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Perception of economic reality – a national security requirement for education in the information age

Abstract: In this article, we consider a specific aspect of the ability of a state to protect its essential values: the capacity of its intellectual elite to objectively perceive current economic realities and their potential consequences. We approach this problem phenomenologically, referring to situations characterised by the lack of a theoretical basis, in which highly qualified individuals participated without awareness of their consequences for the stability and essential values of the state. We view these situations from the standpoint of the prevailing educational system which produced the personnel involved in such operations, and within the context of the need of a political community to maintain the capacity to perceive challenges to its essential values. The results indicate the opportunism of highly educated professionals with respect to theoretical knowledge and the consequent inadequacies in dealing with complex variables which generate challenges for national security. We conclude that in the information age, which is characterised by complexity, speed and large quantities of available information, decision-making related to national security requires more creative thinking, and this entails a need for higher education to focus not merely on problem-solving, but also on the development of cognitive capacity and prudence.

Keywords: high-frequency trading, financialisation, cognitive capacity, creative thinking, judgement

JEL: A23, I21, O21

Introduction

Achieving the desired level of ability to protect national security depends, among other factors, on adequate skills and knowledge of professionals in various fields and levels. Nations, as political communities, are defined by their beliefs, ideals and moral virtues, thus achieving a necessary level of capability

to protect national values requires adequate perception and appreciation of civilisational foundations of the nation-state. To develop an institutional capacity to identify values that should be defended and the possible challenges to them, which would facilitate national security, the intellectual segment of society should internalise and understand the culture and tradition of the political community.

The ability of a state to have adequately skilled professionals for the performance of tasks which may be encountered in everyday affairs is among the substantial foundations of state's power and its position in international and global relations. The criteria for this ability is usually evaluated through quantifiable measures, like the level of skills, the number of Ph. Ds., or the college retention rates. In that context, understanding of the distinction between education and training seems to be of special importance. Training is not equivalent to education. Training concerns procedures ("how") and education concerns causalities ("why") or the contents ("what"). To train somebody in national security involves imparting a set of skills to analyse a problem, to formulate a response, or to implement it. Such skills range from the martial capabilities of soldiers to the negotiating prowess of diplomats or the financial acumen of budgetary analysts. The effectiveness of such training is judged by the results (in battles, treaties, balanced budgets) which an educated professional can achieve in the end. A persistent inability to achieve results is an indication of relatively inadequate skills and a possible need for an additional specific training course. Training, in other words, is an activity limited in time, with a clear end determined by the ability to perform the defined tasks. Education, unlike training, focuses on why an action may be necessary. It is about the purpose of that action, rather than about its mechanics. An educated individual is one who has the general knowledge needed for making expert rational decisions and inferences in familiar and novel situations, thus with the ability to distinguish the importance and rectitude of an action. A trained individual has the skills to perform the action. A further difference is that education is not time-specific, as real education is a never-ending process. Education is not measured by the complexity and verbal virtuosity of an argument, but by the simplicity of an intuition that is deeply felt and known while it can often remain unarticulated.

In the mentioned context, the question arises is it essential for national security that education develops judgment, character and intuition. The logic of rational reasoning in national security matters imposes that before we know how we ought to know why and what we are to defend. This is particularly the case when it concerns critical thinking. Namely, if the understanding of, and even more appreciation for, own nation and civilisation are inadequate, no set of sophisticated skills will suffice to defend the national security, i.e. perceived set of values.

The mentioned question is also the consequence of gradual marginalisation of an idea of patriotism, which is apparent in everyday terminology, with

adjective “global” being attributed to almost every topic. This has led to forming of narratives and discourses in which abstractions fail to illuminate the reality that needs to be defended and sever the connection between domestic and foreign policy and the people supposed to benefit from it.

