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STRATEGIC MANAGEMENT METHODS IN SUPPORT OF DEFENCE PREPARATION AGAINST HYBRID WARFARE

ABSTRACT: This paper presents an integrative approach for education of security and defence personnel at postgraduate level for analytical thinking in role-playing exercise scenarios related to hybrid warfare and defence against hybrid threats. The main goal is the development of capabilities and resilience of defence personnel to timely perceive hybrid threats, to manage them, and successfully respond. Combined and successive application of several methods from strategic management field could be beneficial for effective education and training of defence personnel. We start with content analysis and comparative reviews in basic lessons about hybrid warfare and hybrid threats. Next step is the scenario method as it is a very useful tool for connecting theoretical issues with practical applications that are, in the end, the most important. Role-playing in a hypothetical scenario helps students check themselves how they understand the phenomenon of hybrid warfare and how they would respond to hybrid threats. Then a PESTLE (Political, Economic, Social, Technological, Legal, Environmental) analysis follows that helps make a comprehensive and structured approach to the problem exposed in the exercise scenario. Next step is oriented towards identifying weaknesses and vulnerabilities, as well as the strengths and advantages of the country in the given scenario. For this step we use SWOT, (Strengths, Weaknesses, Opportunities, Threats) analysis. SWOT obtains an upgrade over the PESTLE analysis. PESTLE gives a comprehensive structured presentation of the country's situation, while SWOT identifies weak points as well as strong ones. The priority of the hybrid adversary is to find and exploit weak points of the target of the hybrid attack and avoid or neutralize its strengths.

KEYWORDS: hybrid warfare, military education and training, strategic management, scenario, PESTLE, SWOT

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INTRODUCTION

Hybrid warfare became a popular research topic in many countries, particularly during the last decade when many conflicts appeared bringing along a variety of models and contents. Having in mind the richness of hybrid warfare phenomenon and many aspects for research, this paper is narrow in scope and content with the intention to contribute to the clarification of some aspects of the role and place of the armed forces. In that sense, this paper is limited to the presentation of an integrative approach for education and training of security

and defence personnel at postgraduate level, in order to foster analytical thinking, exercise role playing, and deal with scenarios related to hybrid warfare and defence against hybrid threats. The primary purpose is the development of capabilities and resilience of defence personnel to perceive hybrid threats in time, manage them, and successfully respond.

The combined and successive application of several methods from the field of strategic management and organizational sciences could be beneficial for the effective education and training of defence personnel. An aspect of the possible use of strategic management methods in education and training of defence and security personnel for countering hybrid threats may start with such logical questions as how to perceive hybrid threats, how to prepare defence personnel to respond to hybrid threats, how to motivate students to think in an analytical and critical way, how to obtain a systematic and comprehensive approach in dealing with hybrid threats, etc.

EVOLVING PERCEPTION OF HYBRID WARFARE

In order to answer the triggering questions above, it is useful to start the discussion on basic views about hybrid warfare, as well as some possible relations of hybrid warfare to other concepts of conflicts. In the very beginning, we must say that there is no universally accepted definition of the phenomenon marked with the term “hybrid warfare.” At the same time, it is hard to discuss, analyse and study something that is not defined in some way. In fact, there are several definitions for hybrid warfare. One of the first descriptions comes from the inventors of the concept,¹ and relates to four main domains of applications: conventional activities, irregular activities, terrorism, and criminal activities.²

The perception of hybrid warfare evolved during the last two decades widening the scope of hybrid threat domains (they have evolved from four to many), while the main characteristics have remained unchanged. An older European perception of hybrid warfare recognized several application domains: economic means, political means, diplomatic means, technological means, violence (ethnic/religion conflicts, terrorism, migration, criminal etc.), military intimidation, covert military actions.

The tendency to widen the set of hybrid warfare domains is never ending. In recent times the main idea and spirit of the concept of hybrid warfare allow us to think about putting no limits on the perceptions of threats to national security and defence. That is, we can call on an earlier conflict concept known as “unrestricted warfare”, suggested by two Chinese senior colonels at the end of 20th century (Qiao Liang and Wang Xiangsui). In their book³ “Unrestricted warfare” they offered 24 types of warfare and additionally suggested all possible combinations of them. We think that the modern perception of hybrid warfare tends to contain all forms of unrestricted warfare, while maintaining the original characteristics and a flexible approach.

¹ Mattis, J. and Hoffman, F. “Future Warfare: The rise of Hybrid Wars”, Proceedings Magazine, US Naval Institute, 2005.

² Hoffman, F. “Conflicts in the 21st Century: The Rise of Hybrid Wars”, Potomac Institute for Policy Studies, Arlington, Virginia, 2007.

