„CELEK JE VĚTŠÍ NEŽ SOUČET JEHO ČÁSTÍ"
Konceptualizace odolnosti ozbrojených sil vůči hybridnímu působení

"THE WHOLE IS GREATER THAN THE SUM OF THE PARTS"
Towards Developing a Multidimensional Concept of Armed Forces' Resilience Towards Hybrid Interference

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Abstract

In this paper, we contribute to the recent debate on resilience by exploring a specific issue of the armed forces' resilience towards hybrid interference. While hard (or technical) resilience of some hybrid campaign elements such as cyber-attacks has been addressed in the literature, the soft dimension of resilience is seriously underdeveloped. For that purpose, we elaborate on the concept of soft resilience and describe its psychological, institutional, social, and national dimensions. This theoretical discussion enabled us to develop an understanding of resilience in the military as the capacity of the military to fulfil its core mission enabled by physical and moral components of the fighting power and to continually transform and adapt in face of external hostile influence targeting perception and decision-making of the armed forces members and leadership.

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Abstrakt

Článek přispívá k současné debatě o odolnosti zkoumáním toho, co znamená odolnost ozbrojených sil vůči hybridnímu působení. Zatímco výzkumníci zkoumali „tvrdou" (technickou) odolnost některých elementů hybridního působení, jakou jsou kybernetické útoky, „měkká" odolnost zatím nebyla v této oblasti uspokojivě konceptualizována. Za tím účelem text rozpracovává koncept měkké odolnosti prostřednictvím psychologické, institucionální, sociální a národní dimenze. Na tomto základě následně navrhujeme pojetí odolnosti ozbrojených sil jako schopnosti naplňovat svoje hlavní poslání umožněné fyzickou a morální složkou bojové síly a neustále se přetvářet a adaptovat při vystavení vnějšímu nepřátelskému vlivu, který cílí na vnímání a rozhodování příslušníků a velení ozbrojených sil.

Keywords

Resilience; Hybrid Interference; Hybrid Warfare; Armed Forces.

Klíčová slova

Odolnost; hybridní působení; hybridní válčení; ozbrojené síly.

INTRODUCTION

Recently, resilience has become a buzzword in relation to many areas from hybrid threats to climate change or the coronavirus pandemic.[1] It implies accommodating with the idea that certain risks cannot be prevented or eliminated altogether, but instead, we need to learn how to face and absorb them without any significant damage to the constituent elements and values of our society – hence, how to become more resilient. Numerous political declarations and conceptions prove the popularity of the resilience concept, such as the recent NATO "Strengthened Resilience Commitment" or the Czech "National Strategy for Countering Hybrid Interference" elevating resilience to one of its strategic objectives, to name just a few.

On the other hand, the concept has also received a fair share of criticism for its conceptual underdevelopment and vagueness.[2] So far, there has not been any satisfactory solution to the question of what it really means to be resilient in the context of national security and defence. In this paper, we start from the proposition that any meaningful discussion about resilience presupposes a clear delineation of the concept towards the subject to be protected (resilience of what), the threat endangering the entity (resilience towards what), and the harmful impact a higher resilience should prevent.

We focus our attention on the resilience of armed forces towards hybrid threats. For that purpose, the psychological (especially cognitive), institutional, social, and national dimensions of resilience are explored. In the military, mostly psychological (or mental) resilience of soldiers has been so far addressed in terms of extreme stress inherent in the military training and deployment while the armed forces' resilience towards hybrid interference is a new topic rarely discussed. In this sense, the paper is an exploratory study summarising the current theoretical discussion on resilience, which aims at providing an initial examination and understanding of what it means to be resilient

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[1] See CAI, Yanjun. Renaissance of Resilience: A Buzzword or a New Ideal? *Management and Organization Review*. 2020, 16(5), 976-980. ISSN 1740-8776. DOI: 10.1017/mor.2020.46

[2] JORE, Sissel H. Is Resilience a Good Concept in Terrorism Research? A Conceptual Adequacy Analysis of Terrorism Resilience. *Studies in Conflict & Terrorism*. 2020, 1-20. ISSN 1057-610X. DOI: 10.1080/1057610X.2020.1738681; MACKINNON, Danny and Kate Driscoll DERICKSON. From resilience to resourcefulness. *Progress in Human* Geography. 2013, 37(2), 253-270. ISSN 0309-1325. DOI: 10.1177/0309132512454775; REGHEZZA-ZITT, Magali, Samuel RUFAT, Géraldine DJAMENT-TRAN, Antoine LE BLANC, and Serge LHOMME. What Resilience Is Not: Uses and Abuses. *Cybergeo*. 2012, 37(2), 253-270. ISSN 1278-3366. DOI: 10.4000/cybergeo.25554; SCHWARZ, Silke, Samuel RUFAT, Géraldine DJAMENT-TRAN, Antoine LE BLANC, and Serge LHOMME. Resilience in psychology: A critical analysis of the concept. *Cybergeo*. 2018, 28(4), 528-541. ISSN 0959-3543. DOI: 10.1177/0959354318783584; LUSK, Derek and Tomas CHAMORRO-PREMUZIC. The Dark Side of Resilience. *Harvard Business Review* Home [online]. 2017 [cit. 2021-10-7]. Available from: https://hbr.org/2017/08/the-dark-side-of-resilience

towards hybrid warfare in the military context. This effort will be followed up by research on indicators of resilience as part of developing a measurement tool to be used for evaluating the Czech Armed Forces' resilience towards hybrid interference.

