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The Dragon's Overwatch: Chinese Private Security Expansion in Latin America and the Caribbean

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Abstract

This scholarly disquisition furnishes a comprehensive exploration of the burgeoning presence of Chinese private security companies (PSCs) across Latin America and the Caribbean (LAC), delving into the strategic repercussions for regional security architectures and national sovereignty imperatives. Employing a meticulous qualitative methodology encompassing a thorough literature review, policy document analysis, and an examination of Chinese-language sources, the research elucidates the salient drivers catalyzing this phenomenon. These precipitating factors span cultural affinities, economic motivations, geopolitical ambitions, and the exigent security challenges besetting Chinese commercial entities operating within the LAC region. The operational modes of Chinese PSCs are subjected to forensic scrutiny, illuminating their diverse service offerings, geographical permeation across the region, and the obstacles they confront. Furthermore, the inquiry contextualizes the issue within the broader geopolitical milieu, accentuating concerns regarding transparency lacunae, regulatory deficiencies, and potential avenues for Chinese intelligence and military machinations, thereby potentially destabilizing the regional equilibrium. Ultimately, the research culminates in a series of substantive policy prescriptions aimed at mitigating risks, fortifying regional stability, and safeguarding national sovereignty through capacity-building initiatives, constructive engagement with Beijing, enhanced transparency mechanisms, and robust regional cooperation frameworks.

Keywords:

Chinese Private Security Companies (PSCs); Latin America; Belt and Road Initiative (BRI); Geopolitical Strategy; Global Security Dynamics.

Literature Review

The expansion of Chinese private security companies (PSCs) in Latin America and the Caribbean has emerged as a significant development in the realm of international security and geopolitical dynamics. This literature review synthesizes key insights from recent studies, reports, and scholarly articles to provide a comprehensive understanding of this phenomenon.

1. Overview of Chinese Private Security Companies (PSCs)

Chinese PSCs have been proliferating globally, particularly in regions where China has substantial investments. Markusen (2022) describes the quiet yet rapid growth of Chinese PSCs, highlighting their role in safeguarding Chinese nationals and assets abroad. These companies have become essential components of China's broader security strategy, as detailed by Heath (2018), who explores China's pursuit of overseas security through various mechanisms, including the deployment of PSCs.

2. Strategic Motives and Geopolitical Context

The deployment of Chinese PSCs in Latin America and the Caribbean is intricately linked to China's Belt and Road Initiative (BRI). Rolland (2019) discusses the strategic implications of securing the BRI, emphasizing the need for robust security measures to protect Chinese interests along the Silk Roads. This strategic imperative is further elaborated by Ding et al. (2021), who analyze Chinese investment in Latin America and the sectoral complementarities that necessitate enhanced security measures.

3. Regional Dynamics and Challenges

Latin America and the Caribbean present unique challenges for Chinese PSCs, given the region's complex security environment. Ellis (2024) examines China's security engagement in the region, noting the increasing presence of Chinese PSCs amid rising violence and protests against Chinese investments. This sentiment is echoed by the Business & Human Rights Resource Centre (2024), which reports on the growing opposition to Chinese projects and the corresponding rise in security measures.

4. Case Studies and Incidents

Several high-profile incidents underscore the volatile environment in which Chinese PSCs operate. For example, Hendrix (2022) highlights the targeting of Chinese nationals as China deepens its international reach, illustrating the risks faced by Chinese entities abroad. Similarly, the U.S. Senate Committee on Foreign Relations (2022) provides detailed accounts of security challenges encountered by Chinese projects in Latin America, including kidnappings and attacks on Chinese workers.

5. Legal and Regulatory Considerations

The legal framework governing the operations of Chinese PSCs is another critical aspect of their expansion. Daum (2024) analyzes China's national intelligence law

and its implications for PSC operations abroad, suggesting that legal ambiguities and extraterritorial applications may complicate the regulatory landscape. The U.S.-China Economic and Security Review Commission (2023) also delves into China's global legal reach, highlighting the potential for legal conflicts and jurisdictional disputes.

6. Implications for Regional and Global Security
The presence of Chinese PSCs in Latin America and the Caribbean has broader implications for regional and global security. Swaine and Tellis (2000) and the U.S. Department of Defense (2023) discuss the strategic ramifications of China's military and security developments, suggesting that the expansion of PSCs may alter the security dynamics in host countries and beyond. This is particularly pertinent considering China's military strategy, as outlined by the Information Office of the State Council (2015), which emphasizes the need for comprehensive security measures to support China's global ambitions.

7. Future Prospects and Developments
Looking ahead, the trajectory of Chinese PSCs in Latin America and the Caribbean will likely be shaped by ongoing geopolitical shifts and the evolving security landscape. Chizzoni (2024) and Lazarus & Ellis (2023) explore the future endeavors and prospects of Chinese PSCs, noting that their role will continue to expand in response to emerging threats and strategic opportunities. The dynamic nature of this expansion underscores the need for continuous monitoring and analysis to understand its full impact.

Accordingly, the expansion of Chinese PSCs in Latin America and the Caribbean represents a significant development with far-reaching implications for regional and global security. As China continues to deepen its investments and strategic engagements in the region, the role of PSCs will become increasingly pivotal. This literature review has synthesized key insights from recent studies, highlighting the multifaceted nature of this phenomenon and the critical factors that will shape its future trajectory.

Introduction

The inexorable expansion of China's economic imprint across Latin America and the Caribbean (LAC) has been accompanied by a concomitant surge in security challenges confronting Chinese commercial entities operating within the region. A litany of incidents, ranging from political upheaval to targeted assaults against Chinese nationals and threats to Chinese investments, have underscored the pressing imperative for robust security measures (Heath 2018). In response to this exigency, Chinese private security companies (PSCs) have proliferated across LAC nations, offering a panoply of security services tailored to the specific needs of Chinese

businesses, state-owned enterprises, and an escalating expatriate presence.

The growth of this industry, vertically integrated into China's burgeoning global commercial footprint, raises profound concerns that transcend the immediate realm of safeguarding economic interests. As these PSCs gain an increasingly entrenched presence within sensitive sectors and alongside strategically vital infrastructure projects, apprehensions regarding transparency deficits, regulatory inadequacies, and potential infringements on host country sovereignty have assumed an acute dimension (Sukhankin 2023). Allegations of opaque ownership structures, suspected intelligence-gathering functions and the perceived propensity to operate as adjuncts to China's security apparatus have fueled suspicions of a more nefarious geopolitical agenda.

This scholarly inquiry seeks to dissect the multifarious drivers catalyzing the proliferation of Chinese PSCs in LAC, scrutinize their diverse operational modes, and contextualize the phenomenon within the broader geopolitical milieu. Through a meticulous qualitative methodology encompassing an extensive literature review, analysis of policy documents, and examination of authoritative Chinese-language sources, this research aims to elucidate the strategic ramifications for regional security architectures and test prevailing assumptions regarding Beijing's long-term strategic calculus.

Ultimately, the overarching objective is to furnish substantive policy prescriptions to mitigate potential risks, fortify regional stability, and defend national sovereignty imperatives through capacity-building initiatives, constructive engagement with Beijing enhanced transparency mechanisms, and robust regional cooperation frameworks. As China's global footprint continues its upward trajectory, comprehending the complexities surrounding the role of PSCs in the LAC sphere acquires profound significance for discerning the contours of an evolving multipolar world order.

1. Motivations Catalyzing Proliferation

The proliferation of Chinese private security companies (PSCs) in Latin America and the Caribbean is being propelled by a multifaceted constellation of interrelated factors that coalesce around economic opportunism, geopolitical aspirations, security vulnerabilities, and cultural affinity. These catalyzing forces have engendered a fertile landscape conducive to the rapid expansion of Chinese PSCs across the region.

1.1. Cultural Prominently and Established Networks: Chinese PSCs strategically leverage shared cultural familiarity, linguistic commonalities, and pre-existing networks with fellow Chinese entities to cultivate trust and gain a competitive advantage in securing contracts from Chinese corporations seeking specialized

protection (Markusen 2022). This cultural proximity, undergirded by a shared understanding of business norms and communication styles, enables seamless coordination between the PSCs and their clientele, granting them an edge over international competitors. Moreover, the well-entrenched diaspora of Chinese migrants across LAC nations provides these companies with a reservoir of local knowledge, facilitating their ability to navigate complex cultural terrains adroitly.

1.2. Economic Imperatives and Investment Protection: The exponential growth of Chinese investment across strategic sectors in LAC countries, including petroleum, mining, construction, and infrastructure development, has paradoxically rendered these economic interests increasingly susceptible to an array of security challenges (Ding, et al. 2021). Political instability, organized crime, social unrest, and targeted attacks against Chinese nationals have conspired to create an environment of heightened risk, necessitating robust protective measures. As China's economic tentacles pervade deeper into the region, safeguarding these substantial investments through specialized security services has become an overriding priority to ensure uninterrupted operations and mitigate potential losses.

1.3. Geopolitical Aspirations and Strategic Influence: The burgeoning footprint of Chinese PSCs in LAC is emblematic of China's grand geopolitical ambitions to amplify its influence and strategic influence within a region historically dominated by U.S. hegemony (Wintgens 2022). This phenomenon can be interpreted as a manifestation of China's concerted efforts to extend its sphere of influence, assert its status as a preeminent global power, and potentially countervail the traditional primacy of the U.S. in its erstwhile "backyard." The proliferation of PSCs serves as a force multiplier, enabling China to safeguard its economic equities while simultaneously projecting its security apparatuses, thereby accruing strategic leverage.

1.4. Security Emergencies and Vulnerabilities Laid Bare: A litany of high-profile incidents across the region, including political upheaval, targeted attacks against Chinese nationals, threats to Chinese investment projects, and kidnappings for ransom, have accentuated the acute imperative for robust protective measures (Hendrix 2022). These incidents have laid bare the vulnerability of Chinese personnel and assets in LAC nations grappling with endemic insecurity, organized crime, and weak governance structures. The failure of local authorities to adequately address these security threats has catalyzed an unprecedented demand for the specialized risk mitigation services provided by Chinese PSCs, which possess the requisite cultural awareness, language proficiency, and tailored capabilities to operate effectively in such volatile environments.

This intricate tapestry of economic, geopolitical, cultural, and security imperatives has coalesced to forge an opportune environment for the propagation of Chinese PSCs across Latin America and the Caribbean. As China's footprint in the region continues its ascendant trajectory, the role of these companies in safeguarding

Chinese interests while simultaneously advancing broader strategic objectives will likely assume greater significance in the evolving regional security dynamics.

2. Operational Modalities

Chinese PSCs operate across a diverse spectrum of security services, encompassing electronic surveillance, consultancy, and armed protection. Their efficacy and degree of permeation, however, vary across different regions, with a more formidable presence in Asia and Africa compared to LAC. Within the LAC region, Chinese PSCs confront an array of impediments emanating from legal constraints, competition from well-established security firms, and the imperative to deftly navigate intricate sociopolitical dynamics. Nonetheless, the expanding Chinese commercial footprint in LAC and the attendant security predicaments faced by Chinese entities create an intrinsic demand for Chinese PSCs (Lazarus and Ellis 2023).

The exponential proliferation of global Chinese engagements over the past two decades has engendered a commensurate need to safeguard Chinese operations and personnel operating in volatile environments (Swaine and Tellis 2000). This imperative was poignantly underscored in the "Wolf Warrior" cinematic franchise, which depicted Chinese citizens working abroad under threat from foreign mercenaries, necessitating rescue operations (Ho 2022). Moreover, the exigencies of evacuating Chinese nationals from Libya in 2011 and Yemen in 2015 due to political upheaval, coupled with recent attacks against Chinese personnel in Pakistan, accentuated Beijing's pressing obligation to protect its citizens and its burgeoning military and strategic capabilities (Ministry of Foreign Affairs of the People's Republic of China 2024). Concurrently, these incidents illuminated how China's avowed commitment to respecting the sovereignty of other nations—as articulated in its 2015 Military Strategy (The State Council Information Office of the People's Republic of China 2015) and 2022 Defense Strategy White Papers—constrained its options for official military intervention (U.S. Department of Defense 2023).

In an endeavor to mitigate the risks confronting their overseas operations, China-based companies have adopted a bifurcated approach: collaborating with local authorities and contracting private security companies (PSCs). In recent years, a cadre of private security firms has emerged in China to buttress operations both domestically and abroad. The proliferation of Chinese PSCs has arguably been predicated on the presumption that cultural familiarity, linguistic affinity, and pre-existing relationships with fellow Chinese entities will confer a competitive advantage in securing contracts with Chinese corporations seeking protection (Chizzoni 2024).

By 2022, estimates suggest the existence of approximately 7,000 Chinese PSCs, with 20-40 such firms operating across as many as 40 countries globally (Markusen 2022). The scope of services offered by Chinese PSCs is broad, ranging from firms

specializing in electronic surveillance systems to consulting services and the provision of armed personnel to physically protect Chinese assets and nationals. Generally, the deployment of Chinese PSCs has been most extensive in Asia and, to a lesser extent, in Africa, where their familiarity with local cultural practices is more pronounced and host governments exhibit greater malleability (Badawi 2024). In more developed regions like Latin America and the Caribbean, the penetration of PSCs has been relatively constrained by their lack of experience, coupled with intense competition from well-established and well-resourced firms adept at navigating (or circumventing) local legal frameworks.

Notwithstanding these limitations, the expanding presence of China-based companies in Latin America and the Caribbean has engendered an inherent demand for Chinese private security services (Business & Human Rights Resource Centre 2023). Since 2000, according to authoritative data from the Latin America-China academic network, Chinese companies have invested over $184 billion across 600 projects in the LAC region (Lazarus and Ellis 2023). Chinese companies operating in sectors such as petroleum, mining, construction, and others have been persistently beleaguered by security challenges. In January 2007, protestors seized control of a Chinese-operated oilfield in Tarapoa, Ecuador (Reuters 2007). Attacks against the Emerald Energy oilfield in Colombia in 2011 resulted in the abduction of Chinese hostages (Boadle 2011). In Peru, recurrent violence has been linked to protests and criminal activity at Chinese-operated mines in Shougang Hierro, Rio Blanco, and Las Bambas (Aquino 2024). Attacks compelled Sinohydro to suspend construction on the Patuca III dam in Honduras, while numerous strikes have disrupted Chinese hydroelectric and road construction projects in Bolivia. Most recently, escalating violence in Colombia has forced China-based Zijin to shutter operations at the Burtica gold mine and China-owned Emerald Energy to suspend its oil operations (Committee on Foreign Relations, U.S. Senate 2022).

Amidst the current deterioration of economic conditions, surging violence, and intensifying social unrest across Latin America, coupled with China's anticipated expansion in the post-COVID-19 milieu, security challenges confronting China-based operations in the region are poised to escalate shortly (Gębska and Krukowska 2022). Official Chinese policy documents, such as the 2016 China-Latin America Policy White Paper, the China-CELAC 2022-2024 plan, and the February 2023 white paper on China's "Global Security Initiative," acknowledge Beijing's interest in multifaceted security cooperation with Latin America but remain conspicuously silent on the issue of private security companies (Ellis 2024).

Although China-based private security companies have maintained a low profile in Latin America and the Caribbean, a search of Chinese-language internet sources, such as Baidu, reveals multiple Chinese PSCs operating or actively seeking opportunities in the region (Ellis 2024). In Peru, China Security Technology Group has forged a memorandum of cooperation with Grand Tai Peru, a company providing security

services in the mining sector. Beijing Dujie Security Technology Company maintains an office in Argentina, while China Overseas Security Group claims.

In Central America, Zhong Bao Hua, a security company, claims to have established "strategic cooperation businesses" in Panama, El Salvador, and Costa Rica. Tie Shen Bao Biao advertises personal protection services in Panama. In Mexico, the "Mexico-Chinese Security Council," formed in 2012 by former Chinese government official Feng Chengkang, has assumed the mission of safeguarding Chinese business personnel based in Mexico from gang-related violence (Seade 2024).

Other Chinese-language materials on Baidu hint at a clandestine network of Chinese security activities with potential links to the government, which may extend far deeper. In addition to 14 Chinese "overseas police stations" operating in eight LAC countries, China advertises "Chinese Aid Centers" operating in the region with mandates encompassing "urgent lifesaving, integration training, legal assistance, and helping the poor". Chinese personnel recruiting website solicits applications for security-related positions in Latin America for projects in Guyana, Suriname, French Guiana, Venezuela, Colombia, Ecuador, Peru, Bolivia, Paraguay, Brazil, Chile, Uruguay, and Argentina (Ellis 2024).

While China-based companies have a legitimate right to contract Chinese nationals and entities, consistent with local laws, to help protect their expanding operations in Latin America and the Caribbean, the lack of public knowledge surrounding this phenomenon in the region, exacerbated by Beijing's efforts to confine their interactions to Chinese-language media, warrants greater scrutiny as a matter of public policy. Enhanced transparency is imperative to ensure that such companies are properly registered and regulated and that the sovereign interests of the host countries and the safety of their citizens are safeguarded.

3. Geopolitical and Sovereignty Implications

The proliferation of Chinese private security companies across Latin America and the Caribbean carries profound geopolitical ramifications that transcend the immediate realm of safeguarding commercial interests. As these entities gain an increasingly entrenched presence within sensitive sectors and alongside strategically vital infrastructure projects, they have catalyzed a constellation of concerns that implicate national sovereignty imperatives, regional stability dynamics, and the evolving contours of great power rivalries.

At the core of these apprehensions lies the specter of extraterritorial law enforcement overreach and potential collusion between Chinese PSCs and Chinese law enforcement entities. Allegations of clandestine "overseas police stations" operated by Chinese authorities in at least eight LAC countries, some purportedly

without formal approval from host governments, have ignited fears of sovereignty breaches. These covert outposts, ostensibly established to facilitate China's global "Fox Hunt" and "Sky Net" anti-crime campaigns, have been decried as potential conduits for the apprehension and extradition of fugitives, circumventing established legal protocols and infringing upon the judicial autonomy of nation-states (U.S.-China Economic and Security Review Commission 2023).

Moreover, the burgeoning presence of Chinese PSCs in the LAC sphere carries profound geopolitical undertones, particularly against the backdrop of escalating strategic tensions between China and the United States. As Beijing seeks to amplify its influence and project its status as a preeminent global power, critics have voiced concerns that Chinese PSCs could potentially serve as vectors for Chinese intelligence and military activities in a region historically dominated by U.S. hegemony. This perceived encroachment into America's traditional "sphere of influence" has engendered apprehensions regarding regional stability and the potential erosion of U.S. strategic interests.

Compounding these geopolitical anxieties is the specter of intelligence vulnerabilities stemming from the pervasive presence of former People's Liberation Army (PLA) personnel and security services among Chinese PSC employees. Coupled with the inherent data accessibility granted to Chinese companies deploying surveillance systems under China's 2017 National Intelligence Law, this dynamic amplifies the risks of espionage and the potential compromise of sensitive information (Daum 2024). The opaque nature of Chinese PSC operations and their suspected ties to Beijing's security apparatus have fueled suspicions of clandestine intelligence-gathering activities, eroded trust, and exacerbating geopolitical frictions.

Furthermore, as the presence of Chinese PSCs intensifies across LAC nations, accompanied by an influx of armed Chinese nationals prioritizing the interests of their operations and compatriots, the risk of deadly encounters with local populations increases. This phenomenon mirrors patterns observed in Africa and other regions, where the deployment of PSCs has precipitated an escalation of violence and the erosion of public trust (Ellis 2024). In a region grappling with endemic insecurity, the potential for such confrontations could further destabilize fragile security environments and exacerbate social tensions.

Amidst this backdrop of geopolitical brinkmanship, Beijing's demonstrated willingness to conduct military and intelligence operations in the Western Hemisphere has amplified concerns regarding the potential military implications of Chinese PSC proliferation. The deployment of suspected "spy balloons," the establishment of an upgraded electronic intelligence facility in Cuba, and negotiations for a military "training base" on the island have raised alarms about the projection of Chinese military power and the undermining of regional security (Strobel, et al. 2023). In this context, the presence of Chinese PSCs across LAC could provide additional

opportunities for the clandestine insertion of Chinese special forces or the facilitation of intelligence-gathering activities, further exacerbating regional anxieties.

The dearth of transparency surrounding the activities of Chinese PSCs in LAC nations raises legitimate questions about their adherence to international norms, respect for the sovereignty of host countries, and the potential for regulatory arbitrage (Spearin 2020). The shroud of opacity enveloping their operations, coupled with allegations of opaque ownership structures and suspected intelligence-gathering functions, has fueled suspicions of a more nefarious geopolitical agenda, eroding trust and stoking concerns about potential infringements on national security and democratic governance.

Finally, the expansion of Chinese diaspora communities in LAC, often concentrated in regions plagued by socioeconomic disparities and concomitant criminal elements, has rendered them vulnerable to victimization by gang violence, extortion from local and Chinese criminal groups, or even anti-Chinese hate crimes. This dynamic could inadvertently intensify pressure for the deployment of Chinese PSCs, potentially facilitating the penetration of transnational criminal networks and exacerbating the challenges already confronting fragile governance structures (Rolland 2019).

This intricate tapestry of geopolitical anxieties, sovereignty concerns, and security imperatives underscores the pressing need for a nuanced and multifaceted policy response. As China's global footprint continues its ascendant trajectory, comprehending the complexities surrounding the role of PSCs in the LAC sphere acquires profound significance for safeguarding regional stability, upholding the sanctity of national sovereignty, and navigating the turbulent currents of evolving multipolar world order.

4. Beyond Wolf Warriors: The Complex Propaganda of Chinese Private Security Companies in the Media

As China's global economic footprint expands, particularly through initiatives like the Belt and Road, the role of Chinese private security companies (PSCs) operating abroad has gained increasing significance. A critical aspect of these companies is that the personnel who work in Chinese security firms operating abroad do not possess weapons and usually rely on cooperation with private security firms in the host state. This stark reality contrasts sharply with popular media representations, such as the Wolf Warrior franchise, which often depicts these security personnel as armed heroes.

As we noted, the evolution of Chinese PSCs can be traced back to the 1990s, with a series of laws allowing for the limited privatization of state security functions. These early regulations restricted licenses to former military and police personnel and prohibited private security officers from carrying weapons. While subsequent

amendments have expanded the sector's reach, these initial limitations continue to shape the development of PSCs with "Chinese characteristics" (Arduino 2023).

Despite the growing need for security in unstable regions where China has significant investments, Beijing has been reluctant to deploy the People's Liberation Army for protection. As a result, the evolving Chinese private security sector has stepped in to fill this "security gap" (Legarda and Nouwens 2018). However, these companies operate under significant constraints, particularly their inability to arm their personnel abroad and their dependence on local security partners.

4.1. Media Portrayal and Propaganda Layers: The Wolf Warrior franchise serves as a prime example of how Chinese media portrays security personnel operating abroad. These films typically depict heroic Chinese operatives protecting national interests in foreign lands, often through armed conflict. However, this portrayal stands in stark contrast to the reality of Chinese PSCs tasked with a passive role including asset protection from riots, theft, kidnapping for ransom, terrorism, or even maritime piracy. This discrepancy between media representation and reality serves multiple propaganda purposes:

4.1.1. Overt messaging: The films promote patriotism and the importance of protecting China's global interests.

4.1.2. Preparation for potential casualties: By depicting dangerous scenarios, these media portrayals may be subtly preparing the public for the possibility of Chinese casualties in foreign lands.

4.1.3. Subtle themes: They normalize the presence of Chinese security personnel in high-risk environments abroad.

4.2. Preparing the Public for a Global Presence: Beijing's ability to project its image as a developing country rather than a former colonial power while still benefiting from the U.S. security umbrella has shielded Chinese workers and investments. However, as China's global role expands, this facade is becoming increasingly difficult to maintain. The media portrayal of PSCs can be seen as part of a broader strategy to prepare the Chinese public for a more assertive global presence, even as the reality of unarmed personnel relying on local partners persists.

4.3. The Paradox of Non-armed PSCs and Media Portrayal: China has imposed restrictions on the private security companies' access to weaponry, compelling them to rely on armed personnel from local or international organizations. This reality stands in stark contrast to the armed heroes often depicted in popular media. This discrepancy may serve to manage public expectations while still inspiring national pride and support for China's global endeavors.

4.4. Implications for China's Global Security Strategy: Given China's growing global economic and diplomatic engagement, the Chinese government will increasingly rely on private security companies, whatever its reservations. The media

portrayal of PSCs may be part of a broader strategy to prepare the public for this shift, potentially paving the way for policy changes or expanded operational procedures for PSCs in the future. However, the current reality of unarmed Chinese security personnel abroad presents significant challenges that may need to be addressed.

Accordingly, the portrayal of Chinese PSCs in the media serves a complex propaganda purpose that goes beyond simple patriotic messaging. By balancing heroic depictions with subtle hints of risk, these portrayals may be preparing the Chinese public for the realities of an expanded global presence, including the possibility of casualties. As China continues to navigate the challenges of protecting its overseas interests with unarmed personnel relying on local partnerships, the role of PSCs—and their representation in the media—is likely to evolve further.

5. Policy Recommendations

Confronting the multifarious challenges posed by the proliferation of Chinese private security companies (PSCs) in Latin America and the Caribbean necessitates a nuanced and multidimensional policy response. As these entities gain an increasingly pervasive presence within the region, safeguarding regional stability, upholding national sovereignty imperatives, and preserving the integrity of democratic institutions demands a judicious amalgam of capacity-building initiatives, constructive diplomacy, regulatory oversight, and concerted regional cooperation.

At the core of this endeavor lies the imperative for host nations to prioritize capacity-building measures that bolster their domestic security capabilities and reduce an over-reliance on foreign security providers. This strategic recalibration could encompass initiatives to enhance specialized training programs tailored to the unique challenges confronting the region, the procurement of advanced equipment and technologies to augment operational effectiveness, and the cultivation of strategic partnerships with regional allies to leverage complementary strengths and resources. By fortifying their internal capacities, LAC nations can mitigate potential vulnerabilities and assert greater autonomy in managing their security imperatives.

Concurrently, constructive, and sustained engagement with China through robust diplomatic channels is essential to address lingering concerns regarding the activities of Chinese PSCs and promote greater transparency and accountability. Substantive dialogue facilitated through bilateral and multilateral forums can serve as platforms to establish clear guidelines, expectations, and codes of conduct that govern the operations of these entities within the region. These engagements must underscore the imperative of respecting national sovereignty, adhering to international norms, and fostering an environment of mutual trust and cooperation.

Complementing these diplomatic overtures, host nations must prioritize the implementation of enhanced transparency and regulatory frameworks that mandate

Chinese PSCs operating within their territories to adhere to rigorous reporting standards and comprehensive oversight mechanisms. This could involve mandatory registration processes, periodic audits, strict adherence to local labor laws, and robust monitoring mechanisms to ensure compliance with established norms and regulations. By subjecting these entities to scrutiny and accountability, LAC nations can mitigate potential risks, safeguard their security interests, and uphold the sanctity of their sovereign prerogatives.

Moreover, fostering public awareness and engaging civil society organizations is paramount to enhancing scrutiny, promoting accountability, and safeguarding democratic norms in the face of the growing influence of Chinese PSCs. By empowering citizens and independent watchdog groups with access to information and platforms for constructive discourse, host nations can harness the collective vigilance of their societies to detect potential transgressions and advocate for transparency and adherence to the rule of law.

Ultimately, the complexity and transnational nature of the challenges posed by Chinese PSC proliferation demands a concerted and coordinated regional response. Strengthening existing regional cooperation mechanisms, facilitated by institutions such as the Organization of American States (OAS) or the Community of Latin American and Caribbean States (CELAC), is crucial to enable effective information sharing, joint risk assessments, and collaborative strategies to address the security implications of this phenomenon. By harnessing the collective wisdom and resources of the region, LAC nations can forge a united front, safeguarding their shared interests and upholding the principles of sovereign equality and non-interference.

In this endeavor, the establishment of a dedicated regional task force or working group could prove instrumental in monitoring the activities of Chinese PSCs, identifying potential threats, and devising coordinated responses. This platform could serve as a clearinghouse for intelligence sharing, facilitate the dissemination of best practices, and enable rapid communication and cooperation in the event of emergency or security breaches.

Furthermore, fostering strategic partnerships with extra-regional allies and stakeholders could amplify the region's collective leverage and access to critical resources. Collaboration with entities such as the North Atlantic Treaty Organization (NATO), the European Union (EU), and other nations with vested interests in preserving regional stability could yield valuable insights, expertise, and potentially multilateral frameworks for addressing the multifaceted challenges posed by the growing footprint of Chinese PSCs.

Finally, the confluence of capacity-building, diplomacy, regulatory oversight, public engagement, and regional cooperation provides a formidable arsenal to confront the geopolitical implications and sovereignty concerns emanating from the

proliferation of Chinese PSCs in Latin America and the Caribbean. By harnessing these multidimensional policy instruments, the region can navigate the turbulent currents of an evolving multipolar order, safeguard its security interests, and uphold the sacrosanct principles of national sovereignty and democratic governance.

6. Strategic Guardianship: The Evolving Landscape of Chinese Private Security in Latin America and the Caribbean

The burgeoning presence of Chinese private security companies (PSCs) in Latin America and the Caribbean represents a nuanced and multifaceted phenomenon, intricately woven into China's broader geopolitical tapestry. This expansion is not merely a response to immediate security concerns but a calculated move that aligns with China's long-term strategic interests, global ambitions, and the imperative to safeguard its burgeoning investments in increasingly volatile regions.

6.1. Strategic Imperatives and the Belt and Road Initiative
At the heart of this expansion lies the Belt and Road Initiative (BRI), China's ambitious global infrastructure development strategy. The deployment of PSCs in Latin America and the Caribbean serves as a critical component in ensuring the success of BRI projects, creating a symbiotic relationship between economic ventures and security provision. This strategic coupling not only protects Chinese assets and personnel but also projects an image of China as a responsible global actor capable of ensuring stability in its spheres of influence.

The presence of these security entities extends beyond mere physical protection, functioning as de facto extensions of Chinese soft power. By providing security services, these companies foster deeper engagement with local communities and authorities, potentially influencing perceptions of China's role in the region. This multifaceted approach to security provision underscores China's evolving strategy in international relations, blending economic incentives with security assurances to cement its global standing.

6.2. Navigating a Complex Security Landscape
The Latin American and Caribbean security environment presents a unique set of challenges for Chinese PSCs. The region's heterogeneous landscape, characterized by varying levels of political stability, socioeconomic disparities, and the prevalence of organized crime, necessitates a highly adaptive security approach. Recent incidents involving attacks on Chinese nationals and infrastructure projects underscore the volatile nature of the operating environment.

These security challenges are compounded by the region's complex historical and cultural contexts, which Chinese PSCs must navigate with sensitivity. The potential for misunderstandings or cultural friction adds another layer of complexity to their

operations, requiring these companies to develop nuanced strategies that balance effective security provision with cultural awareness and local sensitivities.

6.3. Legal and Regulatory Quagmire

The legal framework governing the operations of Chinese PSCs in Latin America and the Caribbean is a labyrinthine construct of international, national, and local regulations. The extraterritorial application of China's national intelligence law introduces a particularly thorny issue, potentially placing these companies in a precarious position between their obligations to the Chinese state and the laws of host countries.

This legal ambiguity is further complicated by the evolving nature of international private security regulations. As these companies operate in a gray area between private entities and state actors, questions of accountability, transparency, and jurisdiction become increasingly pertinent. The potential for legal disputes and jurisdictional conflicts looms large, necessitating careful diplomatic navigation and potentially new international legal frameworks to address these emerging challenges.

6.4. Geopolitical Implications and Regional Dynamics

The proliferation of Chinese PSCs in Latin America and the Caribbean is reshaping regional security dynamics in profound ways. Their presence introduces a new variable into the complex equation of regional power relations, potentially altering the strategic calculus of both host countries and competing global powers.

For host nations, the presence of these security entities presents both opportunities and challenges. While they may provide much-needed security services and contribute to local economies, their operations also raise questions about sovereignty and the long-term implications of relying on foreign security providers. This dynamic could potentially influence domestic politics and foreign policy orientations in the region.

From a broader geopolitical perspective, the expansion of Chinese PSCs in the Western Hemisphere may be perceived as a strategic encroachment by other global powers, particularly the United States. This perception could catalyze a reevaluation of security partnerships and alliances in the region, potentially leading to increased competition or even confrontation in the security sector.

6.5. Future Trajectories and Policy Considerations

As Chinese PSCs continue to establish their presence in Latin America and the Caribbean, their role is likely to evolve in response to emerging threats, technological advancements, and shifting geopolitical realities. The integration of cutting-edge technologies, such as artificial intelligence and drone surveillance, could significantly enhance their operational capabilities while simultaneously raising new ethical and legal questions.

Policymakers, security analysts, and scholars must adopt a multidisciplinary approach to fully grasp the implications of this phenomenon. This requires not only

a deep understanding of security dynamics but also insights into economic trends, cultural nuances, and the evolving nature of global governance.

6.6. Moving forward, several key areas warrant close attention:

6.6.1. The development of international regulatory frameworks specifically addressing the operations of transnational PSCs.

6.6.2. The impact of these security entities on regional stability and interstate relations.

6.6.3. The long-term implications for China's global security posture and its relationship with the Global South.

6.6.4. The potential for cooperation or conflict between Chinese PSCs and local security forces.

6.6.5. The role of technology in shaping the future of private security operations.

Accordingly, the expansion of Chinese PSCs in Latin America and the Caribbean represents a significant shift in the global security landscape. As this trend continues to unfold, it will be crucial for all stakeholders to engage in constructive dialogue, fostering transparency and cooperation to ensure that the presence of these entities contributes positively to regional security and development. The coming years will undoubtedly shed more light on the true impact of this strategic guardianship, potentially reshaping our understanding of global security dynamics in the 21st century.

Closing Remarks: The Multifaceted Impact of Chinese Private Security Companies in Latin America and the Caribbean

The expansion of Chinese private security companies (PSCs) in Latin America and the Caribbean represents a complex phenomenon that reflects evolving global security dynamics in the 21st century. This development blurs traditional distinctions between state and private actors, economic interests and security concerns, and regional and global influences. It also highlights the interplay between operational realities and public perception in shaping policy and opinion.

The presence of Chinese PSCs in this region raises critical questions about power dynamics, sovereignty in an interconnected world, and the future of international security cooperation. The deployment of these entities can be viewed as a response to legitimate security challenges faced by Chinese investments and personnel in potentially unstable environments. It reflects China's expanding global economic footprint and its efforts to protect its interests abroad. Additionally, it may provide host countries with additional resources and expertise to address complex security issues. However, this expansion also introduces new complexities to regional politics and security landscapes. It potentially challenges conventional notions of a state monopoly on the use of force and raises concerns about accountability and

transparency in security operations. The presence of foreign private security actors, particularly those with potential ties to a major global power, may influence regional geopolitical balances and domestic political dynamics in host countries.

A notable aspect of this phenomenon is the discrepancy between media portrayals of Chinese security personnel as armed protagonists and the operational reality of unarmed PSCs relying on local partnerships. This disparity serves multiple functions, including preparing the Chinese public for a more assertive global presence while managing expectations about current capabilities. It also raises questions about the influence of such portrayals on policy decisions and public perceptions in host countries.

From a broader perspective, the phenomenon of Chinese PSCs in Latin America and the Caribbean exemplifies larger global trends. It underscores the increasing privatization of security, the growing influence of non-Western powers in regions traditionally dominated by Western influence, and the complex relationship between economic development and security provision in developing regions. Furthermore, it demonstrates the significant role of media and popular culture in shaping narratives around national security and global engagement.

As this situation evolves, it will be essential for all stakeholders—including Chinese authorities, host country governments, regional organizations, and the international community—to engage in substantive dialogue and cooperation. The objective should be to establish robust frameworks that ensure these security operations contribute to regional stability while respecting national sovereignty and international norms. This process must also consider the impact of media representations and public perceptions on policy-making and international relations.

The trajectory of Chinese PSCs in Latin America and the Caribbean may have significant implications for how emerging powers project influence and protect their interests globally, how host countries manage the presence of foreign security actors, and how the international community adapts its legal and normative frameworks to address these new realities. The portrayal of these companies in media and popular culture, both in China and internationally, will likely play a role in shaping these outcomes. Moving forward, continued research, analysis, and dialogue will be crucial. A comprehensive understanding of this phenomenon—one that considers its strategic, economic, legal, cultural, and media dimensions—is necessary for policymakers and scholars to address the challenges and potential opportunities presented by this development in global security dynamics. This approach should include a critical examination of how media narratives and public diplomacy efforts shape opinion and policy decisions, both in China and in the countries where these PSCs operate.

Finally, the expansion of Chinese PSCs in Latin America and the Caribbean, along with their complex media portrayal, offers a valuable case study in the evolving

nature of global security, international relations, and public diplomacy in the contemporary era. As China navigates the challenges of protecting its overseas interests while managing its global image, the role of PSCs—and their representation in media and popular culture—will likely remain a subject of significant academic and policy interest on the international stage.

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Contributions to the elucidation of a controversial episode. The Ciulei case. (1)

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Abstract

Considered in Romanian historiography as a representative miscarriage of justice, a proof of the imperfection of the military justice system during the First World War, the Ciulei case aroused the interest of post-war society because of the strident injustice that characterized the entire trial. To make matters even more complicated, his brigade commander, Colonel Sturdza, who had signed the order to court-martial him, deserted to the enemy.

What is actually the truth? Was Ciulei the victim of Sturdza or was he the victim of an unfortunate chain of events?

With a title inspired by one of the few works that have approached this subject with scientific rigor, and here I am referring to the work of professors Petre Otu and Maria Georgescu, presented in the bibliography, this article aims to contribute to the elucidation of this episode, providing readers with arguments identified in primary sources, from documents in the custody of the Romanian National Military Archives.

Background

The Ciulei case continues to arouse the interest of the public and researchers through the numerous hypotheses put forward since then and the act of (in)justice carried out by the 2nd Army court-martial (AMNR, fond marele Cartier General, dosar nr. 524, f. 86-87). It has been written and talked about that second lieutenant Constantin Ciulei had been sent to the firing squad without any guilt and that the accusations against him were intended to divert the suspicions of the higher echelons from the controversial decisions of retreat "without apparent cause" (Averescu 1992, 103), which his brigade commander, Colonel Sturdza, had taken.

The latter's desertion to the enemy, an episode that was as improbable as it was commented at the time, and which "made a depressing impression on the army and the population"(Kirițescu 1927, 430), brought about a different vision of events, which became, at least in the perception of public opinion, an undeniable argument for the innocence of Second Lieutenant Constantin Ciulei.

This perception was also fueled by the decision (Neculau 1974, 88) of the Superior Court of Military Justice, in its capacity as a court hierarchically superior to courts-martial, handed down on May 24, 1920, by which the case was reinstated. In fact, this decision was based on the provisions of „Decree-Law No. 1547 of April 9, 1920" (Monitorul Oficial 1920), issued by King Ferdinand I in gratitude for the realization of the national ideal, and had the effect of amnesty for several categories of offenses and several categories of offenders. In the Ciulei Case, the superior military court did not pronounce on the merits of the case, or rather it did not judge Ciulei's guilt or innocence, nor the procedural correctness of the court-martial of the 2nd Army, as the court of substance, but it extinguished the public action. Specifically, the Superior Court of Military Justice found that the offense that Constantin Ciulei had been accused of and convicted of fell into the category of those amnestied by the above-mentioned decree-law.

Although this decision did not change anything, it is quite possible that public opinion may have perceived the decision of the higher military court as a favorable one, an act of justice and a posthumous rehabilitation of officer Ciulei, who in the meantime became the hero of a popular song that began with the lyrics: "Pe şoseaua ce-mi porneşte/Din Bacău înspre Carpați (...)", in which he was portrayed as an innocent victim of the system.

