qualifications, and some degree of academic freedom to deliver course content within the prescribed curriculum. All 14 programs were conducted by institutions offering either bachelor's or master's degrees, or course credits towards a university degree. This is significant for our research because it reinforces the need for critical readings that bring new, non-doctrinal thinking to bear, as most respondents suggested on question 3. Events since the first decade of the twentieth century have also highlighted the need to understand political, economic,

and social aspects of national security. Anecdotally, several of the eight establishments in which these subjects were not addressed in 2016 now include them in mid-career curricula.

Only seven of the institutions surveyed in 2016 had in-house scholarly or professional publications. This is an important indicator of institutional expectations. Staff colleges or defense universities with regular publications generally expect faculty to produce original scholarship, and often encourage graduate students (mid-career or senior officers) to produce professionally relevant papers or reports, some of which are published to add to the common stock of professional knowledge. Military students are likely approaching their research subjects as novices, although they may have relevant specialized knowledge. Handbooks and reference works will be useful points of departure.

The open-access Springer Handbook of Military Sciences, edited by Anders Sookermany (<https://link.springer.com/referencework/10.1007/978-3-030-02866-4>) has been developed under the leadership the Norwegian Defense University College as a starting point for a wide range of potential research subjects in military science, indeed all of the areas addressed by ISMS working groups (see Table 4). Over time, we can expect the quality and quantity of scientific professional military writing from small countries to improve, building on general reference works like the Springer handbook and specific collections like the one planned in association with this research.

The 22 subjects listed in the survey were all generated from the single ISMS working group on War Studies. Looking at the sections planned, and chapters already published in the Handbook of Military Sciences we can imagine a series of published collections addressing the research of other working groups. Conferences and institutional publications provide the scaffolding for developing and testing ideas that will be distilled as chapters or contributions to the Handbook. This is a normal process in other fields of professional knowledge, and well established within the military-academic ecosystems of large countries like the US, Russia, China, India, and Brazil, but it is at an early stage for most small countries. Table 4 provides a picture of the military academic ecosystem supporting small state understanding of military science. The work of the ISMS working groups is supported by the development of a major open-access reference handbook, the Handbook of Military Sciences.

Table 4 – Academic Ecosystems – ISMS and Handbook of Military Sciences

ISMS Working Group	Subject areas (examples, not exhaustive)	Handbook sections
1.War Studies	Operational art and tactics, contemporary operations, future war, asymmetrical and irregular warfare, psychological operations, peace support, doctrine development, terrorism and counterterrorism, privatization special forces	III. Military Operations XII. Military Design
2.Military History	History of warfare and military practice, doctrine, art of war, military institutions, innovation in the past	IV. Military History
3.Military Technology	Information systems, systems testing, impact of technology on operations, weaponry, human dimension, R&D agendas, industry connections, life cycles and defense acquisition, network-centric warfare, AI, robotics	XI. Military Technology
4.Leadership, command, control, basic competence	Leadership as skills and abilities, leadership practices, communication, negotiation and networking, sense-making, training, learning on the job, professional development, crisis management leadership	VIII. Military Behavioral Sciences IX. Military Leadership
5.Law and Ethics	Military justice systems, international law of armed conflict, international humanitarian law, rules of engagement, preemptive action, jus in bello, jus ad bellum, jus post bellum, jus ad vim, status of forces agreements, moral dilemmas, values and values transmission	I. Philosophy of Military Sciences
6.Defence Policy and Security	International organizations, actors, factors, threats, cooperation, security regimes, alliances and coalitions, interests, risk evaluation and management, international relations, scenario development, crisis management, security complexes, influence	VI. International Relations and the Military