METHODOLOGICAL BACKGROUND

The paper aims to answer the following question: "What does the resilience of armed forces towards hybrid interference mean?" For that purpose, we need to delimit the meaning of hybrid interference (the resilience towards what) as well as to specify the constituent elements of the armed forces as the entity to be protected (resilience of what). Since resilience is inherently a multi-dimensional concept, we will differentiate between different types and levels of resilience. As for the types, the theory recognises "hard" (or physical/technical) and "soft" resilience. We limit our attention to the latter concept of soft resilience, which is in the literature further decomposed into psychological, institutional, social, and national resilience. Resilience can be then explored at the micro- (individual), meso- (community), and macro-levels (state/nation).[3]

Hybrid interference

Apart from hybrid interference, different notions such as hybrid threats, hybrid warfare, hybrid war, or hybrid strategy are used to denote the very same phenomenon. The rather neutral notion of hybrid interference will be primarily used in the paper to avoid the more controversial notions of hybrid threats, hybrid war or warfare.[4] An official NATO definition understands hybrid threats as "a type of threat that combines conventional, irregular and asymmetric activities in time and space".[5] In a more elaborate definition containing an enumeration of those activities, NATO understands the phenomenon as a combination of "military and non-military as well as covert and overt means, including disinformation,

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[3] See PADAN, Carmit and Reuven GAL. A Multi-dimensional Matrix for Better Defining and Conceptualizing Resilience. *Connections: The Quarterly Journal*. 2020, 19(3), 33-46. ISSN 18121098. DOI: 10.11610/Connections.19.3.02

[4] PAUL, Christopher. Confessions of a Hybrid Warfare Skeptic: What Might Really Be Interesting but Hidden Within the Various Conceptions of Gray Zone Conflict, Ambiguous Warfare, Political Warfare, and Their Ilk. *Small Wars Journal* [online]. 2016 [cit. 2021-10-7]. Available from: https://smallwarsjournal.com/jrnl/art/confessions-of-a-hybrid-warfare-skeptic; BAHENSKÝ, Vojtěch. PARADOX OF HYBRID WAR: On Causes and Implications of Pragmatism in the Debate. *Obrana a strategie* (Defence and Strategy). 2018, 2018(2), 89-100. ISSN 12146463. DOI: 10.3849/1802-7199.18.2018.02.089-100; STOJAR, Richard. Vývoj a proměna konceptu hybridní války. *Vojenské rozhledy*. 2017, 26(2), 44-55. ISSN 12103292. DOI: 10.3849/2336-2995.26.2017.02.044-055

[5] NATO. *NATO Glossary of Terms and Definitions* (English and French). NATO [online]. 2020 [cit. 2021-10-7]. Available from: https://bit.ly/3lkMjwB

cyber attacks, economic pressure, deployment of irregular armed groups and use of regular forces", which are used to "blur the lines between war and peace, and attempt to sow doubt in the minds of target populations" with the final purpose to destabilise and undermine societies.[6] NATO Defence and Security Committee then understands hybrid warfare as "the use of asymmetrical tactics to probe for and exploit domestic weaknesses via non-military means, backed by the threat of conventional military means." Importantly, the tactics can be scaled and fitted for a particular purpose.[7] Similarly, MCDC underlines the fact, that the actor can either escalate vertically (by increasing the intensity of a given instrument of power) or horizontally (by synchronising multiple instruments of power), which enables him to achieve greater effects.[8] Also, targeting systematic vulnerabilities of the democratic regimes, avoiding detection and attribution, ambiguity and adaptability belong among characteristic features of the phenomenon.

The purpose of such a campaign is to influence decision-making at different levels of government while favouring the adversary's strategic goals. With the goal of influencing decision-making and perception of target audiences, hybrid threats have been also described as information or influence activities creating effects across all dimensions of the information environment (physical, informational, or cognitive).[9] Alternatively, influencing can be approached as just one degree of intensity at the hybrid spectrum spanning from influencing (tolerable hostile activities) through interference (intolerable hostile activities) to warfare (activities triggering conventional response).[10] Conceptualising hybrid interference thus comes with numerous challenges as for its constituting elements as well as the degree of intensity.

Targeting vulnerabilities is one of the defining elements of hybrid interference. The MCDC project on hybrid warfare underlines the importance of conducting a hybrid warfare self-assessment to identify critical functions and vulnerabilities across the PMESII spectrum. In this sense, the military is a critical function with its vulnerabilities that the adversary could attempt to exploit.[11]

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[6] NATO. NATO's response to hybrid threats. NATO [online]. 2021 [cit. 2021-10-7]. Available from: https://www.nato.int/cps/en/natohq/topics_156338.htm

[7] CALHA MIRANDA Julio. Hybrid Warfare: NATO's New Strategic Challenge? NATO Parliamentary Assembly [online]. 2015 [cit. 2021-10-7]. Available from: https://bit.ly/3mzPvE0

[8] MONAGHAM, Sean et al. MCDC Countering Hybrid Warfare Project: Understanding Hybrid Warfare. MCDC [online]. 2019 [cit. 2021-10-7]. Available from: https://bit.ly/3Dk8B7J

[9] ADAY Sean et al. *Hybrid Threats. A Strategic Communications Perspective*. NATO Strategic Communications Centre of Excellence. ISBN 978-9934-564-33-8. Available from: https://bit.ly/2YCrfJf

[10] Hybrid COE, 2021. *COI Hybrid Influence*. Hybrid COE [online]. [cit. 2021-10-7]. Available from: https://www.hybridcoe.fi/coi-hybrid-influencing/

[11] See GILES, Keir 2016. *The Next Phase of Russian Information Warfare*. Riga: NATO Strategic Communications Centre of Excellence.