In this context, the question remains: What is the truth in Ciulei's case?
Was Ciulei innocent, Sturdza's victim, the result of a premeditated act of treachery, carried out with cynicism and cold blood, or was he guilty, but Sturdza's treachery polarized popular sympathy and imposed in the collective mind the legend of the former's innocence?
Was Ciulei "the victim of unfortunate circumstances"(Neculau 1974, 84), as the

journal *Magazin Istoric* states, a combination of adverse factors and circumstances, but without any connection with Sturdza, or was he a direct victim of Sturdza because he „suspected his links with the enemy" (Biblioteca Academiei Române 1919), as the independent newspaper *Avântul* wrote in the fall of 1919?

Hypothesis

We took as starting points the hypotheses drawn from the article by Professor Dr. Eugen D. Neculau, which I mentioned above, but also from a second one (Brădișteanu 1972), also from *Magazin Istoric* magazine, signed by Nicolae Brădișteanu, and which deals tangentially with this subject, as well as the hypotheses circulated in the Romanian interwar press, identified in the newspaper *Avântul*.

It should be mentioned that the article signed by Prof. Dr. Eugen D. Neculau does not include in its critical apparatus references to any archival fonds, but only to sources from the press of the time, memoirs, or the work of historian Constantin Kirițescu. In this article we have identified the first hypothesis, namely that „Ciulei's being put on trial would have been done with the intention of confusing the suspicions of the commander of the 2nd Army" (Kirițescu 1927, 429), General Alexandru Averescu. According to the article, he had him "under observation" (Kirițescu 1927, 429) because of some suspicious retreats of his brigade, which Sturdza had previously ordered. Also from this article, we have two other names of officers, besides those of Constantin Ciulei and Alexandru Sturdza. They are Captains Stelian Mărculescu and Constantin Polihroniade, to whom we will return because of the special role they played in the events of the *Ciulei Case*.

The second article in *Magazin Istoric* journal, signed by Nicolae Brădișteanu, has no critical apparatus, so it has no reference to the source of the information. The second hypothesis is derived from this article, according to which Sturdza, suspected of treason, would have blamed everything on Lieutenant Ciulei, whom he „accused of having withdrawn from his position, without orders, together with his subunit" (Brădișteanu 1972, 57). Based on these accusations, Ciulei was sentenced to death and executed.

Other hypotheses, also in connection with the Ciulei Case, were circulated in the interwar Romanian press, some of them identified, as I said, in the newspaper *Avântul*, as follows:

3. Ciulei was suddenly (s.n.) accused of treason by Colonel Sturdza;

4. The court (martial, s.n.) condemned him for being intimidated by the situation of the accuser;

5. Ciulei was executed/Sturdza deserts;

6. It is learned that Ciulei was innocent, but had suspected Sturdza's connections with the enemy;

7. Sturdza realized that he might be exposed and removed from Ciulei, influencing the court-martial towards a death sentence.

Before addressing these, one by one, these hypotheses, I would like to introduce the characters, without insisting on Alexandru Sturdza, who is extensively presented in the work of professors Petre Otu and Maria Georgescu, to which I referred earlier.

Characters

The first, Stelian Mărculescu (AMNR, fond Memorii Bătrâni, dosar nr. 39), was born in Ploieşti, Târgşor, on March 25, 1876, was married and had four children. At the age of 20, he enrolled in the Infantry and Cavalry Officers School, being promoted to the rank of second lieutenant and assigned on July 1, 1899, to the 27th Bacău Regiment. In 1914 he was transferred to the Buzău Regiment No. 8, after having previously moved to the Prahova Regiment No. 7.

The assessments of his superiors in the military school record a gentle, obedient character, with modest intellectual means, he was forced to repeat the first year, and as a new officer, he was characterized (AMNR, fond Memorii Bătrâni, dosar nr. 39, f. 06) as having little specialized knowledge, poor in applications and marksmanship, with no aptitude (AMNR, fond Memorii Bătrâni, dosar nr. 39, f. 07) for horseback riding, „an officer of little value" (AMNR, fond Memorii Bătrâni, dosar nr. 39, f. 13) as the commander of the III Corps, General Panait Warthiadi, wrote. As a man, according to the service appraisals, he had a sickly nature, exhibited a nervous tic, expressed himself awkwardly, and had a sub-mediocre intelligence.

In 1911, his regimental commander, Colonel Racoviță, was even harsher in characterizing him: „indolent nature, low intelligence, poor judgment, poor skills on the map and in the field" (AMNR, fond Memorii Bătrâni, dosar nr. 39, f. 19) and concluded: „Lieutenant Mărculescu is not prepared for commanding a company (…), and cannot bring appreciable service at the front" (AMNR, fond Memorii Bătrâni, dosar nr. 39, f. 19v), recommending him for desk service.

Although in 1914 Stelian Marculescu was promoted to the rank of captain, Colonel Aristide Razu, commander of the 8th Buzău Regiment, considered that his skills in leading the troops in the field were very poor: „clumsy conception, he is totally lacking in energy, he has no poise in front of the front (subordinates, s.n.), he performs his service in a very negligent manner, he shirks his duties (…), he does not take care of the soldier nor the material" (AMNR, fond Memorii Bătrâni, dosar nr. 39, f. 19v). Moreover, Colonel Aristide Razu concluded his characterization of Captain Stelian Marculescu by concluding that he „is not fit to lead a battalion" (AMNR, fond Memorii Bătrâni, dosar nr. 39, f. 22), and recommended that he be transferred to the administration, being aware that, otherwise, his career would end at the rank of captain.

In 1915, Captain Stelian Mărculescu was punished with 15 days in prison by the commander of the III Army Corps for negligence and was characterized in the same

note: "an officer with a complete weakness and no hope of improvement" (AMNR, fond Memorii Bătrâni, dosar nr. 39, f. 23), as his superior, the commander of the 10th Infantry Brigade, Colonel Gheorghe Sănătescu, wrote.

With Romania's entry into the War of the Integration, Captain Stelian Marculescu took part with the 8th Buzău Regiment in the Dobrogea campaign, being wounded on September 6, 1916, in the fighting at Caciamac-Orman. After being hospitalized for a month he was discharged and sent to the Râmnicu Sărat Training Center, and later he was assigned to the 1st March Regiment of the 2/5 Division.

According to a stat (AMNR, fond Memorii Bătrâni, dosar nr. 39, f. 83) holographs on file, between December 5-20, 1915, Captain Stelian Marculescu was deployed in command of a detachment of 2 battalions, in support of the 12th Russian Cavalry Division „Starodobovschi", commanded by General Carl Gustav Mannerheim, and later, between December 21-26, 1916, as part of the 7th Mixed Brigade, under the command of Colonel Alexandru Sturdza.

The second character, Constantin Polihroniade (AMNR, fond Memorii Bătrâni, dosar nr. 207), was born on August 20, 1871, in Știrbeiu (today Călărași, n.d.), then located in Ialomița County (today Călărași, n.d.), son of Gheorghe and Elena Polihroniade. He was a graduate of the School of Military Sons of Craiova, class of 1890, and of the School of Infantry and Cavalry Officers, class of 1892, being assigned to the Tulcea Regiment No. 33. On October 17, 1895, Colonel Petre Vasiliu-Năsturel, commander of Tulcea Regiment No. 33, noted in his personal file: "(...) Undisciplined and arrogant. (...) it has yet to be decided whether he should be punished or sent to a board of inquiry, having spent almost 90 days in prison and under arrest in less than a year" (AMNR, fond Memorii Bătrâni, dosar nr. 207, f. 01). After a stint in the 28th "Radu Negru" Regiment, garrisoned in Pitesti, he was promoted to the rank of lieutenant on February 1, 1897, and moved again to the 33rd Tulcea Regiment.

The list of Polihroniade's disciplinary offenses is impressive and demonstrates his violent temper, which led him to refuse any form of authority. The nonchalance with which he showed up for inspection without a tie, or with civilian gloves with his military dress, the unjustified absences from the program, the insults or the rude attitude towards the company commander, the ill will, and the obstinacy with which he tackled service problems, the scandals in the society, the refusal to pay the debts contracted from his comrades, up to the beatings inflicted on soldiers, are the "sins" committed by the young officer Polihroniade.

For all this and more than this, on May 27, 1900, under the provisions of the High Decree (AMNR 1900) no. 2615, he was reformed, that is, removed from the active ranks of the army, being found guilty in the reform council of "bad behavior out of habit and serious misconduct in

service and against discipline" (AMNR, fond Memorii Bătrâni, dosar nr. 207, f. 01).

He somehow managed to rejoin the army, first by changing his position from the reform to the reserve element, on the basis of High Decree no. 4952 of July 1, 1913, to the 8th Buzău Regiment. Later, in reserve, he was promoted to the rank of captain on May 10, 1914, and moved to the 48th Infantry Regiment of the same garrison, which was formed only at mobilization, with which he took part in successive concentrations and deconcentrations.

On August 15, 1916, with Romania's entry into the War of Integration, he was mobilized to command the 5th Company of the same regiment, with which he took part in the Transylvanian campaign, in the Sibiu area, under the command of Lieutenant-Colonel Alexandru Jecu, to whom we will return towards the end of this work.

The third and most important character of the present article, Constantin Ciulei, did not have an original memoir, being a reserve officer, but his personal data, quite a few, were filled in a registration card (AMNR, fond Registru Ofiţeri Rezervă Infanterie, dosar nr. 11, f. 410) that we managed to identify in our documentation. This shows that he was born on April 18, 1886, in Urluiasca commune (today Cungrea, s.n), Olt county, was drafted in 1909, in the Olt Regiment No. 3, and in 1915 he was promoted to second lieutenant in the Buzău Regiment No. 8, based on „High Royal Decree No. 2693/1915" (AMNR 1915).

Ciulei's career was almost identical to Marculescu's. He was wounded (AMNR, fond Stat Major Regal, Biroul Decoraţii, dosar nr. 44) both in the campaign in Dobrogea and also in the battle of Caciamac (today Viişoara, s.n.), it is possible that he was discharged from hospital and "poured" to the Refreshing Circle of Râmnicu Sărat, which would have distributed him in the March Regiment of the 2/5 Division. This is how he was able to become subordinate to Captain Mărculescu, with whom, incidentally, he had been a regimental colleague in Buzău. In his personnel record, it is also mentioned that he was sentenced to death for "deserting his post in the presence of the enemy" (AMNR, fond Registru Ofiţeri Rezervă Infanterie, dosar nr. 11, f. 410) and executed on January 28/February 10, 1917.

The fact that Mărculescu, Ciulei, and Polihroniade belonged to the Buzău garrison leads us to consider the hypothesis that they knew each other before the war. Also, in view of Polihroniade's choleric temperament, it cannot be that there were dissensions between them, or at least between Polihroniade and Ciulei, before they met in the 7th Mixed Brigade, as mentioned in the article by Professor Eugen D. Neculau in *Magazin Istoric* magazine.

The latter is the one who, for personal reasons, as stated in the aforementioned article, would have reported to Sturdza about the unauthorized withdrawal from Momâia of the subunits commanded by the two officers, an aspect confirmed by

our documentation. It is also confirmed that Polihroniade informed Sturdza about Ciulei's performance in the battle on December 26 on Momâia, as well as the fact that between the latter and Polihroniade, there had been not one, but several „altercations", according to the term used in the article, as we will present below.

On December 26, 1916, Captain Stelian Mărculescu, commander of Battalion 1/2 of the 7th Mixed Brigade, was subordinated to both Second Lieutenant Constantin Ciulei, commander of the battalion reserve, and Captain Constantin Polihroniade, the latter signing the documents with the title of „administrative commander" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 12).

A possible explanation could be that the independent battalions, which did not have, like the regiments, a logistical structure to serve them, were organized in addition to the combat sub-units with an administrative structure, with distinct duties and responsibilities. However, it is not very clear whether this title of administrative commander was an official one or one that Polihroniade himself had given himself. However, Polihroniade's position in the battalion's hierarchy confirms the statement in the article by Professor Dr. Eugen D. Neculau that Polihroniade did not take part in the battle of Momâia.

Analyzing the character of these people, based on the information obtained during our documentation, we can state that the leadership of this battalion was dysfunctional. A choleric, arrogant individual such as Polihroniade, who had a problem with accepting any administrative authority, was subordinated to a melancholic character, who commanded without energy, such as Mărculescu. As we shall see, he was unable to impose himself on his subordinates, neither professionally nor physically. A sickly nature, complexed by a nervous tic, with a clumsy and even hairy expression, it would have been impossible for Mărculescu to impose himself on his subordinates of lower rank, and even less so on the temperamental Polihroniade.

Events

It should be noted that all the hypotheses stated at the beginning of this article are related to the events of December 26, 1916/January 8, 1917, which took place on Momâia Hill (Hill 625), in the area of responsibility of the 7th Mixed Brigade, and at the origin of this chain of events was a particularly serious one, which we will soon detail. Before developing this subject, we must mention that the details of the operational framework and the context in which the 7th Mixed Brigade acted in the structures of the 2nd Army, cannot be the subject of this article, for lack of space, as they are detailed in the work of professors Petre Otu and Maria Georgescu, mentioned above, a work that we highly recommend.

Sturdza had established the missions of the structures subordinated to the 7th Mixed Brigade by "Operations Order no. 2 of December 24, 1916" (AMNR, fond Brigada

7 Mixtă, crt. 29, f. 03), as follows: the main mission of the brigade was mainly defensive, that of "resisting on its position, unwavering" (AMNR, fond Brigada 7 Mixtă, crt. 29, f. 03), with the exception of the battalion under the command of Captain Stelian Marculescu, which had been given the mission "to occupy without delay the Momâia Hill (elevation 625)" (AMNR, fond Brigada 7 Mixtă, crt. 29, f. 03), which dominated the entire valley of Șușiței.

Returning, as I promised, to the particularly serious events mentioned above, the first one consisted in the willing surrender to the enemy of the entire 3rd Company of the battalion commanded by Captain Stelian Marculescu.

As it is clear from the file later instrumented by the royal commissioner (military prosecutor, s.n) of the 1st Infantry Division, but especially from a "Minutes of interrogation" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 08), drawn up on this occasion, it emerges that the surrender of those officers, non-commissioned officers and soldiers of the 3rd Company was a premeditated act, which had been planned by the commander of the 3rd platoon, Platoon 3, Dumitru Coatu. He, a teacher by profession, was a member of the 52nd Infantry Regiment and had negotiated the act of surrender with the enemy through a soldier who knew German, while he was inciting his comrades, telling them: 'It is useless to fight and we would be better to surrender because our villages are occupied" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 08).

Thus, at around 16.30, when the enemy attack on Hill 625 was launched, Plutonier Dumitru Coatu allegedly shouted "Romanians, stop firing!" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 08), and together with some non-commissioned officers and soldiers of his subordinates, joined by an officer, Second Lieutenant Gheorghe Zodilă, he would have raised his hands, willingly moving towards the enemy. The gesture was demoralizing and resulted not only in the surrender of the platoon commanded by the non-commissioned officer, but also in the surrender or the fall into captivity of several soldiers and, most importantly, the loss of the position held by the battalion commanded by Captain Stelian Marculescu on Momâia.

According to a later report (AMNR, fond Marele Cartier General, dosar nr. 160, f. 49) the gesture of Second Lieutenant Gheorghe Zodilă, of Plutonier Dumitru Coatu and of those with them, who, following the attack on Momâia "lifted the handkerchiefs that were prepared under the flap of the cloak and surrendered" (AMNR, fond Marele Cartier General, dosar nr. 160, f. 49), involved much larger troops. In addition to the latter's subordinates, a total of 35 soldiers and non-commissioned officers, 2 officers, a non-commissioned officer, 71 non-commissioned officers, and 493 soldiers fell into enemy captivity, involuntarily and after fighting until they were completely surrounded by the enemy. The others left their positions and fled back to the front.

The abandonment of the positions on Momâia and the flight of the battalion commanded by Captain Mărculescu and, implicitly, of the battalion reserve

commanded by Second Lieutenant Ciulei, from the enemy's front, make up the second event related to the subject of this article and represent the reason why Sturdza decided to set an example that would impress the audience and constitute a harsh warning, aimed to counteract a possible repetition of the same. Thus, he gathered the fugitives of the entire battalion, ordered the two officers, Captain Marculescu and Second Lieutenant Ciulei, to come out in front of the front and fired at them. Shot first, Captain Mărculescu fell into the snow as if he were dead, while Second Lieutenant Ciulei jumped into the water, disappearing into the darkness. Later, taking advantage of a moment of inattention on the part of those present, Captain Mărculescu got up and fled into the woods.

Reports

Following these two events, on December 31, 1916/January 13, 1917, Sturdza ordered several reports to be drawn up and sent to the 1st Infantry Division, the echelon to which he was subordinated (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 11-24) among which the result of the investigation in the case of the surrender to the enemy of the 3rd Company of the Marculescu Battalion, a table with the officers who, in his opinion, did not deserve any kind of distinction and another table with the officers he accused of having compromised the situation of the entire battalion.

The first, "Report No. 30. of December 30, 1916" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 19), drawn up by Captain Polihroniade, who signed as administrative commander of the battalion, is addressed to Major Marin Constantinescu, commander of the 2/58th Combat Battalion (2nd Battalion of the 58th Infantry Regiment, n.s.), also detached under the 7th Mixed Brigade, another person with a determining role in the present case, but about whom we will speak later.

The report included the characterizations of several officers and described their attitude in the battles that had taken place a short time before. As is clear from the text, the report had been requested by Sturdza himself and was forwarded to the higher echelons the same day.

Attached to the report was a table entitled "Tableau" (table, s.n.) of the officers of this battalion because of the purport without energy and heroism which compromised the situation of the battalion in the various battles that were given (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 23). The table recorded names, facts and accusations directed against some officers, considered to have been "lacking in energy, patriotism, etc. (...)", because of which they would have lost their position in the battles of December 26, 1916 and a good part of the soldiers would have surrendered to the enemy.

On the table containing the names of the officers considered unworthy within the battalion, the names of seven officers are recorded in total, the first being Captain

Mărculescu and Second Lieutenant Ciulei. Next in the third position is Second Lieutenant Gheorghe Zodilă, a platoon commander in the 3rd Company, accused of having caused panic, both among the soldiers of the battalion to which he belonged and among those of the 2/58th Battalion, by falsely transmitting an order to withdraw from their positions. He surrendered to the enemy on December 26, 1916, and was declared deserter the next day.

The table continues with four other young second lieutenants, who are recorded (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 17v) with the same kind of charges, as serious as in the previous cases: Dragu Fotino, desertion, Popescu D. Constantin, flight from positions, Rădulescu Chirilă, flight from positions, causing panic, and Dinulescu Aurel Aurel, flight from positions, causing panic, acts committed before December 25, 1916.

The second document, "Report no. 31 of December 30, 1916" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 19), was also drawn up by Captain Constantin Polihroniade, also addressed to Major Marin Constantinescu, and as the text shows, it was also requested by Sturdza. Attached to the report is a table with accusations against three second lieutenants, all from the battalion commanded by Captain Mărculescu, officers who, as the author of the report noted, "do not deserve any distinction" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 20).

One of them, Constantin Ștefănescu, was accused of having wandered away from his subordinate troop and ended up in the neighboring sector, occupied by Russian troops, another, Toma Steriu, of having retreated with the subunit in disorder, and the last, Dumitru Mocanu, that although he was aware that he had contracted a sexually transmitted disease, he had intentionally aggravated his health condition in order to stay away from the front line.

The third document, "Report no. 1 of December 27, 1916" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 14), was drawn up by Second Lieutenant Dumitru Jugănaru, commander of the 3rd Company, the sub-unit which, in the battle of Momâia on December 26, had surrendered almost entirely to the enemy. On this report, addressed to the commander of the 1/2 Battalion of the 2/5 Regiment of the 2/5 Brigade (actually the 2/5 Division, n.s.), attached to the 7th Mixed Brigade, Sturdza wrote: "From these complicated names (of units, n.s.) one can deduce the moral, disciplinary and traditional cohesion of the troop" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 14).

We need to underline this resolution, dated on the document December 30, 1916, considering it important as indicative of the state of mind Sturdya had at that moment: on the one hand, the loss of confidence in the decisions and administrative measures taken by the higher echelons, a constant in his diary entries, and on the other hand, frustration with the existing situation. Sturdza did not know these

officers and the troop, which had only recently come under the 7th Mixed Brigade, nor did they know him.

In fact, coming from a marching regiment, the men did not know each other either. There was, as Sturdza rightly observed, a lack of that moral cohesion, that spirit of comradeship that develops over time, in joint training, exercises, marches, or battles, and which gives stability and moral balance in difficult times.

The 1/2 Battalion was not part of the 7th Mixed Brigade from the beginning but had been detached from the 2/5 Infantry Division, and the episode of the surrender of the 3rd Company to the enemy took place shortly after Sturdza himself, as he said, had passed through the sector of this subunit to talk to the soldiers, to raise their morale and to cheer them up.

Finally, the fourth of the documents mentioned at the beginning of this sub-chapter, "Report no. 26 of 27 December 1916" (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 01), is the one by which Sturdza initiated the criminal proceedings, on the same day that Mărculescu and Ciulei had been accused, signaling to the 1st Infantry Division that Major Constantinescu's battalion was showing "serious signs of demoralization" (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 01), although it was well staffed with officers. We will address them in turn.

The accusations

In the first report, as we have said, among the seven officers recorded as having shown inappropriate behavior were both Captain Stelian Mărculescu, for "the lack of energy with which he led the battalion in the battles of December 14-26, 1916, inclusive" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 19), and Second Lieutenant Constantin Ciulei, for whom the list of charges is very long.

If Mărculescu was accused of lack of energy in leading the battalion and desertion, in the case of Second Lieutenant Ciulei the list of charges validates the hypothesis of "altercations", according to the term used in the article in *Magazin Istoric*, which would have existed previously between him and Captain Polihroniade.

This difference of optics is somewhat understandable if we take into account that at the time of the report Ciulei, the "deserter", had been captured at Verdea, while Captain Marculescu was still a deserter. Polihroniade's report was, in fact, an indictment against Ciulei, and the most serious accusation against him was that at Momâia, although he had clear orders not to withdraw from his position at any price, he had taken his company's reserve, composed of 2 platoons, "and ran away with them leaving the position and (...) took the direction over the hills towards the village of Varnița (...)" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 17).

It was the most serious charge, as I said, but it was not the only one. Chronologically, the first charge against Ciulei dates back to December 13, 1916, when he was not

under Sturdza's brigade. Ciulei was accused that, although his subunit was marching towards the village of Coza (near Tulnici, Vrancea County, s.n.), where he had orders to arrive the same day, he had evaded the order and stayed in the village of Păuleşti, 2 km further back, where he had drunk all night with the notary of the village.

The next day, Ciulei allegedly refused to carry out the order to report to the command of his subunit, citing medical reasons, which is why he was brought under escort to be medically examined, and the doctor declared him fit to go to the front. Although he had been ordered to move within the battalion in position at Putnei railway station, Ciulei took refuge in a house in the village of Tulnici, where he was found three days later by Captain Polihroniade. It is also mentioned in the report that the latter would have addressed to the second lieutenant Ciulei „aspre reprimande" (reprimands, s.n.) and would have reported to the commander of the 2/5 Division, General Constantin Petala, who would have punished Ciulei with a few blows with a club, sending him immediately to the front.

The fighting on the positions at Tulnici brought new accusations against sub-lieutenant Ciulei: desertion of command and running away from the enemy. The report states that he had „left his platoons, leaving them on their own, and he fled in an attempt to escape for his life"(AMNR, fond Curtea Marţială a Corpului 1 Armată, dosar nr. 49, f. 17). Other accusations, just as serious, referred to the fact that he was rarely found in the troop's cantonment, as well as to his excessive consumption of alcoholic beverages, he having "the gift of drunkenness", as the report put it.

Regarding the latter accusation, Captain Polihroniade claimed that in any locality he reached, Second Lieutenant Ciulei inquired where he could find drink, and when he had no one to drink with, he drank with his orderly "with whom I often saw him in intimacies of such a nature" (AMNR, fond Curtea Marţială a Corpului 1 Armată, dosar nr. 49, f. 17).

The conclusion of Polihroniade's report is that all these accusations led Sturdza to decide to execute Ciulei on the evening of December 26, 1916, in front of his own subordinates, although, as we have said, some of the acts for which he was accused had occurred before Ciulei and his subunit came under the 7th Mixed Brigade.
In a separate report (AMNR, fond Armata a 2a - Curtea Marţială, dosar nr. 7, f. 08v) the royal commissioner recorded the testimony of another eyewitness to the event, Lieutenant Marinescu of the 10th Călăraşi Regiment, who accompanied Sturdza in the check carried out on the positions of the two battalions commanded by Major Constantinescu and Captain Mărculescu.

He confirmed that Major Constantinescu was found 3 km behind his battalion's position, but also that the front had been broken in Mărculescu's sector, due to the 3rd Company's breakdown, just during Sturdza's visit. In an attempt to recapture the lost position they immediately went there, taking also the battalion's reserve

company, commanded by a second lieutenant (unidentified, s.n.), who – on contact with the enemy – fled.

Lieutenant Marinescu stated that he tried to stop the fugitives, organizing a cordon of twelve marksmen, and even fired at them, but they continued their flight, although they were pursued by weak enemy forces: "neither the battalion commander nor the other reserve officers were present during the battle" (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 09), he concluded his report.

In conclusion, Marinescu's statement confirms the surrender to the enemy of the 3rd Company of Captain Marculescu's battalion and the flight of the battalion reserve (2 platoons), commanded by a second lieutenant, whose name he did not specify when they came into contact with the enemy. Polihroniade's statement, however, names Ciulei in command of the battalion reserve, which, as Captain Marinescu noted, would have left its position, taking it "over the hills towards the village of Varnița" (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 08v).
Marinescu's statement also confirms the absence of any officer, including Mărculescu, among the soldiers in the battle of Momâia, a possible explanation for the fact that Sturdza blamed only the officers for the event.

The second of the above-mentioned reports, "Report no.31" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 19) of December 30, 1916, contains accusations against three other sub-lieutenants and bears Sturdza's resolution: "(...) Tustrei (all three, s.n.) officers are unworthy" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 19). A special mention was made for the first one, Second Lieutenant Constantin Ștefănescu. He was accused that, following the disaster suffered by his battalion on December 26, 1916, he pretended that he had gotten lost from the platoon he commanded, and instead of retreating to the left flank of the brigade, only 500 m away, he preferred to go to the Russian sector, nearby. Not only was this sector not under enemy fire, but it was about 1-2 km away from the previously held position. From there, Ștefănescu would have gone to the rear of the front, and from there he reached the brigade's command point, from where, as Sturdza wrote: "(...) I sent him to the front with a few fugitive soldiers, under the guard of a gendarme (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 19).
Sturdza also directed this report, on the same day, to the higher echelon, noting: "I have the honor (sic!) to submit enclosed reports asking you to kindly judge which of the officers mentioned who are still present (s.n.), should be put on trial before a council of war. I propose that all those who are still present (s.n.) should be brought before the court."

We note the expression used by Sturdza at the beginning of the report, the officers who are still present, an expression that he repeats at the end when he also proposes that all those still present should be sent before the council of war.

In the economy of the present article, we consider it an indication that Sturdza was convinced that the morale of the troop, but especially of the officers, was so low that desertion or surrender to the enemy would have been inherent, especially after what had happened to the 3rd Company, in other words, that their defection would have been a simple matter of time.

In the logic of this reasoning, Sturdza considered that only the application of extreme measures, at least among the officers, could counterbalance the quasi-general tendency to leave the front and go over to the enemy, and in this context, he proposed to the higher echelons to send the unworthy officers, as he characterized them, to the trial of the council of war, while they were still present, or in other words, until they had deserted as well.

As for Major Constantinescu's act of command, the accusations against him in "Report no. 26 of December 27, 1916" (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 06), were related to the attitude of the battalion officers towards the troop, which, Sturdza claimed, they would not have cared about. For three days, December 24, 25, and 26, 1916, the troop would have remained in position, although rations would have been available at the Răcoasa station, and during the same period of time, the wounded would have remained unwounded.

In Sturdza's opinion, this state of affairs would have been the cause of a general demoralization, and would have resulted in a large number of desertions and surrenders to the enemy also from this battalion, the report concluding that "Major Constantinescu is not a superior officer and that it is imprudent to entrust him with difficult situations" (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 06).

Major Constantinescu was also accused of having set up his command post far behind the defensive device, an aspect also confirmed by Lieutenant Marinescu, from where he could not supervise the troop and could not have intervened in case of need. And that he had subsequently left his position, slipping, as mentioned in the text, as far as the Varnița - Răcoasa road, under the pretext that he had come to return a machine-gun section to the sector, thus neglecting the needs of the troop.

Explanations

On Report No. 26, General Stratilescu recorded, in a resolution, the order addressed to the Royal Commissioner, that the accusations concerning the feeding of the men and the care of the wounded should be investigated on the spot, Major Constantinescu should be given a written statement on the accusation of leaving the position, and everything should be ready by the next day, December 28, 1916, at 2 p.m.

The royal commissioner complied with the order received, and the next day he went to the 7th Mixed Brigade command point requesting an inquiry (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 07) of Major Constantinescu. On the pretext that the officer was with his battalion on the front line, which made it impossible to investigate him until he had been replaced by another battalion, Sturdza detailed his accusations. He reiterated that he found Constantinescu far away from his subordinates, in a place from where he could not command the sub-units and could not even observe the enemy's movements. He also reproduced Major Constantinescu's explanation that he had left the position in an attempt to bring back some of his subordinates who had fled from the front.

In this section of the royal commissioner's report Sturdza's aversion towards the Russians is visible, at least at a declarative level, transposed in the reason he identified as the cause of the low level of the soldiers' morale: "The fault of the soldiers' (sic!) flight (sic!) from the front is not theirs, but that of the officers (s.n.) with whom they were assigned [and who are] lacking in military education. The soldiers are miserable[:]
>   a) Because they can't be billeted in the houses of their fellows (sic!) because of the Russians who occupy everything [;]
>   b) That the Russians plunder the population, mocking everyone, and
>   c) The civilian population itself, because of the cruelties suffered from the Russians, is bringing the enemy behind our troops" (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 07v).

This report is, in our opinion, representative of the way Sturdza saw the facts and events in which his subordinates were involved, and explains why all three reports bring accusations exclusively against the officers, who were more guilty, in Sturdza's opinion, than the troops: "understanding to a certain extent the unfortunate state of the troops in these tragic circumstances, we cannot admit the weakness of nerve, of self-control and laxity (s. n.) in officers" (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 06).

In short, Sturdza was convinced that the fault for the state and morale of the troop belonged to the „unworthy" officers, the troop being the victim of the disinterest and lack of energy of the former. This may, in our opinion, be the explanation for his decision to execute demonstratively, in front of the troop, two of the officers he considered most guilty of abandoning their positions on Momâia, an event which, as we learned from Lieutenant Marinescu's testimony, he had witnessed.

I have already mentioned, but we emphasize because it is very important, that neither Captain Marculescu nor Major Constantinescu, at the head of the sub-units they commanded, were not part of the 7th Mixed Brigade, the one that Sturdza had prepared from the beginning of the war, but had been attached to his brigade shortly before. He obviously did not know them, nor did the officers and troops of these battalions know him. In fact, Sturdza mentions that when he went to the 3rd

Company's sector before it surrendered to the enemy, he approached the officers and introduced himself: „I am your brigade commander" (AMNR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 15).

In fact, at the time of the above-mentioned events, the composition of the troops in the 7th Mixed Brigade was heterogeneous, "a motley and untrained bunch" (Otu și Georgescu 2011, 128) as Sturdza himself characterized it, and it came from various units. Most of the regiments that Sturdza had trained once he had entered the war had been taken from him (Otu și Georgescu 2011, 224), being detached to other large units, according to the priorities of the higher echelons, and the men in the units he had received in exchange were demoralized as a result of the disastrous campaign so far, with great shortage in equipment and materials, the sub-units lacked cohesion and had a very low level of discipline.

On December 30, 1916, when Major Constantinescu signed the first of the two reports mentioned above, confirming the characterizations of the officers of Mărculescu's battalion as "unworthy", he did not know that he himself had been so characterized by Sturdza three days earlier, nor that the 1st Infantry Division had already initiated criminal proceedings against him.

Statements

By "Address no. 5725 of December 31, 1916" (Arhivele Militare Naționale Române fără an, f. 05), General Strătilescu, commander of the 1st Infantry Division, informed the 3rd Army Corps about the accusations against Major Constantinescu, namely, about leaving the unit in the presence of the enemy, committed on December 26, 1916, as well as about serious negligence in the act of command, that he had left his subordinates unnourished and wounded unwounded, with the proposal that he be sent "*to the War Council for trial*" (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 05).

It was only on January 12, 1917, that the Royal Commissioner of the 1st Infantry Division made a statement (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 12) to Major Constantinescu, in which the "film" of the entire event on the evening of December 26, 1916 is presented. It is important to note here that, at the time of Constantinescu's statement, Sturdza was no longer his immediate superior, but had handed over command of the brigade, since January 4, 1916, to Lieutenant-Colonel Pascu, the former commander of the 29th Infantry Regiment.

Returning to Major Constantinescu's statement, he confirmed that Major Constantinescu had left the position (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 14v) by the remnants of the battalion commanded by Captain Mărculescu, which, according to the records, had descended to the road, about 1 km away

from the position from which they had fled earlier: "*there I find Mărculescu, Major Constantinescu declares, with the remains of the men (of the battalion, s.n.) and the 2 machine guns*" (Arhivele Militare Naționale Române fără an, f. 14v).

In an attempt to locate in space, the events of the evening of December 26, 1916, when Sturdza tried to shoot Mărculescu and Ciulei demonstratively, we deduced that the episode took place on the banks of the Șușița river, near a portion of the Varnița - Răcoasa road. On a careful orientation on the map, the Varnița - Răcoasa road today intersects the bed of the Șușița at two points, about 1.7 km apart. We could thus estimate the site of the event by considering the point on the right, the one closer to Varnița, where, according to Constantinescu, Polihroniade had gone to round up the fugitives.

Also, the localization in time of the event is the evening of December 26, 1916, a few hours after 16.30, the time at which the enemy attack had been launched, which had caused the battalion commanded by Marculescu to leave the position. Another temporal landmark is the mention in the (ANMR, fond Curtea Marțială a Corpului 1 Armată, dosar nr. 49, f. 17) of Captain Polihroniade, who stated that he found Ciulei in Varnița, around 7.00 p.m., with the two platoons of the battalion reserve, which he commanded, that he admonished him and sent him with a companion to the place decided for the battalion assembly, where the fugitives were expected by Sturdza himself.
In addition to the above two points, let us add that at the place where the fugitive battalion was to assemble, the snow was lying on the ground, and the following scenes may have taken place under the cover of darkness or, at best, by torchlight.

Major Constantinescu also stated that Sturdza asked him two questions: the first, about the purpose of his presence in that place, where the fugitives of the other battalion were gathered, and the second, whether his battalion had also fled from the position. Following the negative answers of the former, events would have unfolded as follows: Sturdza assembled the fugitives from the battalion commanded by Captain Marculescu, ordered him and Second Lieutenant Ciulei to leave the front, and fired at them. of Captain Polihroniade, who stated that he found Ciulei in Varnița, around 7.00 p.m., with the two platoons of the battalion reserve, which he commanded, that he admonished him and sent him with a companion to the place decided for the battalion assembly, where the fugitives were expected by Sturdza himself.
We can deduce from this statement that the darkness of that winter afternoon contributed to Sturdza's missed execution. We can also deduce that the decision to shoot Marculescu first canceled the surprise effect, and Ciulei took advantage of this moment and the darkness, and jumped into the water, making himself invisible in the woods, untouched by bullets. Last but not least, we can deduce that the cold mountain water, the low temperature during the night, the excitement, and the darkness limited Ciulei's actions, and he was caught two days later in Verdea, a few kilometers away from the place where Sturdza had tried to kill him, in the house of a

local man he had had to enter to warm up.

Mărculescu, instead, fell in the snow as if he were dead, without anyone in the audience realizing the reality of the situation because of the darkness that masked everything, although, as Constantinescu's statement says, the scene took place in the presence of the battalion.

After the episode of the execution was consummated, Major Constantinescu was given command of approximately 400-450 fugitive soldiers (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 14v) whom he took to his battalion's position, and commanded until December 31, 1916, when he returned to the regiment. According to the same source, the command of Mărculescu's battalion was subsequently given to Captain Polihroniade, who remained the highest-ranking officer in that battalion.

In contrast to Ciulei's file, the investigation of the charges against Constantinescu took much longer. In February 1917, Major Protopopescu, Royal Commissar of the 1st Infantry Division, drafted a report, submitted to the commander of the 2nd Army, General Alexandru Averescu, in which Major Marin Constantinescu, battalion commander of the 2nd Infantry Regiment, was accused of leaving his post in the presence of the enemy, an act provided for by Article 205, paragraph (1) of the Code of Military Justice.

Although it had initially been submitted to court martial with the same haste, without even a statement having been taken from him or Captain Marinescu, an eyewitness to the events, the case was returned for completion. It is obvious that in the Constantinescu case, the 2nd Army court-martial did not hurry.

Moreover, General Alexandru Averescu, in a resolution dated February 20, 1917, also asked for references from his former commanders: "What has been the behavior of Major Constantinescu since General Stratilescu commanded the division?", is recorded in the address with which the file was submitted.

Colonel Obogeanu and General Stratilescu's assessments (AMNR, fond Armata a 2a - Curtea Marțială, dosar nr. 7, f. 14v) of Major Constantinescu's training and character were decisive, so that on March 1, 1917, General Averescu closed Major Constantinescu's file, with a decision in the resolution: 'On the basis of the favorable assessments of the [i]erarchical heads I close the case'.

General Averescu may also have learned something from the haste with which Ciulei had been tried, convicted, and executed, but certainly at the time of his decision to shelve the "Constantinescu affair", the aspects of Sturdza's defection were clear.

Conditions

Did soldiers have reason to desert to the enemy? At that time the army was at the end of a disastrous campaign, morale was very low, and the peasant-soldier did not

understand the abstract notions of the national ideal, which, moreover, nobody believed (Tăslăuanu 1935, 292) in those days.

The authorities had little concern (Kirițescu 1927, 354) for the preparation of the masses to participate in the war, as the historian Constantin Kirițescu wrote, and before the war, very little had been done to prepare the population morally. The same population from which hundreds of thousands of fighters were to be recruited a few months later.

On the 2nd Army's front, desertion or voluntary surrender to the enemy had become a common phenomenon, for various reasons: poor living conditions, lack of winter equipment, lack of adequate food, and last but not least, the disinterest of the officer corps in the fate of soldiers in general.

The correspondence between the General Headquarters and the 2nd Army, initiated by .... German communications, is eloquent in this respect. The latter stated that in the period January 1-16, 1917, Austrian and German troops stationed on the 2nd Army's front had taken 3 officers and 1180 Romanian soldiers and non-commissioned officers prisoners.

It seems that these losses, cumulated in only two weeks, not only were not reflected in the 2nd Army's operational communiqués, but seemed implausible to the Romanian General Headquarters. Thus, by "Telegram no. 4710 of January 19, 1917" (AMNR, fond Marele Cartier General, dosar nr. 160, f. 52), the 2nd Army was ordered to report the exact situation of those captured by the enemy, „in order to be able to officially refute this tendentious news" (Arhivele Militare Naționale Române fără an, f. 52), and at the same time for the General Headquarters to get an idea of the total number of Romanian prisoners that the enemy claimed to have taken.

The situation of the prisoners was communicated by the 2nd Army through „Report no. 15702 of January 21, 1917" (AMNR, fond Marele Cartier General, dosar nr. 160, f. 51) signed by General Gheorghe Mărdărescu, and showed that the situation was not as the enemy claimed, but even worse. Thus, the report showed that the number of prisoners taken by the enemy and those declared missing on the 2nd Army front was 1 officer and 1297 soldiers and enlisted men, but the real situation could not be accurately determined because, in the number of those reported, some large units included also the dead who could not be picked up from the lines.