Today, many academics analyse national security and international relations within the scientific concept of structural realism (neorealism). The basic tenets of neorealism enable the systematic approach to studying shifts in state behaviour. To practically understand the neorealist approach requires achieving proficiency in awareness of its fundamental concepts, which include anarchy, structure, capability, the distribution of power, polarity and national interest. This implies that the mechanism of international relations can be understood by studying the functioning of a few select variables concerning their relationships.

In everyday life, which professionals must face, states do not necessarily behave mechanically. The idea of the autonomous functioning of the will is also problematic for a scientific approach because it denies the very essence of decision making. The possibility of a free will, in fact, means that political leaders may undertake decisions that are surprising, incalculable, and certainly incomprehensible if one considers them all as plausible variables.

Limitations of “problem-solving” reasoning in national security affairs

The current period is characterised information society and, within it, the dominant role of symbolic communication in inter-human relations. A consequence of the mentioned characteristic of contemporary era is vast quantity of information, about many topics, which are easily obtainable. The criterium of the effectiveness of education remains a meaningful intellectual debate in the academic milieu. At the same time, much of academic work, and by extension of education, as it has been noted in theoretical works, is very voluminous, yet narrow in scope [Evans, 2014]. This leads to a paradox that there is so much information and seemingly little education to deal with them.

In the context of national security, an important methodological fetish of modern academia seems to relate to a phenomenon which has been described in doctrine as an esoteric language of global consciousness, leading to the idea of the world as imagined community [Ampuja, 2014, 255]. Such arcane language, generally viewed, necessarily influences multiple aspects of educational reach. It has a negative impact on the cohesive level and motivation for civic and social engagement, including on the development of bureaucratic competence, civic skills, cognitive capacity, habits of associational involvement, and service learning [Campbell, 2006, 17].

The most obvious manifestation of these discrepancies is inconsistent value, academic and practical approach in facing some ever more wide-spread problems, such as systemic and/or endemic corruption and money laundering. They are an obvious value threats for political communities, with a foothold in the global economic reality, as they concern the functioning of banking system, rating and liquidity, and international financial mechanisms.

Major global banks were caught in handling illegal and suspicious transactions, often through the creation of 'shell' and 'front' institutions. These money flows were not penalised, instead, banks settled with prosecutors, with the highest settlement being under 15% of the reported six-month profit. Major investment banks were also caught in a massive fraud with the interbank interest rates, which they determine exclusively among themselves. An indication of the sum subjected to fraudulent interest rates is the volume of financial derivative contracts, which only in 2011 reached hundreds of trillion dollars [Đurđević, Stevanović, 2017, 35-36].

Within the international financial institutions, an idea was launched that illegal goods and services must be recorded in the system, despite difficulties to determine their value [OECD, OECD, ILO, IMF, CIS, 2002, 153]. The system of European national and regional accounts stipulates that EU member States present incomes from illegal activities in their budgets [ESA 2010, 11.26]. Besides, today, electronic trading and electronic payments allow handling of a substantially larger scale of complex transactions, which are increasingly harder to monitor, and even harder to comprehend the nature of each transaction, even of those executed through the legal channels.

The UN Office on drugs and crime director in 2009. revealed that he had access to the evidence that the proceeds of organised crime, after the outbreak of the global economic crisis, were "the only liquid investment capital" available to banks that were in the previous year were on the verge of collapse [Syal, 2009].

The global financial system, with its centralism, hegemony, bureaucratism, speed and financialisation, generates threats for countries in the business environment. Since the countries must function in such environment, professionals must recognise corruption/money laundering as a challenge of global processes, due to four reasons: a) the lack of transparency of the global financial system, in which physicists and mathematicians replace economic experts in financial analysis; b) an unpredictable development of information technologies, which becomes a tool of the hegemony of the wealthiest, on the one hand, and contributes to the reduction of capacity collective institutions that control the executive power and the inevitable exposure of corrupt officials, on the other; c) the increase in poverty, which makes survival a priority value and perpetuates the general interests of society; and d) the relocation of centres of decision-making in many areas beyond nation states contributes to dispossession of States, and thus the trust in the functioning of the system and the confidence to perpetuate corruption.