³ Liang, Q. and Xiangsui, W. “Unrestricted Warfare,” PLA Literature and Arts Publishing House, Beijing, China, 1999.

A working definition of hybrid warfare used here⁴ is as follows: “Hybrid warfare is a postmodern concept of low-intensity conflict, which combines, in a flexible and non-linear way, conventional and non-conventional forms of engagement against defensive capabilities of the targeted state, with a main goal to force the object of hybrid attack to fulfil all demands and wishes of the attacker, while trying to stay hidden, ambiguous, innovative, patient, and not willing to be blamed for crossing the threshold of open conflict.”

ON THE ROLE AND PLACE OF THE MILITARY IN THE HYBRID WARFARE CONTEXT

Some of the novel results⁵ produced by relevant institutions (e.g. the Centre of Excellence for Countering Hybrid Threats), confirm our perception of the development dynamics of the hybrid warfare concept where many activities, military and non-military, could be used as tools for hybrid attacks. Among many possible hybrid activities,⁶ there are some that are directly related and connected with the roles and missions of the armed forces:

- Proliferation of weapons;
- Armed forces’ conventional/sub-conventional operations;
- Paramilitary organizations (proxies);
- Military exercises;
- Airspace violation;
- Territorial water violation;
- Clandestine operations;
- Infiltration;
- Intelligence preparations;
- Electronic warfare operations (jamming, spoofing);
- Cyber operations;
- Physical operations against infrastructure.

Of course, the original list is much longer. The activities listed here are only those where the military was positioned at the first place. The question here is the choice of a particular hybrid activity in a given context. In fact, this question of choice could be put not only in a military aspect but in general for all possible aspects of hybrid threats and hybrid warfare.

Almost infinite combinations of hybrid tools could be generated from the concept of unrestricted warfare, inducing a new problem for making the optimal decision on the appropriate choice among many options. When faced with a lot of options of choice, some kind of systematization is welcomed. Here, it could be useful to connect⁷ with some other conflict concepts. In our case, it is the concept of Warden’s rings.

⁴ Mitrovic, M. and Nikolic, N. “Hybrid Warfare – Contribution to Concept Definition, Content and Models”.

⁵ Giannopoulos G., H. Smith and M. Theocharidou. 2020, “The Landscape of Hybrid Threats: A Conceptual model”.

⁶ Ibid.

⁷ Nikolic, N. Connecting Conflict Concepts: Hybrid Warfare and Warden’s Rings. *Information & Security: An International Journal*, Vol. 41, 2018, 21–34.

ENEMY AS A SYSTEM – THE CONCEPT OF WARDEN’S RINGS

While the concept of unrestricted warfare is very useful in perceiving and understanding the wide scope of possible hybrid methods of threats and violations, the concept known as Warden’s rings may help us in their systematization. The concept of Warden’s rings⁸ helps us answer questions like what kind of “war” could we face, when, why and how, and which part of the targeted society will be attacked by hybrid activities, why, when and how.

John Warden (a US Air Force colonel, one of the main planners of the air operations during the First Gulf War in 1991) proposed a new concept of perceiving an enemy state in the context of making decisions for planning and conducting military operations. He proposed to consider the enemy state as a system, which has several main entities, and displays them in a form of concentric rings:

- The first (external) ring is the fielded military (protection/shield).
- The second ring is the population (body).
- The third ring is infrastructure (non-critical organs that sustain the body).
- The fourth ring is system essentials (critical organs/blood, heart),
- The fifth ring, in the centre, is the leadership (head).

This concept became very popular and is known as Warden’s rings. Although it was developed in a specific context of air operations,⁹ we found it very useful in the context of hybrid warfare. Having in mind the strategic ends, means, and ways, as well as the wider context of the problem, it could be easier to predict which part (or ring) could be violated and how.

SYSTEM THINKING – SMART DECISION-MAKING

As we have seen, there is a complex situation with plenty of possible variations and a wide scope of different domains. Now, we can put any of the 24 types of “war” defined in the concept of “unrestricted warfare” in relations with any of the five main system entities (rings) of a state that is the object of a hybrid violation. Because of the many possible simultaneous combinations, there could be more cases than 24×5 , the complexity of possible situations is evident. There are many possible threats to any part of the targeted society. To stay focused on the role of the armed forces, a question can be formulated as how to prepare defence personnel to face and respond to hybrid threats.

The complexities of dealing with the hybrid warfare phenomenon generates need for:

- Good situation awareness (monitoring, informing, reconnaissance).
- Accurate and timely content analysis and estimations.
- Systematic thinking and analysis.
- Smart decision-making.
- Careful execution.