The report also bears the resolution of Major Florea Țenescu, future Chief of the General Staff, then an officer in the Operations Section of the General Headquarters, who states: „The data given by the 2nd Army agree exactly with those given by the Germans, in terms of numbers" (AMNR, fond Marele Cartier General, dosar nr. 160, f. 51).

As for the living conditions of the soldiers on the 2nd Army front, they were not the best, to use a euphemistic expression. According to the findings of Major Laundrot

of the French Military Mission on January 26, 1917, and recorded in the report (AMNR, fond Marele Cartier General, dosar nr. 160, f. 164-173) drawn up following his visit to the 2nd Army front, most of the troops did not even have a shirt, their footwear was broken, and in some places it was completely missing. The worst situation was in the 1st Infantry Division, the upper echelon of Sturdza's brigade. This division was commanded by General Dumitru Strătilescu, who, the report mentions, had identified as a solution to the chronic lack of footwear, underwear, and equipment for the troops in the dead of winter, the use of ....*opinci*, the traditional Romanian footwear. Another solution identified was the requisitioning of effects and underwear. The report did not indicate where exactly, who and especially how these solutions were to materialize.

The organization of the positions of the regiments and battalions of the 2nd Army also left much to be desired, according to the report of the same French officer, the reasons being that the engineering tools were largely missing, the ground was frozen in the early morning when the positions did not pass through rocky terrain, and the men were too exhausted to work.
One battalion of the 1st Infantry Division was found without any semblance of defensive organization, in other battalions the trenches had no ancillary defenses in front of them, such as barbed wire and barbed wire obstacles, while the second line of defense was either very poorly represented or did not exist at all.

According to the records of General Scărișoreanu, brigade commander in the 2nd Army, the situation was no better when it came to feeding the troops. He mentions (Scărișoreanu 1934, 194) in his memoirs, sometime between January 14 and January 23, 1917, about Order 8944 of the General Headquarters, which announced the depletion of the wheat stock, as well as the effects of this situation: only those from units at the front could receive bread daily, while the units in rebuilding received bread only three days a week, and porridge on the other four.

The Romanian 2nd Romanian Army at the front had very small numbers of troops, very damaged equipment, and food that left much to be desired: "bread (...) replaced by porridge, and horse meat and peas full of cockroaches, being the daily diet of this troop (Scărișoreanu 1934, 206).
The same source mentions that the troops, especially behind the front, were "cramped in cantonments, poorly clothed, poorly fed, without any hygiene and full of insects on their bodies" (Scărișoreanu 1934, 194). The troops also suffered greatly from the cold and frostbite, some of them even fatal, and the situation was worrying in terms of the demoralizing (AMNR, fond Marele Cartier General, dosar nr. 160, f. 173) that these conditions had on the men.

The deplorable sanitary condition of the troops is described in a report (AMNR, fond Brigada 7 Mixtă, dosar nr. 38, f. 264) dated February 19, 1917, by the doctor of a battalion of the 7th Mixed Brigade. It is mentioned in this report that some

companies did not send sick men for consultations until after they were in a serious condition, as was the case with soldier Oprea Leonte who had been brought in that very day, "in a dying condition" (AMNR, fond Brigada 7 Mixtă, dosar nr. 38, f. 264). The doctor was asking the battalion commander to intervene so that the "ranks", presumably referring to the cadre corps, would always take into account the hygienic and sanitary condition of the men under their command. The doctor also pointed out that many soldiers were almost barefoot, which did not prevent them from performing all kinds of work and guard duty, even sentry duty, which was why they came to the infirmary with frostbite. The report concluded with the recommendation that the state of health of the men and their physical well-being should be decisive in the assignment of tasks, but above all "*to take into account whether they are well dressed*" (AMNR, fond Brigada 7 Mixtă, dosar nr. 38, f. 264). The situation of the troops does not seem to have changed much as a result of this notification, and on February 20, 1917, there were still reported (AMNR, fond Brigada 7 Mixtă, dosar nr. 38, f. 291) deaths caused by frost.

Under the above conditions, it is perfectly explicable why, once the first, and sometimes the only, defensive line had been breached, the troops, already low in morale, would leave their positions and run for the rear of the front. In this context, the surrender of a company to the enemy or the flight of an entire battalion from the front, although still serious acts, no longer seems so difficult to understand.

Stratagems

The low morale of the troops, and we may add, of the officers as well, was known to the commander of the 2nd Army as early as September 30, 1916. At that time „Order 602" was issued (AMNR, fond Brigada 7 Mixtă, Directive și ordine operative, dosar nr. 3, f. 11-12)*,* addressed to the army corps and subordinate divisions, in which the enemy's fighting style and stratagems were described, and recommendations were made to commanders at all levels: "*Maintaining an action from the front with the appearance of great intensity, it is recorded in the order regarding the enemy's actions, [he] sends in various lateral directions small columns, or even only insignificant detachments to let (sic!) be believed that the enemy is threatening the flank or the rear of the position*" (AMNR, fond Brigada 7 Mixtă, Directive și ordine operative, dosar nr. 3, f. 11-12). With deep regret, continued General Averescu, until then he had not been able to record a single case in which a commander had responded to the enemy with a similar maneuver. It was enough for the commanders of subordinate units to signal a small detachment in the flank to consider themselves in danger and ask for help, and such situations gave rise to the idea of retreat, "*which some of them translate into fact*" (AMNR, fond Brigada 7 Mixtă, Directive și ordine operative, dosar nr. 3, f. 12).

This mentality had to be abandoned, General Averescu emphasized, referring to the lack of initiative of commanders, who often reported that they were

forced to retreat, or even retreated without asking permission, but also without having done anything against enemy maneuvers. Commanders need to realize the realities of war, which requires sacrifice, and in the face of hardship the first thought should not be of relief and retreat, he said: "*Retreat is the last means to be resorted to only when all other means available to a manly defense have been exhausted*" (AMNR, fond Brigada 7 Mixtă, Directive și ordine operative, dosar nr. 3, f. 12).

The order concluded by warning all officers, but especially commanders from the regimental level upwards, that the outcome of resistance was linked not only to the reputation of each individual, and of the army in general, but to the very existence of the country: "*In such circumstances no sacrifice can be too great (s.n.) and the only thought of each one must be to remain steadfastly in place today at all costs*" (AMNR, fond Brigada 7 Mixtă, Directive și ordine operative, dosar nr. 3, f. 12).

The order was to be read by the regimental commanders to all subordinate officers, and they, in their turn, were to explain it to the troops in the parts relating to the stratagems used by the enemy, to make them understand that, without a serious reason, they must not withdraw from their positions.

Executions

The suspension of the right to appeal was one of the most important and certainly one of the most controversial measures adopted in support of the war effort, which meant that once the sentences of the councils of war, and from January 1917 of courts-martial, had been established, they became enforceable by law, including in the case of death sentences.
With Romania's entry into the War of the War of Integration, and as a result of the unfavorable political and military situation the country was going through, any appeal against the decisions of the councils of war was suspended. Subsequently, the disciplinary councils were abolished and the permanent war councils were replaced by courts-martial.

The suspension of the right to appeal was adopted by King Ferdinand I after Romania entered into the war, by "Royal High Decree no. 2930 of September 16/29, 1916" (Monitorul Oficial 1916, 6266). The measure was based on the provisions of Art. 67 of the Code of Military Justice, which gave the possibility for persons convicted to appeal against the sentences of the military courts to the higher court (the council of revision, s.n.) and provided that the right of appeal for persons convicted by the sentences of the councils of war could be temporarily suspended during wartime by royal decree, based on the opinion of the Council of Ministers (government, s.n.).

Two royal decrees were issued in this regard: the first, Royal High Decree No. 2930 of September 16/29, 1916, to which we have already referred, suspended the use of this appeal to the Permanent Army Review Board for those convicted by the courts-martial, while, by „*Royal High Decree No. 7 of January 7/20, 1917* (Monitorul Oficial 1917, 7598-7599), the right of appeal to the Superior Court of Military Justice was raised for those convicted by the courts-martial.

Professor Neculau's assertion that, at the time of Ciulei's trial, the right to appeal had been suspended is therefore correct, and the sentences of the councils of war, and subsequently of the courts-martial, became the fastest instrument for repressing the defections at the front.

However, we are forced to admit that there was an exception, that is, a much quicker procedure for administering justice on the front line. These were summary executions, carried out by superior order or on the orders of commanders of units or large units, sometimes even by them personally.

On this subject, it is, we believe, unnecessary to emphasize that in the Code of Military Justice, there was no institution of summary execution, constituted in any kind of punishment, and commanders were not able to apply the death penalty unilaterally to their subordinates, even if they subsequently invoked the measure of extreme urgency or immediate necessity.

However, the dynamics of military action, over-zealousness, adrenaline, or perhaps the belief that only extreme measures can produce results in extreme situations, have also led to acts of this kind being committed in our country.

As a disciplinary procedure in itself, summary execution was not a foreign practice, nor was it forbidden to commanders. That is why Sturdza's attempt to shoot Ciulei and Mărculescu, although today it seems unbelievable, was not uncommon in those times. The hierarchical chiefs rather appreciated the determination of these commanders, whom they characterized as energetic, as well as the swiftness of the measures adopted by them, even to the detriment of the idea of justice, than to have ordered measures to bring such practices into legality and prohibit them.

Did Sturdza have the right to shoot Mărculescu and Ciulei? This question can only be answered with an evasive answer. Not if we look for a legal framework to regulate these practices. The Code of Military Justice did not provide for such a procedure under any circumstances. Yes, if we go by the practice of commanders at the high echelons, who generously granted this „right", and at the tactical echelons, who implemented it with alacrity.

The fact is that summary executions have been practiced since the beginning of the war, and not only in the 2nd Army. We encountered such practices in units of the 3rd Army, in the Dobrogea campaign, but also in the Northern Army.

For example, by „Circular no.778" ((AMNR, fond Brigada 7 Mixtă, dosar nr. 8, f. 171) of October 22, 1916, the 7th Mixed Brigade was briefly informed of the orders

and dispositions issued in the run-up by the commander of the Northern Army, to which it was subordinated at the time, where in item no.7 it mentions Circular Order 2138, which orders that those caught leaving the front to be executed immediately. Moreover, on November 7, 1916, the Northern Army transmitted to the 7th Mixed Brigade „Order no. 232" ((AMNR, fond Brigada 7 Mixtă, dosar nr. 8, f. 241) giving regimental commanders the right to apply this kind of extreme measures to all those who were susceptible to panic or who would have sought favorable opportunities to cross into the enemy camp. The latter were to be "immediately and on the spot executed", as the order put it, on the principle that those who did not do their duty out of conviction or willingly, were to be compelled to do their duty out of fear.

As scandalous as it may seem now, during the War of Integration, shooting in front of the front line was a drastic measure adopted by the higher echelons of the Romanian army to curb the phenomenon of retreating without orders, as it was euphemistically called, fleeing from the enemy. General Scărişoreanu (Scărişoreanu 1934, 183) also mentions this measure in his memoirs, referring to an order received from General Eremia Grigorescu, in which words of encouragement were interwoven with threats: *„(...) I also make it known, the order reads, that those who will retreat without orders will be shot in front of the front"* (Scărişoreanu 1934, 183).
The fact that Sturdza did not hesitate to publicize the „execution" of Mărculescu, sending to all subordinate units „Order no.11 (Scărişoreanu 1934, 174) of December 27, 1916, communicating that the Momâia peak had been lost a day before, due to the weakness of Captain Mărculescu, and ordering to inform the troop that for this reason the officer had been executed.

In other words, Sturdza, as well as other commanders, had been given the power to execute without trial any of their subordinates, simply because the higher military authorities had given them this right, and during various documentation, as I said, I discovered that he was not the only one who had put it into practice.
In his diary, Sturdza refers to the case of a corporal from one of the regiments subordinated to the brigade, who had run from his position shouting "The Hungarians are coming!", causing panic and dragging others into his flight, which is why he was executed (Otu şi Georgescu 2011, 242) on the same day.

However, in our documentation, we also identified cases of officers who became victims of summary executions. Also in his diary, Sturdza (Otu şi Georgescu 2011, 242) refers to General Ion Dragalina, former commander of the 1st Army, who wrote that he had heard that he had shot six second lieutenants who had fled the front during the fighting on the Jiu. Also, in our documentation, we have identified the case of Second Lieutenant Gheorghe Rovinaru, which presents some similarities with the Ciulei Case, as it emerges from the correspondence between the 1st Army and the Adjutant Section of the General Headquarters.
In "*Report no. 5466*" (Otu şi Georgescu 2011, 242)*,* the 1st Infantry Division made a "due" rectification, stating that, in reality, Second Lieutenant Gheorghe Rovinaru

was not dead, as initially reported, but only wounded, without specifying the severity of the wound or his state of health. The official correspondence also revealed that the officer and six other soldiers, whose condition was also not specified, had been shot by the commander of the 1st Infantry Division, Colonel Ion Anastasiu, on the accusation that they had fled the front during the fighting at Jiu.

Later promoted to general, Ion Anastasiu admitted the deed, stating in a memoir: "(...) I myself returned to the front on the day of the battle of October 14/27, 1916, a company that was retreating, firing revolvers at the troop and the officer" (Anastasiu 1927, 3).

As in Ciulei's case, I have noted the attitude of the hierarchical commanders towards this act, more precisely that of General Ion Culcer, commander of the 1st Army, the upper echelon of the 1st Infantry Division. Report no. 5466 clearly states the conduct of General Ion Culcer, who, having become aware of the incident, tacitly accepted it, as the text of the document shows: "no further investigations were made, the higher command of the 1st Army gave the order that it was better to keep the matter quiet" (AMNR, fond Marele Cartier General, dosar nr. 524, f. 304v).

Colonel Ion Anastasiu, who commanded the 1st Infantry Division from October 16, 1916, to December 23, 1916, although he had committed an act provided for by criminal law, not only was not punished in any way but was credited with a special contribution (Ioanițiu 1929, 142-144) to the success of the Romanian counter-offensive in the Battle of Jiului.

It should also be pointed out that the resolution of General Constantin Prezan, recorded on December 31, 1916, on the same Report No. 5466, does not contain any incriminating elements against the two senior officers, namely the commander of the 1st Infantry Division and the commander of the 1st Army, who, by their action and inaction, respectively, had substituted themselves for the institutions responsible for the application of military justice.

Moreover, from the order in resolution of General Constantin Prezan's "*Address no.14231*" (AMNR, fond Marele Cartier General, dosar nr. 524, f. 304) of January 1, 1917, it appears that the one who was to be immediately referred to military justice was Lieutenant Gheorghe Rovinaru, although it was known that he was wounded: "Lieutenant Rovinaru will be immediately sent before the council of war of the respective Army. The result will be communicated to M.C.Gl. (General Headquarters, s.n.)" (AMNR, fond Marele Cartier General, dosar nr. 524, f. 304v).

The resolution ended with three initials, D.I.O. (Din Înalt Ordin, s.n.), which indicates that this case had already been presented to King Ferdinand I, in which case the order of General Constantin Prezan was merely a means of communicating the sovereign's decision.

The two cases of officers to whom the summary execution procedure was applied have several aspects in common. The first is the fact that the General Headquarters

did not order any further investigative measures, possibly against commanders who had used such practices. Secondly, the fact that, both in the case of Ciulei and in the case of Rovinaru, there were orders from the General Headquarters to punish the victims of failed executions, or, as in the case of Ciulei, to court-martial the commander of the firing squad that had failed to carry out the "task". And the result of these measures should have been reported at once to the General Headquarters.

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BULLETIN
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Open Systems Theory
in Organizations and Geopolitics

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Abstract

This paper presents a theoretical approach exploring the application of Open Systems Theory within geopolitics. Traditionally, geopolitics has focused on state-centric power dynamics; however, the increasing influence of non-state actors such as multinational corporations, and transnational networks has blurred the boundaries between states and other global entities. By employing Open Systems Theory, this paper offers a new conceptual framework to understand the complex and interconnected nature of modern international relations. The study ultimately argues that Open Systems Theory provides a nuanced perspective essential for analyzing the evolving dynamics of global politics.

Keywords:

Open Systems Theory has long been a cornerstone of organizational theory, providing a framework to understand how organizations interact with and are influenced by their environments. Initially developed in the mid-20th century, the theory responded to the limitations of closed system approaches, which largely ignored the external environment's role in shaping organizational behavior (Bertalanffy 1972; Katz and Kahn 1978). Open Systems Theory posits that organizations are open to and interact with their environments, leading to a continuous exchange of information, resources, and energy that impacts their internal processes and structures (Scott 2003; Daft 2015).

In recent years, scholars have increasingly applied Open Systems Theory to geopolitics, offering new insights into the complex and interconnected nature of global political dynamics (Weber and Waeger 2017). Geopolitics, traditionally focused on the study of power relations between sovereign states, has evolved to consider a broader range of actors, including multinational corporations, non-governmental organizations, and transnational networks (Ansell and Weber 1999; Mazis and Troulis 2019). This shift reflects the increasing interconnectedness of the global political environment, where traditional boundaries between states and non-state actors are becoming increasingly blurred (Keren 1979).

This paper engages in a rigorous theoretical analysis grounded in a review of relevant literature to explore the applicability of Open Systems Theory as a framework for understanding the complex and dynamic interactions between organizations, states, and global actors within the geopolitical sphere. Given the abstract and multifaceted nature of the subject, this study adopts a conceptual approach, recognizing that the theoretical exploration of Open Systems Theory offers critical insights into the evolving nature of political actors and boundaries, the intricate interplay between state and non-state entities, and the delicate equilibrium between openness and control within global telecommunications networks. The decision to pursue a purely conceptual analysis stems from the theoretical orientation of the research, which aims to advance scholarly discourse by proposing a nuanced interpretive lens rather than empirical validation. While this study does not incorporate case studies or empirical data, it seeks to contribute to the academic understanding of international relations in the 21st century by offering a refined theoretical perspective that could inform future empirical investigations.

The Evolution of Open Systems Theory

Open Systems Theory is a conceptual framework that views organizations as dynamic entities engaged in continuous interaction with their environment. Unlike closed systems, which are self-contained and isolated, open systems are characterized by permeable boundaries that facilitate the exchange of information, energy, and resources with their surroundings. This theory, rooted in the work of Ludwig von

Bertalanffy (1972) and further developed by scholars such as Daniel Katz and Robert Kahn (1978), provides a holistic perspective on how organizations adapt, evolve, and sustain themselves in complex and changing environments (Scott 2003; Daft 2015).

Central to Open Systems Theory is the idea that organizations are not static structures but are continually influenced by external factors such as economic conditions, technological advancements, social trends, and regulatory changes (Katz and Kahn 1978; Thompson 1967). These influences necessitate ongoing adjustments and adaptations to maintain organizational viability and effectiveness. This perspective shifts the focus from internal mechanisms to the broader context in which organizations operate, emphasizing the interconnectedness between internal and external environments (Lawrence and Lorsch 1967; Wilkinson 2011).

One of the key concepts in Open Systems Theory is the feedback loop, which enables organizations to receive information about their performance relative to their environment. Feedback can be positive, reinforcing current practices, or negative, indicating the need for change (Ashmos and Huber 1987; Wilkinson 2011). This continuous process of feedback and adjustment is crucial for organizational learning and development. For example, a shipping company might receive feedback about delays caused by outdated technology, prompting it to invest in more advanced systems to enhance efficiency and competitiveness (Emery and Trist 1965).

Open Systems Theory also highlights the importance of resource exchange. Organizations depend on various inputs from the environment, such as raw materials, labor, capital, and information. These inputs are transformed through organizational processes into outputs, such as products, services, and waste, which are then returned to the environment (Burns and Stalker 1961; Cummings and Worley 2016). The sustainability of an organization hinges on its ability to manage these exchanges effectively, ensuring that it can secure necessary resources and maintain favorable relationships with its stakeholders (Montuori 2011).

Adaptability is another critical aspect of Open Systems Theory. Organizations must be flexible and responsive to external changes to survive and thrive. This involves not only reacting to immediate challenges but also anticipating future trends and preparing for potential disruptions (Beven 2006). Strategic planning, environmental scanning, and innovation are essential practices for enhancing organizational adaptability. For instance, a shipping company might monitor global trade patterns and geopolitical developments to anticipate shifts in shipping routes and adjust its strategies accordingly (Cummings and Worley 2016).

The theory also emphasizes the role of organizational boundaries, which define the limits of an organization and distinguish it from its environment. However, these boundaries are not fixed; they are dynamic and permeable, allowing for the flow of information and resources. Effective boundary management is crucial for balancing internal stability with

external adaptability (Luhmann 2006). Organizations must protect their core operations while remaining open to external influences that can drive growth and innovation.

Interdependency is a fundamental principle of Open Systems Theory. Organizations are part of larger systems, such as industries, economies, and societies, and their actions can have far-reaching impacts. This interconnectedness means that organizations must consider the broader implications of their decisions and actions (Beven 2006). Collaborative relationships, partnerships, and networks are often essential for navigating complex environments. For instance, a shipping company might collaborate with port authorities, logistics providers, and technology firms to enhance its operational efficiency and service delivery (Galbraith 1998).

The theory also underscores the importance of systemic thinking, which involves understanding the organization rather than focusing on isolated parts. This holistic perspective helps identify the interrelationships and interactions that drive organizational behavior. Systemic thinking encourages managers to consider how changes in one part of the organization can affect other parts and how the organization interacts with its environment. This approach can lead to more effective problem-solving and decision-making, as it considers the broader context and long-term consequences (Cummings and Worley 2016).

In addition to these core concepts, Open Systems Theory also incorporates the idea of homeostasis, which is a system's tendency to maintain its key characteristics and to be resilient in the face of external disruptions. Homeostasis is achieved through various mechanisms, including feedback loops, which help systems self-correct based on interaction with the external environment. This concept has been extensively studied in fields such as mathematics (dynamical systems), engineering, and biology, but it is also relevant in the context of organizational intelligence, particularly in the public sector, where intelligence producers use feedback from consumers to refine their products and ensure relevance (Emery and Trist 1965).

Furthermore, systems theorists like Luhmann (2006) argue that a system has a boundary that separates it from its environment, thereby limiting external influences. However, as Beven (2006) points out, the degree to which a system adapts depends on how well it engages with its environment. This engagement is facilitated by the systemic nature of organizations, where the interdependence of various parts means that modifications in one area will invariably impact others.

Organizational culture, structure, strategies, and processes (systems) also play a significant role in shaping the scope and limitations of a private-sector geopolitically focused strategic intelligence team. For instance, the organizational culture within which a team operates can either facilitate or hinder its ability to respond to external changes. A culture that encourages innovation and flexibility is more likely to support effective adaptation and resilience (Nahavandi *et al.* 2015).

Moreover, the structure of an organization can impact how well it functions as an open system. According to Galbraith (1998), the amount of coordination required within a structure is a function of the amount of uncertainty in the environment, the differentiation between subunits, and the degree to which these subunits are interdependent. In a dynamic environment characterized by high uncertainty, organizations need sophisticated coordination mechanisms to ensure effective operation.

The role of systems in defining how work is done is also critical. As Bertalanffy (1972) suggests, the interconnected nature of an organization's components makes systems heavily reliant on established work processes. These processes largely define the interactions between elements of the system and can be used to improve the operations of a business. In a corporate intelligence context, there is often an emphasis on hierarchical structure and the codification of norms to avoid ambiguity, necessitating clear coordination processes for the creation of intelligence products.

The Changing Nature of Political Actors and Boundaries

Historically, geopolitics has been anchored in the examination of power relations between sovereign states, emphasizing territorial boundaries, national sovereignty, and the distribution of power among these states (Ansell and Weber 1999). This traditional perspective, rooted in the Westphalian model of international relations, assumes that nation-states are the principal actors on the global stage, driven primarily by considerations of national interest, territorial integrity, and security (Mazis and Troulis 2019). However, the global political landscape has undergone significant transformations in recent decades, revealing the limitations of these conventional frameworks in adequately capturing the complexities of contemporary international relations (Weber and Waeger 2017).

Open Systems Theory, which posits that systems are interconnected and interact dynamically with their environments, offers a valuable lens through which to understand these evolving dynamics at both the organizational and geopolitical levels. Unlike closed systems, where boundaries are rigid and impermeable, open systems emphasize the fluidity and permeability of boundaries, allowing for the exchange of information, resources, and influences. This theoretical perspective is particularly relevant in analyzing the current global order, where the rise of non-state actors and the increasing interconnectedness of states have blurred the once-clear boundaries of state authority and influence (Keren 1979). Additionally, the increasing significance of cyber threats, climate change, and global pandemics such as COVID-19 underscores the importance of adopting an Open-Systems approach to understanding the diffusion of influence and the challenges to traditional state sovereignty.

Cybercrime, as a growing threat to global security, exemplifies the challenges posed by the permeability of modern state boundaries. Cybercriminals, often

operating within transnational networks, exploit the interconnectedness of global systems to launch attacks that can disrupt critical infrastructure, steal sensitive information, and undermine the integrity of state institutions (Prabhukar 2024). The decentralized and borderless nature of cyberspace allows these actors to evade traditional forms of law enforcement, thereby challenging the regulatory authority of nation-states. Moreover, state-sponsored cyberattacks have emerged as a strategic tool in international conflicts, with states using cyber capabilities to project power, influence political outcomes, and destabilize adversaries without engaging in conventional warfare (Zaitsev 2023). The complexity and anonymity of cybercrime further complicate efforts to maintain state sovereignty and security, necessitating international cooperation and new forms of governance that transcend traditional geopolitical boundaries.

Climate change represents another profound challenge to traditional notions of state sovereignty and global governance. The impacts of climate change, such as rising sea levels, extreme weather events, and resource scarcity, do not respect national borders and require a coordinated international response (Freeman 2024). As the effects of climate change intensify, they are likely to exacerbate existing geopolitical tensions, leading to conflicts over resources such as water and arable land, mass migrations, and increased pressure on fragile states. These developments highlight the limitations of a state-centric approach to geopolitics, as no single nation can address the global nature of the climate crisis alone. The rise of climate refugees, for example, challenges the capacity of nation-states to control their borders and manage population flows, further eroding the traditional concept of sovereignty (Zaitsev 2023). In this context, Open Systems Theory offers a framework for understanding the interconnectedness of environmental, political, and social systems, emphasizing the need for collaborative approaches to global governance that can address the root causes and far-reaching impacts of climate change.

Moreover, the COVID-19 pandemic has similarly exposed the vulnerabilities of the global system and the limitations of state-centric governance models. The rapid spread of the virus across borders, facilitated by global travel and trade networks, demonstrated the inadequacy of national responses in containing a global health crisis (Reiners 2021). The pandemic has highlighted the importance of international cooperation in managing public health emergencies, as well as the need for robust global institutions capable of coordinating responses and distributing resources equitably. The economic fallout from the pandemic, including disrupted supply chains, unemployment, and financial instability, has further underscored the interconnectedness of national economies and the necessity of a coordinated global response to recovery efforts (Bump 2023). Moreover, the pandemic has accelerated digital transformation, increasing reliance on digital infrastructure while simultaneously exposing it to cyber threats, thus intertwining the challenges of cybercrime with the broader implications of global health crises (Zaitsev 2023). Open Systems Theory provides a critical lens through which to analyze these developments,

highlighting how the permeability of borders and the interdependence of global systems complicate efforts to manage such complex, transnational challenges.

The emergence of new actors such as multinational corporations, non-governmental organizations, transnational advocacy networks, and organized crime networks has significantly transformed the geopolitical landscape. These entities operate transnationally, often undermining traditional state-centric power structures. For example, organized crime networks have evolved into sophisticated enterprises that exploit the vulnerabilities of global systems and the permeability of state boundaries, thereby challenging the regulatory authority of nation-states over international affairs (Prabhukar 2024). These networks not only engage in illicit activities but also influence political and economic agendas, often aligning with or against state interests (Zaitsev 2023; Moloney and Legrand 2024). Similarly, cybercrime has emerged as a critical threat, with state and non-state actors alike leveraging cyberspace to disrupt governance, economies, and international security, further complicating the traditional geopolitical landscape.

Furthermore, non-state actors such as multinational corporations and non-governmental organizations significantly influence state sovereignty and global dynamics. Multinational corporations, driven by profit maximization, often operate with considerable autonomy, leveraging their economic power to shape state policies and regulatory frameworks that align with their interests. This economic leverage can sometimes rival that of smaller nation-states, complicating traditional notions of sovereignty and governance (Freeman 2024). In contrast, non-governmental organizations and transnational networks advocate for social justice and environmental sustainability, creating a counterbalance to corporate influence and promoting humanitarian aid (Zaitsev 2023). These interactions highlight the fluidity and complexity of contemporary global governance, as the objectives of profit-driven corporations may conflict with the altruistic goals of NGOs, necessitating a reevaluation of sovereignty in the global context, particularly in light of global challenges like climate change and pandemics.

Moreover, state agencies increasingly reflect the principles of Open Systems in their operations. Central banks, intelligence agencies, and security organizations are no longer confined to traditional nation-state roles. Central banks engage in international monetary policy coordination and financial stability efforts that transcend national borders, directly impacting global economic conditions. Intelligence and security agencies collaborate across borders, sharing information and resources to address transnational threats such as terrorism, cybercrime, and organized crime networks. These agencies, by engaging in extensive networks of international cooperation, blur the lines between domestic and international spheres, further eroding the clear demarcations of state sovereignty.

Additionally, the International Court of Justice (ICJ) exemplifies the complexities of traditional state power institutions, revealing how external influences can shape its decision-making processes. Research indicates that the ICJ's rulings are not solely grounded in legal principles; they can be swayed by political pressures and the strategic interests of powerful states. For instance, Almeida et al. (2023) highlight that the court's decisions may reflect broader geopolitical dynamics, suggesting that powerful nations can exert influence over the ICJ's operations and outcomes. Similarly, Hofbauer (2023) discusses how the interplay of national interests and international law can lead to outcomes that prioritize state agendas over impartial legal adjudication.

Discussion and Conclusion

The transformation of international relations from the Westphalian system—centered on state sovereignty and centralized authority—to a more complex and interconnected global landscape marks a profound shift in the way power, governance, and security are understood. This change is largely driven by the rise of non-state actors, including multinational corporations, non-governmental organizations, transnational networks, and cybercriminals, which challenge the traditional dominance of nation-states. Open Systems Theory offers a valuable analytical framework to examine this transformation, emphasizing the fluidity of boundaries and the intricate interactions among various global actors.

The increasing prevalence of cybercrime exemplifies the growing challenges to state sovereignty in a digitally interconnected world. Cybercriminals, operating within transnational networks, exploit global systems to conduct borderless attacks, complicating traditional law enforcement and regulatory mechanisms. State-sponsored cyberattacks further blur the distinction between conventional warfare and digital conflict, highlighting the need for international cooperation and innovative governance frameworks to manage these emerging threats. Future empirical investigations could explore the effectiveness of international cybercrime agreements and the role of multinational coalitions in countering state-sponsored cyber threats.

Climate change also challenges traditional concepts of sovereignty and global governance. Its impacts—ranging from rising sea levels to extreme weather events and resource scarcity—transcend national boundaries, requiring coordinated international responses. As climate-related effects intensify, they are likely to exacerbate geopolitical tensions, leading to resource conflicts, mass migrations, and increased pressure on fragile states. This scenario underscores the limitations of a state-centric approach and highlights the importance of Open Systems Theory, which emphasizes the interconnectedness of environmental, political, and social systems. Empirical research could investigate how international agreements, such as the Paris Agreement, are reshaping state policies and fostering cooperation among diverse actors in response to climate change.

The COVID-19 pandemic has further exposed vulnerabilities in the global system, revealing the inadequacies of state-centric governance in managing transnational crises. The virus's rapid spread, facilitated by global travel and trade networks, demonstrated the necessity of robust international cooperation and effective global institutions for coordinating responses and distributing resources. The pandemic also accelerated digital transformation, increasing reliance on digital infrastructure while exposing it to cyber threats, thereby intertwining the challenges of cybercrime with broader implications for global health and security. Future empirical studies could examine the long-term impacts of the pandemic on global supply chains and the resilience of international health governance structures.

As the geopolitical landscape continues to evolve, the traditional state-centric framework must adapt to account for the growing influence of non-state actors and the interconnected nature of global challenges. While Open Systems Theory provides a valuable framework for understanding these dynamics, it must be complemented by empirical research that explores the enduring role of nation-states in security and defense. Investigations could focus on the effectiveness of international security alliances and the impact of emerging technologies on national defense strategies.

In conclusion, the transition from the Westphalian order to a more complex global paradigm presents both challenges and opportunities. By integrating the insights offered by Open Systems Theory with empirical investigations into contemporary global dynamics, scholars, policymakers, and global citizens can better navigate and shape the future of international relations. This new paradigm demands innovative approaches to governance, security, and economic relations that are responsive to the realities of an interconnected world, where the boundaries between domestic and international affairs are increasingly blurred. Empirical research will be crucial in understanding these shifts and in developing strategies to address the multifaceted challenges of this new era.

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Using Technology Readiness Levels (TRLs) in UAS development

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Abstract

In the dynamic world of aeronautical technology, the development of uncrewed aircraft systems (UAS) is an area of continuous expansion and innovation. Technological progress in this sector can be measured by the Technology Readiness Levels (TRL) Scale, which provides a standardized framework for assessing the technological maturity of a product or system. The TRL scale is widely used in industry and research to guide the systematic development of new technologies from concept and initial research to operational implementation and commercialization. This scale can also be successfully used in the research, development, and deployment of an uncrewed aircraft system.

Keywords:

Economic growth and new technologies are increasingly linked to ever-lower energy consumption and reduced environmental impact, with an emphasis on interdisciplinarity between research, education, and commercialization of technologies. Sustainable development and technological innovation are key to meeting today's global challenges, from climate change to limited natural resources. In this context, the process of transforming an innovative idea into a widely applicable technology becomes essential for economic and social progress.

Therefore, developing technologies undergo a well-defined cycle that starts with an idea and ends with its implementation and application in various domains. This process of technological evolution was standardized by NASA in the 1970s, mainly for space exploration technologies. The initial concept of Technology Readiness Levels (TRLs) was introduced by Stan Sadin, a NASA scientist, who developed the first seven-level TRL in 1989. In the 1990s, NASA adopted an expanded version of the TRL scale that included nine levels of technology readiness. This nine-level scale has rapidly gained general acceptability throughout the aerospace industry and beyond, becoming a standard for assessing and monitoring technological progress. Over time, the use of the TRL scale has expanded across numerous industry sectors, including healthcare, energy, transportation, and information technology (Banke 2010).

The implementation of the TRL scale also helps to reduce the risks associated with technological development and supports decision-making regarding research and development investments. In addition, this methodology supports interdisciplinary and international collaboration, having a significant impact on innovation and competitiveness in the global marketplace.

Therefore, the correct understanding and application of the TRL scale are crucial for the success of emerging technologies and for achieving a balance between economic progress, environmental protection, and society's well-being. This integrated and standardized approach continues to play a vital role in shaping the future of technology and transforming innovative ideas into concrete and effective solutions.

Overview of TRLs

Technology Readiness Levels (TRLs) are a standardized methodology used to assess the stage of development and maturity of a technology during the research, development, and implementation stages. These levels are numbered from 1 to 9, where TRL 9 represents the most mature technology. The lowest level, TRL 1, shows that the information emerging from basic scientific research is taking the first step from an idea to a practical application. A technology that has reached TRL 9 is a technology that has been fully incorporated into a larger system, has been proven to work smoothly, and is considered operational. The road from TRL 1 to TRL 9 is

often long and complex, involving years of research and development. This process includes testing and validating individual components, creating prototypes, and integrating them into a complete system, followed by further testing in the laboratory and real-world conditions. Only after successfully passing through all these stages can a technology be considered mature and ready for practical use.

The nine levels originally defined by NASA (Héder 2017):
Level 1 - Basic principles observed and reported
Level 2 - Technology concept formulated
Level 3 - Experimental proof of concept
Level 4 - Technology validated in laboratory
Level 5 - Validarea în mediul relevant
Level 6 - Demonstration of a system/subsystem model or prototype in a relevant environment (terrestrial or space)
Level 7 - Demonstration of a prototype in space
Level 8 - Real system finalized and „flight-qualified" through testing and demonstration (on the ground or in space)
Level 9 - Flight-proven system with successfully executed missions
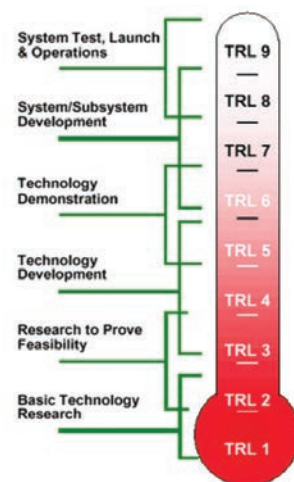
Figure 1   NASA technology readiness levels

So, levels 1 and 2 address the theoretical part of the development and have a lower cost because they are the results of scientific research programs. Level 3 also has a low cost, but TRL 4 and TRL 5 have some higher costs. Costs then increase exponentially and reach a maximum at TRL 8, which is the most costly to realize (Héder 2017). The overlooked approach of TRLs 4 to 7 can lead to what is called the "Valley of Death", where neither academia nor the private sector prioritizes investments. This is why many technologies, although promising, end their journey before deployment. In order to cover this area, additional involvement and collaborative effort are needed (TWI-Romania n.d.). Assessing the readiness of individual technologies minimizes budget and planning risks.

The TRL scale was adopted in Europe by the European Commission in 2011, following a study on Key Enabling Technologies (KETs) for their potential impact in enhancing Europe's industrial and innovation potential. It was proposed to set up a high-level expert group tasked with developing a coherent European strategy for development, which recommended that the TRL scale be used as a tool to assess project outcomes and expectations (European Commission 2011).

The TRL scale has been widely adopted at the EU level as a decision-making tool for funding investments in research, development, and innovation in major programs. Also in the European Union's "Horizon 2020" research and innovation funding program "Horizon 2020" from 2014 -2020, the TRL scale has been a requirement of the funding application helping the evaluator to assess the specific level of each stage and allowing the transition to the next stages (Bruno *et al.* 2020, 370).

EARTO (European Association of Research and Technology Organizations) has observed an increased use of the TRL scale as a planning tool for innovation management and thus adapted it to fit the EU-wide research, development, and investment goals (EARTO 2014):

TRL 1 – Observations of basic principles: at this stage, the focus is on the scientific understanding of a process or material.

TRL 2 – Technological concept is established: possibilities for application of the basic principles are identified. First production principles and possible markets are defined.

TRL 3 – Experimental proof of concept: based on preliminary studies, research and development of the project starts at the laboratory level and the first discussions about the main beneficiaries or customers take place.

TRL 4 – Technology validation in the laboratory: the technology is validated through laboratory trials. Production principles are identified and market studies are carried out. TRL 4-6 represents the link between scientific research and engineering, from development to demonstration. TRL 4 is the first step in determining whether individual components will work together as a system.

TRL 5 – Testing the prototype in a relevant environment: the system is tested in the environment for which it has been designed and connected to the necessary technological infrastructure. Processes are prepared for larger-scale production. The major difference between TRL 4 and 5 is the increased fidelity of the system and its operation in a relevant environment (for which it was designed). The scientific risk should be completed at the end of TRL 5. The demonstrated results should be final and statistically relevant.

TRL 6 – Demonstration of technology viability in an operational environment: the prototype system is verified. Examples may include a prototype system/model that is produced and demonstrated in a simulated environment. It is an important step in demonstrating the usefulness of a technology. Examples include manufacturing the device on a pilot production line. In TRL 6 the actual development of the technology as an operational system starts. The difference between TRL 5 and TRL 6 lies in the transition from the laboratory level to the engineering level and thus to the identification of the scaling factors that will enable the design and production of the final system.