The concept of resilience

Although originating in the discipline of ecology, the concept of resilience has since then migrated into numerous disciplines, including the field of national security and defence. Ecological resilience has been understood as the "capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks".[12] The same definition now applies to social systems. Resilience is thus always about a system's capacity "to absorb shocks and bounce back into a functioning shape" or at least "prevent stress fractures or even system collapse".[13] Other definitions broaden the concept beyond absorbing the shock or disturbance to also anticipating it, resisting, responding, and adapting to or recovering from it. It follows from this enumeration that resilience applies to threats that cannot be entirely eliminated and prevented, which then requires the system to possess some ability to face the inevitable shock without any significant consequences for its functioning and values. To sum up, the definitions differ in (1) the type of reaction the system is expected to have (such as to anticipate, resist, absorb, adapt) and (2) the state or shape which the system maintains or ends up after having encountered the disturbance. First, we will explore what these elements mean across four different dimensions of resilience – psychological, institutional, social, and national with a particular emphasis on their meaning vis-à-vis hybrid interference. Second, we will specify what resilience means in the military.

On a side note, we have to distinguish resilience from resistance. Swedish Defence University defined the latter concept as "the natural response of a sovereign government and its people when faced with a threat to their sovereignty and independence".[14] In this sense, resilience is a more appropriate concept for hybrid interference that thrives on ambiguity and operates below the detection and attribution levels by minimising the use of military instruments and maximising the effort of influencing target audiences by soft, non-military means. Also, the distinction between "hard" and "soft" resilience is pertinent here, with the former referring to infrastructure and assets and the latter to communities and individuals.[15] A similar distinction exists between technical and

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[12] WALKER, Brian, C. S. HOLLING, ARPENTER, Stephen, KINZIG, Ann. Resilience, adaptability and transformability in social–ecological systems. *Ecology and Society*. 2004, 9(2): 5. Available from: https://www.ecologyandsociety.org/vol9/iss2/art5/

[13] OMAND, David. Developing national resilience. *The RUSI Journal*. 2005, 150(4), 14-18. ISSN 0307-1847. DOI: 10.1080/03071840508522884

[14] FIALA, Otto C., 2019. *Resistance Operating Concept*. Stockholm: Swedish Defence University. ISBN 978-91-86137-93-9. Available from: http://www.diva-portal.org/smash/get/diva2:1392106/FULLTEXT01.pdf

[15] KAHAN, H. Jerome, ALLEN, C. Andrew, George K. Justin. An Operation Framework for Resilience. *Journal of Homeland Security and Emergency Management*. 2009, 6(1). Available from: https://bit.ly/3uYLGfq

organisational resilience. While technical resilience refers to the technological and physical protection and is determined by the robustness and recoverability of system elements, the organisational resilience rests on organization management and is determined by "the level of an organization's internal processes whose core purpose is to create optimum conditions for the adaptation" of the system.[16,17] In this study, we limit the scope to soft resilience, which means that we only take account of hybrid interference targeting people mostly through their cognition. However, a complex examination of the armed forces' resilience towards some of the hybrid interference elements, such as cyber-attacks, would need to take into account the organizational as well as technical aspects of resilience.[18]

FOUR DIMENSIONS OF RESILIENCE

Psychological resilience

At the psychological level, the resilience of an individual is understood either as (1) *a personal configuration* – an endogenous factor; (2) an exogenous factor including interactions with the environment (family, community, or society) and thus a *process*; or (3) a positive *outcome* that materialises only after having encountered adversity. Overall, resilience is about "an individual's ability to properly adapt to stress and adversity". For this purpose, a person can mobilise resources at different levels – internal as well as external. As such, resilience is a multi-dimensional concept that needs to be

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[16] REHAK, David, Pavel SENOVSKY, and Simona SLIVKOVA. Resilience of Critical Infrastructure Elements and Its Main Factors. *Systems*. 2018, 6(2). ISSN 2079-8954. DOI: 10.3390/systems6020021
[17] Other sources identify two other fields of critical infrastructure resilience besides the technical and organisational – namely human and economic.
CURT, Corinne and Jean-Marc TACNET. Resilience of Critical Infrastructures: Review and Analysis of Current Approaches. *Risk Analysis*. 2018, 38(11), 2441-2458. ISSN 02724332. DOI: 10.1111/risa.13166
[18] For instance, Řehák et al. have used the threat of cyber-attacks in a form of SCADA system disruption as an element of critical infrastructure resilience to assess the three concepts of robustness, recoverability and adaptability with the first two determining the technical dimension and the last one the organisational dimension of resilience. Moreover, the specific concept of cyber-physical resilience has been recently developed.
REHAK, David, Pavel SENOVSKY, Martin HROMADA, and Tomas LOVECEK. Complex approach to assessing resilience of critical infrastructure elements. *International Journal of Critical Infrastructure Protection*. 2019, 25, 125-138. ISSN 18745482. DOI: 10.1016/j.ijcip.2019.03.003
MEHRDAD, Sarmad, Seyedamirabbas MOUSAVIAN, Golshan MADRAKI, and Yury DVORKIN. Cyber-Physical Resilience of Electrical Power Systems Against Malicious Attacks: a Review. *Current Sustainable/Renewable Energy Reports*. 2018, 5(1), 14-22. ISSN 2196-3010. DOI: 10.1007/s40518-018-0094-8

simultaneously examined at different levels. *Protective factors* stand at the forefront of psychological resilience research. Dyer and McGuiness (1996) define them as "specific competencies that are necessary for the process of resilience to occur", while *competencies* are "the healthy skills and abilities that the individual can access" in the individual, interpersonal and familial dimensions. The literature identifies dozens of protective factors including the sense of belonging, social support, self-efficacy, social support, or sense of humour. To sum up, psychological resilience refers to the coping capacities an individual has at his disposal and which they can draw from different sources – internal or external to that person.