This approach leads to the need for education and training of senior defence personnel in applications of various methods of strategic management and organizational sciences for successful preparation for countering hybrid threats. The richness of hybrid warfare tools,

⁸ Warden, J. The Enemy as a System. *Airpower Journal*, Spring 1995, 41–55.

⁹ Warden, J. Air Theory for the Twenty-first Century. In *Battlefield of the Future: 21st Century Warfare Issues*, 1995, 103–124. Air War College.

together with the ambiguity of events and behaviour of potential hybrid actors generates confusion in the perception of threats to national security. Therefore, a kind of intellectual exercise is needed to free minds of rigid thinking and initiate an innovative, flexible, and comprehensive approach. Instead of preparing for a single case of hybrid violation, which is not enough, or preparing for all cases of hybrid violations, which is almost impossible, the main goal is the development of capabilities and resilience of defence personnel to timely perceive and manage hybrid threats, and successfully respond to them.

STRATEGIC MANAGEMENT TOOLS

To enhance capabilities for responding to hybrid challenges the combined and iterative application of several methods from the strategic management field, decision-making theory and other disciplines could be beneficial for the initial approach to the problem of dealing with the hybrid warfare phenomenon and to the effective education and training of defence personnel. Some of these methods are:

- MONITORING (situational awareness, observation) is the first step in introducing the problem. All information is welcome, but it is essential that it be relevant, objective, accurate, and unbiased. The information should be comprehensive as well, covering all aspects of interest. The sources of information could be open or classified, news (newspapers, TV, radio, internet), informal statements, speeches, interviews of state leaders; personal relationships among leaders/stakeholders; official statements; academic papers; think tank reports/reviews,¹⁰ special reports/case studies by NGOs, the UN, World Bank, etc., strategic documents, formal agreements.
- CONTENT ANALYSIS. The purpose of content analysis and comparative reviews in basic lessons about hybrid warfare and hybrid threats is to obtain good insight of all relevant aspects of the situation of interest. It requires good capacity for information selection (important/unimportant, relevant/irrelevant, true/false, etc). The information for content analysis should be credible, comprehensive, relevant, unbiased, and up-to-date.
- SCENARIO and role playing are very useful tools for connecting theoretical issues with practical applications that are, in the end, the most important. A scenario obtains insight in the context of the problem under study. Usually, scenarios are prepared by lecturers and course leaders in advance. The main role of a scenario is to present the situation and the problem in a narrative form. Furthermore, a predictive approach is possible, which means that more scenario variants could be generated from the initial one in order to analyse possible future options and consequently to prepare for them.

Additionally, an innovative approach could be applied here. Instead of giving students an already prepared textual scenario, they could be tasked to produce their own scenario by using information collected and selected from several open sources (as it was explained above – methods of monitoring and content analysis). When a scenario is formulated, students could be given different roles for making decisions (example: prime minister, minister of defence or interior, chief of general staff, unit commander, etc). Role playing in a hy-

¹⁰ A good example for the context of conflict at the Western Balkans is the book by Craig Nation, R. “War in the Balkans, 1991–2002”, Strategic Studies Institute, 2003.

pothetical scenario helps students check themselves how they understand the phenomenon of hybrid warfare and how they would communicate and respond to hybrid threats.

A scenario is a textual description of the situation. It should contain all relevant information. For creating a good and comprehensive scenario description, it is of crucial importance to apply various methodological tools of monitoring and content analysis in a skilful and combined manner. After creating the initial scenario as a descriptive presentation of an actual situation, more variants of it can be generated as predictions. Actually, forecasting is the main value of scenario analysis.¹¹ Annex I. at the end of this paper shows an example for an initial scenario:

- PESTLE analysis is the next useful tool. PESTLE analysis stands for analysis of Political, Economic, Social, Technological, Legal, and Environmental issues. This analysis helps us make a comprehensive and structured approach to the problem identified in the exercise scenario. PESTLE should offer a comprehensive, structured and systematic review of all relevant information. Annex II. at the end of this paper shows an example of PESTLE analysis.
- SWOT. The SWOT method is oriented towards identifying weaknesses and vulnerabilities of the country under hybrid threat as described in the scenario, as well as identifying some of its strengths and advantages. SWOT stands for Strength, Weakness, Opportunity and Threat. The priority of a rational and smart hybrid adversary is to find and exploit weak points of the target of hybrid attack and to avoid or neutralize its strengths. In that sense, the attacked country should be aware of its weak points and undertake some preventive steps to strengthen them, or at least to expect hybrid attacks against them. SWOT analysis uses data and information from previous steps and transforms data into a new information structure. The new structure has to clearly point out weaknesses (vulnerabilities) but also some advantages (strengths) of the country under hybrid threat. It also identifies some possible opportunities and probable threats to the security of the country in the given scenario.