TRL 7 – Demonstration of the model system and prototype in an operational environment: significantly increases technological maturity. Demonstration of the functionality of a real system prototype in a relevant/operational environment is required. The final design is practically complete.

TRL 8 – System complete and validated: the system/model is produced and qualified. The technology is proven functional and TRL 8 is the end of system development. Products can be mass-produced and actual

manufacturing costs are determined.

TRL 9 – Current system validated in an operational environment: The system/ model is proven and ready for full commercial deployment

Applications of TRLs in different industries

Industry and other government organizations have adapted the definitions for certain TRLs to suit their own needs, but their general scale fits very well with the original scale created by NASA.

Technology Readiness Levels are not just limited to space exploration or aerospace technologies. They are used in a variety of industries, including energy, health, transportation, and information technologies. In the energy industry, TRL can be used to assess the maturity of carbon capture and storage or renewable energy technologies. For example, the U.S. Department of Energy uses a Technology Readiness Assessment Guide to describe the energy requirements to be met (U.S. Department of Energy 2011).

In healthcare, TRLs can be used to assess the maturity of a new drug or new medical technology. Medical products require TRLs definitions and descriptions that are appropriate and unique to the technologies on which they are based and that take into account healthcare regulations. Recognizing these factors, the U.S. Army Medical Research and Materiel Command (USAMRMC) has established specific definitions, descriptions, and processes for TRL levels in the field (Tier7 2018).

TRL levels can also be used in the context of open innovation. Open innovation is a paradigm that assumes that firms can and should use ideas from both inside and outside, as well as solutions from the internal and external market to promote their technologies. Open innovation encourages collaboration, sharing ideas, and integrating knowledge from different sources. This can include collaboration with other companies, research institutions, universities, or even end-users (Innovating Society n.d.). In the context of open innovation, TRLs can be a useful tool to facilitate collaboration between different organizations. For example, a company may decide to collaborate with a research institute to develop a new technology. In this case, TRLs can be used to assess the stage of development of the technology and determine what resources are needed to advance the technology to the next TRL level.

Technology Readiness Levels also play a crucial role in funding decisions for technology development. Investors and funding agencies often use TRLs to assess the risk associated with investing in a particular technology. A technology with a high TRL may be considered less risky because it has already gone through numerous stages of testing and validation. In contrast, a technology with a low TRL may be considered more risky because it may require more research and development before it is ready for commercial deployment.

Example of a TRL scale for the development of a UAS

The TRL scale for UAS starts with fundamental research and ends with full system operationalization. Each TRL level represents a critical step in the technology validation and verification process, ensuring that innovations are not only feasible but also applicable and effective in real missions. The TRL scale therefore serves as a roadmap for engineers and researchers, indicating the key steps and criteria needed to turn a potentially revolutionary idea into a viable solution:

TRL 1 – Fundamental Research: At this level, research is conducted to understand the phenomena and scientific principles that will be the foundation of UAS technology. For example, the aerodynamic characteristics of different structural elements of aircraft may be studied or new materials for aircraft construction may be analyzed. It is a phase of exploration and accumulation of knowledge needed to progress in technological development.

TRL 2 – Concept and Applicability: Having established fundamental principles, researchers begin to develop technological concepts and assess their viability. At this level, mathematical modeling and computer simulations can be performed to test different UAS configurations and identify the most promising development directions.

TRL 3 – Proof of Concept: Here, technology concepts are put through initial tests to verify that they work as expected. Small-scale prototypes or individual components may be used to demonstrate the feasibility of ideas. For example, flight tests may be conducted with scale models to assess aerodynamic behavior.

TRL 4 – Component Testing: At this level, individual UAS components are created and tested in a controlled laboratory environment. Endurance tests, engine tests, functional tests of sensors and navigation systems or data links as well as the evaluation of the integration of different subsystems may be performed.

TRL 5 – Integration and testing in a relevant environment: Components and subsystems are integrated into a prototype which is then tested in an environment that mimics real operational conditions. This step is crucial to assess how the system works as a whole and to identify any compatibility or performance issues.

TRL 6 – Prototype Demonstration: A functional prototype of the UAS is built and tested under conditions that simulate the operational environment. This is when it is verified that the system can perform the missions for which it was designed, including launch, flight, and recovery.

TRL 7 – Advanced Prototype Testing: The prototype is now being tested in an environment that comes as close as possible to real operational conditions. Extensive flight tests are performed to assess performance in different scenarios and to ensure that the system is robust and reliable.

TRL 8 – Final System: The UAS is now fully developed and undergoes final testing to confirm that it meets all specified requirements. This level includes obtaining the necessary certifications and preparing for serial production.

TRL 9 – Operationalization: At the last level, the UAS is used in real missions and demonstrates that it can operate efficiently and safely under the conditions for which it was designed. This is the final test of successful technology development, demonstrating that the system is ready for large-scale deployment.

This TRL scale is an example and offers a clear picture of the step-by-step development process from initial research to operational deployment of UAS technology. Each TRL level is essential to ensure that the final system is safe, efficient, and ready for the challenges of the real operational environment.

Importance and challenges of TRLs

Assessing technology readiness is essential to understand the risks associated with developing and deploying a new technology. A technology with a low TRL may have great potential but also significant risks, as many aspects of the technology may still be unknown or unresolved. On the other hand, a technology with a high TRL is closer to being ready for commercial deployment, but may still require significant investment to bring it to market.

TRLs provide an objective method of assessing the maturity of a technology, and investors and funding agencies can use TRL levels to assess the risks and opportunities associated with investments in emerging technologies.

Although the TRL scale is a useful tool for assessing technology maturity, it also has some limitations. For example, the TRL scale does not take into account the commercial or economic aspects of technological development. A technology may have a high TRL, but be commercially unsustainable due to high production costs or lack of market demand. Other challenges in using TRLs:

- the TRL scale does not take into account social or ethical aspects of technological development;
- TRLs assessment can be subjective as it depends on the interpretation and experience of the evaluators;
- testing and validating a technology to achieve higher TRL levels can be costly and time-consuming;
- TRL is not directly applicable to all technology domains. Some technologies may have particularities that do not fit neatly into this scale.

Conclusions

Technology Readiness Levels are an essential tool for assessing technological maturity and managing the risks associated with the development and implementation of new technologies. However, it is important to understand that the TRL scale is only one of many tools available for technology assessment and that it should be used in combination with other methods and tools to get a complete picture of the potential and risks of a new technology. Despite the criticisms, the TRL scale remains an essential tool in assessing technological maturity. As technology continues to evolve at a rapid pace, the TRL scale may need to be adapted or modified to keep pace with these changes. For example, new TRL levels could be added to reflect new stages of technological development or specific TRL scales could be developed for different technological domains.

Despite criticism, TRLs remain a valuable tool for assessing technological maturity. Understanding and correctly applying TRL can help manage the risks associated with the adoption and deployment of new technologies.

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Professional codes of morality and the professional codes of conduct of military personnel in different countries

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Abstract

This article presents a study on moral codes and professional codes of conduct. Various professional codes of conduct were considered, including the Samurai Code of Conduct, Code of Chivalry, Pirate Code, Hippocratic Oath and Medical Oath, Red Cross Code of Conduct, Galilean Oath, Code of Apparel Industry Partnership, Ethics in Computer Programming and Software Development, Moral hacking. Special emphasis is placed on Military Ethics and the morale of the serviceman. The article recognizes the golden rule of global ethics as the most important and simple truth for distinguishing right from wrong in human behavior.

Keywords:
moral codes; professional codes of conduct; golden rule; Military Ethics; morale of the serviceman.

The main goal of the article is the presentation of professional codes of morality and the professional codes of conduct of military and civilian personnel in different countries and areas of human life. For this purpose, various theoretical approaches with practical-applied elements are used, as follows – the historical approach, a review of a variety of available scientific and practical-applied literature, an etymological review of used concepts and terms, the foundation of leading world scientific dictionaries interpreting individual phenomena, content analysis. The first part of the scientific work has a mainly theoretical orientation, while the second and third emphasize the existing moral codes and codes of professional conduct from ancient times to the present day in different areas of human life. The third part of the development is oriented to military ethics and morale, which is an extremely relevant and important problem, especially as it relates to the „peace-war" situation, that modern society is faced with. At the same time, in the exposition, the author asks some scientific questions, being critical of the presented topic under consideration and looking for relevant answers.

Moral code and code of conduct –
in-depth study of the concepts

Ethics consists of the standards of behavior we adhere to in our personal and professional lives. It establishes the levels of honesty, empathy, trustworthiness, loyalty, and other virtues by which we hope to identify our personal behavior and public reputation, and it sets norms for the ways in which we interact with family, friends, colleagues, and in society as well.

In the modern world, humanity's value system is under tremendous stress. The explosion of technology, knowledge and information, industrialization, globalization, aggression, consumerism, and greed lead to a polluted world of polluted values, weak moral foundations, and exposure of human weaknesses and vices.

The etymological review of the term „code" takes us back to the 13th century, when this term denoted a systematic compilation of laws, a system of laws, and a book of laws. The word originates from the Latin word „caudex", i.e. „a systematic classification of statutory law". The meaning „system of rules" dates from 1808 (Online Etymology Dictionary 2001-2022).

According to the Cambridge Dictionary, „a code" is (Cambridge Dictionary 2022a):
- a set of principles that are accepted and used by society or a particular group of people;
- a set of rules or laws.

A code of ethics represents the internal moral policy within an organization. This policy sets out the principles, standards, and moral expectations to which employees and third parties adhere while interacting with the organization (Compliance Glossary 2022). As a rule, moral codes are drawn up excluding any form of

punishment or reward, although in practice we find exceptions. Bearing in mind that ethics is the science of morality, we should mention that the proper name of what we usually encounter in everyday life, and in some cases in professional environments, as „ethical code" should be – „moral code". Despite our point of view, we will comply with the use of the term „code of ethics", since it has gained too much popularity precisely under this name, and also due to the necessary correctness when citing the actors who use it exactly this way.

The general code of ethics is a practice with a wider scope and is adopted to help members of the organization understand the difference between right and wrong thinking, right and wrong behavior, and apply this understanding to their professional decisions. A common moral code defines the values that underlie moral behavior in the organization and serves as a starting point for employees to make better and morally informed choices every day. It presents the basic guiding principles according to which employees should act in cases of moral dilemmas.

A code of conduct is a set of rules of conduct that employees follow within an organization, especially regarding their professional conduct. A code of conduct informs employees of the company's expectations of morality and moral behavior and acts as a standard to which employees must conform. A code of conduct reviews the organization's goals, values, mission, vision, and philosophy, and links these ideals to standards of professional conduct.

According to the Cambridge Dictionary „a code of conduct" is (Cambridge Dictionary 2022b):
• a system of numbers, letters, or signals used to represent something in a shorter or more convenient form;
• a set of rules that are accepted as general principles, or a set of written rules that say how people in a particular organization or country should behave;
• a set of rules that members of an organization or people with a particular job or position must follow.

Often confused with a general moral code, a code of conduct refers to the expected behavior of those working in an organization, while a general moral code provides guidance on moral decision-making skills when faced with moral dilemmas.
Some of the elements that would be included in a code of conduct are:
• values;
• philosophy;
• hierarchy and status;
• communication and communication channels;
• due regard;
• dress code;
• delays/absences;
• exit policy;

- vacation policy;
- discrimination;
- conflict of interests;
- bullying;
- misuse of company resources and property;
- whistleblowing;
- privacy.

The subject of professional ethics includes practices designed to solve moral problems that arise in a certain profession. Professional ethics tries to solve three main problems. The first is related to the need to specify general human moral norms in the conditions of professional activity. The second takes into account the requirements that exist within the profession, tying them to external links and relations. Thirdly, professional ethics is the bearer of correspondence between the values of the profession and the interests of society itself, and from this point of view, it expresses the relationship between social responsibility and professional duty.

But what are the most important characteristics of professional ethics?
First, professional ethics is expressed in the form of requirements addressed to representatives of a given profession, and its normative image is laid down in the form of comprehensively formulated declaration codes.

Second, all codes of professional ethics are filled with the conviction that the values professed by the profession are not only completely obvious but also obligatory, arising from an analysis of the activities of the best representatives of the particular profession.

Professional ethics is considered the oldest of the three ethical fields – applied ethics, metaethics, and normative ethics. In reality, it originates in human everyday working life, in human practice. It is traditionally believed that the first set of professional rules was compiled by the ancient Greek physician Hippocrates (460 – 370 BC), which is also one of the prerequisites for the separation of medicine as a separate science. Hippocrates did not formulate the physician's oath himself but summarized various vows made by Greek priests to the god of healing Asclepius. This oath is the prototype of the modern medical code of ethics. The history of professional ethics can also be traced from the documents, charters, and oaths of various institutions and organizations in the ancient world, for example, the professional associations of Ancient Rome.

The moral code of the profession is adopted by and for the representatives of a given profession, industry, or sector. It includes professional duties and responsibilities, discussions of difficult issues and difficult decisions, and provides accurate information about what behavior is considered moral or as correct in a given profession. Failure to comply with the code of professional practice may result in the

exclusion of the individual from the professional branch or industry, or revocation of the rights to practice a profession.

The International Guide to Good Practice for Defining and Developing an Effective Professional Code provides the following definition for „professional code":
„*A professional code includes principles, values, standards or rules of conduct that guide an organization's decisions, procedures and systems in a way that contributes to the well-being of its key stakeholders and respects the rights of all those affected by its activities*" (IFAC PAIB Committee 2007).

Professional moral codes

Samurai code of conduct. Bushido is a moral code regarding the conduct and lifestyle of the samurai. Bushido is used as an umbrella term for all the codes, practices, philosophies, and principles of samurai culture. Bushido affects countless aspects of Japanese society and culture. Bushido is the basis of the ideology of industrial harmony in modern Japan. This enabled the country to become a world economic wonder and the economic leader of Asia in the post-war 1950s and 1960s (Cleary 2008). Business relationships, the close relationship between the individual and the group, and the notions of trust, respect, and harmony in the Japanese business world are based on bushido.

Principles such as honorable poverty encourage those with power and resources to share their wealth, directly influencing the national economy and public welfare. According to Fujimura: „Bushido is a part of the foundation of a sense of national identity and belonging – an ideal that shows that the Japanese are one people." (Cleary 2008) In addition to impacting performance in combat, martial arts, health protection, socially responsible activities, and entertainment, the code promotes ethical corporate conduct.

The Chivalric Code is a varying code of conduct developed between 1170 and 1220, closely related to the medieval Christian institution of chivalry. The ideals of chivalry were popularized in medieval literature, through the accounts of the legendary companions of Charlemagne and his warriors, the legend of King Arthur and his Knights of the Round Table (Weatherly and Coulton 1911). The code of chivalry, which originated and developed in medieval Europe, has its roots in earlier centuries. It arose in the Carolingian Empire as a result of Charlemagne's idealization of cavalry and included the qualities: of military bravery, individual training, and service to others (Gautier 1891).
Some basic commandme
nts that were included in these moral codes were (Gautier 1891):
1. Protect the Church.
2. Respect the weak.

3. Love the country where you were born.

4. Strictly fulfil your feudal duties.

5. Never lie and stay the true.

6. Be generous to everyone.

7. Everywhere and always be a champion of right and good against injustice and evil.

The chivalric code as it existed in the Late Middle Ages was a moral system that combined the qualities of a warrior, chivalric piety, and courtly manners, creating the image of honor and nobility.

The Pirate Code is an agreement of conduct that includes rules for discipline, division of loot, and compensation for injured pirates. Each crew member signs or affixes his stamp or mark to the codex, and then takes an oath of allegiance. The first recorded pirate code belonged to George Cusack and it was in effect from 1668 to 1675 (Fox 2013).

The Pirate codes usually included the following elements (Arcadian Venture LLC 2022):

- duties to the captain, quartermaster, doctor, mate, gunner and boatswain;
- penalties for misappropriation and concealment of loot;
- penalties for cowardice in performance of duty;
- gambling penalties;
- injury promises;
- accommodation;
- rewards for well-done duty.

The Hippocratic Oath is an oath to the moral practice of medicine traditionally taken by physicians. It is widely believed that the oath was written by Hippocrates, the father of medicine, in the 4th century BC or by one of his disciples (Temkin 2002). The Oath is the earliest expression of medical ethics in the Western world, establishing several principles that remain paramount today. These are the principles of medical confidentiality and non-maleficence. It is often pointed out that the Latin phrase „Primum non nocere" which translates to „First, do no harm" is part of the original Hippocratic Oath. The physician is also sworn to guard the sacred things of medicine within the medical community (Potter 1995, 295–315).

Some of the elements that the Hippocratic Oath includes are (Hippocrates of Cos 1923):

- respect for the teacher in the profession;
- duties to the teacher in the profession;
- obligation in the medical education process;
- care for the sick people;
- waiver of intentional unfairness;
- observance of professional secrecy;
- preserving the purity of life.

The Hippocratic Oath has been changed many times. One of the most significant revisions was drawn up in 1948 in Geneva. The Geneva Declaration was adopted by the General Assembly of the World Medical Association in Geneva in 1948. It is a declaration of the physician's commitment to the humanitarian goals of medicine, which is particularly important in view of the medical crimes that were committed in the German-occupied countries. The Declaration of Geneva was intended as a revision of the Hippocratic Oath to formulate moral truths concerning medicine that could be understood and recognized in modern times. During the post-World War II era, immediately after its founding, the World Medical Association (WMA) showed concern about the state of medical ethics, taking responsibility for setting moral guidelines for physicians worldwide. This is how the modern wording of the ancient Hippocratic Oath was prepared. The medical oath was called the Geneva Declaration. This document states that as a member of the medical profession the oath takers will dedicate their life to the service of humanity, the health and well-being of the patient will be their priority, they will respect the autonomy and dignity of the patient, they will show respect for human life without discrimination, they will respect the secrets entrusted to them, they will exercise their profession conscientiously and with dignity and in accordance with good medical practice, etc. (World Medical Association 2008).

Red Cross Code of Conduct. The Code of Conduct for the Red Cross and Non-Governmental Organizations in Disaster Relief was drawn up in 1992 by the Humanitarian Response Committee and aimed to set out uniform ethical standards for organizations involved in humanitarian work. The code was adopted in 1994. The basic guidelines of the code regarding humanitarian aid emphasize the importance of humanitarian aid; the delivery of humanitarian aid regardless of the race, creed, or nationality of the recipients and without any distinction; respect for the culture and customs of those in need of humanitarian aid; etc. as the main objective of aid is to reduce vulnerability to future disasters as well as meet the basic needs of the community (ICRC 1994).

Galilean Oath. In the winter of 1564, Galileo Galilei was born in Pisa. The future genius physicist, astronomer, mathematician, and philosopher was born in the family of a famous and wealthy musician. At the age of 17, he was sent to study to be a doctor. At the university, he got acquainted with geometry and Galileo was fascinated by this science. In 1609, Galileo Galilei constructed the first telescope (IMSS 1995-2010). In 1632, after almost 30 years of hard work, Galileo published his main work Dialogues on the two main systems in the world – the Ptolemaic and the Copernican, where he defended Copernicus' theses, and claimed that the Earth is mobile and it is not a center of the universe (Finocchiaro 1997).

The Galilean Oath is part of the ceremonies at higher education institutions in Europe. All graduates take a solemn pledge, an expression of a moral act by which each undertakes to keep his oath.

„I, the graduate of University ………….
entering the ranks of the intelligentsia, I swear:
• to keep the name of the university that revealed to me the world of science;
• to adequately defend my professional training;
• to use my scientific knowledge only for good, for progress and humanization of the world;
• to contribute to the elevation of man as the highest criterion for all scientific and social activity;
• to affirm in myself and in society the basic principles of human morality;
faithful to people, to contribute with my work to their better future;
• to be a worthy citizen of my Fatherland!
I SWORE!" (University of Plovdiv 2020-2024)

The Code of Apparel Industry Partnership (AIP) represents one of the most important international steps to address the issue of labor standards and working conditions in the apparel industry. It is a voluntary standard that was developed by the US Department of Labor and includes a number of US companies. The AIP Code came into force in 1997. The Partnership Code includes (Visser *et al.* 2010):

> • prohibition of employment of persons under the age of 15;
> • prohibitions against violence, harassment, and discrimination of workers;
> • recognition and respect of workers' rights;
> • requiring employers to pay at least the minimum or industry prevailing wage;
> • providing a safe and healthy working environment;
> • limitation of mandatory overtime work to 12 hours per week or 48 hours;
> • requiring overtime to be compensated with the premium required in the country.

An important element of the code of partnership in the apparel industry is that independent external observers: conduct reviews of the policies and practices of participating companies; provide company employees with communication channels to report cases of non-compliance; audit production records and practices; conduct employee interviews and site visits (Visser *et al.* 2010).

Ethics in Computer Programming and Software Development. The American scientist Norbert Wiener, professor of mathematics and engineering at the Massachusetts Institute of Technology, laid the foundations for a new type of ethics in the mid-1940s. He observed that innovations and advances in science and technology, along with the fast-growing computer industry, necessitate the emergence of a new type of professional code of ethics. The increasing use of computers and other technologies raises new moral issues that must be analyzed carefully using new ethical guidelines. In 1976, Walter Maner proposed the term „computer ethics" based on Wiener's ideas and defined the field as the study of moral problems created, transformed, or aggravated by computer technology (Bynum 2001). Professional

ethics relating to computer programming and software development include moral guidelines that software developers are expected to follow and apply. The Association for Computing Machinery (ACM) has its own code of ethics and a set of ethical principles that are endorsed by the Institute of Electrical and Electronics Engineers (IEEE) as a standard for teaching and practicing software engineering. These are – the Code of Ethics and Professional Conduct and the Code of Ethical Software Engineering and Professional Practice.

The code of ethics and professional conduct of the association states (ACM 2018):
1. Contribute to public and human well-being.
2. Avoid hurting others.
3. Be honest and trustworthy.
4. Don't use someone else's intellectual property.
5. Respect the privacy of others.
6. Respect confidentiality.

Moral hacking. Organizations must find solutions and take measures to protect their information resources and technologies. Moral hacking is the deliberate penetration of a system or network in order to discover vulnerabilities and assess the system's security. Organizations can hire morally responsible hackers precisely for the purpose of discovering the security problems and vulnerabilities of the information system.

The problem with defining morality in hacking is that morality is really a matter of perspective. Hypothetically speaking, a hacker located in China who attacks government systems in the United States might be seen as one of the good guys for the Chinese government, while that same hacker would be seen as one of the bad guys for those living in the United States (Wilhelm and Andress 2011). However, although this dilemma is confusing, there is definitely a solution. After reviewing ethics, the various ethical schools, moral practices, the concept of corporate social responsibility, religious views of morality, and the „golden rule", it is now quite easy to find a solution. And that is that any action that causes harm is immoral.

Military ethics and morale

Military ethics, broadly speaking, is an interdisciplinary study involving moral dilemmas about the conduct of war; decisions about how and when to engage in military operations; issues related to moral psychology and the care of those who serve, for veterans of military service; the political and moral philosophy of international conflicts; when the use of military force is justified; the law of armed conflict and the international humanitarian law. Military ethics focuses on the core values and moral principles that are exercised by the men and women serving in the military forces of different nations around the world. In light of the prevailing global

context, the domain of military ethics has ascended to a position of paramount importance, marking a period of intensified military engagement reminiscent of the era subsequent to the Second World War (Pashov 2022). This escalation reflects a complex interplay of geopolitical dynamics that necessitates a rigorous examination and reevaluation of ethical frameworks guiding military conduct.

Most armies around the world have developed their own set of regulations that define and clearly outline what is expected of their members.

Some common military values are:
1. Discipline.
2. Loyalty.
3. Courage.
4. Honesty.
5. Respect.
6. Mission.
7. Friendship.
8. Tradition.
9. Hierarchy.

The U.S. Armed Forces Code is both a code of conduct and a moral guide that always applies to all members of the U.S. Armed Forces. The Code of Conduct was established on August 17, 1955, by President Eisenhower. The code says:

> *"I am an American fighting in the forces that guard my country and our way of life, I am prepared to give my life in their defense.*
> *I will never surrender of my own free will. If in command, I will never surrender the members of my command while they still have the means to resist.*
> *…*
> *If I become a prisoner of war, I will keep faith with my fellow prisoners. I will give no information nor take part in any action which might be harmful to my comrades.*
> *If I am senior, I will take command. If not, I will obey the lawful orders of those appointed over me and will back them up in every way.*
> *…*
> *I will never forget that I am an American fighting for freedom, responsible for my actions, and dedicated to the principles that made my country free.*
> *I will trust in my God and in the United States of America."* (AUSA 2024b)

The Soldier's Creed of the United States of America emphasizes service to country, non-acceptance of defeat, camaraderie, discipline, physical and mental toughness, expertise and professionalism, preservation of liberty, and the preservation of the American way of life (AUSA 2024a).

In France the soldier's code of conduct emphasis on (Yakovleff 2007):
- the will to win, at the risk of one's own life;

- respect for the enemy and the enemy's population;
- obeying orders while respecting the law;
- adaptation to any circumstances;
- keeping in excellent intellectual and physical shape;
- honor and loyalty;
- attention to people;
- openness to the world and respect for differences;
- cautious expression;
- pride in the regiment, the army, and France.

The Code of Honor for the legionnaires in the Foreign Legion requires a demonstration of cooperation with all legionnaires through a strict solidarity that binds members of the same family; respect for tradition, devotion to leaders, discipline, camaraderie, courage, and loyalty; pride in the status of a legionnaire, dignified and humble behavior; following a strict training regimen. It says:
 „In battle, you will act without passion or hatred; you will respect the vanquished enemy and never abandon your wounded or dead, and under no circumstances surrender your arms." (The French Foreign Legion 2024)

In the German Army all military personnel know that they are defending the dignity of the human being, the rule of law, and freedom, if necessary, by military means. First-hand experience in the non-violent resolution of conflict, as it happens every day in a democratic state, is of valuable support in mediation between parties to a conflict and during peacekeeping operations (Yakovleff 2007).

In the British Army, the servicemen swear by Almighty God that they will be faithful to their rulers, incl. Her Majesty Queen Elizabeth II, her heirs, and successors will defend them in dignity against all enemies, will observe and obey all orders of Her Majesty, her heirs and successors, and the generals and officers placed above the serviceman himself (Yakovleff 2007). The values emphasized in the oath are selfless commitment, courage, discipline, integrity, loyalty, respect for others, professionalism, and leadership.

The Moral code of the Bulgarian soldier from the Kingdom of Bulgaria says:

> *„1. Remember that on earth, in the sea, and in the sky, alive or dead, you are always a soldier of Bulgaria.*
>
> *2. The throne, the banner, and the honor are given by God. Protect them, sparing nothing earthly.*
>
> *3. Never ask „For what?" and „Why me?. Just you! – and nobody."* (Lentata.Com 2024)

The moral code of the Bulgarian soldier from the time after the liberation of the country from Ottoman rule emphasizes respect for Bulgaria, respect for the throne, the flag and honor, respect for the commander, effectiveness, brotherhood, cooperation, humane treatment of the enemy, noble treatment of women, children and the elderly, protection of weapons, uniforms, and military property, assistance

and mutual aid, action in battle without manifestations of fear, etc. (Lentata.Com 2024)

In 2010, the Ministry of Defence of the Republic of Bulgaria drafted the Code of Ethical Behavior of Military and Civilian Employees of the Ministry of Defence, the Structures of Direct Subordination to the Minister of Defence, and the Bulgarian Army. The main purpose of the document is to indicate the principles of accepted and expected behavior of all employees in the Ministry of Defence (military and civilian), in relation to business contacts, in workplace relationships, to prevent corrupt practices and the creation of conflicts of interest. The employees of the Ministry of Defence shall (Department of Defence of the Bulgarian Army 2010):

- not to accept or facilitate the acceptance, either for themselves or for others, of gifts, travel, hotel accommodation, hospitality, discounts, loans, or other benefits or favors that result in influencing their official actions;
- not to use their position to gain benefits;
- not to give or offer gifts or other favors that result in influencing the official actions of the recipient;
- to prevent the existence or occurrence of a conflict of interest.

In 2021, the Ministry of Defence of the Republic of Bulgaria prepared an Ethical code of conduct for military personnel, which defined the rules for the moral behavior of military personnel in the Ministry of Defence, the Bulgarian Army and the structures directly subordinated to the Minister of Defence. According to the code, servicemen perform their military service in compliance with the following principles of conduct: legality; loyalty; good faith; equality; responsibility; political neutrality; integrity; confidentiality; collegiality, and courtesy (Ministry of Defence of the Republic of Bulgaria 2021).

According to the Ethical Code of Conduct for Military Personnel, there are some rules for the moral conduct of military servants - military personnel (Ministry of Defence of the Republic of Bulgaria 2021):

- protect the good name of the institution;
- encourage people to respect the laws of the Republic of Bulgaria by setting a personal example;
- provide assistance to any person in danger in case of fires, disasters, accidents, and emergency situations;
- respect the rights and fundamental freedoms of all citizens;
- respect every person's right to life and dignity;
- do not discriminate;
- provide professional assistance to colleagues in the performance of official duties;
set a personal example of professional, impartial, and efficient performance of official duties;
- strive to avoid conflict situations;
- respect the dignity and authority of superiors;
- protect the life, physical, and mental health of the military personnel.

In the Ethical Code of Conduct for military personnel Ministry of Defence of the Republic of Bulgaria also specifies rules for moral behavior in the military education system, as follows: „The academic community of the military education system accepts and upholds the highest values of higher education in the Republic of Bulgaria, and in its activities follows basic principles such as: legality, professionalism, responsibility, loyalty, openness, criticality, impartiality and accountability. The main violations of academic ethics in the scientific sphere are: plagiarism; fictitious authorship; fictitious co-authorship; mock review; falsification of empirical data; unrealistic assessment, etc. (Ministry of Defence of the Republic of Bulgaria 2021)

In case of non-observance of the rules of the code, military personnel bear disciplinary responsibility according to the Law on Defence and Armed Forces of the Republic of Bulgaria.

Conclusion

Ethics involves systematizing and recommending concepts of right and wrong behavior. Its focus is often the „good life", the life that is worthwhile, or the life that is fulfilling. In most religions there is invariably a moral component, often arising from a supposed supernatural revelation or guidance given to us from above.

The Declaration of Global Ethics by the Parliament of the World's Religions (1993) proclaims the Golden Rule of Ethics:

> „*We should do unto others as we would have others do unto us.*" as a universal principle (Parliament of the World's Religions 2024).

The original declaration was signed by 143 leaders from all the world's major religions, including Brahmanism, Buddhism, Christianity, Hinduism, Islam, Judaism, Native Americans, Sikhism, Taoism, etc.

Trying to live by the Golden Rule means trying to empathize with other people, including those who may be very different from us. Empathy is at the heart of kindness, compassion, understanding, and respect – qualities we all value, no matter who we are, what we think, and where we come from. Although it is not possible to fully understand the other, it is not difficult to imagine what would cause us suffering and to try to avoid causing suffering.

The Golden Rule is perhaps the greatest and simplest moral truth that mankind has ever devised. It is the most essential basis for the modern concept of human rights, for separating right from wrong behavior, and for the morally responsible treatment of others.

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Methodological Approaches in Military Science Research

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Abstract

Scientific research is a prerequisite for progress in all areas of society, and military science is no exception. However, its specificities require careful analysis in order to identify specific methodological approaches to ensure the added value of the results obtained. Moreover, the need for continuous transformation and adaptation of military structures to the operating environment and to the specific characteristics of contemporary armed conflicts leads to an increased interest in identifying innovative solutions in this field. Academic research is the approach to provide feasible and viable solutions to these challenges. However, there are relatively few works that address the methodological peculiarities specific to the field of military science. For this reason, the present article analyses how to organize and conduct scientific studies in the military field, proposing a structured framework of methodological approach in 14 steps to ensure the logical coherence of the approach, while highlighting the specificities of the field under analysis.

Keywords:

methodology; military sciences; research methods; research strategy; scientific research.

The adaptation of the armed forces to the challenges posed by the new security environment, as well as the typology and characteristics of military operations specific to today's conflicts, requires the identification of effective ways to conduct scientific research specific to the field of military science. This can ensure the technological and procedural progress so necessary for the armed forces to gain and maintain cognitive, informational, and decision superiority on the modern battlefield.

The methodology of scientific research provides an organized framework through which, starting from a research problem, solutions are identified, using scientifically proven tools and methods. Although the military field is part of the social sciences, it has certain specificities that have an inherent impact on the way in which specific research should be carried out.

However, although there have been scrappy attempts to develop a methodological framework specific to military science (Scipanov and Nistor 2020), the degree of methodological maturity for military-specific studies is relatively low. This is also **the main research problem** from which I started the scientific endeavor.

For this reason, I believe that finding a way to ensure the meticulousness of the methodological approach can guarantee valuable results, which in turn will lead to a viable process of adaptability of military forces and structures.

In this sense, **the main research objective** of this study was to develop a viable methodological research framework specific to military science research, which was **the main research question** that the current study sought to answer: *How should scientific research in military science be conducted?*

The paper is divided into three parts, following a logical progression. First, I have presented the specific characteristics of the military field as part of the social sciences. Then I have detailed the stages of the framework of scientific studies specific to this field. Finally, I have highlighted some methodological considerations that researchers should take into account in their studies.

In this sense, the approach was **empirical**, using **qualitative research**. Thus, I have tried to understand and present the nuances specific to the methodological approach to work in the field of military science. In order to **collect data**, I used the method of documentary analysis, selecting the most relevant works specific to the field analyzed. Also, the results are mainly based on secondary data, the role of the researcher being extremely important in their analysis and interpretation. For this reason, I was aware of the possible negative influence of my own biases on the results obtained, and constantly tried to apply reflexive measures to reduce them, but also to increase my own level of theoretical sensitivity.

1. Military science, part of social sciences

Military science is the systematized body of knowledge concerning the theory and practice of the use of military forces and capabilities in armed conflict. Kurt G. Piehler, in his book Encyclopedia of Military Science, emphasized that military

science is part of a more complex field of knowledge called military art, and identified the following areas as components of military science (Piehler 2013):
• military leadership;
• military organization;
• military education and training;
• military history;
• military ethics;
• military doctrine;
• military tactics, operations, and strategy;
• military geography;
• military technology and equipment.

The complexity and interdisciplinarity of the field of military sciences can therefore be noticed, with armed conflict being recognized as one of the most challenging, violent, and dynamic human actions (US Marine Corps 2020). Moreover, it is a constant of human nature, being an inseparable part of history since antiquity (Palazzo 2023).

Military science is considered to be part of the family of social sciences and is included at position 355 in the Dewey Decimal System (LibraryThing 2024). The analysis of human behavior in conflict, the human nature of the military operations process, the social impact and effects of war, and the cultural influences on the art of warfare are just some of the reasons for this inclusion.

The fact that it is considered a science implies a well-defined object of study, namely military action, as well as a rigorous methodology for conducting scientific research. I believe that the peculiarities of military science determine some distinctive elements in terms of research methodology specific to this branch of the social sciences.

The study of ongoing armed conflicts therefore imposes some limitations on research. It is recognized that the first casualty of any war is the truth. Perspectives on the same issue may vary considerably between belligerents. In addition, the information provided is biased towards the interests of the initiator in order to influence the target audience, be it the adversary, its own citizens, or the international community. In addition, perennial features specific to the nature of the conflict, such as uncertainty or friction, significantly affect the results of research on ongoing conflicts. All of this determines some of the peculiarities of military research.

Against this background, in the following sections of this article, I will offer a way of approaching scientific research in the field of "military sciences" in order to ensure methodological consistency and, consequently, the validity of the results obtained in the scientific endeavors undertaken.

2. Structural framework for scientific research

Scientific research is a process designed to increase the level of knowledge in a given field by providing answers to questions of interest both to the initiator of the

scientific endeavor and to a whole community of researchers who also wish to solve that problem. The constant changes in the nature of armed conflicts and the need to adapt military structures constantly give rise to research problems specific to the field of military science that need to be solved. However, as mentioned above, there are very few studies that deal with the methodological approach to specific issues in this field.

The process of developing scientific knowledge specific to any field presupposes the existence of a number of essential elements that must be reflected in the methodological approach adopted:

- the correct identification of a topic of interest through the formulation of research questions;

- the use of appropriate methods to the chosen field in order to generate truthful answers to the problem identified;

- appropriate reasoning and concrete evidence to support the proposed conclusions.

In this section, I will present an adapted version of a methodological approach specific to military science, incorporating elements from the work of scientific research specialists. It emphasizes "the research process that includes the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation". (Creswell and Creswell 2023, 39)

The figure below illustrates the steps specific to this approach. It should be emphasized that this ensures methodological consistency in the study carried out, with the specific choices of each step in this framework influencing the choices of subsequent steps.

- 1. Defining the research topic
- 2. Literature review specific to the field(s) of study
- 3. Identifying and defining the research problem
- 4. Formulating research questions / research hypotheses
- 5. Setting research objectives
- 6. Establishing and defining the research philosophy (paradigm)
- 7. Establishing the type of reasoning
- 8. Setting the research approach
- 9. Setting the time horizon
- 10. Choosing the research strategy (research design)
- 11. Data sampling
- 12. Data collection
- 13. Analyzing and interpreting data
- 14. Presenting the results

Figure 1   Framework for a methodological approach to scientific research
Souce: The author's conception

2.1. Defining the research topic

Every scientific endeavor begins with the definition of a research topic. This is an extremely important step, as it focuses the analysis in the next stage on certain well-defined areas within the broad field of military science. At this stage, the exact title of the research may not have been determined, but a general idea of it should be in place.

2.2. Literature review specific to the field(s) of study

This section is extremely important to the overall scientific endeavor and should require considerable resources from the researcher. It aims to provide a critical review of the literature specific to the field of research. Theoretical underpinning of the research, identification of possible gaps in current knowledge on the topic under review and the reasons behind them, as well as highlighting the relevance of the scientific approach may be some of the objectives of this section. An equally important element of the literature review is the development of the researcher's theoretical sensibility. This represents "the ability to identify and extract from the data those elements that are relevant to the theory being formed" (Birks and Mills 2015), being crucial in developing valid and relevant findings. Figure 2 illustrates the key benefits of conducting a literature review.
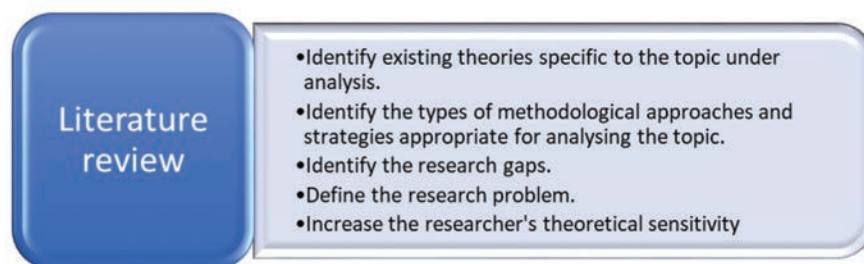
Figure 2 **Beneficiile analizei literaturii de specialitate**
Souce: The author's conception

2.3. Identifying and defining the research problem

"In everyday life, a problem is something we try to avoid. But in academic research, a problem is something we look for." (Turabian 2018, 40) The literature review provides the framework for identifying and defining the research problem. The latter is the foundation upon which all research is built. A problem that is relevant to the scientific community, well-defined, and grounded in the existing body of knowledge sets the stage for quality research.

Relevant military research problems may arise from the need to adapt military structures. Adaptability is an essential requirement during war (Barno and Bensahel 2020, 11); (Ryan 2022). Changes in the operating environment, the constant evolution of conflicts and their character may also generate research problems of interest to the military academic community.

The identification and clear definition of the problem to be researched provides the optimal framework for the coherent development of the specific research aim,

questions and objectives of the study to be conducted. This stage of the research may also determine the need to adjust the title of the thesis to better address the identified problem.