As for hybrid interference, the notion of cognitive resilience has been gaining a foothold in the academic vocabulary recently mostly in reference to disinformation and propaganda. Splidsboel Hansen defines the concept as "the ability to withstand pressure from various ideas spread". Cognitive resilience is akin to a "firewall" at both collective and individual levels, which "prevents the disinformation from taking root and being internalised by members of the target audience", at the same time allowing for the free flow of information including the harmful ones.[19] Other authors liken the concept to a vaccination that "makes potential receivers [of propaganda] immune",[20] while conceding that, unlike conventional viruses, the recognition of the harmful effect by the receiving body can be more nuanced and even welcomed by a segment of the society.[21] At the practical level, cognitive resilience is mostly associated with critical thinking enabling the audience to build awareness of propaganda and disinformation and to distinguish between facts and fiction.[22] Cognitive resilience thus presents a specific attribute of an individual's capacities to deal with external pressure that targets cognition of the given population as part of a hybrid campaign.

In the military, psychological resilience has been typically attributed to a soldier who "is able to experience stressors (as in combat conditions) and perform his duties and tasks in a reasonably normal fashion, and later, not display any negative consequences, such as

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[19] SPLIDSBOEL Hansen, Flemming. Russian hybrid warfare: A study of disinformation. *Danish Institute for International Studies (DIIS)*. 2017, DIS report No. 2017:06, ISBN 978-87-7605-880. Available from: https://www.econstor.eu/bitstream/10419/197644/1/896622703.pdf

[20] TRENZ, Hans-Jörg, Annett HEFT, Michael VAUGHAN, and Barbara PFETSCH. Resilience of Public Spheres in a Global Health Crisis: the Finnish approach to building digital resilience. *Javnost - The Public*. 2021, 28(2), 111-128. ISSN 1318-3222. DOI: 10.1080/13183222.2021.1919385

[21] BJOLA, Corneliu, Krysianna PAPADAKIS, Peter VAN AELST, and Bruria ADINI. Digital propaganda, counterpublics and the disruption of the public sphere: the Finnish approach to building digital resilience. *Cambridge Review of International Affairs*. 2020, 33(5), 638-666. ISSN 0955-7571. DOI: 10.1080/09557571.2019.1704221

[22] SPLIDSBOEL, ref. 16.

posttraumatic stress reactions or similar symptomatology".[23] The protective factors of the individual service members can be again derived from different sources. Kamphuis, Venrooij, and van den Berg developed a model of psychological resilience consisting of five levels of resilience: the *individual* (traits and abilities), the *home front* (support from family or friends), and through the military service, the individual's resilience can be affected at the level of the *team* (group cohesion, camaraderie, etc.), the *leader* (leadership provided by the leader or instructor), and the *organization* as a whole (reliability, work-life balance). These five elements together provide 25 resilience-enhancing factors.[24] Resilience-promoting factors in the military have been researched extensively.[25]

Only rarely have researchers addressed psychological resilience of the armed forces towards hybrid interference. In his paper, Daskalov admits that adapting the military to "hybrid war" would be "very challenging to the military training system, which is recognized as promoting more obedience, conformity, and compliance instead of initiative, creativity, and critical thinking". He advises that resilience, together with traditional and new skills, should be part of the military training, while by new skills he means the "mental agility and tolerance to ambiguity to recognize and quickly adapt to the unknown and unexpected". The author urges the Bulgarian military to promote the psychological resilience of its service members and identifies the following core competencies to be enhanced through resilience training – self-awareness, self-regulation, optimism, mental agility, and character strengths.[26] Similarly, Anton claims that the military should adopt "hybrid pedagogies" for a hybrid war that would put more stress in the military training and education on "critical thinking, problem-solving, communication and cross-cultural competence, interpersonal skills and cultural flexibility, tolerance for ambiguity and needed changes, self-regulation, and social initiative and to avoid promotion of obedience and non-rational compliance by education" – all to ensure a cognitive readiness of the military personnel.

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[23] GAL, Reuven. Social Resilience in Times of Protracted Crises: A Buzzword or a New Ideal? *Management and Organization Review*. 2014, 40(3), 452-475. ISSN 0095-327X. DOI: 10.1177/0095327X13477088

[24] KAMPHULS, Wim, VENROOIJ, Ward. A Model of Psychological Resilience for the Netherlands Armed Forces. *Militaire Spectator*, 181, 11, 495. Available from: https://bit.ly/3Fu74ha

[25] See MEREDITH, Lisa S. et al. *Promoting Psychological Resilience in the U.S. Military*. RAND: Center for Military Health Policy Research, 2011. Also available from: https://www.rand.org/pubs/monographs/MG996.html

[26] DASKALOV, Krassen. Hybrid Warfare and The Challenge it Poses to Psychological Resilience Training in the Bulgarian Military. *Information & Security: An International Journal*. 2018, 39, Issue 3, 197-205. Available from: https://bit.ly/3AlvDJA

Institutional resilience

Institutions are also systems that have a certain degree of resilience towards external threats. However, this strand of research is sparse when compared to psychological or social resilience and even definitions of this concept are hard to come by. For instance, Steinberg postulates that "an institution is resilient to the extent that it maintains its effectiveness over time despite changing external conditions". Effectiveness then refers to "the extent to which the institution fulfils the core mission envisioned by its founders".[27,28] Any public organisation needs to be agile and adaptive to the changing external conditions to remain effective, including the armed forces usually considered a conservative and slow-changing institution.