If we are to summarize the methodological flow of activities related to the application of the strategic management tools discussed here, then it will be as follows:

- We start with monitoring activities that obtains relevant information collection and selection.
- Then content analysis and comparative reviews follow.
- The next step is initial scenario creation and development of several possible hypothetical variants of the future. Role playing in a hypothetical scenario helps students check themselves how they understand the phenomenon of hybrid warfare and how they would respond to hybrid threats.
- Then a PESTLE analysis follows, which helps developing a comprehensive and structured approach to the problem exposed in the exercise scenario.
- The next step is oriented towards distilling weaknesses and vulnerabilities of the country under hybrid threat, which is described in the scenario, as well as some strengths and advantages of that country in the given scenario. For this step, we use SWOT analysis.

¹¹ Huss, W. "A Move Toward Scenario Analysis", *International Journal of Forecasting*, 4(1988), 377–388.

The power of the methods of strategic analysis lies in their joint application. It is good to note this transformative sequence of successive application of those methods: SCENARIO-PESTLE-SWOT. PESTLE gives a comprehensive and structured presentation of the country's situation, while SWOT distils weak points as well as strong ones. A SWOT analysis obtains a kind of upgrade over the previous step with PESTLE analysis. The practical importance of SWOT analysis lies in the fact that the priority of a smart hybrid adversary is to find and exploit weak points of the object of hybrid attack and to avoid or neutralize the strengths.

Strategic management methods could be used in considering some concrete and actual questions related to the roles and places of the military in contemporary security context in Europe. Some of the possible questions are related to the enlargement of military capabilities of small states through strengthening reserve¹² military forces, territorial defence forces¹³ and considering their roles in war and peace,¹⁴ and even the reintroduction of conscription.¹⁵ Scenario analysis, PESTLE and SWOT methods are good tools to check various options that main stakeholders want to consider.

CONCLUSIONS

Hybrid warfare has evolved through the past two decades towards a wide set of possible modes and models of violation of national security. Earlier concepts of conflicts, together with methods from other fields, like management science and strategic analysis, are useful tools for capability enhancing countering hybrid threats.

The defence and security sectors are not the only ones tasked with defence against hybrid attacks. However, usually they are chosen and mandated to lead defence preparation. Also, interorganizational cooperation is of special importance when countering hybrid threats. Interorganizational cooperation in its wider sense assumes all kinds of inter-agency, inter-ministerial, inter-sectoral, and international cooperation. The richness of possible hybrid threats and the accompanying ambiguity, deception and uncertainty, require that the defender should be well prepared and ready for various options. The hybrid adversary should be perceived as a smart, rational, flexible, cunning and patient player. As such, the hybrid adversary tends to hit the weak points of the defender country and society. PESTLE and SWOT methods are helpful to identify those weak points and obtain directions for building resilience by eliminating those weaknesses.

Good knowledge of other and earlier concepts of conflicts, together with methods from other fields, like management science and strategic analysis, could help the education and training of senior defence and security personnel, and enlarge their analytical capabilities for countering hybrid threats.

¹² Nikolic, N. "Former Soldiers Attitudes Towards Active Reserve Service," XV International symposium, SymOrg-2016, Faculty of Organizational Sciences, 2016, 708–712.

¹³ Takács, G. A. and Kiss Á. P. "Territorial Defence Forces: a key element of Hungary's resilience in postmodern war," Proceedings of the conference on National Resilience: Opportunities and Challenges in a Changing Security Environment, May 9–10, 2018, Budapest, 2018, 295–317.

¹⁴ Kiss, Á. P. "The Role of Territorial Defence Forces in a Peace and War," Proceedings of The 19th Annual Conference of the Conflict Studies Working Group," Budapest, Hungary, 27–31 May 2019, 2020, 159–170.

¹⁵ Nikolic, N. "Models of Selective Military Service in Modern Conditions." *Vojno Delo*, No. 4, a journal of the University of Defence in Belgrade, 2021, 90–109.

ANNEX I.

Example of an initial scenario

The initial scenario is a descriptive and comprehensive presentation of the situation in all relevant aspects in the country under study. It should be generated from various relevant sources of information through a monitoring process.