There are two types of research problems: practical and conceptual (Turabian 2018, 41). Both types of problems are amenable to military science, considering the three components of the combat power of any military structure: conceptual, physical, and moral (AJP-01 2022).

2.4. Formulating research questions/research hypotheses

The research is based on the research questions. They are the expression of the problem identified above. All the data collected in the scientific endeavor support the identification of answers to the research questions, test their validity, and together lead to the solution of the identified problem. The role of the research questions is to direct the scientific approach towards a specific goal. Without them, the risk of covering a wide range of topics related to the field under study is quite high. Therefore, research questions support the effort to select the relevant data to answer them, thus directing the whole scientific effort toward solving the problem.

In addition, in order to enhance the scientific value of the paper, it is mandatory that the research questions are relevant to the field of interest. Therefore, I consider that it is also important to make an argument on the need to investigate such questions. Thus, not all questions are of equal value. It is recognized that "the best questions are those whose answers raise many other questions." (Turabian 2018, 29)

The way in which questions are framed should also be considered. Thus, the types of questions will determine how the objectives are drafted, as well as the choice of research approach (qualitative, quantitative, or mixed). On the one hand, questions the answers to which are intended to explain certain phenomena, to understand their nature and their particularities, are suitable for qualitative research. In this case, questions such as *"How...?", "What are...?", "In what way...?", and "What impact...?"* are most appropriate. On the other hand, questions whose answers are intended to measure or quantify certain phenomena are suitable for quantitative research: *"What is ...?", "How much ...?", "How often ...?", "How long ...?", "What effect ...?", "To what extent ...?".*

Remember that quantitative research aims to test hypotheses. Now is the time to write them down. They are consistent with the research questions and follow a cause-effect format, as follows *"If ... (proposed change - action), then ... (increased combat effectiveness - effect)".*

Qualitative research, which aims to understand the nuances of particular phenomena, does not involve hypothesis testing, but the research questions guide the scientific approach. Actually, the qualitative approach aims to build theories on the basis of the data collected, which can then be tested through quantitative research.

2.5. Setting research objectives

The research questions determine how the objectives are written. There must be coherence between these two specific elements of scientific research.

Thus, qualitative research questions will lead to objectives that include verbs such as: explore, investigate, understand, comprehend, examine, describe, interpret, evaluate, assess, develop, etc. Quantitative research questions may include verbs such as: determine, measure, compare, identify, analyze, test, calculate, etc.

To formulate research objectives correctly, it is important to follow the SMART acronym (**Specific, Measurable, Achievable, Relevant, and Time-bound**).

2.6. Establishing and defining the research philosophy (paradigm)

Establishing a philosophical framework is the basis for the design of all research at all stages (Žukauskas, Vveinhardt and Andriukaitienė 2018, 506), and ensures methodological consistency throughout the scientific study. Research philosophy includes the system of beliefs, assumptions, and principles that underpin how one approaches the study (Saunders, Lewis and Thornhill 2019, 130).

Although there are differences in approach, the literature identifies three common research philosophies: positivism, constructivism/interpretivism, and pragmatism (Creswell and Creswell 2023; Saunders, Lewis and Thornhill 2019; Žukauskas, Vveinhardt and Andriukaitienė 2018).The delineation of these is in relation to three categories of research assumptions: ontological, epistemological, and axiological (Saunders, Lewis and Thornhill 2019, 133-134). Ontological assumptions refer to the nature of social reality, epistemological assumptions refer to the nature of human knowledge, and axiological assumptions identify the role of researchers' values, beliefs, and ethics in the scientific processes undertaken. The table below provides a primary framework for distinguishing between philosophies in relation to the three research assumptions.

TABLE NO. 1

Research philosophies

Philosophy	Ontological assumptions	Epistemological assumptions	Axiological assumptions
Positivism	- Reality is objective. - There is only one reality that can be studied.	- Knowledge is obtained through observation and empirical measurement. - Truth is discovered through rigorous scientific methods.	- The researcher's values do not influence the research results, which are objective and reproducible.
Constructivism / Interpretivism	- Reality is socially constructed and subjective. - There are multiple realities, dependent on the perceptions of individuals.	- Knowledge is obtained by interpreting the subjective experiences and perspectives of individuals. - Truth is relative and depends on the context and perspective of the researcher and the subjects studied.	- Research is influenced by the values and experiences of the researcher. - Value neutrality is recognized as impossible.
Pragmatism	- Reality is both objective and subjective and can be studied from multiple perspectives. - Pragmatism focuses on practical problems and useful solutions.	- Knowledge is obtained through a combination of methods, including empirical and interpretive. - Truth is determined by the usefulness and practical applicability of the results.	- Research is influenced by values, but these are integrated into the research process to achieve practical ends.

Thus, "while positivism privileges the measurement of social phenomena, interpretivism focuses on exploring the complexity of these phenomena in order to develop an interpretive understanding" (Collis and Hussey 2021, 41), and pragmatism acknowledges influences from the other two philosophies, focusing on the practical applicability of knowledge.

However, in order to ensure that the researcher and the approach of the study are correctly aligned with one or the other of these philosophies, it is necessary to reflect on the previously established research objectives. This will be done in relation to the three research assumptions outlined above.

2.7. Establishing the type of reasoning

Identifying the type of reasoning that will be used provides methodological clarity to the approach that will be taken and expresses the way of thinking that the researcher will use during the scientific research. There are two types of reasoning: inductive and deductive. These need to be related to the chosen philosophy and determine the type of research approach and, consequently, the way in which sampling, data collection, and analysis will be undertaken.

Inductive reasoning can be useful in exploring new phenomena specific to military science and in developing innovative solutions to complex problems specific to the current environment in which the armed forces operate. *"Research approaches that generalize from a particularity (usually a set of observations of one kind) to a broad statement, such as a general theory or proposition about a topic, use inductive reasoning."* (Given 2008, 429) It is therefore a logical process by which a general conclusion is drawn from particular observations. In other words, inductive reasoning is research that starts with data and moves towards a general conclusion. It is more suited to qualitative research, which involves understanding the different nuances of a particular phenomenon.

Deduction, on the other hand, is the oldest form of reasoning (Given 2008, 207) and ensures the testing of existing hypotheses and theories by applying them to specific situations and assessing their validity. It involves a journey from the general to the particular, to specific conclusions, and is therefore suitable for quantitative research.

2.8. Setting the research approach

The choice of research approach is made in relation to all the methodological options that have been explored up to that point in the research. However, it is the nature of the research objectives and questions that determine the type of research chosen (Leavy 2023, 9). The proposed objectives, which aim to explore in depth certain phenomena specific to the military domain, to identify the essential factors and perceptions of the subjects involved in it, require qualitative research to be carried out (Hennink, Hutter and Bailey 2020, 41). Understanding the experiences of the military in certain combat or training situations may constitute specific topics for qualitative research within the domain of military sciences.

On the other hand, studies that aim, for example, to measure target effects or to test certain technologies will require the use of quantitative research. This type of research can support the assessment of the performance of combat technology, the effectiveness of military operations, the efficient allocation of resources, or the development of advanced technologies, all of which are extremely important elements of military science.

There is also the possibility of using a mixed methods approach, including both qualitative and quantitative methods, but this is far too complicated and is not recommended for young researchers because of the risk of not being able to maintain methodological consistency, thus affecting the quality of the results obtained.

It is of the utmost importance to maintain a logical coherence of the methodological choices made so far in the research. Figure 3 illustrates such potentially viable options in relation to qualitative and quantitative approaches.
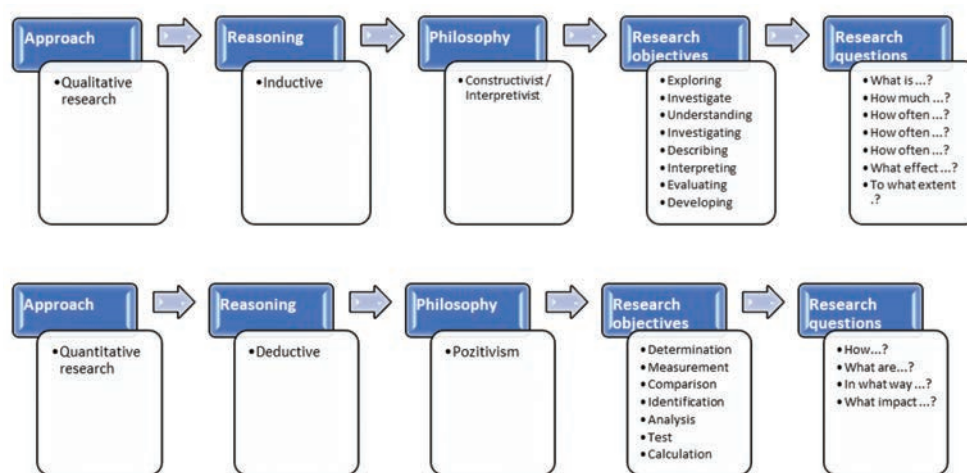
Figure 3 Methodological options specific to quantitative and qualitative research
Souce: The author's conception

2.9. Setting the time horizon

Defining the time horizon on which the research is focused is an important element of the scientific approach. It provides a clear direction for the type of data to be collected later in the study. There are two-time horizons, both of which are relevant to military science. Cross-sectional studies, for example, focus data collection and analysis efforts on a particular timeframe (Wang and Zhenshun 2020, S65). The analysis of specific features of contemporary military operations can be an example of cross-sectional military research.

Longitudinal studies, on the other hand, focus on analyzing certain phenomena over time to identify their perennial features as well as variations, while understanding potential patterns of change to provide foresight on the phenomenon.

The simplest example of military research concerns armed conflicts. A longitudinal analysis performed on them can thus ensure, on the one hand, the identification of features specific to their nature and, on the other, those specific to their character.

2.10. Choosing the research strategy (research design)

The research strategy is the plan for how the study will be carried out in concrete terms (Johannesson and Perjons 2014). The value of this decision comes from its impact on how the data will be collected, analyzed, and interpreted. Of course, the chosen strategy must be guided by the research questions and objectives, as well as the resources at hand, and must be consistent with previous methodological choices. I need to mention that the terms research design and research strategy are often used interchangeably in the academic literature, although they have similar meanings.

The chosen research approach limits the options for selecting the research strategy. In Table 2 I have highlighted which strategies are most appropriate in relation to the two main research approaches.

TABLE NO. 2

Research Strategies

Specific qualitative research strategies	
Phenomenological design	Purpose: To explore and understand individuals' lived experiences of a particular phenomenon. Example: Analyzing the lived experiences of veterans of operations in conflict zones.
Grounded theory	Aim: To generate a theory that explains a particular process based on data collected from participants. Example: Developing a theory of how military leaders make decisions under pressure.
Ethnographic study	Aim: To study the social interactions of a group in their natural environment. Example: To study the daily life of a particular elite military unit in order to identify specific elements of its high performance.
Case study	Aim: To carry out an in-depth analysis of one or more cases in a real or simulated context. Example: Analysis of the decision-making process during a specific military operation or training exercise.
Specific quantitative research strategies	
Descriptive study	Purpose: To describe the characteristics of a phenomenon based on measurements. Example: To study the prevalence of certain conditions in military personnel.
Correlational study	Purpose: To investigate the relationship between two or more variables without manipulation. Example: Investigating the relationship between physical fitness and the decision-making performance of commanders.
Experiment	Aim: To determine cause and effect relationships by manipulating one or more variables. Example: To test the effectiveness of a new training program on the performance of military units.

Once the strategy has been chosen, there are three very important steps in the scientific approach: sampling, data collection, and data analysis. Although each strategy has its own particularities in terms of methods and implementation, these three steps are a constant in all research.

2.11. Data sampling

Data sampling is a crucial process in research, including qualitative and quantitative studies, as it ensures the representativeness and validity of the results. In the context of research, sampling is the process of selecting a part of the study population in order to make inferences about the whole population. Most qualitative research uses non-probability sampling, while quantitative research uses probability sampling (Hennink, Hutter and Bailey 2020, 164).

Probability sampling is also known as 'convenience sampling' because it uses statistical methods to select participants at random. In other words, the procedure for selecting each participant is predetermined and does not depend on the

judgment of the researcher. The result is a random sample. In contrast, probability sampling requires a representative sample to allow the researcher to generalize his or her findings.

Non-probability sampling, on the other hand, does not involve the use of a random statistical selection of participants. In other words, instead of following a set procedure, the researcher uses judgment and discretion to select each subject individually. This involves a deliberate rather than random selection of the sample (Moser and Korstjens 2018, 11). It is also worth noting that the sample size in qualitative approaches is much smaller than in quantitative studies (Braun and Clarke 2013, 55; Howitt 2019, 179).

In the table below, I have highlighted the main types of sampling specific to the two broad categories outlined above.

TABLE NO. 3

Sampling strategies

Non-probability sampling	
Purposive Sampling	Description: Selection of subjects with knowledge and experience relevant to the phenomenon under study.
Snowball Sampling	Description: Using initial participants to recruit other participants, who in turn recruit other participants.
Theoretical Sampling	Description: Selecting participants according to the development of the theory to explore and refine emerging categories.
Convenience Sampling	Description: Selecting participants who are most accessible.
Probability sampling	
Simple Random Sampling	Description: Each member of the population has an equal chance of being selected.
Systematic Sampling	Description: Selection of every nth member of the population after a fixed interval.
Cluster Sampling	Description: Dividing the population into groups (clusters) and randomly selecting entire clusters.
Stratified Sampling	Description: Division of the population into strata (clusters) and random selection within each stratum.

2.12. Data collection

Once the sample has been defined, data collection is carried out. Depending on the chosen research strategy and approach, the optimal collection methods will be chosen. This will depend on the research objectives, the type of data required, and the resources available. The data collected may be primary or secondary, both equally valuable in the scientific endeavor if they support the research objectives. Thus, primary data are those collected directly by the researcher through interviews, surveys, or observation, while secondary data are those collected by other researchers for other purposes, but whose analysis from the perspective of the subject of the study can provide relevant answers to the research questions. Unit daily orders, mission reports, and document archives within classified document compartments can be considered as valuable sources of secondary data in the military field.

An important element to be considered is the specific framework for the use of data collection methods. For example, in the military system, exercises or various training games such as wargaming or CDAG (Concept Development Assessment Game) can provide a good context for collecting the data needed for research.

In Table 4 I have highlighted the main data collection methods specific to qualitative and quantitative research. It should be noted that different collection tools (instruments) such as specialized software, observation sheets, questionnaires, or audio and video recordings can be used to support them.

TABLE NO. 4

Data collection methods

Qualitative data collection methods	
Interview	Description: Structured, semi-structured, or unstructured conversations with participants to obtain in-depth information. Advantages: Allows for in-depth exploration of participants' experiences and tailoring of questions based on responses to meet objectives.
Focus group	Description: Facilitated group discussions, led by a facilitator, focusing on a specific topic. Advantages: Generates ideas and information through group interaction and dynamic discussion.
Participatory observation	Description: The researcher is embedded in the participants' environment to observe their behavior and interactions. Advantages: Provides an insider's perspective and valuable contextual details about the phenomenon under study.
Questionnaire	Description: Uses open-ended questions to understand the nuances of specific phenomena as interpreted by the participants. Advantages: Provides the opportunity to engage a larger number of respondents in a shorter period of time.
Documentary analysis	Description: Selection and analysis of existing documents such as post-mission reports, diaries, field notes, and other written materials. Advantages: Provides access to information that has already been collected and documented.
Quantitative data collection methods	
Survey and questionnaire	Description: Use of structured forms to collect data from large numbers of respondents. Advantages: Allows data collection from a large sample and rigorous statistical analysis.
Experiment / Measurements	Description: Manipulation of independent variables to observe effects on dependent variables in a controlled environment. Advantages: Ability to establish clear causal relationships.
Existing databases	Description: Use of quantitative data previously collected in other studies. Advantages: Saves time and resources by using existing data.
Systematic Observation	Description: Observe and record behaviors in a structured and standardized way. Advantages: Provides measurable data on specific behaviors.

2.13. Analyzing and interpreting data

Analyzing and interpreting data in relation to the research objectives provides answers to the problem that prompted the scientific approach. Data analysis methods vary according to the type of data (qualitative or quantitative) and the research objectives. Qualitative methods are more appropriate for narrative and contextual data, while quantitative methods are appropriate for numerical and measurable data, as can be seen in Table 5.

The use of software, such as NVivo or MAXQDA for qualitative analysis, or SPSS (Statistical Package for the Social Sciences), Google Analytics, and SAS (Statistical Analysis System) for quantitative analysis, can facilitate the analysis process by providing an easy tool for importing and visualizing data, as well as arranging, coding and organizing data statistically.

2.14. Presenting the results

Finally, once the data have been analyzed and interpreted, it is essential to present the results. The following aspects should be considered:

TABLE NO. 5

Data analysis methods

Qualitative data analysis methods		
Thematic analysis	Description: Identifying, analyzing, and reporting themes (patterns) in qualitative data. Process: Read data, code relevant segments, identify themes, review and define themes, and report findings.
Content analysis	Description: Systematic analysis of textual content to determine the frequency of occurrence of particular words, themes, or concepts. Process: Coding data into categories, quantifying categories, and interpreting results.
Grounded Theory	Description: Developing a theory based on the data collected from the source. Process: Iterative data collection and analysis, coding of data, constant comparison of data, development of major categories, categories and subcategories and relationships between them, development of emergent theory.
Interpretative Phenomenological Analysis (IPA)	Description: In-depth study of personal experiences and how individuals make sense of these experiences. Process: Transcribing and reading data, identifying and coding themes, and developing an understanding of experiences.
Methods for analyzing quantitative data	
Descriptive statistics	Description: Summary and description of the main characteristics of a data set. Examples: mean, median, mode, dispersion, frequencies.
Inferential statistics	Description: The generalization of results from a sample to the general population. Helps to identify differences between groups or relationships between variables. Examples: T-tests, ANOVA (analysis of variance), correlation analysis, regression analysis.

- explanation of the results obtained;
- placing them within the existing literature and highlighting the novelties and possible future research directions;
- organizing the results obtained in relation to the research questions posed;
- highlighting whether or not the hypotheses established in the quantitative research are validated.

3. Additional methodological reflections

Throughout the research, it is imperative to address several elements that will increase the accuracy of the results obtained. For example, especially in qualitative research, where the role of the researcher is much greater than in quantitative research (Creswell and Creswell 2023, 278), it is absolutely necessary to explain the reflexive measures taken during the study in order to reduce the influence of one's own biases on the results obtained. In addition, the protection of study participants' data should be an ethical priority in research, thus emphasizing issues of research ethics.

Furthermore, no scientific endeavor is perfect, all have certain limitations. It is the responsibility of every researcher to disclose what these are (Ross and Zaidi 2018, 261), where they come from and, perhaps most importantly, what steps they have taken to reduce their influence. In the case of research specific to the field of military science, these limitations can arise mainly from the following:
- the framework for collecting results, such as training activities or games specific to the military system, cannot replicate certain considerations specific to armed conflict, such as fatigue, stress, fear, and anxiety levels;
- also, as the military system is hierarchical, some data collected from respondents may not honestly reflect their position due to fear of possible

future coercive measures;

- given the nature of the information conveyed in the military system, the level of categorization of this information may also pose significant limitations to public studies in the field of military science;

- as with all research, there may also be methodological limitations, mainly due to the way in which data collection methods are used.

All these methodological considerations must be taken into account in the scientific endeavor, which requires the constant application of measures to reduce their influence on the quality of the results obtained.

Conclusions

Methodology is the backbone of all scientific work. All methodological choices made by researchers must ensure the logical coherence of the research process in order to obtain valuable results, thus contributing to the development of innovative solutions and, implicitly, to the advancement of knowledge in various fields. However, military science, as a component of the social sciences, has not received much attention in terms of the types of methodological approaches specific to this field. This was also the research problem that initiated my scientific endeavor. Coupled with the constant need for military systems to adapt to the challenges of the operational environment, I am aware that the situation presented may represent a significant vulnerability for the armed forces. The result obtained and proposed in this article is a coherent structural framework for approaching military science research in 14 steps, following a logical progression:

• **Defining the research topic**. Choosing a relevant topic ensures that research efforts are directed toward the real needs of the military domain.

• **Literature review specific to the field(s) of study**. A careful review of the literature ensures sound theoretical grounding, identifies knowledge gaps in military research, and increases the researcher's level of theoretical awareness.

• **Identifying and defining the research problem**. The clarification of the research problem determines the focus of the study on essential aspects of the field, ensuring the potential to fill the identified knowledge gap.

• **Formulating research questions/research hypotheses**. Well-defined hypotheses enable the exploration of potential solutions to military challenges, while research questions guide the research effort in qualitative approaches.

• **Setting research objectives**. Clearly stated objectives direct the research towards clear outcomes, which need to be in line with the type of research question formulated and the qualitative, quantitative, or mixed approach chosen.

• **Establishing and defining the research philosophy (paradigm).** Adopting an appropriate paradigm ensures that the theoretical approach is aligned with the practical realities of the military environment, this being done in relation to the researcher's ontological, epistemological, and axiological research assumptions.

- **Establishing the type of reasoning**. The choice of appropriate reasoning allows the development of logical and coherent conclusions, essential in the military context.
- **Setting the research approach**. A well-chosen methodological approach, whether qualitative, quantitative or mixed, optimizes the process of collecting and analyzing relevant data.
- **Setting the time horizon**. Clearly defining the time horizon ensures the relevance of the results obtained to the defined context.
- **Choosing the research strategy (research design)**. An effective research design allows the establishment of a coherent and logical framework for sampling, data collection, and analysis.
- **Data sampling**. Selecting a representative sample contributes to the generalizability of results and the validity of the research.
- **Data collection**. Rigorous data collection provides a sound basis for further analysis and interpretation, with different methods suitable for each of the qualitative, quantitative, or mixed approaches adopted.
- **Analyzing and interpreting data**. Detailed analysis allows, on the basis of well-defined scientific methods, the derivation of relevant conclusions on the application of the results obtained to the military field, thus answering the research questions and ensuring that the objectives set are met.
- **Presenting the results**. The clear and structured communication of the results facilitates their correct understanding, but also their integration within the existing military-specific knowledge.

In addition, for each of these steps, I have highlighted the peculiarities specific to the military domain, as well as potential examples to ensure a high level of understanding of how to implement the proposed product. Also, throughout the article, I have constantly emphasized the need to maintain a methodological consistency of the choices made in order to ensure the validity of the results obtained, providing potential solutions to support researchers in the choices made.

In conclusion, I appreciate that the result obtained, namely the structural framework for military science research, provides a comprehensive approach for rigorous and impactful studies, providing a viable orientation for young researchers.

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Teaching and Learning in an AI-powered world

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Abstract

In a world where artificial intelligence (AI) is increasingly used, education is undergoing profound transformations, as AI inevitably changes the paradigm of teaching and learning. Teachers have already begun to use AI for student-centred learning, data analysis, or improving assessment through standardized systems provided by AI. Although these new technologies promise efficiency and personalized education, AI is not yet developed enough to truly understand the mechanisms underlying learning. Excessive dependence on technology can reduce the teacher's role and the importance of human interaction, while certain ethical issues may arise regarding data confidentiality and security. To address these challenges, teachers and decision-makers must carefully integrate AI, emphasizing transparency and ethics, to ensure that technology will indeed have a positive impact on society. This article explores the issues and concerns related to the use of AI in education, also examining the potential disadvantages and fears associated with it and providing an overview of the challenges that teachers face when integrating AI into education.

Keywords:
artificial intelligence; virtual tutors; Intelligent Tutoring Systems;
Teachers' Perspectives; education; Machine learning.

In an AI-powered world, teaching and learning go through profound transformations. Educators put artificial intelligence to work in order to obtain personalised learning experiences, that will suit more learning styles. AI algorithms analyse data in order to identify not only students' strengths but also areas that can be improved. Virtual tutors were created in the first place to provide students with tailored courses and more accurate assessments. However, there are still issues connected to data privacy, algorithmic biases, and students' development of critical thinking even if proponents of using AI in education consider that it could improve learning outcomes and equip students with the skills needed for success in the 21st century if approached wisely and cautiously (Kamalov, David Santandreu and Ikhlaas 2023, 1). In this respect, the role of teachers and educators is still crucial at certain training stages (Wollny *et al.* 2021, 1; Szymkowiak *et al.* 2021, 1-2).

In today's world, both students and teachers need to understand and use computer programs and different AI-powered tools. This knowledge will help people become more familiar with a technology that will usher them into a future society where people and artificial intelligence will have to cooperate. In theory, teachers who become familiar with AI technology will be able to provide students with scientifically better and more tailored lessons, while students will boost their academic performance and will be more prepared to thrive in a world that will more certainly become more different from ours. Cultivating scientific literacy in education will thus ensure that future generations are better prepared to tackle the challenges of the modern world with the help of knowledge, confidence, and a critical mindset (Kilag *et al.* 2024, 314-315).

Concerns and Challenges

For the general population, artificial intelligence remains a largely unexplored field. The media often mention AI in the context of job loss, increased mass surveillance, and other social issues, so it is not surprising that people primarily associate AI with these problems, without fully understanding its technical and academic aspects (Frey and Osborne 2017, 254-255) When people use AI, or what they believe to be AI, their interaction is more complex than it seems. Consequently, the way people relate to AI tends to gradually change due to improved terminology, and as AI development occurs within a broader social and cultural context, the technology also evolves accordingly. Therefore, social debates and changes in AI usage patterns are extremely important because they influence researchers' perspectives and, as a result, are reflected in the public aspects of AI (Campion *et al.* 2020, 463-468; Schaich Borg 2021).

Dwivedi (Dwivedi *et al.* 2019, 64-65) draws attention to the multiple issues related to the use of AI, suggesting that the technology must be carefully controlled to ensure its benefits are maximized and risks mitigated. In this context, it is necessary to establish

responsibilities for the proper functioning and development of new technologies, especially as this technology becomes increasingly powerful. However, since many departments and organizations are involved in AI development, their programs often overlap to some extent. Consequently, this ambiguity can lead to situations where there is uncertainty about who is responsible for their proper functioning and preventing errors. The use of interactive AI technologies will undoubtedly require more oversight and regulation, while researchers will need ethical guidelines and companies will have to function within legal frameworks to navigate and even shape economic and cultural landscapes (Campion *et al.* 2020, 3-8).

In the case of AI-assisted learning, it is difficult to say how much young people will be affected by the lack of human communication and whether AI tutors will have the ability to understand and respond to their emotional needs. In the relationship that develops between teacher and student during teaching sessions, teachers play a very important role by providing emotional support, motivation, and a sense of belonging to a learning community. Replacing human teachers with AI systems will impact students' emotional development, and this is another area that needs to be investigated.

In addition, people usually try to work in groups with their peers to solve issues or test out new concepts. The process of collaborative learning typically entails creating group knowledge that can be applied to specific problems. In theory, the effectiveness of the group would be considerably increased by the use of IA which could both add to and learn from this collective knowledge. This would be especially true if the community's common solutions could be improved, resulting in quicker advancement. Still, in group-based learning, students alternatively assume the roles of teacher and learner, and their skills can be successfully utilized in a context where they serve as resources for their peers, explaining concepts and asking clarification questions, promoting respect and openness in discussions (Hussein 2021, 15-17).

However, specialized intelligent tutoring software can be designed to discover how much students know, and when their knowledge should be extended or revised. Analysis of a network of students' knowledge can reveal the salient misconceptions and differences in approaches, as well as those learners who are particularly far ahead or behind their classmates (Phillips *et al.* 2020, 1430-1437). According to Kim (Kim *et al.* 2022, 79), a randomized controlled trial in tutoring services indicates that when tutors adapt to students' learning needs using AI-generated diagnoses, there is a significant improvement in academic performance. Still, the authors observe that some tutors show resistance to AI and struggle with issues like technology overload, which can limit AI's effectiveness on service outcomes. Since AI can be widely applied in various service marketing contexts, the authors recommend that firms should focus on overcoming the challenges employees face in using AI, rather than just promoting its use as it is (Kim *et al.* 2022, 80).

Mousavinasab (Mousavinasab *et al.* 2018, 142-163) investigates multiple dimensions of Intelligent Tutoring Systems (ITSs), such as educational fields, applied AI techniques, AI objectives, learner characteristics, evaluation methods, and user interfaces, stating that adaptive learning in ITSs, which influences learners' knowledge and performance, is increasingly widespread across various educational disciplines even if ITSs are seldom utilized in experimental courses that focus on problem-solving and decision-making.

Although AI is hugely powerful, it raises important questions that need to be investigated, both in general but also in a specific context such as learning, for example, those concerning the ethics of automation. While these algorithms can analyse vast amounts of data, they may struggle to capture the nuances of human learning and emotion accurately. But learning involves more than just data points; it also entails intricate relationships, human ingenuity, and social dynamics, all of which AI might find difficult to completely understand. Concerning the effect of growing automation and artificial intelligence on human activities, there are also numerous pertinent questions. For instance, should people always make all decisions? Is it appropriate to assign important jobs to machines? Additionally, ethical issues are relevant, especially when it comes to government and education. They include how to create decision-making and control procedures for investments and advancements in international artificial intelligence systems, how to get future employees ready, and how to effectively address these challenges and benefit from AI advancements (McKendrick and Thurai 2022).

These queries have many implications for algorithm designers, for those who promote the use of AI in learning contexts, and for teachers who deal with the various issues to be studied, as well as induce more than a little apprehension, particularly when recent reports also highlight some of the risks associated with the spread of AI. For instance, Galaz (Galaz *et al.* 2021, 1-2) identifies several potential systemic risks in these domains, including algorithmic biases, which can lead to unfair outcomes and discrimination. Unequal access and benefits pose another risk, as disparities in technology availability can exacerbate existing inequalities. Cascading failures and external disruptions highlight the vulnerability of interconnected systems to widespread breakdowns and external shocks. Additionally, there are compromises between efficiency and resilience, where optimizing for efficiency can reduce the system's ability to withstand and recover from disruptions.

Furthermore, the quality and relevance of the data used are directly connected to the effectiveness of personalized learning provided via AI. The risk here comes from the fact that the education system will rely too much on technology, thus reducing the role of educators and human interaction in the learning process with results that cannot be predicted accurately at the moment. Furthermore, worries about data security and privacy are raised by the use of AI in education (Galaz *et al.* 2021, 7).

AI systems will collect and analyze student data during the educational process, but there is no guarantee that the data will not be accessed by outside parties and used for their gain, raising concerns about misuse and privacy issues.

However, it is certain that at some point in the future, we will have to live and work with AI as an equal partner, which will also require a new form of governance that will acknowledge the capacity of both humans and computers to efficiently share decision-making. Digital culture cannot be "consumed" as digital culture should be an integral part of the curriculum, whether the student is committed to a scientific or humanistic education. Without access to education that includes knowledge and understanding of how artificial intelligence works, there is no preparation for life in an increasingly technological world. An AI-based technology that is not transparent and is not governed by policies, or one that develops in a framework that does not include the human factor, could end up jeopardizing the future of society and its values (McKendrick and Thurai 2022).

It is therefore important not only to use AI in education but also to learn about AI, including its benefits and the issues it can generate. Thus, teachers and decision-makers need to approach the integration of AI in education with caution, emphasizing transparency, ethical considerations, and ongoing human oversight to ensure that the technology enhances rather than diminishes the learning experience.

AI and Holistic Education

Holistic education is an approach to learning that focuses on the complete development of a person, including their mind, body, and spirit, beyond academic success. This method addresses all aspects of a student's life, such as thinking, feelings, social skills, physical health, and creativity. The main goal of holistic education is to develop individuals who are not only good professionals but also emotionally complex. According to Gardner (Gardner 1993, 50-120), human intellectual competence involves the problem-solving ability that allows a person to tackle the challenges they face and, when necessary, achieve efficient results. Additionally, it includes the potential to identify or generate problems, which will pave the way for acquiring new knowledge. These criteria reflect Gardner's effort to highlight the intellectual elements that are important in a particular cultural context. However, he acknowledges that the elements considered important and valuable can vary greatly from one culture to another, even though the accumulated experience of a person will lead to their overall development.

Gardner (Gardner 1993, 320-400) acknowledges that even the most talented teachers may have difficulty aligning a student's intellectual profile with educational objectives. In this case, computers can assist by providing the necessary information and offering alternative programs in a very short time. Student's capacity to learn

at their own pace while using different learning methods is another advantage of including computers in the classroom. Gardner adds that despite these significant benefits, computers cannot replace certain interpersonal responsibilities and may perform worse in some areas than in others, such as kinesthetic or logical-mathematical intelligence. He also draws the attention that the use of computers in other fields might be less effective precisely because of their potential to support only the type of intellect that led to their creation.

According to Dewey (Dewey 2010), experiential learning is also important because it makes students gain practical skills and a deeper understanding of concepts through hands-on activities and real-world experiences. The goal of education should be to cultivate students' curiosity, critical thinking, and problem-solving skills. He believes that education should be an ongoing experience that takes place outside the classroom and that schools should act as communities where students will not only learn on their own but also collaborate and develop as human beings.

According to Miller (Miller 1992, 9-13), if education is approached from a holistic perspective, it will be more effective because it takes into account the development of multiple distinct qualities. The cyclical and interconnected nature of experiences is also discussed by Clandinin and Connelly (Clandinin and Connelly 2000, 2-5), who believe that each experience is both a result of previous ones and a precursor for what is to come. They see learning and growth as continuous processes in which each experience represents the foundation upon which new learning possibilities, based on prior knowledge, will be built. This perspective shows how personal and academic development is constantly changing and evolving, emphasizing how important it is to reflect on the past to understand present and future actions and decisions. If people base their actions on this constant interaction, they can develop better, as they will not only be the actors in their lives but also the architects behind them.

The holistic aspect of the learning process is best described by Orr's definition of holistic education (Orr 2005, 87-99). According to him, the purpose of holistic education is to educate the whole person and the relationships between the mind, body, emotions, and spirit. Orr emphasizes the importance of addressing the complexity of human existence in the educational context, stating that holistic education can take the form of a more comprehensive and meaningful learning experience as it takes into account the spiritual and emotional elements in addition to the academic and physical ones.

In this context, teachers fear that AI-driven learning will prioritize data analysis over the overall development of students. This concern arises because the more elusive aspects of education, such as social-emotional learning and critical thinking skills, are almost impossible for AI algorithms to understand and address, at least for the time being, even though their efficiency allows them to process huge amount of data to identify patterns and make recommendations.

Social-emotional learning

Social-emotional learning (SEL) includes a variety of skills necessary for personal development and academic success. SEL will develop students' communication skills together with the capacity to make responsible decisions that will finally assist them in building solid connections with others, controlling their emotions and dealing with different situations that might arise.

Given that social values cannot be yet included in the design of AI tutors, there is some reason for concern that AI-driven tailored instruction may face major challenges in addressing students' social-emotional needs (Dwivedi *et al.* 2019, 65) The main uses of AI personalized software seem to focus more on computer science education, medical, and mathematics fields than on other fields (Mousavinasab *et al.* 2018, 16-17). Without human guidance and interaction, students may miss out on nuanced feedback, emotional support, and empathetic understanding.

Therefore, even in the context of using AI tutors, students should learn about empathy, practice their communication skills, and develop their decision-making abilities, although this approach requires a variety of activities. Here are some of the methods:

- **Simulations and role-playing**

Students will learn to see things from different perspectives by joining role-playing games or simulations. This approach will develop empathy and understanding of other people's thoughts, emotions, and experiences. (Wheeler 2006, 332-343).

- **Group Discussions and Cooperative Learning**

This activity will give learners the chance to work on group projects and take part in group discussions in which to share their ideas and cooperate. The result will be improving their communication skills and building interpersonal relationships that require mutual respect and teamwork (Gillies 2016, 42-43).

- **Journaling and Reflection**

Teachers should encourage students to keep a journal or participate in reflection activities because students who often analyse their ideas, emotions, and experiences understand better who they are—their strengths and faults included. Participation in this type of activity can lead to more conscious personal growth (Dorit, Raichel and Naamati-Schneider 2022, 3-5).

- **Problem-solving and Decision-making Activities**

Students are given scenarios where they have to make choices, such as case studies or problem-solving tasks. These exercises will help them think critically and discover the impact of their decisions. By working with real-life scenarios, students can learn how to handle complicated situations better. (Adair 2007, 62-72).

- **Peer Mentoring and Support**

Learners will attend peer mentoring programs so that older students can help and support younger ones. This will help them become more empathetic and improve their communication skills in addition to building a community

where they can learn and support each other while forming strong connections (Glaser, Hall and Halperin 2006, 5-8).

• **Social-emotional Learning Programs**

Social-emotional learning (SEL) programs will be included to teach and reinforce skills like empathy, communication, self-awareness, and making responsible choices. Learning environments that prioritize students' emotional and social well-being can be created via SEL programs (Lawson *et al.* 2019, 2-3).

• **Critical Thinking**

AI algorithms come with capabilities, recommendations, and feedback through data analysis (Chen, Chen şi Lin 2020, 75269) even though they may be limited in the type of guidance they provide compared to human teachers. Artificial intelligence does not understand human interaction and cannot create an environment where students feel safe to take risks, make mistakes, and generally express themselves freely. Teachers encourage students to push the boundaries of their knowledge and abilities through continuous learning. Through guidance and interactive teaching techniques, they can contribute to the development of students' critical thinking. Teachers promote analytical skills and independent thinking through specific questioning, group projects, and situations that involve solving current problems.

Additionally, critical thinking is not a static process, as it develops through practice, feedback, and observation (Halpern 2014, 7). AI systems operate based on predefined rules and patterns derived from previous data, which is why they cannot fully comprehend the complexity and unpredictability that characterize critical thinking. Given this, AI will struggle to identify relevant data, adapt to new or unfamiliar situations, or make complex decisions that require contextual knowledge because critical thinking often includes subjective components, such as problem-solving, drawing conclusions, and decision-making (Halpern 2014, 8). Emotional intelligence and ethical issues are also difficult for AI algorithms to understand. All these aspects of human thinking are embedded in personal beliefs, cultural norms, and social contexts, making them hard to quantify in a way that AI can understand and replicate.

What do teachers fear?

In essence, teachers' apprehension towards AI-driven personalized learning stems from the concern that it may prioritize quantifiable outcomes, such as test scores or academic achievements, to the detriment of holistic education. Teachers worry that focusing too much on numbers and test scores can lead to a narrower curriculum, less attention to students' social and emotional needs, and a drop in their ability to handle difficult problems. While AI systems can help with specific tasks, their algorithms might not fully capture the diversity and complexity of human interactions and experiences (Dwivedi *et al.* 2019, 76; Kamalov, David Santandreu and Ikhlaas 2023, 12).

The analysis conducted by Sulmont (Sulmont, Patitsas and Cooperstock 2019) focuses on the pedagogical knowledge needed to teach machine learning to students who lack a background in computer science. According to his findings, students have vague information about machine learning, do not fully understand the real mechanisms behind it, and as a result, face numerous issues in using AI. To overcome such barriers, educators need to adopt various strategies, such as using specific datasets, modelling and teaching algorithms in the classroom, as well as presenting open-ended, domain-specific questions with practical applicability.

Others believe that the interaction between humans and AI may pose issues even outside the classroom. To address the challenges related to human-AI collaboration, several research directions have been proposed. Firstly, Dwivedi (Dwivedi *et al.* 2019, 24) argues that empirical research is needed to investigate decision-making processes regarding task automation and the appropriate level of AI-based automation, given that the scope of its application will expand as AI becomes more sophisticated. A second priority according to Dwivedi is to understand the factors leading to increased human reliance on AI-based automation and, consequently, to establish countermeasures. As artificial intelligence is used in more domains, the risk of humans favouring AI recommendations over their own judgment increases, leading to reduced situational awareness. A third research priority is examining how human workers can effectively mitigate AI errors or failures, especially in high-risk automation scenarios. Therefore, further research is needed to demonstrate how human workers can be trained to anticipate problems and understand AI logic, thus ensuring transparency in decision-making for fault diagnosis (Dwivedi *et al.* 2019, 25).