The resilience of military or political-military institutions, such as armed forces or NATO, can be explored. NATO put resilience firmly on its agenda in the context of hybrid warfare. In its 2016 "Commitment to Enhance Resilience," it underlined its resolution "to maintain and further develop our individual and collective capacity to resist any form of armed attack" in the sense of the Article 3 of the Washington Treaty (known as the "resilience article") and to enhance resilience against the full spectrum of threats.[29] NATO perceives this capacity as essential for deterrence and defence as well as for the fulfilment of its core tasks. Resilience has been mostly related to civil preparedness, for which the Alliance developed seven baseline requirements in the following areas – continuity of government and government services (for instance, the ability to make decisions), energy supplies, uncontrolled movement of people, food and water resources, mass casualties, civil communication systems and civil transportation systems.[30]

Shea (as cited by Šedivý) identifies two objectives of the NATO resilience – first is the ability to move all the forces and equipment to any part of the Alliance and to ensure full access to the needed infrastructure, and the second one is the ability to face hybrid attacks "with a minimum disruptive impact on the Alliance's social, political and military cohesion". Clearly, external hostile influence currently represents the greatest threat to NATO's cohesion.[31] However, the requirements mostly ignore the cognitive dimension of hybrid interference apart from the continuity of government. Nonetheless, the Alliance's

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[27] STEINBERG, Paul. Institutional Resilience Amid Political Change: The Case of Biodiversity Conservation. *Global Environmental Politics*. 2009, 9(3):61-81. DOI: 10.1162/glep.2009.9.3.61
[28] Steinberg developed this notion of resilient institutions with a focus on creating resilient institutions for the long-term conservation of biological diversity.
[29] NATO. Commitment to enhance resilience. *NATO* [online]. 2016 [cit. 2021-10-7]. Available from: https://www.nato.int/cps/en/natohq/official_texts_133180.htm?selectedLocale=en
[30] NATO. Resilience and Article 3. *NATO* [online]. 2021 [cit. 2021-10-7]. Available from: https://www.nato.int/cps/en/natohq/topics_132722.htm
[31] MZV ČR. Jiří Šedivý: Security and Resilience in the context of NATO-EU cooperation. *MZV ČR* [online]. 2016 [cit. 2021-10-7]. Available from: https://bit.ly/3li8fZg

"Commitment" contains the "soft" dimension of resilience when referring to "principles of individual liberty, democracy, human rights, and the rule of law". It follows from the wording in the document that these principles can be thought of as protective factors (as "the foundation of resilience") and at the same time, as the factors to be protected by enhanced resilience. Overall, at the NATO level, the cognitive dimension of resilience seems to be seriously underdeveloped.

Social resilience

Most sources associate social resilience with society, which makes it hardly distinguishable from national resilience. However, the former may as well apply to any collective entity beyond that of the whole society. Gal delimits the concept by three distinct features of the society's capacity to act when facing a disaster, which is the capacity to (1) "maintain its functions, or to contain a disaster or a series of catastrophes, in an adaptive manner"; (2) "to react to a disaster in accordance with its severity and magnitude"; and finally (3) to "bounce back" to a normal or even improved level of functioning.[32] As for protective factors, social relations inside the group are the key constituting factor of social resilience and they can further amplify the psychological resilience of an individual at the more basic level.[33] In this context, the concept of social cohesion has the greatest salience. Belonging and integration of the individual are also of huge importance for social resilience.

The multidimensional character of the concept has been recognized, which further complicates any efforts to measure or evaluate its level.[34] Copeland et al. point to the importance of addressing specifically what counts as the community demonstrating social resilience and whether in the given case, certain relationships between groups – whether structural, familial, religious, matter more than others.[35] Apart from protective factors, we should equally account for risk factors of resilience.[36]

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[32] GAL, Reuven. Social Resilience in Times of Protracted Crises: A Buzzword or a New Ideal? *Management and Organization Review*. 2014, 40(3), 452-475. ISSN 0095-327X. DOI: 10.1177/0095327X13477088

[33] Seen from the level of individuals, we can also understand the concept as the "capacity to mobilize their social capital to absorb, cope with and adapt to disruptive events and external threats".