These anomalies from the universally accepted principles were conducted, supervised, controlled and researched and investigated by highly educated employees, banking and civil officers, analysts and scientists. None of the related professions acknowledged any deficiencies in their approach. Yet, the whole system resembles elements of a criminal organisation, and in no way respects the values they must have been educated on.

The capability to appraise the quality of own work and the work of others requires the assessment and feedback (evaluative judgement). Evaluative judgement is a higher level of cognitive ability and is the basis for the development of analytical and creative proficiency, which is why it needs explicit attention in higher education curricula [Cowan, 2010: 324].

It is generally accepted that the latest financial crisis and the concomitant recession have led to historically high levels of public indebtedness [Mohan, Patra, Kapur, 2013, 7]. From the point of view of national security, the problem arises from the fact that those are the practical achievements of the educated elites of political communities. In terms of engaged professionals, it can be deduced that the economy has not been in function of governing, through providing stability, employment, and development, which it is theoretically supposed to be.

In that context, the purpose of education, from the aspect of the interest of national security, should encompass developing in students through the studies preparedness to compete and also awareness of the threats for the country's ability to successfully function and maintain stability in the international surrounding. This awareness is being manifested in at least five fields: economic prosperity and competitiveness, physical safety, intellectual property, global awareness, and unity and cohesion. Such human intellectual capital determines the power of a country, and the failure to produce this capital can undermine a country's national security.

Theoretical aspect of educating for national security

In the era of increasingly growing skills, nations are losing the tools to understand what we are expected to be protected [Grygiel, 2013, 201].

The human mind avoids uncertainty and mental discomfort, by default. Thus, in everyday situations, a natural response to such problems is to routinely attempt to eliminate such aspects, which usually enables humans to efficiently sort, process, and make sense of the vast amount of received input. The tendency to mentally eliminate problems when confronted with the complexities, however, may lead to ignoring some information and relying on unconscious mental shortcuts or heuristics [Kegley, Raymond, 2014, 10].

The operate within uncertain current and future events, or to articulate and operationalise abstract concepts, requires the ability to be aware of a wide

range of possibilities [Meeicken, Miller, 2014, 26]. This implies that through this mental process, paradigms must be formed, which imposes the need for creative, prudential, judgment and emotional intelligence. Developing this capacity of awareness is possible under the condition that the education process recognises the impossibility of perfectly logical, scientific knowledge. That leads to a premise that prudence, as an individual ability that allows making a choice between good and bad, in the value sense, is a necessary virtue and should thus be fostered through education, as a condition for the adequate capacity of awareness.

In the context of national security, these requirements from education imply, among other things, that there is an objective need to develop knowledge of and respect for the own homeland. Indispensable for this educational goal is compulsory classic literature because it is a source of a certain communion of thought, which does not lead to uniformity of ideas and monotony of debates (Stevanović, Đurđević, 2015). On the other hand, having a common basis of knowledge allows for a dialogue to occur, which in practice manifests as the beginning of in-depth deliberations without which comprehending long-term grand strategy is impossible. It can be generalised that the approach to education in the national security context requires the development of a comprehensive strategy to ensure that the outputs of education will be aligned to organisational requirements [Walsh, 2011, 264].

The reality of contemporary education is influenced by the market requirements, which increasingly impose on colleges and faculties to provide training lacking. Because of this, the high school system, unlike a generation or more ago, fails to devote to the basic task of awareness building. Such education-system can generate national security challenges in more aspects: economic competitiveness, physical safety, intellectual property, global awareness and national unity and cohesion. Education plays a critical role in the fields of economy, health, energy independence, research and development and defence, in the sense that it is an institutional mechanism for assuring the capacities that these needs of national security can be met [Klein, Rice, Levy, 2012, 60].