Furthermore, teachers are also concerned about the potential loss of autonomy and authority in the classroom if algorithm-driven curricular selections and teaching approaches are used. This concern derives from a fear that educators' roles will be reduced to those of mere facilitators, devoid of the nuanced professional judgment and creativity that they offer to the teaching profession. The essence of teaching does not lie only in the delivery of content but also in the ability to customize education in order to suit students' needs and interests. Teachers fear that AI-driven approaches might undermine their autonomy to make pedagogical decisions based on their expertise and insights into their students' particular learning styles. The concern also refers to the risk of standardizing teaching practices in case AI algorithms replace creative teaching methods that are unique to each classroom and student population (Kamalov, David Santandreu and Ikhlaas 2023, 20-21) Teachers' sense of professional identity and satisfaction are undermined by this lack of autonomy, which makes it harder for them to motivate students.

AI algorithms harvesting massive volumes of student data creates substantial ethical concerns regarding who has access to them, and how they are stored and utilized. (Kamalov, David Santandreu and Ikhlaas 2023, 18-19). These data include sensitive information on students' academic performance, behaviour, and even personal

information, which can be used wrongly if not properly secured. Ensuring effective data protection mechanisms, such as encryption and rigorous access limits, is critical to preventing abuse and that is why, clear laws and regulations must be implemented to control the gathering, storage, and use of educational data to ensure transparency and accountability (Prinsloo, Sharon Slade and Khalil 2022, 876-878)

Annabel Lindner's study (Lindner and Romeike 2019, 24-26) has identified some key factors that have an impact on teachers' perspectives on the use of AI in the classroom. The influence of social discourses surrounding AI on instructors' content understanding is one of the main causes. Public narratives and media portrayals also have a great impact on these perceptions, thus resulting in a mixture of anxiety and optimism. AI is considered a useful tool by a part of educators who hope that it will help streamline administrative processes and improve personal learning. Others worry that it may reduce the human element of teaching or even result in job displacement. Actually, the larger social discussion over the function and implications of artificial intelligence is reflected in this dichotomy.

Additionally, Lindner and Romeike (Lindner and Romeike 2019, 25-27) emphasize that most teachers have not used AI in their teaching process and that their knowledge of this technology is purely theoretical, which exacerbates their concerns and uncertainties. Without direct experience, teachers cannot anticipate how AI could be integrated into their teaching practices. Due to this lack of experience, it is clear that teachers need training programs that provide a deeper understanding of the advantages and disadvantages of AI and offer opportunities to experiment with its tools in various educational contexts. Addressing various educational goals through AI-tailored teaching concepts can help bridge this gap, resulting in teachers who are better prepared to use AI to improve learning outcomes and support diverse educational objectives.

Conclusion

Currently, AI technologies are viewed by most educators either as a blessing or as a source of concern. They worry that AI-based tools could impact the standard of instruction, and student autonomy, and might raise moral issues related to data security and privacy. In light of these concerns, data protection and privacy policies must become a priority, and student privacy must be safeguarded against the risks associated with AI technologies. Another issue is that AI-driven learning may put standardized testing procedures above developing creativity and independent thought. In this context, students' overall development will face the risk of being neglected, a situation which may leave them unprepared to face the difficulties of the modern world.

Nevertheless, AI is already being used in many fields, so it is the responsibility of teachers to make it work for their benefit. It is also important to understand that,

used with caution, at least for the time being, AI could enhance educational methods, even if it will not completely replace them.

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The Asymmetries Generated by New Weapon Systems and Their Role in Achieving Success on the Battlefield. The Impact of HIMARS on the Conflict in Ukraine

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Abstract

The advent of new weapon systems, which integrate the latest technologies, is transforming the battlefield and redefining the character of contemporary modern warfare. The recent armed conflicts in Syria, Yemen, Nagorno-Karabakh, and Ukraine, by their complexity, serve to illustrate the diversification of threats and the adaptation of military capabilities to counter them. Regardless of the type of conflict, success on the battlefield depends on the ability to gain an advantage over the enemy and exploit it. Such an advantage may be derived from the realization of asymmetries on the battlefield, which may be generated at all levels of military operations. The equipping of the Ukrainian forces with the HIMARS system in the summer of 2022 has given them a significant position of advantage, creating a number of tactical and operational asymmetries. In this context, the objective of this research is to identify the asymmetries generated by the HIMARS system and to determine how they contributed to the battlefield success. The key findings are of significant value due to the fact that most NATO member states, including Romania, are making efforts to strengthen their HIMARS capabilities.

Keywords:

contemporary battlefield; new weapon systems; tactical and operational asymmetries; position of advantage; HIMARS.

The war in Ukraine, which is characterized by extreme brutality and has significant implications for the future of European security, can also be viewed as a conflict characterized by asymmetries. These asymmetries are evident in the operations of both parties, manifesting in the utilization of all instruments of state power (diplomatic, informational, military, and economic), with consequences for both Russian and Ukrainian society. From a strategic standpoint, the Russian Federation possesses the capacity to engage in full-scale warfare, conducting strikes and exerting influence across all operational domains and throughout the entire territory of Ukraine. Conversely, Ukraine exhibits a constrained capability to launch strikes on Russian soil and a notable deficiency in its capacity to operate in maritime environments, outer space, and the electromagnetic spectrum, when compared to its adversary. However, in contrast to the Russian Federation, Ukraine has consistently received support from several Western states, which have provided the Ukrainian state with a significant military resource for the war effort. Additionally, the Russian Federation is subject to a number of economic sanctions that have a significant and long-lasting impact on Russian society as a whole. Furthermore, the level of determination and motivation among the population differs. The Ukrainian people are engaged in a defensive war against an unprovoked aggressor, which creates a stronger will to fight than that observed among the Russian military (Ryan 2023).

From an operational point of view, the Ukrainian forces displayed a notable capacity to adapt to the evolving demands of the battlefield. Despite facing numerical superiority and technological disadvantages, the Ukrainian commanders were able to leverage Western weapon systems, combat techniques, and equipment to their advantage (Reynolds and Watling 2022). The introduction of the M142 HIMARS system into combat and exploitation provides a relevant example in this regard. Its engagement in the summer of 2022 generated a series of asymmetries that placed the Ukrainian forces in a position of relative advantage. In this context, the principal objective of this study is to determine the extent to which the HIMARS tactical-operational multiple launcher missile system contributed to battlefield success by creating asymmetries at the tactical and operational levels of operations. In order to direct the research activities and meet the proposed objective, a series of research questions were formulated:

- What has been the impact of HIMARS on the tactical and operational levels of military operations?
- What was the impact generated by the deployment of HIMARS for the development of the operational asymmetries?
- What role did the operational asymmetries generated by HIMARS play in determining the success of military operations on the battlefield?

The study considers the period between the second half of June and the end of September as a temporal framework, coinciding with the planning, preparation, and execution of the Ukrainian counter-offensive in Kharkiv in the autumn of 2022. The research findings were obtained through a systematic analysis of satellite images,

which revealed temperature anomalies in the Donbas and Herson areas of operations. By interpreting and comparing images provided by NASA's *Fire Information Resource Management System*, it was possible to identify trends in the conduct of operations, while also highlighting the asymmetries achieved by the Ukrainian armed forces, which were likely the result of the use of HIMARS. The doctrinal model of operation of the Russian forces and the technological characteristics of the HIMARS system empirically validate the results obtained. However, it should be noted that the information on the conduct of operations on the Ukrainian front and the HIMARS system's deployment may be subject to alteration. This is due to the insufficiency of data, the need to protect certain information, or the tendency of both combatants to distort it in order to influence and mislead.

Advantage position and operational asymmetry

In a conventional armed conflict between two opposing forces, the aspiration to gain the advantage is a constant and fundamental objective. This advantage can be achieved at all levels of military operations. Such an advantage is not permanent and can be exploited by opposing forces, resulting in a similar advantage for them. Failure to exploit an advantageous position can result in its alteration, which, over time, can become a position of vulnerability. At the strategic level, advantage can be quantitative and qualitative in terms of economic resources, national and international political support, available forces and capabilities, or the contribution of allies. The quality of leadership and the will to fight are factors that can constitute a position of advantage regardless of the level of operations. At the tactical level, advantage is often defined as the ability to gain a superior position in relation to the enemy, whether in terms of spatial, temporal, or procedural advantage. This can be achieved through the control of a key point in the terrain, the attainment of numerical superiority in specific phases of the operation, the misleading of the enemy, the exploitation of terrain and weather characteristics, or the realization of information superiority.

The advantage is frequently the result of operational asymmetries. Asymmetries manifest in the form of disparate operational approaches employed by combatants. Such asymmetries may be physical in nature, manifesting as the exploitation of new technologies or weapons systems with superior technical and tactical characteristics, or procedural in nature, involving the engagement of the enemy in a manner that deviates from expectations. Both types of asymmetries facilitate surprise, with the implementation of this principle of army combat creating prerequisites for success on the battlefield. Furthermore, they generate operational dilemmas for the enemy, and the greater the number of such dilemmas, the greater the number of advantageous positions (Department of the Army 2017, 1-19)

The concept of advantage, regardless of its nature, is relative. Consequently, the attainment of such a position does not necessarily guarantee success. In the Winter

War (November 1939-March 1940), the Soviet forces enjoyed a decisive advantage in terms of strength, combat technique, and armaments. However, the Finnish army, despite being the weaker force, was able to hold its ground for several months by employing asymmetric tactics and exploiting the characteristics of the terrain. In contrast, the German armored forces, which were operating according to an innovative doctrine, managed to surprise the French army and defeat it in a matter of weeks in the spring of 1940. Operation Desert Storm (1991) provides the clearest illustration of how success hinges upon exploiting operational asymmetries. The rapid and decisive victory achieved by the international coalition against the Iraqi armed forces was made possible by the integration of advanced new weapons systems under the overarching Big Five concept (Ortiz 2021). The most illustrative example of the variable nature of advantage can be observed in unconventional conflicts, where asymmetries render traditional advantages inconsequential while simultaneously creating new ones. Despite technological advances and superior firepower, U.S. forces were compelled to withdraw from Vietnam in 1973, suffering a strategic defeat at the hands of the Vietcong. Similarly, the mujahideen guerrillas, employing unconventional tactics, gradually eroded the combat strength of the Soviet 40th Army in the Russo-Afghan conflict of 1979-1989. A similar sequence of events occurred approximately a decade later, when NATO forces withdrew from Afghanistan and the Taliban subsequently assumed control of the country.

The contemporary geopolitical landscape has highlighted the necessity to re-examine the efficacy of particular armed combat operations (Scrogin 2019). The necessity of attaining and exploiting advantage remains a fundamental principle, and operational asymmetries continue to be a significant factor in achieving success. Ukraine has demonstrated this through the implementation of a distinct command philosophy and the exploitation of innovative tactics and operational procedures, which have enabled it to effectively counter a quantitatively superior force (Aliyev 2022). Western weapons systems have constituted a factor that has provided the Ukrainian forces with a tangible tactical advantage, creating opportunities for them to launch attacks against the enemy. In this regard, regardless of how the conflict progresses, we are interested in the effects of the recently introduced weapons systems, including the M142 HIMARS strike complex.

Asymmetric effects generated by the M 142 HIMARS system in the Donbas area of operations

Over the past two decades, the probability of conventional armed conflict has risen considerably. The ongoing conflicts in Georgia, Lebanon, Ukraine, and Nagorno-Karabakh serve to illustrate this point. Furthermore, the risk of non-conventional armed confrontation is also considerable, as evidenced by the ongoing conflicts in Yemen and the Gaza Strip. The advent of new technologies has led to the development of advanced weapons systems, which are being deployed in the context of modern

conflicts. These developments present an opportunity to test and validate the latest generation of anti-tank systems (Spike NLOS, FGM-148 Javelin, NLAW), kamikaze drones (Swichblade, Shahed), strike-capable drones (Bayraktar TB 2, Orlan-10), and the M142 HIMARS artillery and missile system (Johnson 2022).

In a press release dated 15 July 2022, the U.S. Department of Defense announced the supply of 12 M142 HIMARS systems to Ukraine. The press release stated that these capabilities would enable Ukrainian forces to strike enemy command points, high-precision search and strike systems, installations, and facilities, ammunition, or fuel-lubricant depots (Lopez 2022). The HIMARS system represents a distinctive, highly effective capability that strategically combines the advantages of extended range, high accuracy, and mobility. This has the significant impact of reducing the Russian forces' artillery advantage (Kalin and Michaels 2022). The strike systems were introduced to the Ukrainian forces at a time when the Russian Federation forces were assuming the initiative in operations in Eastern Ukraine, specifically in the Donetsk and Luhansk regions. Subsequent to the capture of Sieverodonetsk and Lysychansk, the Russian forces augmented their offensive operations in the direction of Bakhmut-Kramatorsk, concurrently with extensive envelopment maneuvers from Lyman (North) and Horlivka (South), with the objective of encircling the Ukrainian forces in the area of Kramatorsk (Hird, Stepanenko *et. al* 2022). In accordance with the findings of the Institute for the Study of War (ISW), the Ukrainian Armed Forces (UAF) initiated the utilization of American M142 HIMARS systems, successfully striking a number of pivotal targets belonging to the Russian forces (Hird, Mappes *et. al* 2022).

In light of the aforementioned information and the primary objectives of this weapon system, it is estimated that HIMARS was employed in support of the forces engaged in the Donbas area of operations with the objective of impeding the advancement of Russian forces along the Bakhmut-Kramatorsk offensive axis. A number of satellite images captured by the Forward-Looking Infrared Radar (FIRMS) system in the Lyman - Bakhmut - Horlivka contact zone have revealed the presence of several thermal anomalies within the area of operations at the contact, as well as thermal anomalies in the rear of the Russian forces. The thermal anomalies are characterized by a high thermal footprint, which can be temporally and spatially delineated with the aid of GIS (Geographic Information System) tools. By taking 6 July 2022 as a reference date, it can be observed that there is a high frequency of thermal anomalies along the front line, which are also of high intensity. The thermal anomalies indicate elevated temperatures at the ground level, which, according to experts, are caused by the intense firing of artillery and rocket systems. The anomalies occur in both the area of the points of origin (POO) and the area of the points of impact (POI) of the hits. Consequently, the analysis of the thermal spectrum of the contact area indicates that on 6 July, Russian forces sustained an intense artillery barrage, most likely in order to shape a future offensive operation.
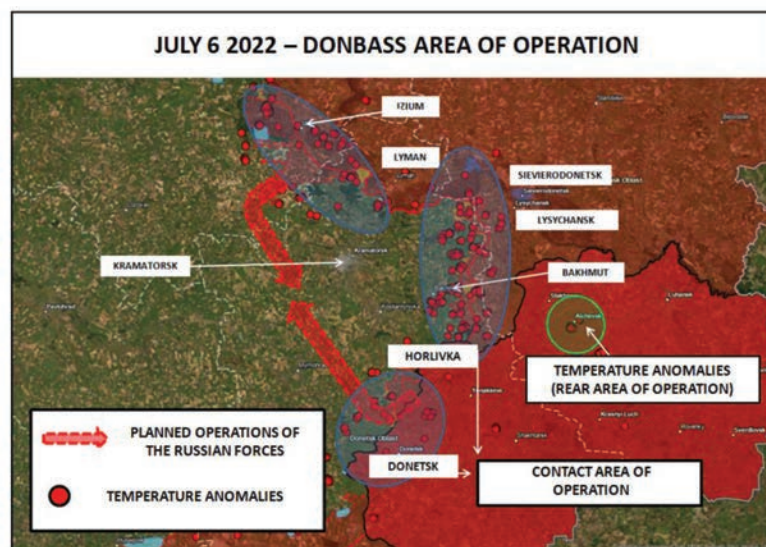
Figure 1 Analysis of thermal anomalies on July 6, 2022
Source of satellite image with thermal anomalies: FIRMS (Fire Information
for Resource Management System)/NASA, ESRI, Maxar, Earthstar Geographics,
https://www.understandingwar.org/

The analysis of satellite imagery from the period following 6 June 2022 indicates a gradual decline in the thermal anomalies. This is evidenced by the data presented in Figure No.2, which shows that the anomalies are significantly reduced on 14 July in comparison to the thermal spectral image of 6 July. Based on this information, we can make the following estimation:

- there was a notable reduction in the intensity of artillery fire in the contact zone between 9 and 14 July 2022;
- one of the reasons for the reduction in thermal anomalies caused by artillery fire is the decrease in the quantity of ammunition available to the Russian forces to support their offensive actions;
- it seems reasonable to conclude that the introduction of the HIMARS system in combat allowed the Ukrainians to strike at the main lines of communication and the ammunition depots of the Russian Federation forces located on the tactical depth of the maneuver brigades and divisions; the thermal anomalies that have been recorded in the rear zone of the combat device of the Russian units appear to confirm the hypothesis that the logistics facilities have been hit;
- the necessity to impede the advancement of Russian forces along the Bakhmut-Kramatorsk axis is likely to have been the primary factor in the extensive deployment of the HIMARS system in this operational area; the variations in thermal anomalies observed empirically appear to corroborate this hypothesis;
- the deployment of the HIMARS system has had an asymmetric impact, resulting in the culmination of the Russian forces' engagement along the primary offensive axis, Bakhmut-Kramatorsk.

On 15 July, there are several indications that Russian forces are intensifying their preparations to resume the offensive in three main directions converging on the
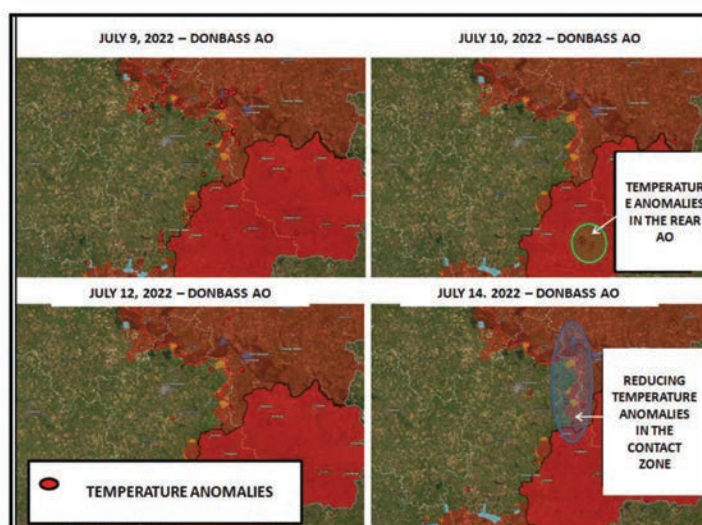
Figure 2   Thermal anomaly analysis from July 9-14, 2022
Source of satellite images of thermal anomaly: FIRMS (Fire Information for Resource Management System)/NASA, ESRI, Maxar, Earthstar Geographics, https://www.understandingwar.org/

city of Kramatorsk. This is with the aim of encircling Ukrainian forces in the so-called "cauldron" formed between Yizum, Bakhmut, Horlivka, and Donetsk. At this juncture in the military campaign, the city of Kramatorsk remains a key objective in the Donbas region. The capture of Kramatorsk would have constituted a significant milestone in the broader strategic objective of the Russian Federation to "liberate" the two breakaway provinces (Hird, Mappes *et. al* 2022). At the time, Western experts had reservations about the capacity of Russian forces to concentrate sufficient combat power to breach Ukrainian defences. The deployment of HIMARS systems in combat has served to reinforce these concerns, with military specialists anticipating the sustained targeting of communication lines, command points, and, in particular, concentrations of logistical resources (Ryan 2022). The analysis of satellite imagery from 15-20 July 2022 reveals the progression of thermal anomalies in the Donbas area of operations. Based on this analysis, it can be concluded that between 15 and 16 July, the Russian Federation forces increased the intensity of their strikes in the contact zone, indicating a probable preparation for further offensive actions. The thermal anomalies observed in the rear area of the Russian forces' combat device are likely to be the result of strikes on ammunition depots, as evidenced by the subsequent fire and anomalies in the thermal spectrum (see Figure No. 3).

The Russian forces continued their offensive operations on 17 July, but these were unsuccessful. By 18 July, the analysis of thermal anomalies in the contact zone indicated that the intensity of the Russian forces' offensive was diminishing. In conclusion, it can be stated that the offensive actions of the Russian Federation forces on 15-20 July 2022 have reached their peak as a direct consequence of the lack of resources, in particular artillery ammunition. It is highly probable that since 18 July, the quantity of ammunition available to the contact forces has been significantly reduced as a result of the interception and obstruction of ground communication lines in the rear area, as well as the destruction of ammunition depots.
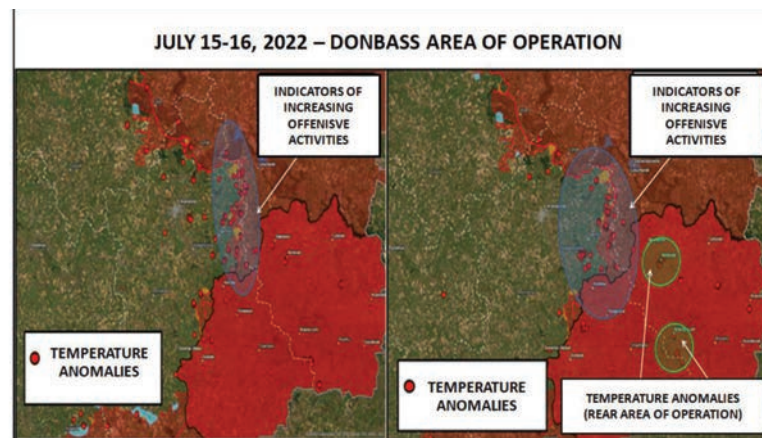
Figure 3   Thermal anomaly analysis conducted on 15-16 July 2022
Source of satellite images of thermal anomaly: FIRMS (Fire Information for Resource Management System)/NASA, ESRI, Maxar, Earthstar Geographics, https://www.understandingwar.org/

The effective utilization of HIMARS systems enabled the Ukrainian forces to achieve their tactical objectives in the Donbas area of operations. These included the blocking of offensive actions in the Bahmut-Kramatorsk direction and the creation of conditions conducive to an offensive. The constant targeting of rear lines of communication, logistic depots, training and concentration areas, and Russian command points resulted in the creation of tactical asymmetries that contributed significantly to the success of the Ukrainian forces. These asymmetries manifested in the capacity to engage vulnerable targets with enhanced precision, at extended ranges, and with greater efficacy than analogous systems operational within the Russian armed forces. The system's inability to counter both the munition and the platform represents another tactical asymmetry with decisive implications for achieving success. Consequently, the GPS-guided projectile-reactive munitions with a range of up to 80 km enabled the targeting of the logistic system of enemy regiments
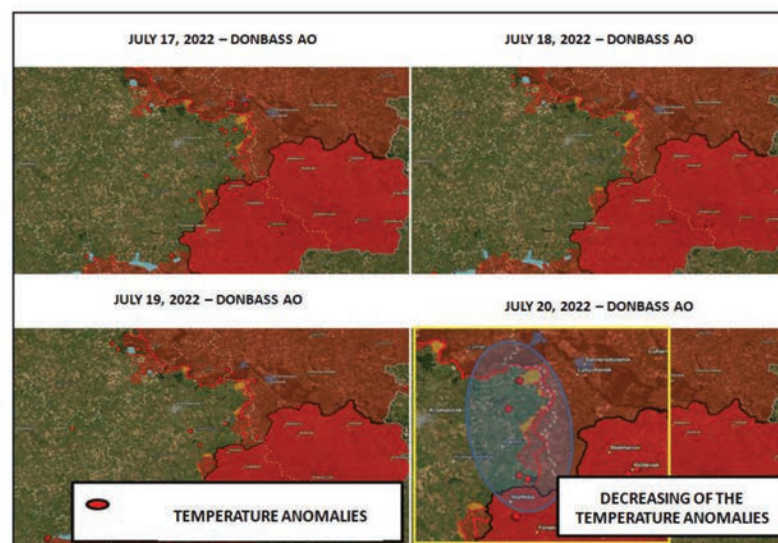
Figure 4   Thermal anomaly analysis conducted between the 17th and 20th of July, 2022
Source of satellite images of thermal anomaly: NASA/FIRMS (Fire Information for Resource Management System), ESRI, Maxar, Earthstar Geographics, https://www.understandingwar.org/

and maneuver brigades situated at a distance of 25-40 km from the front line. By conducting brief incursions, HIMARS systems were capable of striking targets at distances of up to 60-70 km, encompassing the areas of maneuver divisions' logistic deployment within the system's operational range (Ponomarenko 2022). The Russian forces' command and control system was the primary target of the combined assault on Ukrainian forces, with HIMARS playing a key role in the destruction of vital command infrastructure. The strategic targeting of high-level command nodes and the elimination of numerous officers and generals not only disrupted the Russians' command and control capabilities but also contributed to the overall success on the battlefield (Beagle, Slider and Arrol 2023). Finally, the Ukrainians have exploited the inefficiency of information security operations conducted by Russian forces, utilizing HIMARS to strike training and accommodation facilities. This asymmetry has had a significant impact on the morale of Russian troops, further contributing to the erosion of trust within the chain of command (Kirby 2023).

Asymmetric effects generated by the M 142 HIMARS system in the Herson area of operations

The Ukrainian Armed Forces continued to successfully employ M142 HIMARS systems throughout August 2022, utilizing them to shape the battlespace and create a range of asymmetric effects. The strikes conducted by these systems were designed to degrade the logistical system of Russian Federation forces at the tactical and operational levels. This was achieved by striking a range of strategic targets, including ammunition depots, command points, supply and refueling points, bridges over waterways, airfields, reserve concentration districts, and key points on the ground. The objective was to disrupt enemy lines of communication (Kalin and Michaels 2022). The creation of these effects was intended to achieve the objectives set out in the offensive operations conducted in the Herson and Kharkiv operational areas. The intensification of strikes in the rear area of Russian forces in Herson resulted in the transfer of some Russian forces from the Kharkiv area of operations. This facilitated the success of the offensive operations carried out by Ukrainian forces in this direction in early September. Concurrently, the systematic targeting of forced crossing points and logistical hubs in the Herson area caused confusion among Russian commanders regarding the primary direction of the effort. The relocation of the reconnaissance effort from Kharkiv enabled the Ukrainian forces to concentrate sufficient resources in the area to impede the enemy's activities, which ultimately contributed to the success of the offensive operation. Figure 5 illustrates the striking of the primary crossing points (permanent and temporary) over the Dnieper River utilized by the Russian Federation to resupply forces on the right bank of the river.

The research findings indicate that this was feasible only through the rapid deployment of Ukrainian armed forces from the Mykolaev region and the utilization of HIMARS systems to neutralize the targets. Given the necessity of executing high-
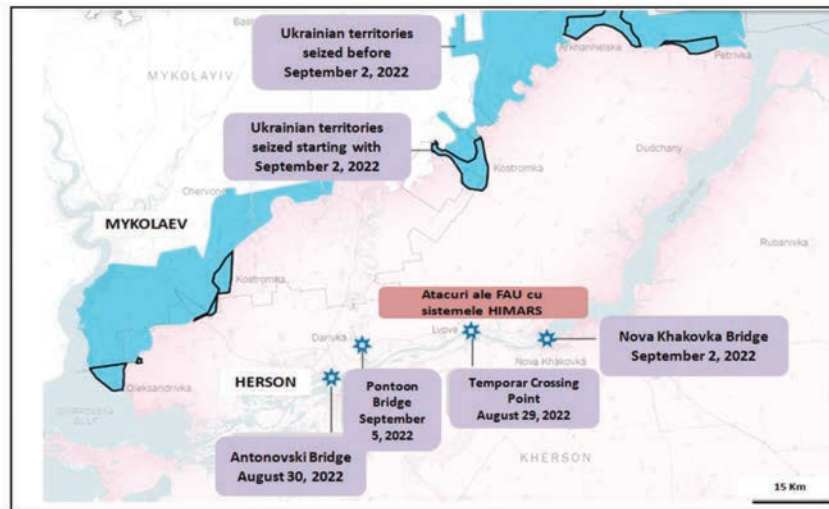
Figure 5   Hitting the crossing points over the Dnieper used by Russian forces
Image source: https://www.nytimes.com/interactive/2022/world/europe/ukraine-maps.html

precision strikes to achieve the desired effects, it is notable that the forces in question had various sensors in the vicinity of the target. These were used to provide the coordinates and maintain positive identification (PID), as well as to perform target effects assessment (BDA). Figure 6 illustrates the range capabilities of the HIMARS system. In the period under consideration, GMLRS-type munitions were employed, whereas ATACMS munitions were not available to the Ukrainian forces.
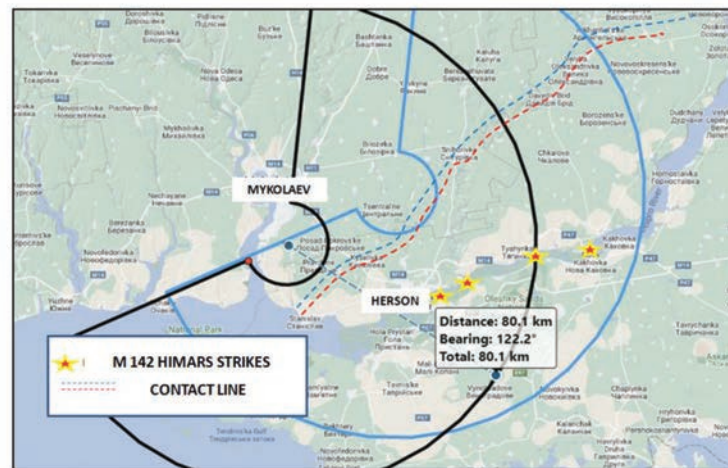
Figure 6   HIMARS system's possibilities of action in the Herson area of operations
Note: the processing was done with the ArmyMap application accessed at https://www.map.army/

Conclusions

The analysis conducted led to the generation of results that, by virtue of their consistency, provide answers to the research questions. The effects generated by the American-origin M142 HIMARS system facilitated the implementation of a maneuver approach to operations, allowing the Ukrainian forces to strike at the enemy's

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vulnerabilities, affecting both the physical and psychological components of their combat power. In consideration of the assessed time period, it can be observed that the operational asymmetries generated by the combat engagement of the HIMARS system enabled the Ukrainians to gain an advantageous position, concomitant with the disintegration of the command and control system of the Russian armed forces and the isolation of their forces. By striking at the ammunition depots situated at the tactical depth of the Russian forces' defensive perimeter, the Ukrainian forces were able to inflict consistent and significant damage to the advantage held by the Russian Federation in terms of artillery capabilities. Furthermore, by methodically targeting the crossings over the Dnieper, the Russian forces' supply capacity on the right bank of the river was gradually reduced. The impact of the HIMARS systems in the Herson area of operations contributed to misleading the Russian forces about the commencement of another large-scale operation in the Kharkiv area of operations. The redeployment of Russian forces in the north to counter the potential threat in the Herson area created the necessary conditions for a successful Ukrainian counteroffensive in the Kharkiv area. Furthermore, the sustained pressure on Russian forces in the Herson area of operations, coupled with the interception of their lines of communication, prompted the Russian Federation's political and military decision-makers to withdraw all forces on the left bank of the Dnieper by the end of October 2022. The Russian withdrawal South of the Dnieper, as well as the success of the Kharkiv counteroffensive, can be attributed to the effective exploitation of HIMARS strike systems. The analysis of resource imagery highlighting thermal anomalies in contact zones provides empirical results that validate the effectiveness of those firing systems and their ability to generate tactical asymmetries.

The adaptation process has enabled the Armed Forces of the Russian Federation to modify their operations in a manner that mitigates the impact of HIMARS systems. Over the past two years, tactical adaptations have manifested at both procedural and technological levels. In terms of tactics and procedures, the Russian forces have deployed their districts and logistic bases outside the HIMARS range. Furthermore, measures have been implemented to disperse forces outside the designated contact area and to minimize the multispectral footprint of command points. In terms of technological adaptation, electronic warfare systems have been calibrated to affect the precision and accuracy of munitions. The combination of air defense and EW capabilities has resulted in a notable reduction in their overall effectiveness. However, the continued deployment of HIMARS systems on the battlefield in Ukraine has demonstrated their continued lethality. Despite the reduced effectiveness of these systems, the Ukrainian Armed Forces have employed innovative tactics and misleading operations to create and exploit windows of opportunity, thereby overcoming the multiple layers of defense deployed by Russian Federation forces. It can be concluded that these versatile systems have the potential to continue to serve as combat power multipliers in the future, thus contributing to success on the battlefield.

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Joining NATO: a national end or a strategic means for Georgia?

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Abstract

Georgia's pursuit of NATO membership faces significant challenges due to Russia's strong opposition, placing the country at a critical geopolitical crossroads. This article examines whether NATO membership is a national end or a strategic means for enhancing Georgia's security. It explores the historical context, strategic dilemmas, and complexities of Georgia's situation, highlighting the impact of Russia's opposition, particularly in light of its 2022 invasion of Ukraine. The article argues that NATO membership should be a means to enhance security rather than a precursor to armed conflict. It recommends that Georgia adopt a strategy of strategic patience and diplomacy, recognizing that Euro-Atlantic integration is a long-term endeavour; prioritize dialogue with both NATO and Russia; pursue regional cooperation; and explore alternative pathways to security as well. Ultimately, the article calls for a comprehensive approach to national security that aligns with Georgia's Euro-Atlantic aspirations while addressing immediate security challenges.

Georgia stands at a critical juncture in its quest for Euro-Atlantic integration, with the question of joining NATO looming large. However, the path towards membership is fraught with challenges and obstacles, chiefly among them being Russia's vehement opposition. The spectre of Russian intervention, as evidenced by its aggression towards Ukraine, casts a shadow over Georgia's aspirations, raising the crucial question: Is NATO membership a national end in itself or merely a strategic means to achieve the ultimate goal of national security for Georgia?

Russia's stance against NATO expansion is deeply entrenched, rooted in historical grievances and perceptions of Western betrayal. President Putin's narrative of NATO encroachment into Russia's sphere of influence finds resonance in past assurances allegedly made by Western leaders, though disputed by some. The invasion of Ukraine in 2022, justified by Mr. Putin as a preemptive measure against NATO's potential expansion, underscores the severity of Russia's opposition. As NATO contemplates its stance on Georgian membership, balancing strategic imperatives with the need to manage tensions with Russia, Georgia finds itself in a precarious position.

The dilemma for Georgia is multifaceted, encompassing security concerns, economic and political pressures, and the broader implications for regional stability. While Georgia seeks security guarantees and integration into the Euro-Atlantic community through NATO membership, it risks provoking further Russian aggression. Moreover, navigating the delicate balance between its aspirations and the realities of Russian opposition requires adept diplomatic manoeuvring.

In light of these complexities, the words of Richard K. Betts resonate, highlighting the importance of ensuring sufficient military capability to match adversaries. For Georgia, joining NATO should be a means to enhance national security, not a precursor to armed conflict with Russia. As it weighs the risks and rewards of Euro-Atlantic integration, Georgia must tread cautiously, mindful of the intricate geopolitical landscape and the imperative of maintaining regional stability.

Against this backdrop, the article delves into the challenges and obstacles facing Georgia as it contemplates joining NATO. Through a nuanced analysis of geopolitical dynamics, historical context, and strategic imperatives, it seeks to shed light on the complex decision-making process confronting Georgian policymakers. It suggests that the primary aim of joining a military alliance should be to enhance national security and protect the interests of the nation, rather than becoming embroiled in conflict or exacerbating tensions. It underscores the importance of strategic decision-making and emphasizes that military alliances should serve as instruments to achieve broader national security objectives rather than sources of potential conflict.

The article's methodology includes a comprehensive review of historical events, political developments, key NATO-Georgia cooperation milestones, significant security challenges faced by Georgia, social and cultural factors, the benefits of

NATO membership, and Russian opposition to Georgia's NATO membership. This multifaceted approach ensures a thorough understanding of the complex geopolitical landscape and informs the analysis of Georgia's NATO aspirations.

Ultimately, the article tries to answer the questions: Is NATO membership a national end or a strategic means for Georgia to achieve its national security and stability? And if it is a means, should Georgia consider other options as well, such as a bilateral security alliance with powerful partners or neutrality with security guarantees?

Historical Context

NATO Enlargement
The collapse of the Soviet Union in 1991 made NATO expansion crucial for the United States and Central and Eastern European countries seeking protection from potential Russian aggression and integration with the West. Leaders like Poland's Lech Wałęsa and the Czech Republic's Václav Havel highlighted the importance of NATO membership for safeguarding their freedoms (Barney 2019).

Initially, the Clinton administration opposed NATO enlargement, hoping a democratic Russia would ensure European security. However, internal US debates, led by National Security Advisor Anthony Lake, shifted the policy. By 1993, the Clinton administration pursued a "Europe whole and free," integrating Central Europeans into NATO and the EU, driven by their democratic progress and Russia's rising nationalism (Koźmiński and Fried 2024).
By 1999, NATO included Poland, the Czech Republic, and Hungary. The expansion continued, adding seven Central and Eastern European countries by 2004; Albania and Croatia in 2009; Montenegro in 2017; the Republic of North Macedonia in 2020; and Sweden and Finland in 2024 (NATO 2024a). While this facilitated economic development and security in these regions, it also intensified Russian antagonism.

NATO's enlargement was paired with maintaining strong relations with Russia. The 1997 NATO-Russia Founding Act assured no deployment of nuclear weapons in new member territories and no substantial permanent stationing of combat forces, aiming to ease Russian concerns while integrating Central European countries (NATO 2024b).
Russia vehemently opposed NATO's eastward expansion. In 1997, President Boris Yeltsin unsuccessfully sought assurances from President Bill Clinton to exclude former Soviet republics from NATO. Despite US efforts to mitigate Russia's displeasure with financial support and diplomatic overtures, tensions persisted (Sullivan 2022).

NATO's expansion over the past twenty-five years has profoundly influenced the geopolitical landscape of Europe. Russian President Vladimir Putin's invasion of Ukraine in 2022 aimed to reclaim influence over the region. Other former Soviet-

controlled Eastern European nations, particularly the Baltic states, likely avoided a similar fate due to their NATO membership.

The contrasting paths of NATO-Russia relations and NATO enlargement highlight the success of the latter. While President Boris Yeltsin tolerated NATO's expansion, his successor, Vladimir Putin, pursued authoritarianism and imperial ambitions, leading to the current conflict with Ukraine. Some authors consider that NATO's expansion pushed these conflicts further east, preventing Russia from dominating Central Europe (Koźmiński and Fried 2024).

History of NATO-Georgia Cooperation

After the collapse of the Soviet Union, the former Soviet republics faced significant challenges including conflicts, economic stagnation, corruption, and dysfunctional state institutions. Fragile security was the most overriding problem for a small country like Georgia.

Some former Soviet republics remained in Moscow's orbit, while others chose to develop towards the West. Only Lithuania, Latvia, and Estonia succeeded in becoming part of the Western world. The example of the Baltic states is promising for countries undergoing democratic transition.

Georgia set out on the path towards Western development immediately after gaining independence and declared its aspiration to establish close cooperation with the European Union and NATO. However, economic and political turmoil, territorial conflicts, and civil war hindered Georgia's Western development, slowing its integration process compared to the Baltic countries.

The goal of Georgia's security and foreign policy is to create an environment for safe, democratic, and stable development. European and Euro-Atlantic integration was defined as the main priority of Georgia's foreign and security policy after gaining independence (POG 2011).

NATO-Georgia relations were established in 1992 when Georgia joined the North Atlantic Cooperation Council (NACC), later renamed the Euro-Atlantic Partnership Council (EAPC) in 1997. This cooperation was further expanded in 1994 when Georgia joined NATO's Partnership for Peace (PfP) program, enhancing defence and security cooperation. Notably, at the 2002 NATO summit in Prague, President Eduard Shevardnadze announced Georgia's aspiration to join NATO.