[34] See LINKOV, Igor, PALMA-OLIVEIRA Manuel José, 2017. *Resilience and Risk*. Springer, Dordrecht. Available from: https://link.springer.com/book/10.1007%2F978-94-024-1123-2

[35] COPELAND, Samantha, Tina COMES, Sylvia BACH, Michael NAGENBORG, Yannic SCHULTE, and Neelke DOORN. Measuring social resilience: Trade-offs, challenges and opportunities for indicator models in transforming societies. *International Journal of Disaster Risk Reduction*. 2020, 51(3), 452-475. ISSN 22124209. DOI: 10.1016/j.ijdrr.2020.101799

[36] For protective factors against disinformation see HUMPRECHT, Edda, Frank ESSER, Peter VAN AELST, and Bruria ADINI. Resilience to Online Disinformation: A Framework for Cross-National

In the field of national security, academic literature mostly examined social resilience in relation to natural disasters, terrorism, conflicts, or the recent coronavirus pandemic. Recently, the greatest wave of interest in the subject came with the politicisation of hybrid interference following the Russian intervention in Ukraine. In this context, the importance of social resilience when facing hybrid threats has been acknowledged. For instance, de Coning referred to civilian resilience as "the ability of a society to prevent, manage and recover from hybrid attacks without losing its essential values, cohesion and identity".[37] Similarly, Kalniete and Pildegovičs used the definition of resilience (with no modifier) to hybrid threats by Dunay and Roloff as the ability to "to deter, resist and overcome the impact of external interference, particularly in terms of demonstrating institutional capacity, good governance and societal cohesion",[38] which puts at the forefront not only social relations but also institutions that should serve the society.

National resilience

A relatively recent is the academic focus on the concept of national resilience, which, nevertheless, has been addressed before as part of social resilience as reflected in the national resilience definitions that make it hardly distinguishable from the former concept. One of them defines national resilience as "the ability of a society to withstand adversities and crises in diverse realms by implementing changes and adaptations without harming the society's core values and institutions".[39] Nevertheless, Kimhi et al. argue that this concept is "probably the most elusive concept of resilience" as apart from the ability to withstand adversity, while keeping the values and institutions of the entity intact, it should also account for the ability of a society to "cope with a changing, sometimes hostile environment by changing and readjusting in new innovative way".[40] Moreover, what makes this strand of resilience research distinctive is the effort to bridge the macro-level of national resilience and micro-level of individuals. Canetti called for expanding the existing understanding of national resilience to include also political-psychological components as the basis of citizens' perceptions of national resilience.

Comparative Research. *The International Journal of Press/Politics*. 2020, 25(3), 493-516. ISSN 1940-1612. DOI: 10.1177/1940161219900126

[37] CONING, Cedric, 2021.*Strengthening the resilience and adaptive capacity of societies at risk from hybrid threats*. Hybrid COE. Available from: https://1url.cz/PKT31

[38] KALNIETE, Sandra a Tomass PILDEGOVIČS, 2021. Strengthening the EU's resilience to hybrid threats. *European View*. 20(1), 23-33. ISSN 1781-6858. DOI: 10.1177/17816858211004648

[39] CANETTI, Daphna, Israel WAISMEL-MANOR, Naor COHEN, and Carmit RAPAPORT. "What Does National Resilience Mean in a Democracy? Evidence from the United States and Israel." *Armed Forces & Society*. 2014. 40(3), 504–520. https://www.jstor.org/stable/48609337.

[40] KIMHI, Shaul, Yohanan ESHEL, Mooli LAHAD, Dimitry LEYKIN, and Serge LHOMME. National Resilience: A New Self-Report Assessment Scale. *Community Mental Health Journal*. 2019, 55(4), 721-731. ISSN 0010-3853. DOI: 10.1007/s10597-018-0362-5

Among them, components such as perceived threats, optimism or public attitudes dominate.

Kimhi and Eshel have developed different versions of a national resilience scale.[41] These assessments elaborate on the work of Ben-Dor et al., who identified four main components of national resilience – patriotism, optimism, social integration, and trust in political and public institutions. These factors were then further developed under the umbrella of national resilience *promoting factors* and complemented by *suppressing factors* such as distress symptoms and a sense of danger. An additional set of demographic characteristics including political attitudes, religiosity or income were simultaneously used as *predictors* of resilience in the survey. This approach reflects the understanding of national resilience as "the balance of perceived national strength and vulnerability after an adversity or a traumatic event",[42] in which feelings of vulnerability are acknowledged as an inseparable part of rebounding after the event.[43] For measurement purposes, the national resilience score is divided by the reported sense of danger to gain a more accurate representation of the overall degree of resilience. As for the resilience indicators, recent research has shown that a crucial component of national resilience is the level of trust of citizens in national leadership and institutions and civil society institutions.[44] This emphasis on an individual's political attitudes underlines the specificity of the national resilience concept vis-à-vis the more generic social resilience.

Under the auspices of the Henry Jackson Society, another national resilience index has been developed in order to indicate how the 10 selected democracies might perform after a crisis. The National Resilience Index (NRI) is a combination of three layers – societal (such as social trust in existing structures or democracy), governance (stability of existing institutions or government capacity to respond to a crisis) and the support system (altruism or public optimism when facing a crisis). It comprises ten indicators: trust in civil society; trust in democratic governance; trust in law and order; critical

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[41] KIMHI, Shaul, Yohanan ESHEL, Mooli LAHAD, Dimitry LEYKIN, Yannic SCHULTE, and Neelke DOORN. National Resilience: A New Self-Report Assessment Scale. *Community Mental Health Journal*. 2019, 55(4), 721-731. ISSN 0010-3853. DOI: 10.1007/s10597-018-0362-5
KIMHI, Shaul, Yohanan ESHEL, Mooli LAHAD, Dimitry LEYKIN, Yannic SCHULTE, and Neelke DOORN. Measuring national resilience: A new short version of the scale (NR-13). *Journal of Community Psychology*. 2019, 47(3), 517-528. ISSN 00904392. DOI: 10.1002/jcop.22135
[42] In other words, national resilience always consists of protective as well as risk factors.
[43] ESHEL, Yohanan and Shaul KIMHI. A New Perspective on National Resilience: Components and Demographic Predictors. Journal of Community Psychology. 2016, 44(7), 833-844. ISSN 00904392. DOI: 10.1002/jcop.21811
[44] KIMHI, Shaul, Yohanan ESHEL, Hadas MARCIANO, and Bruria ADINI. Fluctuations in National Resilience during the COVID-19 Pandemic: Components and Demographic Predictors. *International Journal of Environmental Research and Public Health*. 2021, 18(8), 833-844. ISSN 1660-4601. DOI: 10.3390/ijerph18083876

infrastructure; technological prowess; government capacity; altruism; population resilience; national identity and belonging; and public optimism and national happiness with each of them decomposed into three sub-indicators for which a weight of 30 or 40% has been assigned.