ISMS Group	Working	Subject areas (examples, not exhaustive)	Handbook sections
		strategy, coercion, deterrence, modelling, game theory, defense diplomacy	
7.Armed Forces and Society		Nation-building, institutional gaps, military sociology, armed forces as societies, armed forces in society, civil-military relations, conscription and professional armies, gender-ethnicity-identity and minorities, military families, unions and soldier associations, social experimentation and social activism with armed forces, media, public opinion, democratic control of armed forces, security sector reform, international cooperation, privatization.	V. Military and Society VII. Military Profession VIII. Military Behavioral Sciences
8.Defense management and Economics		Resource management, change management, transformation, cost-benefit analysis, logistics, defense acquisition, strategic personnel policy, accounting, defense administration, military industrial complex, measures of effectiveness, benchmarking, outsourcing, privatization, base closures, infrastructure issues.	X. Military Management, Economics, and Logistics
9.Military Education		Curriculum development, pedagogy, standards and evaluation, professional development, academic freedom, case studies/simulations/exercises, professional collegiality in military education.	XII. Military Design
10.Strategy		Strategy, gaming, warfare, higher command, strategic design, developing strategy, deterrence, deterring/compelling, strategic assessments, critical infrastructure, national will, military power, multidimensional power	II. Strategy and the Military XII. Military Design

Sources: ISMS website (www.isofms.org), and Handbook of Military Sciences²

There was little variation in the weighted average of importance attributed to the 22 subjects listed, with all but two being identified as somewhat important, important, or very important. This should not be surprising. The subject list was derived from research being done at defense universities and the respondents represented the leadership of those institutions. The lists in Table 2 therefore provide limited guidance about the relative importance of these subjects. Discussions within the working group about the content of papers addressing each subject reveal some cross-cutting themes that will help bring together a coherent collection on grey zones, hybrid conflict, and new wars. In the top third, artificial intelligence and robotics is a sufficiently large and specialized area that it might best be addressed by the ISMS working group on military technology. Space, climate, cyber, and legal frames (including non-state actors and market forces) form a cluster related to the context of new wars. Beyond climate change, there may be military roles in mitigation of, or adaptation to, the other eight paths to extinction in the Anthropocene: artificial materials, ozone, atmospheric aerosols, ocean acidification, biochemical flows, freshwater use, changing land use, and biodiversity loss (Carrillo Gamboa, 2022). Strategies for small states, crisis management, deterrence, and contracting form a second cluster relating to management of conflict and violence. Presentations and discussions at the 13th Annual Conference of the ISMS augmented the survey list with an additional cluster related to society and people: state functions, social cohesion, and resilience. It also became clear that no collection related to new wars and security could be comprehensive.

What is PME missing? Combining the survey results with wide-ranging discussions in the war studies working group provided an opportunity to ask whether PME is adequate. The survey “Nature of War: What should be studied?” is too narrow to answer this question, but some observations are in order. There is a strong tendency in most countries for military education to focus on the national level and on armed and organized violence above the threshold of war. The paucity of political, social, and economic subjects addressed in mid-career education (Table 3) should be addressed. At the same time, conflicts and

² <https://meteor.springer.com/military> (<https://meteor.springer.com/project/dashboard.jsf?id=841>).

threats to human security, national security, and international security are broader and more ubiquitous than in the past.

No state, particularly a small state, can address its security dilemmas effectively without cooperation. Military leaders within an international professional community may be well placed to lead that cooperation, or to support cooperation led by civilian agencies and diplomats. To do so, they need to learn more about the international channels for pursuing common goals. The emerging threats of climate change, food insecurity and survival migration, perhaps maliciously weaponized by neighbors or non-state actors, will generate new forms of conflict and the requirement for broader and deeper cooperation between states. Small states need to understand the risks of major power dominance not just from obvious enemies, but also from friends and allies.

Security thinking has been driven by major powers, which often see advantages from conflict, and may push smaller states to buy their weapons, participate in their coalition wars, and serve their security interests. We can track the intellectual leadership of the United States and United Kingdom in the anglosphere by the authors, presses, journals, and publishers that dominate the libraries and reading lists of defense universities in small countries. The military-industrial-academic complexes of large states may be out of touch with society, and civilian leaders in small countries may need to become more engaged in education about the grey zone, hybrid conflict, and the new wars.

What should military leaders learn about grey zones and new wars? New research will help them to work better with civilian leaders to develop strategies, rethink deterrence, and understand the roles of social cohesion, environmental change, and new technology in promoting human security, national security, and international security.

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