In 2004, Georgia became the first country to develop an Individual Partnership Action Plan (IPAP) with NATO. This action plan did not provide a mechanism for joining NATO but elevated the level of cooperation. The NATO International Service provided annual performance reports on Georgia's progress. By 2008, Georgia had received five positive performance reports.

On September 21, 2006, NATO started Intensified Dialogue on Membership Questions with Georgia, involving multiple consultations on political, security, and

defence issues, among others. At the NATO Bucharest Summit in April 2008, the Allies agreed that Georgia would eventually become a NATO member.

Following the Russian military aggression against Georgia in August 2008, NATO established the NATO-Georgia Commission (NGC) to assist Georgia in recovery and oversee the implementation of the Bucharest Summit decision. The NGC declaration was signed during a visit by the North Atlantic Council to Georgia in September 2008. NATO foreign ministers supported the development of the Annual National Programme (ANP) within the NGC framework. Georgia's implementation of the ANP is unprecedented, as it is typically reserved for states granted Membership Action Plan (MAP) status.

The North Atlantic Cooperation Council has paid multiple visits to Georgia, underscoring the Alliance's unwavering political support. In December 2011, NATO Foreign Ministers referred to Georgia as an aspirant country. The 2012 Chicago Summit marked an important step in Georgia's NATO integration, with Georgia participating in all partner meetings.

At the 2014 NATO Summit in Wales, the Allies decided to develop the Substantial NATO-Georgia Package (SNGP) to strengthen Georgia's defence capabilities and advance its preparations for NATO membership.

In 2015, the NATO-Georgia Joint Training and Evaluation Centre (JTEC) was launched, significantly contributing to Georgia-NATO interoperability.

The Defence Institution Building School (DIBS), inaugurated in 2016, supports good governance in the security sector and strengthens national defence and security capabilities.

At the Warsaw Summit in 2016, additional NATO assistance to Georgia in defence was decided, and Georgia's involvement in strengthening Black Sea security was emphasized.

The 2018 Brussels Summit marked the first time NATO Heads of State and Government discussed issues specifically related to Georgia. The declaration adopted at the summit reiterated the commitment that Georgia will become a NATO member.

In October 2019, the North Atlantic Council paid another visit to Georgia, further solidifying political support. The December 2020 approval of the updated SNGP by NATO Foreign Ministers continues to strengthen Georgia's defence capabilities.

The 2022 Madrid Summit approved tailored support measures for Georgia to enhance its defence capabilities and NATO engagement. Over the years, Georgia has proved to be a valuable partner and aspirant country, with recognized progress in democratic reforms, armed forces modernization, and contributions to international security (NATO 2024c; Info Center n.d. a).

In summary, Georgia's relationship with NATO has evolved significantly since the early 1990s, marked by increasing levels of cooperation and commitment from both

sides. The country's efforts to join NATO are supported by a robust framework of political dialogue, practical cooperation, and mutual support in the face of external threats, particularly from Russia.

Key Events: Highlighting Significant Milestones

The Bucharest Summit Declaration (April 2008)

A pivotal moment in Georgia-NATO relations came during the NATO Summit in Bucharest in April 2008. At this summit, NATO Allies agreed that Georgia would eventually become a NATO member, provided it met all necessary requirements. This decision was a strong political signal of support for Georgia's aspirations, and it has been reconfirmed at successive NATO summits. This commitment underscored NATO's support for Georgia's sovereignty and its right to determine its own future without outside interference.

The 2008 War with Russia

In August 2008, Georgia faced a significant security challenge when Russia invaded its territory, leading to a brief but intense conflict. This invasion resulted in Russia recognizing the breakaway regions of Abkhazia and South Ossetia as independent states, a move condemned by NATO and most of the international community. In response, NATO has consistently expressed support for Georgia's territorial integrity and sovereignty within its internationally recognized borders. The Alliance has called for Russia to withdraw its forces stationed in Georgia without the country's consent and to reverse its recognition of the separatist regions.

The NATO-Georgia Commission (NGC)

Established in September 2008, the NATO-Georgia Commission provides a framework for close political dialogue and cooperation, supporting Georgia's reform efforts and Euro-Atlantic aspirations. This commission has been instrumental in facilitating Georgia's preparation for eventual NATO membership through the development and implementation of Annual National Programs.

Substantial NATO-Georgia Package (SNGP)

Launched at the 2014 NATO Summit in Wales, the SNGP is a comprehensive set of measures aimed at strengthening Georgia's defence capabilities and advancing its NATO membership preparations. The package was updated in December 2020 to include new initiatives such as improving military medical capacity, English language training, and the codification and standardization system to ensure greater interoperability with NATO.

Recent Developments

At the 2022 Madrid Summit, NATO Allies endorsed tailored support measures for Georgia in light of the current security environment, particularly following Russia's aggression against Ukraine. These measures aim to accelerate Georgia's transition from Soviet-era equipment to NATO standards and enhance its situational

awareness. The NATO Liaison Office, established in Georgia in 2010, continues to support the country's reform efforts and its cooperation programs with NATO.

Georgia remains an active contributor to NATO-led operations, participating in maritime surveillance through Operation Sea Guardian and previously contributing troops to the Kosovo Force (KFOR) and the International Security Assistance Force (ISAF) in Afghanistan. Additionally, Georgia is one of the Enhanced Opportunity Partners, recognizing its significant contributions to NATO operations and objectives (NATO 2024c).

Security Considerations of Georgia

Recent international and regional developments have significantly altered Georgia's security environment. The Russian Federation's military aggression against Georgia in August 2008 and Ukraine in February 2022 demonstrated that some nations still consider military force a viable tool for achieving political objectives.

Georgia has faced significant challenges due to Russian aggression, starting with 70 years of Soviet occupation in the 20th century. Since its independence in 1991, Georgia has struggled with political and economic instability, exacerbated by Russian-supported separatist movements. The conflicts of the early 1990s and the 2008 war led to the occupation of Georgian territories by Russia, marked by ethnic cleansing and military aggression. Russia's recognition of these regions as independent states and the deployment of military forces violate Georgia's sovereignty and hinder its development. The militarization of these areas destabilizes the region, with evidence of Russia using these territories to recruit and train terrorists. The lack of control over occupied territories fosters conditions for transnational crime, including terrorism and organized crime.

The conflicts have displaced around 500,000 people from Georgian territories, making it a significant challenge to ensure their rights, including their right to return and own property.

Environmental threats from illegal resource exploitation in occupied territories pose significant risks. Russia's attempts to alter the demographic balance in these areas challenge Georgia's cultural identity and development. Promoting civic integration and protecting cultural heritage are essential for national unity and identity, with efforts needed to prevent intentional damage to cultural monuments in occupied territories.

The presence of Russian forces in occupied Georgian territories poses a continual threat of renewed aggression, aiming to undermine Georgia's independence and democratic progress. International support, including the European Union Monitoring Mission, is crucial in deterring further Russian aggression.

Regional conflicts, such as the Armenia-Azerbaijan conflict, also pose threats to security and stability in the Caucasus.

Economic instability can lead to social tensions and reduced state revenues, making economic growth and competitiveness essential for Georgia's stability and security. Additionally, energy independence and cybersecurity are vital, requiring the diversification of energy sources and protection of cyberspace.

To summarize, the Russian occupation and military aggression have severely worsened Georgia's security environment and affected regional stability. Strengthening European integration, fostering democratic institutions, and maintaining economic growth are crucial for Georgia's security and development. Strategic partnerships and free trade with international entities support Georgia's progress and stability (POG 2011).

Benefits for Georgia from NATO Membership

Collective Defense: NATO's Article 5 and Its Benefits for Georgia
The principle of collective defence is fundamental to NATO's founding treaty, enshrined in Article 5. This principle asserts that an attack against one NATO member is considered an attack against all, committing the entire Alliance to respond collectively. Article 5 has only been invoked once in NATO's history, following the 9/11 terrorist attacks on the United States, illustrating the gravity and solidarity this principal commands.

Article 5 of the North Atlantic Treaty states:
"The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them, in the exercise of the right of individual or collective self-defence recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area." (NATO 2023a).

For Georgia, aspiring NATO membership carries significant potential benefits under Article 5. Given Georgia's complex security environment and the threats it faces, particularly from the Russian Federation, NATO's collective defence principle could provide a powerful deterrent against aggression. Here's how:

Enhanced Security and Deterrence: Joining NATO would mean that any military aggression against Georgia would trigger a collective response from all NATO members. This collective guarantee would substantially deter potential aggressors, particularly Russia, from attempting further military actions against Georgia.

Access to Military Resources and Support: As a NATO member, Georgia would benefit from the Alliance's extensive military resources and capabilities. This includes NATO's standing forces on active duty, which contribute to collective defence efforts and can be deployed rapidly in times of crisis. Additionally, NATO's integrated air and missile defence systems would enhance Georgia's ability to protect its territory and population.

Military Modernization: NATO membership necessitates significant military reforms and assists in these processes, fundamentally transforming the defence capabilities of new and aspiring member states. The journey towards NATO membership, guided by the principles of the 1949 Washington Treaty (NATO 2022) and the 1995 Study on NATO Enlargement (NATO 2008), requires countries to undertake comprehensive military reforms aimed at achieving interoperability with NATO forces, enhancing defence capabilities, and contributing to the overall security of the Euro-Atlantic area.

Political Solidarity and Support: The political solidarity enshrined in NATO membership means that Georgia would gain robust diplomatic support from other member countries. This collective backing can be crucial in international forums and negotiations, reinforcing Georgia's sovereignty and territorial integrity on the global stage. It would firmly anchor Georgia in the Euro-Atlantic community, reinforcing its sovereignty and independence from Russian influence. Membership would increase Georgia's influence in international forums, allowing it to participate in high-level discussions on global security issues.

Participation in Joint Exercises and Training: Membership would enable Georgian forces to participate in joint NATO exercises and training programs. This cooperation would improve the interoperability of Georgian forces with NATO allies, enhancing their capabilities and readiness. For example, NATO's experience in counter-terrorism and cyber defence would be invaluable to Georgia, given the threats it faces in these areas (NATO 2024d).

In conclusion, NATO's collective defence under Article 5 offers Georgia a robust framework for enhancing its national security and deterring aggression. The solidarity, military support, and political backing that come with NATO membership could significantly bolster Georgia's ability to navigate its challenging security landscape and pursue its Euro-Atlantic integration aspirations.

Economic and Development Benefits

Enhanced security through NATO membership can also have positive economic effects. With the assurance of NATO's collective defence, Georgia could see increased investor confidence, leading to greater economic development and prosperity. The stability and security provided by the NATO umbrella create a

favourable environment for investors, both domestic and foreign. Countries within the alliance benefit from a perception of reduced geopolitical risk, which is a key factor in attracting foreign direct investment (FDI). The empirical data supports this notion, with several examples of NATO member states experiencing substantial economic growth and increased FDI following their accession to the alliance. For instance, Estonia and Latvia, which joined NATO in 2004, saw significant increases in foreign investment and economic activity. These countries experienced enhanced trade integration with Europe and Central Asia, leading to improved economic resilience. Similarly, Bulgaria and Lithuania saw a surge in economic activity and foreign investment post-NATO membership, highlighting the economic benefits of being part of the alliance (Guruli 2016).

Georgia, in its pursuit of NATO membership, can anticipate similar economic advantages. By aligning its defence policies and contributing to NATO missions, Georgia signals its commitment to stability and security, which can instil confidence among investors. This commitment, coupled with NATO's economic clout — constituting nearly 45.65% of the world's total economic output (Hartwell 2024) — positions Georgia favourably for increased foreign investment. This influx of capital can drive economic growth, create jobs, and foster technological advancements, ultimately enhancing the overall economic landscape of the country.

Beyond attracting foreign investment, NATO alignment can also open doors to substantial economic aid and development programs. The alliance has a history of facilitating economic development and providing assistance to its members and partners, thereby contributing to their economic stability and growth. This assistance often comes in the form of military aid, technological support, and capacity-building initiatives, which have direct and indirect economic benefits. Georgia has already benefited from various NATO-aligned programs. For example, the European Reassurance Initiative, announced by then-President Barack Obama, allocated funds for capacity building and operational enhancements in response to Russian aggression. Georgia, alongside other Eastern European countries, received portions of this funding, which included an exercise on the Black Sea and additional financial support for critical operational gaps and increased information sharing (CSIS 2016).

NATO alignment offers Georgia substantial economic advantages through increased foreign investment and economic growth, as well as through economic aid and development programs. The stability and security provided by the alliance create a conducive environment for investment, while NATO's economic assistance programs further enhance Georgia's economic resilience and development. As Georgia continues to pursue closer ties with NATO, these economic benefits underscore the strategic importance of the alliance for the country's long-term prosperity and stability.

Social and Cultural Factors

Public opinion in Georgia overwhelmingly supports NATO membership, reflecting a strong desire for Euro-Atlantic integration. According to a poll conducted by the National Democratic Institute (NDI) and Caucasus Research Resource Centre (CRRC) in Georgia, 73 per cent of Georgians are in favour of joining NATO. This robust support underscores the population's aspiration for enhanced security and alignment with Western military and political structures (NDI 2023).

The strong public support for NATO membership suggests that Georgians see the alliance as a pathway to greater security and stability. This perception is critical, especially in light of the ongoing economic challenges facing the country. The desire for NATO membership is part of a broader trend of Euro-Atlantic integration, which is also reflected in the high levels of support for EU membership, standing at 81 per cent (NDI 2023). This dual support highlights a clear and settled will among the Georgian public for integration with Western institutions.

The aspiration for NATO and EU membership is not just a political or economic decision for Georgia; it also represents a significant cultural shift towards Western values and standards. This cultural integration is evident in various aspects of Georgian life. For instance, the alignment with Western defence practices and military standards has transformed the Georgian military, making it more professional and interoperable with NATO forces. Georgian troops, often seen in NATO-style uniforms and equipment, symbolize this shift towards Western military norms.
Moreover, societal values in Georgia are increasingly reflecting Western ideals. There is a growing advocacy for democratic governance, transparency, and the rule of law. Public discourse increasingly emphasizes human rights, gender equality, and social justice, aligning more closely with the values upheld by NATO and the European Union.

Educational and cultural exchanges with Western countries have further accelerated this integration. Georgian students, professionals, and academics frequently participate in exchange programs, bringing back with them Western ideas and practices. These exchanges foster a deeper understanding and appreciation of Western cultural and societal norms, which in turn influence domestic attitudes and policies.
The high level of support for more women in elected office, as indicated by the NDI poll, is a testament to the changing cultural landscape in Georgia. This desire for greater gender equality in political representation is a reflection of broader societal shifts towards inclusivity and diversity, core values of Western democracies.

In conclusion, Georgia's strong public support for NATO membership and its broader Euro-Atlantic integration efforts signify a deep and ongoing societal shift towards Western values and standards. This cultural transformation, driven by both political aspirations and grassroots changes, is reshaping Georgia into a society that increasingly mirrors the democratic, human rights-focused, and inclusive norms of the Western world.

Means to Broader Ends

Linking Georgia's NATO membership aspirations with its efforts towards European Union (EU) integration is essential for broader regional stability and security. Georgia's commitment to Euro-Atlantic integration aligns with its broader foreign policy goal of integrating into the common European space.

The signing of the Association Agreement between Georgia and the EU, along with Georgia's participation in the Energy Community and visa-free travel to the Schengen area, demonstrates the country's tangible progress towards European integration. These developments not only strengthen Georgia's European identity but also contribute to regional stability by fostering closer ties with EU member states.

Moreover, Georgia's high-level strategic dialogue on security issues with the EU underscores the importance of cooperation in addressing common security challenges. By engaging in discussions on security and defence, Georgia aims to enhance regional stability and contribute to broader security initiatives in collaboration with the EU.

The successful implementation of the Association Agreement serves as a roadmap for Georgia's modernization, encompassing various spheres of political, social, and economic life. By aligning with EU standards and norms, Georgia seeks to strengthen democracy, governance, security, and regional cooperation, thereby promoting stability in the region (Info Center n.d. b).

Furthermore, *Georgia's constitutional amendments emphasizing full integration into both the EU and NATO underscore the country's unwavering commitment to Euro-Atlantic integration* (POG 1995). This commitment not only enhances Georgia's security but also contributes to regional stability by promoting cooperation and collaboration among Euro-Atlantic partners.

In summary, Georgia's aspirations for NATO membership are closely linked to its efforts towards EU integration, with both initiatives aimed at fostering regional stability and security. By aligning with European values and principles, Georgia contributes to broader efforts to promote peace and stability in the Euro-Atlantic region.

Challenges and Obstacles

The challenges and obstacles faced by Georgia in its pursuit of NATO membership are complex and multifaceted, involving significant geopolitical tensions and historical grievances. This section examines the primary challenges Georgia encounters, including Russian opposition and NATO's cautious stance, and explores potential strategies Georgia could consider to navigate this intricate landscape.

Russian Opposition

NATO expansion is a contentious issue for Russia, which views it as a threat to its sphere of influence. The expansion has been met with strong opposition from

Russian leaders, who feel betrayed by Western assurances made during the post-Soviet period that NATO would not expand eastward.

Russian opposition to Georgia's NATO membership poses a significant challenge to the country's aspirations for Euro-Atlantic integration.

The warning issued by Russia against Ukraine and Georgia seeking NATO membership underscores the geopolitical tensions surrounding Euro-Atlantic integration efforts in the region. In 2008, Russian President Dmitri Medvedev met individually with the leaders of Ukraine and Georgia, emphasizing Moscow's concerns about their aspirations to join the NATO defence alliance. The backdrop of these meetings was a yearly economic forum in Saint Petersburg, where leaders from former Soviet Union countries gathered for discussions (Voanews 2009).

NATO membership, promised to Georgia at the Bucharest summit in 2008, was a key factor in the conflict between Russia and Georgia. While Georgia's strategic importance to Russia differs from that of Ukraine, Moscow's primary security concerns in the region involve religious extremism, terrorism, and separatism rather than traditional power balances (Trenin 2011).

In 2022, President Putin used Ukraine's steps toward NATO membership as a key justification for the invasion, arguing that Russia deserves a sphere of influence in its neighbouring regions.

Historical grievances, such as the perception of NATO exploiting Russia's weakness in the 1990s, fuel Putin's narrative. Prominent figures like George F. Kennan predicted that NATO expansion would provoke nationalist and anti-Western sentiments in Russia (Piirimäe 2024), which aligns with Putin's stance today. Despite these tensions, NATO insists that each European country has the right to choose its alliances, a point that has exacerbated the situation.

Putin's aggression is partly driven by the belief that if Russia does not control Ukraine, the West will, posing a direct threat to Russian security. This historical perspective underscores Russia's actions as defensive, although the West views them as aggressive. To mitigate these tensions, any lasting peace settlement might need to address both the historical security concerns and the recent ideological threats posed by a democratic Ukraine (Moskowitz 2022).

Russian President Vladimir Putin claims that NATO's eastward expansion since the end of the Cold War is a betrayal by the West. This sentiment has roots in a 1993 letter from then-Russian President Boris Yeltsin to U.S. President Bill Clinton, where Yeltsin expressed concern about Eastern European countries joining NATO. Yeltsin argued that NATO expansion would isolate Russia and violate the spirit of the 1990 Two Plus Four Treaty on German reunification (NSA 2016).

Despite Russia's concerns, the expansion of NATO continued, incorporating 14 countries from Eastern and South-eastern Europe, which intensified Russian

grievances. President Putin has frequently asserted that the West promised in the 1990s that NATO would not expand eastward, using this claim to demand guarantees that Ukraine will not join NATO.

Discussions from the early 1990s show conflicting accounts about whether such promises were made. Some Western officials, like U.S. Secretary of State James Baker, have denied making any pledges, while others, including former U.S. ambassador to Moscow Jack Matlock, have suggested "categorical assurances" were given. Although there were no legally binding agreements to prevent NATO expansion, the ongoing eastward movement has consistently been a point of contention for Russia, which views it as a security threat. The resulting tension has poisoned relations between Moscow and the West, complicating diplomatic and security arrangements in Europe (Wiegrefe 2022).

Vladimir Putin's remarks regarding Ukraine's potential NATO membership underscore Russia's staunch opposition to any further eastward expansion of the alliance. Putin's assertion that allowing Ukraine to join NATO could lead to a conflict with severe consequences, including the possibility of nuclear war, reflects Russia's determination to prevent NATO from encroaching on what it perceives as its sphere of influence. Putin emphasizes Russia's nuclear capabilities, highlighting the disparity between NATO's military strength and Russia's nuclear arsenal. Moreover, Russia has proposed draft treaties with NATO and the United States seeking security guarantees, including a prohibition on further eastward expansion of NATO. However, these proposals have been met with resistance from the United States and its NATO allies, who view them as attempts to undermine NATO's principles of collective defence and deterrence (Starkey 2022).

It is noteworthy that the Russian invasion of Ukraine is often framed as a reaction to the threat of NATO expansion, even by Western officials. At the joint meeting of the European Parliament's Committee on Foreign Affairs (AFET) and the Subcommittee on Security and Defence (SEDE) on September 7, 2023, NATO Secretary General Jens Stoltenberg stated that President Vladimir Putin "went to war to prevent NATO, more NATO, close to his borders" (NATO 2023b). Stoltenberg mentioned that Putin sent a draft treaty to NATO in 2021, demanding no further expansion, which NATO rejected. He asserted that this rejection was a significant factor that contributed to Putin's decision to invade Ukraine. Stoltenberg also noted that, contrary to Putin's intentions, the result has been an increase in NATO presence, including Finland's membership and Sweden's anticipated accession (NATO 2023b). Earlier, US officials, including Director of National Intelligence Avril Haines, also pointed out that preventing Ukraine from joining NATO was one of the main motives for Putin's invasion (Voanews 2023).

Despite this understanding among some officials, many Western media outlets have characterized the invasion as "unprovoked," focusing on the broader context of aggression rather than the specific motivations related to NATO expansion.

However, historical warnings from diplomats and intelligence officials suggested that NATO's eastward expansion would provoke Russian hostility (Marcetic 2023). The disconnect between these official insights and public discourse complicates understanding the war's root causes and hampers efforts to secure lasting peace.

NATO's Position

Contrary to Russian claims, NATO says its enlargement did not cause Russia's aggression. Rather, Putin's actions have spurred NATO to consider Ukrainian membership more seriously and prompted Finland and Sweden to seek alliance membership—actions unlikely before Russia's invasion of Ukraine in 2022. NATO has long affirmed its openness to new members while being cautious about Russia, especially regarding Ukraine.

Experts argue that NATO enlargement has provided stability in Central and Eastern Europe and that Russian aggression would likely have occurred regardless. Tensions between Russia and the West have fluctuated despite ongoing NATO expansion, often correlating more with democratic trends in Eurasia than with NATO's actions. Putin's invasion may also stem from his belief that the timing was opportune, given the U.S. focus on China and the perceived closing window to curb Ukraine's westward drift. The invasion has intensified discussions about NATO membership for Ukraine, with the argument that only NATO's Article 5 can effectively deter future Russian aggression. The recent wave of NATO enlargement is a reaction to Putin's aggression, not its cause. While deterrence is challenging, NATO's collective defence and increased European investment in defence are seen as crucial to preventing further Russian advances (Goldgeier 2023).

NATO views Russia as the most significant threat to the security and stability of the Euro-Atlantic area, citing Russia's aggressive actions, disinformation campaigns, and attempts to control other nations through coercion and subversion. Despite NATO's stance as a defensive alliance not seeking confrontation, it has significantly strengthened its deterrence and defence measures in response to Russian threats (NATO 2024e).

Russia claims NATO is at war with it in Ukraine and asserts NATO promised not to expand after the Cold War. However, NATO counters these "myths", stating it supports Ukraine's right to self-defence and never made such promises. Decisions on NATO membership are made by consensus among all allies, and NATO's open-door policy has been consistent since its founding. NATO's deployments and exercises, including those in the Baltic States and Poland, are described as defensive measures in response to Russia's illegal annexation of Crimea and actions in Ukraine. NATO maintains that these deployments are not a threat to Russia and are within the bounds of international agreements. NATO also emphasizes its willingness to engage in diplomatic efforts to manage risks and prevent escalation, despite Russia's increasingly aggressive behaviour (NATO 2024f).

As for NATO's current stance on Georgian membership, it remains cautious, balancing the strategic imperative of strengthening Euro-Atlantic security with the need to manage tensions with Russia. While NATO has reaffirmed its commitment to the open-door policy and support for Georgia's territorial integrity, concerns persist regarding the potential for heightened tensions with Russia and the impact on regional stability.

The Current Situation as a Source of Dilemma for Georgia

Russia's staunch opposition to Georgia's NATO membership poses a significant challenge to the country's aspirations for Euro-Atlantic integration. This opposition is rooted in broader geopolitical tensions and historical grievances. Russia views NATO expansion as a threat to its sphere of influence and has consistently reacted strongly against it. The issue of NATO expansion has long been contentious for Russia. Following the collapse of the Soviet Union, Western assurances allegedly promised no eastward expansion of NATO, a claim disputed by various officials but deeply ingrained in Russian political discourse. President Putin has frequently cited these assurances to justify his opposition to NATO's growth, viewing it as a betrayal of post-Cold War agreements.

The Russian invasion of Ukraine in 2022, *justified by President Putin as a preventive measure against NATO's potential expansion into Ukraine,* underscores the severity of Russia's stance. As mentioned above, even NATO Secretary General Jens Stoltenberg and U.S. officials have noted that preventing Ukraine's NATO membership was a primary motive behind Russia's aggressive actions.

The 'security dilemma' is another significant factor in Russian aggression against Ukraine. This theory posits that excessive military preparedness by one state can heighten the risk of conflict by increasing tensions with other states that perceive these actions as threatening. According to Betts (1995), when states are suspicious of each other's intentions and feel threatened by their military capabilities, a robust military build-up can exacerbate tensions and potentially provoke preemptive strikes. Thus, Ukraine's intensive military build-up since 2014 (Sanders 2023; US DOS 2024) could have contributed to concerns in Russia, possibly influencing its decision to act militarily.

Uncertainty remains about the war's end and its outcomes. The IMF's baseline scenario predicted the war would wind down in early 2024, leading to gradual investment and reconstruction. The downside scenario anticipates the war will intensify, last longer, and cause further losses for Ukraine (IMF 2023). It is clear that the latter scenario is unfolding. In addition, as mentioned above, back in 2008, Russian President Dmitry Medvedev's meetings with the leaders of Ukraine and Georgia at the economic forum in St. Petersburg highlighted Moscow's concerns. The meetings emphasized Russia's warning against NATO membership for these countries, reflecting the broader geopolitical tensions.

Also noteworthy are the words of Mr. Putin, who outlined in detail the conditions for ending the war in Ukraine, saying that Russia would cease military operations only *if Kiev renounced its aspirations to join NATO* and ceded control over four regions claimed by Moscow (CNN 2024).

Despite Russia's opposition, NATO maintains its open-door policy, affirming that each European country has the right to choose its alliances. This principle, however, has exacerbated tensions, as Russia views NATO's expansion as a direct threat to its security. Notably, U.S. Defense Secretary Lloyd Austin recently stated that NATO expansion is unlikely in the near future. He emphasized that the decision to expand NATO rests with its 32 member countries and that there is no current intention to pursue further expansion. Austin acknowledged that while some countries might always seek to join NATO, the alliance's immediate focus is on integrating its newest members, Sweden and Finland. He added that the alliance members likely prefer to see stability and the successful incorporation of the new members before considering further expansion (Reuters 2024).

The ongoing debate over NATO's role and expansion complicates Georgia's situation, as it must navigate its aspirations for Euro-Atlantic integration against the backdrop of Russian opposition and potential retaliatory measures.

The current context heightens the dilemma for Georgia, which faces vehement opposition from Russia regarding its NATO ambitions: *What should Georgia do if Putin issues the same ultimatum as he did to Ukraine?*

Current Dilemma for Georgia

Security Concerns: Georgia's push for NATO membership is driven by its desire for security guarantees and integration into the Euro-Atlantic community. However, this ambition places it at odds with Russia, which has demonstrated its willingness to use military force to prevent further NATO expansion.

Economic and Political Pressure: Georgia faces significant economic and political pressures from Russia. Moscow's opposition to NATO membership for Georgia includes potential economic sanctions and political interference, aiming to destabilize the country and deter its integration efforts.

Regional Stability: The tension between NATO's open-door policy and Russia's opposition has broader implications for regional stability. Georgia's pursuit of NATO membership could provoke further Russian aggression, complicating efforts to maintain peace and security in the region.

Diplomatic Balancing Act: Georgian leaders must balance their aspirations for NATO membership with the need to manage relations with Russia. This requires careful diplomatic manoeuvring to avoid provoking further conflict while seeking support from Western allies.

In this case, Richard K. Betts' remarks are relevant, emphasizing that a state's primary responsibility is to ensure it possesses sufficient potential military capability, either from its own resources or through alliances, to match its adversaries. In his "Military Readiness: Concepts, Choices, Consequences" Betts argues that a government lacking the necessary alliances or economic resources to develop adequate military capability should not consider military action, as "war cannot serve its interests better than surrender" (Betts 1995, 28-29).

By seeking to join NATO, Georgia risks provoking an armed conflict with Russia instead of gaining the security it expects from integration into the Euro-Atlantic Community.

To summarize, Georgia's aspirations for NATO membership place it in a complex and precarious position. The pursuit of Euro-Atlantic integration creates significant geopolitical tension due to Russia's staunch opposition and the broader dynamics of NATO expansion. Both Russian opposition and NATO's cautious approach present substantial challenges to Georgia's goals. Addressing these challenges will require concerted efforts from both Georgia and its NATO partners to navigate the intricate geopolitical landscape, advance Euro-Atlantic integration, and maintain regional stability. Within this challenging context, *Georgia must balance its security goals against the risks of escalating conflict with Russia.* Joining any military alliance should be considered *a means to achieve national security, not a source of devastating conflict.* Moreover, if NATO membership is viewed as a strategic means to enhance national security, Georgia shouldn't avoid considering other options such as a *bilateral security alliance with powerful partners or neutrality with security guarantees.*

Exploring bilateral security alliances with powerful partners, such as the United States or key European countries, could provide immediate security benefits and foster deeper strategic partnerships. These alliances might be framed as transitional measures that support Georgia's ultimate integration into NATO by building stronger defence capabilities and military-political relationships.

Similarly, adopting a stance of neutrality with robust security guarantees could be considered a viable short-term strategy. This approach would require extensive diplomatic negotiations to secure binding guarantees from major powers or international organizations, ensuring Georgia's security while avoiding direct confrontation with Russia. Neutrality, backed by security guarantees, might help reduce regional tensions and create a more stable environment conducive to long-term integration efforts.

Conclusion and Recommendations

Georgia stands at a critical juncture in its pursuit of NATO membership, facing formidable challenges and complex geopolitical dynamics. The country's aspirations

for Euro-Atlantic integration clash with Russia's staunch opposition, underscoring the multifaceted dilemma it confronts. As Georgia navigates this intricate landscape, several key recommendations emerge to guide its path forward.

Strategic Patience and Diplomacy: Georgia should adopt a strategy of strategic patience, recognizing that Euro-Atlantic integration is a long-term endeavour that requires diplomatic finesse and perseverance. Prioritizing dialogue and engagement with both NATO and Russia can help mitigate tensions and create opportunities for constructive cooperation.

Regional Cooperation and Confidence-Building Measures: Georgia should actively pursue regional cooperation and confidence-building measures to foster stability and security in the wider Black Sea region. By strengthening partnerships with neighbouring countries and multilateral organizations, Georgia can enhance its security and resilience against external pressures.

Balanced Approach to Security: Georgian leaders must carefully balance their aspirations for NATO membership with the imperative of managing relations with Russia. This requires a nuanced understanding of Georgia's security interests and a willingness to explore alternative pathways to enhance security and stability in the region. *Joining any military alliance should be considered a strategic means to achieve national security, not a source of devastating conflict.*

Public Diplomacy and Alliance-Building: Georgia should invest in public diplomacy efforts to build support for NATO membership both domestically and internationally. By effectively communicating the benefits of Euro-Atlantic integration, Georgia can mobilize public opinion and garner political support for its NATO aspirations. Additionally, Georgia should continue to strengthen partnerships with Western allies and demonstrate its commitment to shared security goals.

Adaptive Strategy and Risk Management: Georgia must maintain flexibility and adaptability in its approach to NATO membership, recognizing the evolving nature of the geopolitical landscape. This requires a proactive approach to risk management and contingency planning, as well as a *readiness to reassess priorities and strategies in response to changing circumstances.*

Georgia's journey towards NATO membership is fraught with challenges and obstacles, yet it also presents opportunities for enhanced security and stability in the Euro-Atlantic region. By adopting a pragmatic and balanced approach, Georgia can navigate the complexities of Euro-Atlantic integration, safeguard its security interests, and contribute to regional peace and prosperity.

As Georgia charts its course forward, it must remain steadfast in its commitment to security, sovereignty, and Euro-Atlantic integration, *while being mindful of the delicate balance between aspirations and realities on the ground.* Considering options

such as a bilateral security alliance or neutrality with security guarantees is valid, acknowledging that there are multiple paths to achieving security and stability, with NATO membership being one of the means. Given Russia's opposition to NATO expansion and the complex regional dynamics, it is essential for Georgian policymakers to explore all possible options for ensuring national security.

Further research into the implications and viability of alternative security arrangements, such as a bilateral security alliance with powerful partners or adopting a stance of neutrality with security guarantees, is necessary. This approach ensures that Georgia's decision-making process is comprehensive and considers all potential avenues for maintaining national security and regional stability. Given the constitutional mandate for full integration into the EU and NATO, it is crucial to explore how these alternative arrangements can complement, rather than contradict, the long-term strategic goal of Euro-Atlantic integration. Policymakers must carefully examine whether interim security measures, like a bilateral alliance or neutrality, can serve as pragmatic steps towards the broader objective of integration, enhancing Georgia's security and stability in the interim.

Additionally, further research should assess the legal and diplomatic frameworks required to implement these alternative security arrangements without conflicting with the constitutional mandate. This includes exploring potential amendments or legislative adjustments that could provide greater flexibility in Georgia's strategic approach, allowing for a broader range of security options while maintaining the commitment to Euro-Atlantic integration.

By pursuing a thorough analysis of these alternative security pathways, Georgia can develop a more adaptable and resilient national security strategy. This strategy would not only align with constitutional requirements but also address the immediate and evolving security challenges facing the country. Ultimately, a comprehensive and flexible approach will better equip Georgia to navigate the complex geopolitical landscape, safeguard its sovereignty, and achieve its long-term goal of Euro-Atlantic integration.

In conclusion, the current developments and insights by Richard K. Betts discussed in the article leave the question open: *What should Georgia do if Mr. Putin gives it the same ultimatum as in the case of Ukraine?*

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Considerations regarding the use of mission command at the tactical level

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Abstract

Mission Command is a specific component of the command and control system of military structures at all levels of leadership. Implementing the concept allows the commanders to encourage their subordinates to make quick and effective decisions. It also allows them to show their initiative and freedom of decision within the limits of the intention of the superior commander.

In this article, a doctrinal-comparative introspection will be carried out to facilitate the identification of some advantages and disadvantages of using the Mission Command concept in the process of planning, leading, and evaluating operations at the tactical level. The research is based on the assumption that adapting the act of command and control to the particularities of the operation aims to maximize the effect of the action.

Taking into account the aforementioned and not limiting ourselves to the principles of leadership, we can assert that this concept, which uses principles of military art and operational art, will become a tool at the disposal of future generations of military leaders to facilitate leading of forces with efficiency and effectiveness based on doctrinal foundations, within the limits of acceptable risks.

Keywords:

Within this approach, a doctrinal-comparative introspection will be carried out to catch the essence of the Mission Command concept, facilitating the identification of advantages and disadvantages of using the concept in the process of planning, management, and evaluation of operations. Mission command is a specific component of the command and control system of military structures at all levels of leadership manifestation. The philosophy of the concept is to promote freedom of decision and action in the appropriate application of the principles of military art at any level of manifestation of the principles of leadership, at the strategic, operational, or tactical level.

The research is based on the assumption that adapting the act of command and control to the particularities of the operation aims to maximize the effect of the action. Under these conditions, the adoption of the concept offers the possibility to higher-level commanders to encourage subordinates to make quick and efficient decisions, whereas to lower-level commanders it offers the opportunity to show their initiative and freedom of decision within the limits of the declared intention of the higher echelon commander.

The top-down application of the concept will require a doctrinal adaptation in the sense of accepting its place and role in the act of command, through an understanding of the advantages of applying this concept simultaneously with minimizing the risks taken. At the execution level, the application of the concept will represent the fulfillment of the tasks received, to produce quantifiable effects at the upper management level.

It is foreshadowed that the manifestation of leadership in the context of mission command is achieved under the auspices of trust by promoting creative and intuitive actionable leadership.

To achieve the purpose of this endeavor, particularities of the application and use of the Mission Command concept will be addressed through a comparative study with other doctrinal approaches regarding command and control. The result will offer the possibility of identifying some advantages regarding the use of the concept, especially at the tactical level.

To solve the research equation, some of the particularities of the concept will be presented, as it was captured by the strategists of the time, from the initial use to the conceptual emergence and doctrinal evolution. As a result of identifying the state of knowledge, it will be aimed to identify the advantages of using the Mission Command concept in the planning process with implications in the force management process, by minimizing the disadvantages. These disadvantages, once identified, will allow the forecasting of risks that may occur in the process of planning, management, and evaluation of tactical-level operations.

The emergence, evolution, and philosophy of the Mission Command concept

Mission Command is a concept that has its doctrinal origin at the beginning of the 19th century, coming to the attention of military specialists, especially in the post-war period (NATO 2022). Mission Command is defined by the particularities of leadership, whereby it uses certain planning benchmarks provided by higher echelons. In this sense, for a prior understanding of the concept, in the specialized bibliography of the Alliance, it is specified that a commander exercises command and control for the conduct of multi-domain operations using mission-focused orders defined by the higher echelon commander's intent by empowering available forces based on their initiative and adaptability. „Mission command is the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of full spectrum operations" (Ancker 2013, 51).

When studying the theory from "The Art of War" (Tzu 2012, 49), it is specified that in military actions the conditions cannot be predefined, that they do not have a cycle and the fact that the inadaptability to changing conditions can lead to a deadlock in the conduct of military actions, we can emphasize that Sun Tzu captured the principle of flexibility through the prism, the dynamics of the action, and the orientation ability of the decision-making commander. He emphasized that "*for an army to gain victory, it adapts its action to the situation of the enemy*" (Tzu 2012, 49). We will note that flexibility is indeed a dominant feature of the current mission command concept.

Field Marshal Helmuth von Moltke Sr. (1800-1891) got to the heart of the current concept, arguing that "*it is crucial for the subordinate to understand the purpose of the operation, and then work for realization even if it means working against the actual orders.*" (Gunther 2012, 8). Thus, von Moltke promoted the spirit of initiative among lower-ranking commanders and encouraged them to make the best and quickest decisions to carry out the orders of their higher commander.

Later, General Otto von Moser, in the manual *Ausbildung und Führung des Bataillons, des Regiments und der Brigade. Gedanken und Vorschläge* stated that cooperation between commanders at the same level is more important than the need to transmit detailed and binding orders from the echelon (Otto 1914). In other words, it also promoted the freedom of action of the lower-level commanders concerning the evolution of the actions of the collaborating commanders.

Underlying the development of the mission command concept is the essence of the concepts "*Auftragstaktik*" (Cojocaru 2024) *apud* (Gunther 2012) and "*Blitzkrieg*" (Frieser 2010), which can be considered the predecessor of the philosophy of centralized command and decentralized execution. In the case of the two concepts,

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one can mention an early inadvertence of the application of the principles by involving the politician in the centralized management of the armed forces, by limiting the freedom of movement of the lower-level commanders.