RESILIENCE TOWARDS HYBRID INTERFERENCE

The literature review above shows the complexity of the resilience concept and the need to approach multiple levels simultaneously. Moreover, the concept seems more developed for acute risks and shocks than for chronic or slow-moving threats such as hybrid interference sometimes referred to as a "death by thousand cuts". As we have seen, definitions of resilience in the context of hybrid threats emphasise the ability to withstand external pressure – at the spectrum from deterring, through resisting towards overcoming it – while protecting its core elements such as identity, cohesion, values, or good governance and institutional capacity. These elements form part of the national and social levels of resilience, while at the individual level novel approach of cognitive resilience has been recognised. Armed forces come to the fore as part of the institutional capacity. Individual armed forces' members form an integral part of this capacity but at the same time, they have different sources of resilience as citizens – members of the society. Below, we elaborate on what resilience means in the military.

Core elements of resilience in the military

Above, we have concluded that the concept of resilience relates *a kind of reaction* of a given system to a crisis with *a state of the system* in terms of its functions or character. We should now transfer those elements to the specific context of armed forces. The military has a certain degree of resilience as an institution that is more than a sum of its parts (units or individuals), while the individual level cannot be ignored either and will be addressed below. We offered an understanding of institutional resilience as maintaining effectiveness that is understood as the fulfilment of its core mission. For the Czech Armed Forces, the Law on Armed Forces defines its essential mission as "to prepare for the defence of the Czech Republic and to defend it against external attacks".[45] Moreover, tasks resulting from international treaties and commitments of the Czech Republic to collective defence also belong to its core mission. Resilient armed forces should be thus able to maintain a specific set of capacities that are essential for fulfilling this mission.

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[45] PARLAMENT ČR. *Zákon č. 219/1999 Sb., o ozbrojených silách České republiky*. Praha, 2019. Also available from: https://www.zakonyprolidi.cz/cs/1999-219

Military doctrines refer to this overall capability of armed forces to perform their main tasks as the "fighting power"[46] formed by three components – mental or moral ("the ability to get people to fight"), physical ("the means to fight"), and conceptual ("the thought process").[47] The physical component comprises factors such as manpower, equipment, or readiness. The latter is essential and in fact, the US perceives readiness as "what makes our Army credible" and underlines the readiness for ground combat as the army's first priority.[48]

Given that hybrid interference aims at influencing the perception and decision-making of the adversary, the moral component seems to have the greatest importance for the armed forces' resilience. The constituent elements of resilience towards hybrid threats (see definitions above) underline exactly the components like cohesion or identity that are essential for the moral component of fighting power. The UK Defence Doctrine decomposes this moral dimension into three different functions: moral cohesion ("prepared to fight"), motivation ("enthused to fight"), and leadership such as moral cohesion – including esprit de corps; fighting spirit, moral integrity, motivation, leadership, or perception. Importantly, managing and enhancing morale is essential for ensuring combat readiness as the physical component of the fighting power.[49] Furthermore, we can explore the morale at the level of the armed forces as a whole, military units, or individual soldiers. The morale of the deployed troops is one of the expected targets of hostile foreign influence, as has already been the case in the past.[50]

Soldiers' values are necessarily interwoven with different elements of the moral component of the fighting power. The extremely demanding and even life-threatening tasks of the military require that each soldier lives up without reservations to a unique set of values which are then reflected in the military culture and traditions including the

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[46] Netherlands Ministry of Defence. *Defence Doctrine Netherlands Defence Doctrine*. Ministry of Defence [online]. 2019 [cit. 2021-10-7]. Available from: https://bit.ly/3lkBfPZ

[47] MINISTRY OF DEFENCE. *Joint Doctrine Publication 0-01: UK Defence Doctrine: Joint Doctrine Publication 0-01 (JDP 0-01) (5th Edition)*. 2014. Also available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/389755/20141208-JDP_0_01_Ed_5_UK_Defence_Doctrine.pdf

[48] U.S. ARMY. *Army Doctrine Publication No. 1*. 2019. Also available from: https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN18008_ADP-1%20FINAL%20WEB.pdf

[49] VAN 'T WOUT, M. C. and G. A. J VAN DYK, 2015. Managing Morale on the Battlefield: A Psychological Perspective. *Scientia Militaria - South African Journal of Military Studies*. 43(1). ISSN 2224-0020. DOI: 10.5787/43-1-1112

RAK, Tomáš. *Příručka vojáka AČR*. 3. Vyškov: Institut doktrín VeV – VA, 2009, p. 6. Available from: https://1url.cz/6KsqD