A national curriculum is, obviously, value orientated. It, therefore, requires essential inspiration. Because of this, the national curriculum is not a neutral arena or objective knowledge. This, viewed from the practical aspect, implies that direct and indirect messages concerning threats against the nation, as well as an understanding of the geopolitical components, have to be embedded in education curriculum [Coskun, Edig, 2013, 75] The motivation underlying this stance is the need to integrate values in curriculums which are relevant for national security. In the terminology of contemporary integral approach to national security, such approach to education is intended to expose a future intellectual segment of society to global and national challenges to stability and development of the political community, from a human security perspective.

The rhetoric related to the potential for effective participation in the global processes, in the world of increasing international cooperation, exchange and interdependence, are recognised as fundamental to long-term development. This has led to the internationalisation of higher education, to attract international students or to develop as a commodity on the international market. Internationalisation of high education, whether perceived as a policy, program, event or a process, phenomenologically observed, consists of the following: an international content of the curricula; international movement of scholars; technical and education cooperation programs; and the creation of an attitude of global awareness [Stevanović; Đurđević, 2017, 710]. For example, in all Western Balkan countries, the main process of modernising higher education has been the Tempus program. This program facilitates career guidance for the promotion of higher education. In Serbia, through participation in EU's higher education programs, education institutions have been improving their capacities by establishing international cooperation offices, different university-level centres and communication channels for initiating international projects. Within this framework is the Erasmus plus program, intended for cooperation in the field of education, youth and sports in the period from 2014 to 2020. Among the results of the previous, Erasmus Mundus program, more than 400 students from Serbia have received scholarships for master and doctoral studies at EU universities, while around 1,200 students from Serbia were given the opportunity to spend one period in studies abroad.

Higher education is of importance for the sustainable development of a society, and above all for the transition towards the information society. Therefore, despite the benefits of internationalisation, higher education should prioritise internal reality and goals, in comparison to institutionally striving towards transposition of interests established within the neoliberal, post-industrial, exploitative societies. In terms of the value goals, higher education should ensure the competition between leaders and experts in practice, and prevent fabricating mental subordinates and opportunists.

Modernising higher education is faced with an empirical challenge. The universalisation of values and the application of modern technologies have resulted in the imposition of fundamentalist consumerism concept of society, including in the spiritual sphere. The characteristic of fundamentalism is that it demands a literal interpretation of certain doctrines, and in that way, narrows the focus and prevents critical thinking. Fundamentalist consumerism destroys self-esteem. Like every dogma, it imposes a way of thinking and creates people who feel dependent on others and therefore more inclined to cede decision-making power. In the terms of ethics, the culture of fundamentalist consumerism legitimises advertising, propaganda and all kinds of manipulations, including voluntarism towards truth. Once an organised society legitimises lies and manipulation, people cease to trust one another and lose

the motivation to try to participate in progressive democratic movements [Stevanović, Đurđević, 2015, 50].

There is no universal method, nor uniformity of methods for higher education. The needs for the structure of cadres are not identical in developed exploitative information societies and in pre-informatic ones, which are still in the stage of industrial development. The biggest problem is a tendency towards organising education in the interest and an aim to achieve the goals of post-industrial, neoliberal states, instead of ensuring the inflow of the necessary structure and quality of cadres and, at the same time, an adequate system of financing higher education. The inflow of funds and the most talented young people should be provided to faculties that educate leading personnel in the sectors in which the country has a competitive perspective.

In decision-making, the human dimension is an unavoidable component and this is valid for decision makers at all levels. Namely, to aid memory retrieval, or to select analogies to facilitate decision-making, everyone uses stereotypes and the process is therefore necessarily affected by personal beliefs, values, and emotions. Therefore, to achieve a more comprehensive understanding of the national security decision-making process, it is important to consider the wide range of cognitive factors that may affect the individual decision maker. It is equally important to take steps to safeguard against the potentially detrimental effects of cognitive factors when national security decisions are being made, to indicate how this might be accomplished [Teague, 2004, 268].