Country X is strategically determined towards democracy, capitalism and the European integration. But, it is constrained with its hard historical heritage, weak infrastructure, dependency on energy import, high level of corruption, sharp political division, significant percent of ethnic minority Y, and internal reluctance to change. Main economical players in country X are, in its essence, state monopolies or privileged selected private companies. Unemployment is high, wages are low, organized crime is present everywhere and connected with informal centres of power. Country X has received a huge international assistance in money, material, and counselling, however, most of that aid didn't reach the common people and economy but was misused by corrupted political elites.

Country Y is a big and strong neighbour of country X. Both used to be in a common state Z before its dissolution decades ago. Political ambitions, military might, and economic prosperity of country Y generate aspirations of Y to project its influence towards neighbouring countries including X. Poor relations between country Y and the EU make the situation even worse.

In regard of social and ethnic relationships, there are several sharp divisions (political, ideological, regional, and ethnic). Minority Y in country X is strongly supported by its parent country Y (dual citizenship, free scholarships, free health insurance).

ANNEX II.

Example of applied PESTLE analysis¹⁶

Factors	Aspects, forms, actors	Threats and challenges	Deterrence and counters
P-Political	Officials (government leadership, members of parliament...)	Desinformation	Transparency
			Public relations
		Blackmail	HR management
			Public security
		Spin	Responsibility
	Processes (making laws and regulations)	Blocking	Legality
			Negotiations
		Ignoring	Consistency
		Impositions	Lobbying
	International Affairs	Isolation	Allies finding
		Tensional impositions	Active peaceful politics
	Internal Security	Public security erosion	Awareness improvement
		Border porosity	Strengthening border police
		Confusing crisis management	Advancement of procedures and decision maker training
	National Security (Defence)	Arms race	Priorities trade-off
Demobilization forcing		Smart recruitment	
Demilitarization		Optimizing resources	
Bureaucratization		Optimizing management	
Decline of standards		Sustaining high quality	
E-Economic	Public debt	Conditioning	Restrictive budget politics
	GDP	Economic sanctions	Diversification
	Living costs	Monopolies	Liberalization
		Supply chain interruptions	Market stability
			Infrastructure protection
	Inflation, taxes	Distrust	Stability
Unemployment rate	Social turmoil	Economic grow, Social aid	

¹⁶ Nebojsa, N. Comparative Review of Hybrid Warfare and Special Warfare. In Thematic Conference Proceedings of International Scientific Conference “Archibald Reiss Days 2017”, 253–262.

Factors	Aspects, forms, actors	Threats and challenges	Deterrence and counters
S-Social	Values, lifestyle	Corruption	Accountability
		Nepotism	Transparency
		Negative selection	Positive selection
	Cultural identity	Ignoring	Promotion
		Oblivion	Memorial
Education	Erosion	Nurture	
Religion	Mockery	Respect	
T-Technological	Production	Sabotage	Safety prevention measures
		Dirty technology import	High standards requirements
	Power supply	Sabotage	Safety prevention measures
	Water supply	Sabotage	Safety prevention measures
		Pollution	Safety prevention measures
	Research & Development	Obstruction	Cooperation
Theft		Prevention	
L-Legal	Business rules	Unpredictability	Stable, long term
	Taxation rules	Frequent changes	Constant
	Employment rules	Uncertainty	Syndicate strengthens
E-Environmental	Weather & climate	Misuse of disasters	Emergency management
	Pollution, contamination	Man-made accidents	Detection & Warning system
	Infrastructure	Violation	Protection
	Energy availability	Interruption	Diversification

PESTLE analysis could be upgraded with concrete details, such as actors, threats, and possible means. The classical PESTLE analysis can be expanded by adding possible deterrence and countermeasures. This expanded approach of identifying concrete counter measures has good practical value as it offers answers to the identified problems. PESTLE analysis may be prepared as a plain text, in a tabular form as shown here, or in both formats.

ANNEX III.

An example of applied SWOT analysis

SWOT analysis	
(It could be perceived as a 'user-friendly' systematic presentation of the weak and strong points, as well as opportunities and threats)	
STRENGTHS:	WEAKNESSES:
<ul style="list-style-type: none"> – Willingness to change – Good geographical position for transportation and trade between the EU and YY country – Good international position (allies, supporters) – Good education system 	<ul style="list-style-type: none"> – Corruption – Low culture for tolerance of differences – Dissipations of resources due to wrong agenda – Economic weakness – Energy dependence – Overlaps of mandates
OPPORTUNITIES:	THREATS:
<ul style="list-style-type: none"> – International support – Good aspects of historical relations with YY – Geopolitical position as a bridge, instead of as a border wall – Good prospects for international trade 	<ul style="list-style-type: none"> – Obstructions – Sabotage – Deviation of priorities – Ethnic and/or religious violence – Bad aspects of historical relations with YY

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