[50] See FITZPATRICK, Meghan. *Sowing Discord, Countering Fear: Force Protection and Resilience to Disinformation*. DRDC Centre for Operational Research and Analysis [online]. 2020[cit. 2021-10-7]. Available from: https://cradpdf.drdc-rddc.gc.ca/PDFS/unc352/p812625_A1b.pdf

oath of enlistment.[51] These values include personal courage – moral as well as physical, discipline or duty, respect for others, integrity, loyalty, selfless commitment, and honour.[52] All these values are a necessary requirement for the warrior ethos, which embodies ideals as well as duties of the military profession and most importantly the soldiers' readiness to fight and even die for their country.[53] In fact, hostile influence activities in the form of disinformation campaigns have already attempted to create the perception that the targeted soldiers have violated some of those values like integrity or respect of others through false stories of alleged criminal activities of the deployed soldiers in the Baltic states.[54]

In summary, in the military – an institution sui generis, resilience can be understood as the capacity to maintain its core mission when facing adversity. For the armed forces, fighting power as the capability to fulfil its core mission is most importantly represented by combat readiness and heavily supported by a moral component including different functions and values. Those morale-related components belong to the individual level of soldiers who - in terms of psychological resilience – have a set of specific competencies resulting from their character as well as interactions with different social groups. Apart from the military values, important elements of morale such as cohesion or motivation can be also supported by non-military psychological competencies, for instance, sense of humour or self-efficacy. While not being necessary for the fighting power, these can play the role of additional individual-level protective factors. This is reflected in the Army Doctrine Publication, which emphasises the need for "[s]oldiers with physical and moral courage, the ability to think critically and creatively, and the resilience to endure hardship" to enhance the armed forces' collective strength.[55] The need to search for sources of soldiers' resilience beyond the military further complicates the effort to properly define the armed forces' resilience.

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[51] On the other hand, intentionally degrading and violating those values may indicate a social pathology on the part of that individual. See KRAUS, Josef. Religious Extremism as a Cause of Armed Conflicts: Indicators and Early Warning Systems. *Vojenské rozhledy*. Brno, 2019, 28(3), 16-25. DOI: 10.3849/2336-2995. 28. 2019.03.016-025

[52] THE BRITISH ARMY. Values and Standards of the British Army. *The British Army*. 2020 [cit. 2021-10-7]. Available from: https://www.army.mod.uk/media/5219/20180910-values_standards_2018_final.pdf
U.S. Army. Values. *U.S. Army*. 2020 [cit. 2021-10-7]. Available from: https://www.army.mil/values/index.html

[53] ARMÁDA ČESKÉ REPUBLIKY. *Doktrína AČR*. Praha, 2019.

[54] HARKINS, Gina. Fake News Is Wreaking Havoc on the Battlefield. Here's What the Military's Doing About It. *Military.com* 2020 [cit. 2021-10-7]. Available from: https://www.military.com/daily-news/2020/08/16/fake-news-wreaking-havoc-battlefield-heres-what-militarys-doing-about-it.html

[55] U.S. ARMY. The Army. *U.S. Army*. 2020 [cit. 2021-10-7]. Available from: https://bit.ly/3ahiNRX

Finally, the role of soldiers as members of the nation – citizens, cannot be ignored. The concept of national resilience offers an understanding of the interrelationships between the micro-level of individuals and macro-level of a state, in which factors such as the trust in national leadership or patriotism come to the foreground. In this sense, we need to be aware of potential disruptions of the military morale caused by political or societal factors such as when the soldiers do not share threat perceptions of their political leaders or when they feel the public does not support the military deployment.[56]

CONCLUSION: TOWARDS AN INITIAL UNDERSTANDING OF ARMED FORCES' RESILIENCE TOWARDS HYBRID THREATS

This paper attempted to remedy the existing gap in the public debate on resilience which remains mostly vague on its precise meaning as for the "of what" and "towards what" of resilience. For that purpose, we have delimited the study to the armed forces as the entity to be protected and hybrid interference as the risk for which the entity is in need of greater resilience. This comes with its challenges as both concepts – resilience and hybrid interference – are considered theoretically underdeveloped and contentious. However, as both are at the same time more and more firmly rooted in the political and military discourse and conceptual documents, the efforts to better understand their content should not be abandoned.

Based on the above discussion, we offer a working definition of armed forces' resilience towards hybrid interference as *the capacity of the military to fulfil its core mission enabled by physical and moral components of the fighting power and to continually transform and adapt in face of external hostile influence targeting perception and decision-making of the armed forces members and leadership*. The resulting concept needs to take account of several dimensions of armed forces' resilience: individual and institutional, each deriving their strengths (protective factors) and vulnerabilities from different sources. For instance, a soldier draws resources of its resilience at the psychological level – both as a private person and as a service member, as well as at the social level through interactions at the "home front" and through his allegiance to the military including his team/unit, and finally at the national level through his political attitudes towards the state and its institutions. The military as the organisation will then build its resilience through the sum of its members as well as its leadership and the public and political support and the legitimacy it enjoys.

It is important to note that this working definition only offers an initial understanding to initiate further discussion and research on the topic. Another step of this project is to explore in more detail what forms of hybrid interference – especially the campaigns

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[56] NETHERLANDS MINISTRY OF DEFENCE, ref. 43.

targeting military personnel – take, which should then reveal what elements of the armed forces' fighting power could be most affected. In this sense, an encounter with the reality of hybrid interference will allow us to elaborate on the initial working definition towards developing a multidimensional concept of the armed forces' resilience with a clear specification of the protective factors as well as vulnerabilities throughout all levels.