A national security-effective education can be facilitated only through adequate national policies. Some recommendations in that sense have been identified. Among those are: (a) to implement educational expectations and assessments in subjects vital to protecting national security, ensuring that students are mastering the skills and knowledge necessary to safeguard the country's national security; (b) to introduce structural changes to provide students with choices, in an environment of equitable resource allocation, which should fuel the necessary innovation to transform results; and (c) to launch a "national security readiness audit" to hold schools and policymakers accountable for results and to raise public awareness [Independent Task Force on U.S. Education Reform and National Security, 2012, 44-45]. These recommendations are of a functional nature and aimed at improving the adaptability of the new professionals to national security needs, but not their preparedness for the challenges they will face in the finance-dominated information age. The problem in the effectiveness of education, today, is related to the volume of available information and the studies without the defined parameters for the value aspect of human resources development. The methods of advancing these characteristics of the students, i.e. their neuro-psychological and value qualities, essential for national security in today's world, require further multi-disciplinary research.

Summary

We propose that education is of unique significance to facilitate addressing challenges to national security: to understand the processes, recognise the trends, evaluate relations, and determine threats and risks to vital values of a political community. In this context, the article addresses the general preparedness of highly educated professionals to operate in a complex environment. From the example of anomalies in the economic field, we observe that the current trends foster professionals who are functioning within set parameters, and without a thorough comprehension of the consequences of their actions for their countries. We attempt to theoretically explicate the necessary mental qualities of a national security proficient professionals. The principal problem seems to stem from relying on education for problem-solving, which is inadequate to face situations which require judgement and creative thinking. Information age fosters the interconnection between threats, but also between the organisations that respond to them. A network response requires connections and coordination not only among actors but also among the involved professionals. The effectiveness in facing complex threats depends on the judgement of individual actors within the network. This judgement is developed through the capacity for creative and prudential thinking, which exceeds the scope of problem-solving, analysis. Namely, a value-orientated internalisation of knowledge is an essential condition for the ability to perceive and anticipate the reactions of actors on the international scene, but also for the critical assessment of own work. Intelligence analysis is based on common thinking strategies, and not so much the strict scientific rules. Since contemporary education obviously did not produce cadres capable of anticipating consequences which we are witnessing, it turns out necessary to improve decision-making and produce positive outcomes. The performance of those cadres involves an assessment of key problems and needed efforts to overcome them. The most important issues we raise concerns systemic preparedness for cognition since errors are often triggered by cognitive biases during the decision-making process. Identifying and preventing these errors would contribute towards improving performance and results. We, therefore, conclude, that educational policy has the capability to shape resilience of a state, and thus must be considered as a matter not only of vital social importance but also of national interest of a state.

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Postrzeżenie rzeczywistości ekonomicznej – krajowe wymogi bezpieczeństwa edukacji w społeczeństwie informacyjnym

Streszczenie: W artykule dokonano obserwacji zdolności państwa do ochrony wartości życiowych, zdolności intelektualnej elity do obiektywnego postrzegania aktualnych realiów ekonomicznych i ich potencjalnych konsekwencji. Problem ten jest postrzegany fenomenologicznie z uwagi na wybrane sytuacje charakteryzujące się brakiem podstaw teoretycznych kapitału ludzkiego. Wyniki wskazują na oportunistyczny wysoki wykształconych specjalistów w zakresie wiedzy teoretycznej, a co za tym idzie, niedoskonałości w obliczu złożonych zmiennych, które stanowią wyzwania dla bezpieczeństwa narodowego. Wnioskujemy, że w erze informacji, która charakteryzuje się złożonością, szybkością i dużą ilością dostępnych informacji, podejmowanie decyzji związanych z bezpieczeństwem narodowym wymaga bardziej kreatywnego myślenia, co nakłada na szkolnictwo wyższe potrzebę skoncentrowania się, oprócz rozwiązywania problemów, na rozwijaniu zdolności poznawczych i roztropność.

Słowa kluczowe: handel wysokiej częstotliwości, system finansowy, potencjał poznawczy, twórcze myślenie, ocean

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