Colonel Trevor Nevitt Dupuy[1], regarding action and decisional inadvertences, such as losing tempo, through inaction or avoidance, mentions that „*a favorable situation will never be exploited if commanders wait for orders. The highest commander and the youngest soldier must always be conscious of the fact that omission and inactivity are worse than resorting to the wrong expedient.*" (Dupuy 1977, 116).

Starting in 1976, the United States Army introduced, elements characteristic of the Mission Command concept, in the Doctrine for Land Forces Operations (FM 100-5 Operations), without expressly naming this concept. The document refers to leadership principles such as orientation, targeting, concentration of effort, speed, intensity, flexibility, trust in the initiative of lower-level commanders, clearly defined objectives, actions behind the front, etc.

In 2010, with the publication of AJP 01(D) Allied Joint Doctrine, the modern concept of Mission Command was defined, describing the way in which „*it generates the freedom of action for subordinates to act purposefully when unforeseen developments arise, and exploit favorable opportunities*" (NSA 2010, 6-3). In subsequent versions, amendments are made to the concept, but its essence does not change substantially.

In 2012, the Army Doctrine Publication, promoting the concept of Mission Command, stipulated: „*Mission command is based on mutual trust, shared understanding, and purpose. Commanders understand that some decisions must be made quickly at the point of action. Therefore, they concentrate on the objectives of an operation, not how to achieve it. Commanders provide subordinates with their intent, the purpose of the operation, the key tasks, the desired end state, and resources. Subordinates then exercise disciplined initiative to respond to unanticipated problems. Every Soldier must be prepared to assume responsibility, maintain unity of effort, take prudent action, and act resourcefully within the commander's intent.*" (Headquarters Department of the Army 2012, 1-12). In other words, the decision at the command level is supported by defining elements of operative art such as intention, purpose, tasks, final state, etc., but through the prism of the manifestation of initiative, critical thinking, etc.

ADP 6-0 -Mission Command presents six principles of the Mission Command concept, which would generate the following actions:
The six principles of the Mission Command concept presented in ADP 6-0 -Mission Command (Headquarters Department of the Army 2012), are the following:

- *"competence*
- *mutual trust*
- *shared understanding*
- *commander's intent*
- *mission orders*
- *disciplined initiative*
- *risk acceptance*" (Headquarters Department of the Army 2012, 1-6)

These six principles of the Mission Command concept, in our opinion, would generate the following actions:

- *demonstration of decision-making and action competence*
- *shaping teams based on mutual trust;*
- *mutual understanding;*
- *provision of a clear intention of the commander;*
- *exercising a disciplined initiative;*
- *use of mission orders;*
- *accepting risks with caution*

In *AJP 01(F) Allied Joint Doctrine* (NSO 2022, 84), regarding the characteristic of the Mission Command concept, it is stated that this is the main command philosophy, which is based on well-defined leadership.

It can be said that the synergy of the principles and characteristics of the concept make this type of leadership a tool in the hands of commanders of all levels to minimize the risks of planning and leadership through decisions and actions optimized by the filters through which the process takes place. „*Mission command is enabling the maneuverist approach and their synergic dimensions provide commanders with a versatile instrument for managing future conflicts; all together facilitate operation designed to strike enemy's center of gravity and its vulnerabilities*" (Nistorescu 2021, 205)

Moreover, mission command is a combat power multiplier at the operational level and a force multiplier at the tactical level, if used correctly, meaning risks are minimized or eliminated. „*Mission command could be a force multiplier on the battlefield if it is used properly; particular operating environments, unavoidable force commanders to adopt a command style based on decentralized execution*" (Nistorescu 2021, 205)

In conclusion, we can speak of a concept of command and control that developed as a result of the evolution of operative art, along with the adaptation of the principles of armed struggle to the evolution of military art. Mission command has become a force leadership philosophy that brings together creativity, initiative, freedom of decision, adaptability, and mutual trust, elements that are defined in the doctrine of modern leadership in conjunction with the principles of armed struggle and the general laws of war.

Considerations regarding the tactical particularities of the Mission Command concept

As a result of the main characteristics of the concept identified in the previous chapter, they can be customized for the tactical level of their manifestation through the application of the mission command concept by lower-level commanders during the conduct of military actions. Even though flexibility and accountability are the most convenient characteristics of the act of leadership of tactical commanders to respond quickly to changes in combat conditions and to achieve maximum operational effects as a result of the performance of specific tasks, the spectrum of dominant characteristics of the mission command concept at the tactical level is much wider.

In our opinion, the main characteristics are the following: delegation of authority and responsibility, initiative and autonomy, flexibility and adaptability, effective communication, trust and collaboration, centralization of purpose, decentralization of means, respectively evaluation and continuous learning. In accordance with the Mission Command philosophy, a brief presentation of some dominant characteristics at the tactical level will be made below.

Delegation of authority and responsibility gives commanders in the field the authority and responsibility to make decisions during the conduct of military actions at the tactical level. This delegation allows leaders to coordinate forces effectively, react quickly to changes in the field, and adapt to unexpected situations.

Initiative and autonomy – through this characteristic field leaders are encouraged to show initiative and creativity and act autonomously in achieving mission objectives by punctually completing specific tasks in an order that meets the higher commander's intent. They must be able to find inventive solutions and adapt to unstable circumstances to achieve operational success without the need for constant approval from higher command.

Realistically *effective and transparent communication*, in commonly accepted language, between all levels of command is essential to the successful implementation of the Mission Command concept at the tactical level. Clarification of objectives, orientations appropriate to the situation, specific indications, and timely information are particular elements of communication between commanders.

Trust and collaboration are based on mutual trust between commanders and subordinate personnel, being important for their motivation and moral support during military actions. Commanders at the tactical level must trust the skills and thinking of their subordinates, and subordinates must trust that they are unconditionally supported and assisted by their commanders.

Centralization of purpose refers to issues regarding the structured reformulation of the mission and the identification of general objectives and specific tasks related to them. If the overall mission and objectives are set by the higher command, the specific tasks are set by the subordinate commander. Thus, the essence of the mission command concept leaves the commander free to choose how these objectives can be achieved. In that instance, one can also use a tool specific to the act of centralized command, *the decentralization of execution*. Therefore, the concept is defined by a new characteristic of the mission command: the *decentralization of means*. Consequently, it is up to the tactical level commander to determine the means/instruments with which the mission can be accomplished, the order of their use, the place and role within the action structure, the reserve of means, etc.

Evaluation and continuous learning represent the commanders' concern to ensure the formal framework for the manifestation of knowledge, evaluation being delivered through procedures while learning through continuous training and capitalizing on lessons identified and grasped from previous similar actions.

Through these characteristics, the concept of mission command at the tactical level supports commanders to have an effective approach and effective action. Thus, mission command at the tactical level encourages commanders to be flexible, take the initiative, be autonomous, and make informed decisions regarding the dynamics of military actions in the field in order to achieve the tactical tasks and mission objectives set. To do this, senior commanders must ensure that plans are flexible and adaptable to environmental changes and to the dynamics of combat actions.

Conceptual differentiations of leadership typologies

Considering the particularities presented about the Mission Command, a comparative analysis will be made next with two leadership styles that we consider relevant due to the dominant particularities. From the wide range of typologies specific to management and leadership styles in management, we have chosen for comparison: Direct Command and Control-based Command (Directive control). These typologies were chosen because, in our opinion, they encompass a wide range of characteristics, some similar, and some different.

Consequently, in order to identify the most relevant characteristics of the mission command, the comparative analysis will support the approach.

For this analysis, differentiation criteria will be used such as the involvement of the superior commander, hierarchy, leadership, the involvement of tactical commanders, the contribution of forces, leadership, the typology of command and control, and critical thinking. Following this analysis, it will be possible to highlight the advantages and disadvantages of using the mission command concept in the

management act, customized for the tactical level. The result of the research will be materialized by identifying several risks regarding the use of the mission command in military actions at the tactical level. Therefore, solutions will be identified in order to minimize the risks through flexible leadership techniques.

In the authoritarian command style, *Direct Command* corresponding to the *Authoritative Leadership* concept (Moștoflei and Duțu 2007), the commander directly states the tasks, objectives, and way of executing the mission. The commander says *what to do*, *how to do it*, and *what means to do* it. Under these circumstances, the subordinates are less involved in the decision-making process and have the role of exactly executing the orders received. The rigidity of the command style imposes intolerance to indiscipline, deviations are not being tolerated, but sanctioned. Thus, a rigid profile of the organizational structure is being set up. These features will be the subject of the following comparative analysis.

In contrast to *Direct Command, Mission Command* encourages the delegation of authority and responsibility to lower levels of command. Commanders of combat structures, at the tactical level, have more freedom in making decisions and in planning how to accomplish the mission while remaining within the limits set by the commander's intent. This style relies on trust in the commander's competence and the reasoning of subordinates to achieve objectives, thus promoting initiative and innovation in the act of command and execution.

Directive command/Directive control (Mallick 2020) involves strict monitoring and control over the activities performed by subordinate personnel. The concept reflects the same principles specific to the German Auftragstaktik concept (Widder 2002, 5). "The term Directive Control comes from the German 'Auftragstaktik' (literally, "mission tactics") and was the precursor to Mission Command." (INSYNC 2021) However, in the case of *Control-Based Command (Control Directives)*, the commander expresses his intent and gives direction so as to the objectives to be achieved. The commander tells you *what to do*, and tells you *how to do* it but he *does not tell you the means* to achieve it with, which even if it gives him the authority to act in the spirit of achieving the objectives, he must strictly follow the specific tasks within the limiting parameters (INSYNC 2021). "The leader expresses their intent and provides direction to followers on the objectives to be achieved and then empowers them to achieve the necessary outcome within the parameters of a set of 'freedoms and constraints'" (INSYNC 2021). The commander controls the details of the action and makes integrative decisions. Further decisions are based on field reports and continuously updated information received from subordinate and field commanders. Under these circumstances, decisions follow plans and are based on planning procedures. The disadvantage is that there are few options for action and adaptation to certain circumstances or unexpected events can affect the expected result. Similarly to the previous style, these features will also be the subject of comparative analysis.

Compared to the *Control-Based Command* style, in *Mission Command* the emphasis is on the overall goals and intentions of the mission rather than tight control over planning details. The tactical commander has greater decision and action autonomy. The use of initiative and critical thinking in planning and executing assignments is encouraged. The senior commander exercises a coordination and support function.

Considering the main characteristics of the two leadership styles, command and control, *Table no.* 1 presents a comparative structure in order to capture the differences between the three styles: Mission Command, Direct Command, and Control-based Command (Directive control) from which the advantages and disadvantages of using mission command at the tactical level can be inferred.

Considering the characteristics that have resulted, we can say that the philosophy of the Mission Command concept differs from other command styles by promoting autonomy and initiative at the lower levels of the hierarchy, involving subordinates in the process of planning, decision-making, and self-evaluation of actions. This command and control style is designed to promote flexibility, critical thinking, adaptability, and innovation, thus summing up the optimal dominant

TABLE NO. 1

Comparative analysis table (authors' conception)

Comparison criteria	Mission Command	Direct Command	Directive control
THE INVOLVEMENT OF THE SUPERIOR COMMANDER	• coordinates • supports • sustains	• directly leading • imposes tasks • imposes objectives • follows the mission execution directly	• monitors • controls • intervenes • follows the effects
THE HIERARCHY	• Vertically: coordinative • Horizontally: collaborative	• Vertically: direct tasks • Horizontal: synchronized	• Vertically: direct orders • Horizontally: collaborative
THE INVOLVEMENT OF TACTICAL COMMANDERS	• decisional and action autonomy • freedom in planning • freedom of decision • freedom of action	• lack of decision-making and action autonomy • less involved in the decision-making process	• submits reports • updates the information • receives new assignments
CONTRIBUTION OF FORCES	• focus on the commander's intent • performance of tasks • achievement of objectives • achievement of expected effects	• exact execution of received orders	• performance of tasks • follow the progress of the actions and report the change
LEADERSHIP	Delegation (laissez-faire[2])	Rigid - authoritative	Bureaucratic
TYPOLOGY OF COMMAND AND CONTROL	Decentralized	Centralized	Semi centralized
CRITICAL THINKING	• say who does • tell what to do • do not tell how to do it • do not tell what to do with	• say who does • tell what to do • tell how to do it • tell what to do with	• say who does • tell what to do • tell how to do it • do not tell what to do with

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[2] The notion was introduced by Kurt Lewin (1891-1947), a German-American psychologist and researcher, considered the founder of social psychology, n.a.

characteristics of effective decision-making with successful effects.

In light of the ensued results regarding the dominant characteristics of the Mission Command concept, stemming from the analysis that had been carried out and as a result of the interpretations of these dominants, the advantages and disadvantages of using the concept during the act of leadership, command and control at the tactical level can now be ascertained.

Next, we set up to identify some possible risks in fulfilling the mission using this leadership style. The outcome of applying the mission command could be threatened by these main risks: bias; wrong decision; lack of cohesion, lack of synchronization, lack of coordination, misinformation, misinterpretation of information, hesitation or delay in decision-making, lack of involvement, inaction, etc.

Bias, as a systematic error that can appear during a commander's decision-making and action, in the field of military art can be theoretical or operational. So, if the theoretical ones are based on knowledge and can be easily minimized, the action ones depend on the personal experiences of the commanders. That is why there is a need for decision-making attention, validation of the decision also through other accepted, less intuitive methods, and adequate advice from the headquarters.

The wrong decision. Delegating authority to lower levels of management can lead to incorrect or inappropriate decision-making. The tactical commander and unit must be well-trained and have a clear understanding of the overall objectives in order to avoid decisions that could lead to mission failure. Access to information, resources, and capabilities favors optimal assessment of response options and can also lead to making a correct and timely decision.

The lack of cohesion represents a very important risk because its manifestation can generate a series of other risks, lack of synchronization, and lack of coordination. Lack of cohesion can be generated by too much autonomy at lower levels of management. Lack of cohesion can be minimized by proper coordination of actions and effective timing of actions at the tactical level. Thus, risks such as non-synchronization and non-coordination can also be minimized if offset by judicious planning, an understanding of the common mission, and effective contribution to higher-level objectives.

Communication between different levels of command and control is critical to mission success. The risk of *misinformation* and *misinterpretation of information* increases the risk of failure to fulfill the intentions of the higher-level commander, which can lead to incorrect decisions or misunderstandings during the implementation of the plan. It is essential to have clear and effective communication channels to ensure the correct transmission of information and its timely employment.

Hesitation and *delay in decision-making* are cognitive risks with effects at the action level. Because of the decentralized nature of Mission Command, there is a possibility

that some decisions may be made more slowly than in a centralized command. These delays can affect operational adaptability to enemy course of action changes or unexpected situations on the field.

Non-involvement and *inaction* represent more than risks because they are the result of not manifesting a decision or lack of action and decision contrary to the philosophy of the mission command concept. They become moral hazards related to the profile and education of the tactical-level commander.

It can be stated that the risks identified are effects of command style vulnerabilities and can weaken the effectiveness of actions. Therefore, in order to optimize a mission command model, appropriate in any situation, the identification of risk minimization solutions in this command and control style will be considered.
A measure to minimize these risks is to increase mutual trust, by knowing and recognizing the virtues of commanders, training in conditions similar to those in the field, assuming responsibility, knowing some risk management methods, etc.

Mission command requires a culture of trust between commanders and subordinates. Thus, achieving this requires time and training to develop mutual trust and to ensure that subordinates are prepared to make decisions under uncertain conditions.
Applying the concept at the tactical level can boost morale, and adopt a balanced approach that encourages initiative and innovation at lower levels of leadership without compromising force cohesion and the will to fight. To maximize the effort, careful management of the challenges and minimization of the vulnerabilities generated by the identified risks is necessary.
Following the above, we can say that the effectiveness of the Mission Command concept can bring significant benefits to military actions, improving the flexibility, adaptability, and effectiveness of combat forces.

Complementarily, personal development is an appropriate way of training military leaders in situations of uncertainty, in this case, the risk of making mistakes is minimal, therefore "continuous training of military personnel, in general, and of those entrusted with the responsibility to lead, in particular" (Chiorcea and Cioranu 2021, 163) is recommended. As follows, we can assert that adequate training of the staff, commanders, and subordinates, can contribute to minimizing the risks and maximizing the benefits of this style of command.

Conclusions

The Mission Command concept addresses military commanders at any level who are responsible for planning and directing military actions, especially those in the execution group, basically tactical-level commanders. Commanders must be prepared to foster a culture of trust and facilitate open communication and collaboration between all levels of command.

The philosophy of the Mission Command concept provides the tools to delegate authority and responsibility at any level, and at the tactical level encourages initiative and autonomy. Commanders at all levels of the military hierarchy must understand and adopt the principles of the concept in managing the action of forces and resources.

The Mission Command concept involves continuous assessment of the situation and progress in accomplishing mission objectives by senior commanders, as well as continuous adaptation of plans and strategy to changes in combat conditions and evolving terrain. At the lower level of the chain of command, an understanding of the overall context is needed, identified by deciphering the higher commander's intent and reformulating the mission received.

Therefore, the concept of Mission Command addresses the entire chain of command and control and involves close collaboration between commanders, leaders, command and control units, subordinate units, and involved personnel. This collaboration ensures efficient leadership and effective action by promoting a synergistic approach oriented towards clearly established objectives with the main aim of successfully accomplishing the entrusted mission.

Along with assuming responsibility, managing the risks of biases, erroneous decisions, non-synchronization, non-coordination, misinformation, and misinterpretation, invokes extensive delegation of authority, so senior commanders must be prepared to manage the risks associated with the interference of command and control levels. This involves constantly assessing the situation and managing the risks associated with the decisions and actions of subordinates.

Risks of cognitive nature, which appear already during the planning process, are bias, erroneous decision, and erroneous interpretation of information.

Risks of actional nature: non-synchronization, non-coordination, hesitation or delay in decision-making, non-involvement, inaction, and lack of cohesion.

Risks of information nature: misinformation, lack of communication, etc.

Of the risks identified, the easiest to manage are those in the area of planning because those are based on knowledge and depend on a deliberate decision-making process.

Action risks are based on the experience and a developed tactical sense of the lower-level commander in command of a structure in the tactical field.

Therefore, at whatever level of command and control a commander is, he is encouraged to constantly learn from previous experiences, to adapt to new challenges, to continuously improve the performance of the decision-making act, to achieve a level of efficiency of the actions at the tactical level and achieving the associated degree of effectiveness (Ef=1).

To support what has been stated, it can be proposed that this concept be further developed in the doctrines of the categories of forces, the main purpose being the promotion of a more flexible, adaptable, and efficient approach in the management of military operations.

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BULLETIN
OF "CAROL I" NATIONAL DEFENCE UNIVERSITY

The fragile nature of concentration of effort principle and the instability of the 3:1 force ratio

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Abstract

The complexity of the contemporary operating environment necessitates a continuous adaptation of the operational process, which is made possible by constant doctrinal adjustments, including a re-evaluation of the principles of operations dimensions.

In this context, the analysis of the new requirements regarding the integration of the principle of concentration of effort and the rules underlying the dimensioning of the force ratio in operations represents a subject of interest. This approach is also significant in the context of Romania's military transformation, which is geared towards a qualitative shift in emphasis over the quantitative one. Consequently, the assessment of the prospective realization of the fundamental tenets of the aforementioned operations yields valuable insights that can be leveraged by military planners irrespective of the operational scale.

One of the earliest military theorists who identified a set of constants governing the actions of forces engaged on the battlefield was Carl von Clausewitz. In his comprehensive work, *On War*, Clausewitz analyzed the principles that inform contemporary military strategy and operations (Gatzke 2003). These principles are the result of the evolution of the military phenomenon over time and are distilled based on accumulated experience and lessons learned by military organizations. These are the „*ideas, foundations, and norms*"(Statul Major General al Armatei României 2001, 60) that underpin the operational process and direct the planning, preparation, and execution of military operations. There is no single, universally accepted formula for defining and establishing the number of principles, which differ according to the period of reference or the predominance of a particular school of thought. The term *principles of war* was gradually superseded by the terms *principles of operations* and *principles of warfare*. It is this latter approach that is considered to be more appropriate, given that these fundamentals are more likely to govern the warfighting. This is because war is a complex social phenomenon, which is much more comprehensive and involves more than the interaction of military entities.

Theoretically, the principles of operations are grouped according to two criteria: *convergence* and *interaction*. The principles reflecting convergence aim to reduce diversity and ambiguity on the battlefield. They include *concentration of effort*, *definition of objectives*, *unity of effort/unity of command*, *simplicity*, *economy of effort*, and *freedom of action*. The second category includes principles that reflect the interaction between the combatant forces. These bring together *offensive actions*, *manoeuvre*, *surprise*, *security*, and *morale* (Leonhard 1998, 27). Over time, regardless of the nature of existing doctrines in military organizations, *the principle of concentration of effort* has become an integral part of the operational process. This principle, which is connected with the balance of forces, but also with principles such as economy of effort, surprise, and security, remains a determining factor in the planning of military operations to this day. Concurrently, the classical integration of the principle of concentration of effort and the defining rules of the balance of forces is becoming increasingly challenging to achieve in light of the transformations occurring on the contemporary battlefield. The objective of the present work is, therefore, to determine the vulnerabilities and fragility of the principle of concentration of effort in its classical approach, as well as the inconsistency of the 3:1 rule, which remains a basis for the design of the balance of forces in the present era. In order to provide a foundation for the research project, we aimed to answer the following research questions through an empirical analysis of the military phenomenon:

- What are the factors that contribute to the fragility of the principle of concentrated effort?
- How does the principle of concentration of effort interact with and impact other principles of operations?
- What factors have led to the demise of the 3:1 ratio of forces as a relevant concept in contemporary combat operations?

A documentary analysis of the relevant literature and an empirical evaluation of various armed conflicts have enabled the formulation of conclusions regarding the necessity of reconsidering the constants of armed combat. The findings of the research, while offering an empirical perspective on the subject, underscore the necessity to re-examine the fundamental principles governing combat operations and, implicitly, to adapt them to the evolving demands of the contemporary battlefield. The examples presented as well as the recommendations put forward can serve as theoretical benchmarks that can support the process of revising doctrines and combat manuals. It is important to note that understanding and knowledge of the principles and concepts is not a substitute for judgment; rather, it is a means of enhancing it. Therefore, in addition to informing the reader, this review is also intended to act as a stimulus for thought and reflection on the subject.

Historical background on mainstreaming the principle of concentration of effort and sources of its fragility

The principle of concentration of effort has its origins in the Clausewitzian concept of the *Schwerpunkt*, which may be defined as the physical point or sector of the enemy's defensive system where the main effort was to be concentrated and where the decisive attack was to take place (Vego 2007). In a context where tactical mobility was relatively limited and the impact of firearms was evident even in the main area of contact, this principle of concentrating effort emerged over time as a concentration of forces and resources, with the decisive point defining the space-time and the main effort. The influence of Clausewitz resulted in the development of a direct approach to armed combat, whereby the objective was to attain numerical superiority in order to conduct a „*decisive battle*" that would result in the defeat of the enemy and victory in war. The increased strategic mobility made possible by the development of steam technology enabled states to transport vast quantities of forces and assets to the operational theatres of the First World War. The exploitation of the advantages of the principle of concentration by massing overwhelming resources in theatres of operations did not result in the immediate success that had been anticipated by any of the parties involved. The failure to create tactical asymmetries, coupled with the increased lethality of fire systems, led to the development of a tactic known as „*trench warfare*", which resulted in extremely high attritional levels.

The interwar period saw the rapid development of the tank, the aeroplane, and radio communications, which together provided the prerequisites for exploiting the principle of concentration to a new dimension. Clausewitz's concept of the "breaking sector" was applicable to the operations of the German army in World War II. The Germans exploited the characteristics of a new doctrine, which brought together the principle of combined arms and mission command as a command philosophy, and realized that the principle of concentration was not merely about massing large numbers of forces in a specific sector of the front. The German army commanders

employed a lethal combination of tactics and techniques, collectively known as combined arms operations, which were successfully executed despite the enemy's initial surprise. In the Ardennes campaign, the Germans exercised control at every level of command, from the army group to the battalion-level tactical forces. For instance, of the three army groups deployed for Operation Fall Gelb, the majority of resources were allocated to General Gerd von Rundstedt's Army Group A, which was positioned along a 175 km front from Namur to Longwy. Within this army group, the primary effort was assigned to von Kleist's Panzer Group. The force in question had five of the ten available tank divisions, which were concentrated on an alignment measuring 80 km in length and situated to the north of the Meuse and Chiers rivers. The principal force within von Kleist's Group was the XIX Corps, under the command of Heinz Guderian. The corps comprised three panzer divisions, 60,000 soldiers and 22,000 vehicles. The corps was assigned a 10 km frontal offensive strip (between the Ardennes Canal and Noyers-Pont Maugis), which constituted the sector of greatest importance within von Kleist's group. Guderian, for his part, selected a 5 km sector between Donchery and Vadencourt for the 1st Panzer Division to operate in, which constituted the main force of the XIX Panzer Corps. (Vego 2007).
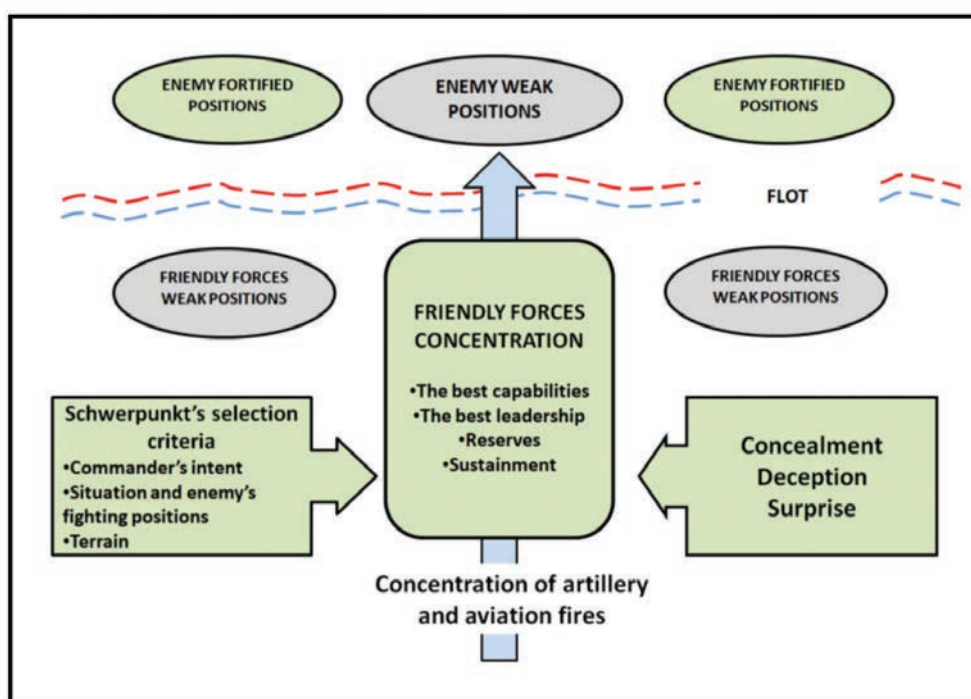
**Figure 1   The German Army's method of selecting the "Schwerpunkt"
during the Second World War**
Source: Milan Vego, Ph.D., Clausewitz Schwerpunkt, Mistransalted from German, Misunderstood in English, *Military Review*, 2007, accessed at https://www.armyupress.army.mil/Portals/7/military-review/Archives/English/MilitaryReview_20070228_art014.pdf on 17.07.2024.

Despite the effective integration of the principles of armed combat at the operational level, the *successes of the German army were eventually challenged by the Soviets, who were able to seize the* initiative by ensuring a superior concentration of forces and resources at the front. In the aftermath of the Second World War, modern

armies exhibited a fluctuating understanding and application of this principle. Despite technological advancement and the emergence of new weapons systems, the doctrinal modelling, through the lens of the favourable balance of forces, also constituted a pivotal element in the shaping of Cold War strategies. Active Defense doctrine, as established by American General William E. De Puy, then Chief of the US Army's Doctrine and Training Department (TRADOC), was predicated on this fundamental premise. The objective of the doctrine was to achieve a strategic equilibrium with the Soviet Union on European territory. The doctrine was based on the concentration of forces in potential Soviet breakpoints/sectors. According to the doctrine, the brigades of the second echelon of the divisions were to be concentrated on the front edge of the defence, precisely to ensure a quantitative ratio of forces considered to be satisfactory at the time. However, the De Puy Doctrine was widely criticised at the time as being unsuitable for stopping a force considered numerically superior and relatively equal in terms of technology (Skinner 1988, 4-5).

Subsequently, the reforms of Lieutenant General Donn A. Starry, who succeeded De Puy, were incorporated into the *AirLand Battle* doctrine and later reflected in the combat manual FM-100-5 (1982). These perspectives on the modern military phenomenon were to significantly alter the approach to combat operations. The new doctrine capitalised on the Soviets' primary vulnerabilities: *tactical rigidity*, *predictability in echelon deployment* and *technological inferiority* (Skinner 1988, 6). The Americans were driven by a need to surpass the Soviets in terms of space and time, as well as in the decision-making cycle. This was based on the assumption that they could rely on the technological superiority of new weapons systems and military equipment. This made the numerical inferiority of NATO forces inconsequential. The AirLand Battle Doctrine placed particular emphasis on deep operations and "dealt" with the Soviet second echelon. It established the equilibrium between manoeuvre and firepower, with the corps becoming the principal tactical echelon, which had its own artillery and intelligence capabilities. This doctrine also implements new concepts such as *integrated battle, extended battlefield, decentralized execution,* and *technological superiority*. The validation of this strategy was not to be achieved in a direct confrontation between NATO and Warsaw Pact forces but during Operation Desert Storm in Kuwait (1991). The technological and information superiority of the coalition forces proved to be a decisive advantage, enabling them to rapidly defeat the Iraqi forces. The concentration of effort, materialised through a tailored and synergistic concentration of effects in all operating environments, provided the prerequisites for an uncontested military success for the coalition forces.

Since the dissolution of the Soviet Union and the subsequent fall of the Iron Curtain, the probability of large-scale conventional military conflicts has decreased considerably. The military conflicts associated with 4th generation warfare demonstrate that the principle of concentration of effort is not merely a matter of concentrating physical capabilities or their effects. The irregularities and asymmetries of counterinsurgency operations highlight the necessity to concentrate efforts in the

information space to influence, persuade and form new opinions. *Winning hearts* and *minds* thus become the underlying principle guiding the shaping of the lines of effort in military operations, which are predominantly based on a population-centred approach (Miller 2016). The challenges are comparable to those encountered in symmetrical conventional conflicts. Indeed, both scholastics and military commanders have observed that success in armed clashes or even battles does not necessarily guarantee the defeat of the enemy. Consequently, the integration of the principle of concentration of effort at the operational level becomes considerably more intricate and challenging to accomplish. Military commanders and planners have encountered significant challenges in assessing the centre of gravity of the operation being conducted, which often does not align with a specific physical entity of the enemy. Furthermore, military leaders found it challenging to accept that uncontested victory on the battlefield through the concentration of superior forces and effects (in terms of quantity and quality) would not inevitably result in the defeat and collapse of the enemy. The experiences of the American forces in Vietnam and the Russians in Afghanistan were to be repeated, years later, by Western armies in the conflicts in Iraq and Afghanistan.

The fragility of the principle of concentration of effort is primarily a consequence of shortcomings in its definition. Furthermore, differences in the way it is named also contribute to confusion. The NATO Fundamental Doctrine, in referring to the principle of concentration of effort, notes that in an operating environment, force survivability and maintaining the security of operations become challenging when forces and assets are concentrated. Consequently, the publication emphasises that it is desirable to concentrate on the effects of a dispersed force in order to achieve military objectives (Allied Join Publication, AJP-01 2022, 120). However, within the same definition, it is emphasised that the effectiveness of the concentration of effort depends on the unity of effort, the clear definition of objectives, and the ability to sustain the "massing" without explicitly excluding the concentration of forces and means. Furthermore, the doctrine does not propose potential solutions for achieving the concentration of effects by a dispersed force. The Allied doctrine for operations does not simplify this problem. It refers to the principle under consideration as the "concentration of force" and emphasises the necessity of concentrating combat power in the optimal location and at the optimal time to achieve superiority over the enemy and attain decisive results (Allied Joint Publication, AJP-3 2019, 1-10). It is evident that the concept of combat power encompasses not only its physical aspect but also the element of forces and assets. The British doctrine for operations is in alignment with the principles espoused by the NATO doctrine (Army Publication 2010, 2A-4). The United States military doctrine refers to this constant as the "principle of concentration," yet it does not explicitly exclude the possibility of concentrating forces and assets (Joint Publication, J.P. 3-0 2018, A-2). Consequently, military planners are still encountering challenges in determining the extent to which this principle, despite its inherent vulnerability, continues to serve as a foundational element in the military operations planning process.

Relationship and impact of the principle of concentration of effort with other principles of operations

The principles of operations support and conceptually integrate the process of planning, preparation and execution, irrespective of the type of military operation or its level of manifestation. The principles of operations are interlinked and, when applied in a tailored and rational manner, achieve a synergistic effect. The clear definition of objectives ensures simplicity of plans, and in cooperation with unity of command gives freedom of action to subordinate commanders. Offensive actions require optimal conditions for manoeuvre and a certain degree of enemy surprise. The assurance of force protection and security of operations is undoubtedly a contributing factor to the maintenance of military morale on the battlefield. It is therefore evident that the interaction and interdependence of the principles of operations in modern warfare are indisputable. With regard to the principle of concentration of effort, it is possible to identify a number of advantages and disadvantages of integrating it into operations (Leonhard 1998, 10-11). In his book *Strategy: A Complete History*, Lawrence Freedman presents the argument that the implementation of the principle of concentration has resulted in greater harm than benefit (Freedman 2021, 264). In this way, Freedman aims to draw attention not only towards the apparent irrelevance of this principle but also to the ways in which it has been misunderstood by military commanders and planners over time. Furthermore, the author highlights the fact that this principle is often misunderstood, thereby demonstrating its inherent fragility and supporting the central argument of this paper.

Indeed, the effective integration of the principle of concentration of effort requires the sustaining of this principle through unity of effort and the clear definition of objectives. The concentration of effort in a single direction allows for an economy of effort in other directions. Conversely, the economy of effort also results in a diminished quantity of forces and resources, which gives rise to a number of vulnerabilities. Mitigation of these vulnerabilities in less crucial operational areas necessitates the implementation of enhanced security measures to preclude adversarial surprise. Furthermore, a series of measures must be implemented to mislead the enemy about the primary direction of the effort. Given that the concentration of effort frequently manifests as a concentration of forces and resources, it is challenging to achieve success through such misleading operations. In the context of contemporary battlefield dynamics, the principle of concentration of effort, embodied by a concentration of forces and resources, is contrary to the tenets of simplicity, surprise, and security. The aggregation of forces or the formation of a large, monolithic force introduces complexities to both operational planning and the command and control system. The more the plan involves the dynamic interaction of many elements, the more difficult it will be to implement and the more detailed control it will require. At the same time, the concentration of forces and assets drastically affects the ability to realise their security. The concentration of German forces in the Ardennes and the surprise attack on the

French were possible in the context of scarce and limited ISR assets. Even in these conditions, the German army was exposed and only the fact that the French did not see the possibility of attacking the Meuse area from the air meant that the German tanks achieved their objectives (Beevor 2015, 101-102). Today, with the unprecedented development of various multi-spectral sensors, the concentration, movement and deployment of forces is becoming much more difficult. Long-range, high-precision strike systems, using the information provided by ISR capabilities, can have devastating effects by striking concentrations of forces outside the contact zone. Thus, force dispersion becomes a priority, concentrating efforts by massing forces and assets at a decisive point, achieved through a series of shaping operations involving misleading the enemy, concealing and securing forces, rapid redeployment, and traffic control measures.

The principle of concentration of effort is also vulnerable to the reality that, irrespective of the nature of the concentrated effort, the probability of achieving enemy surprise is significantly reduced. The integration of the principle of surprise becomes even more challenging when the concentration of effort is primarily manifested in a concentration of forces and means. A substantial number of forces and means is inherently difficult to camouflage, necessitating a series of actions to disguise the intentions of the forces in order to achieve surprise. These include the apparent intensification of efforts in other directions, the routine characterisation of activities conducted by these forces, and the temporary and frequent dispersion of forces. In 1973, the Egyptian military, despite being unable to disguise their troop deployments along the Suez Canal, attempted to mislead the Israeli Defence Forces (IDF) by conducting a series of exercises designed to create the impression of a potential invasion. Subsequently, approximately half a century later, the Ukrainian army, by intensifying its efforts in the Herson area of operations, was able to successfully mislead the Russian commanders about the intentions and the principal direction of the effort, including indicators that signalled a concentration of forces and resources to support that direction. Consequently, in the autumn of 2022, capitalising on the redeployment of Russian forces from the Kharkiv area of operations, Ukrainian forces initiated a series of offensive operations that resulted in the liberation of over 6,000 km².

In light of the above, it is important to note that there is no single solution or formula that can guarantee optimal integration of the principles involved in military operations. However, it is crucial to recognise that mere knowledge of these principles is insufficient and that a deeper understanding of the challenges associated with their application in specific contexts is of greater importance. This point was emphasised by Julian Corbett a century ago, who wrote that allowing maxims to become a substitute for judgment is one of the most dangerous aspects of the study of warfare (Jordan *et. al* 2016, 11). This reality, which pertains to the last century, remains valid and has the same consistency today, in the context of the contemporary operating environment.

Inconsistency of the 3:1 ratio in planning combat operations

A review of historical data on armed conflicts indicates that a defending force has a significant probability of defeating an offensive force. The defender is advantaged by a number of factors about the selection of terrain and its genetic configuration, a more profound comprehension of the context in which one is operating, the establishment of spatial landmarks for engaging targets during the enemy's approach, the potential for firing from covered positions, the staggered deployment of reserves and the possibility of their timely introduction into the fight. In order to mitigate the evident advantages of the defending force, the attacking force must ensure a temporary advantage at the decisive points of the battle. This is typically manifested in the form of a larger quantity of forces and resources, which consequently confer greater firepower.

Empirical evidence has demonstrated that a minimum force ratio is required for successful combat. This ratio is influenced by the form and methods of combat adopted, the available own capabilities, the nature and capabilities of the enemy, and the possibilities of misleading the opponent's forces. In general, the values of this ratio are applicable in symmetrical conventional military confrontations, where the combatants have relatively equal capabilities. The most well-known values of the force ratio are presented in Table no. 1.

TABLE NO. 1

Historical minimum force ratio planning values

FORM OF COMBAT	FORMS/ PROCESSES OF OPERATION	METHODS AND CONDITIONS	HISTORICAL BALANCE OF FORCES Own forces/ Enemy
DEFENCE	DELAY	Successive or alternate phase lines	1: 6
	AREA DEFENCE	Prepared and fortified defence	1 : 3
		Hasty	1: 2,5
OFFENSIVE	PREPARED	A fortified area defence	3: 1
	HASTY	A hasty area defence	25: 1
COUNTER-ATTACK		Flanks	1: 1

Source: North Atlantic Treaty Organization, Allied Procedural Publication, *APP 28 – Tactical Planning for Land Forces*, NATO Standard Office (NSO), 2019, p. 3-5.

Military experts have demonstrated that a favourable force ratio is a necessary but insufficient condition for operational success. Several analyses of conflicts and battles indicate that, in many cases, a favourable force ratio, even 3:1, was not sufficient to defeat a numerically inferior force. Military researcher and historian Trevor Dupuy, the founder of the research institute bearing his name, offers a number of criticisms of the 3:1 force ratio in his analysis of several battles. He underscores the ambiguity of this rule and the possibility of its irrelevance, posing a series of questions: "*What is the force ratio to be used with the 3:1 force ratio planning factor? Is it the number*

of men, or weapons? Is it firepower? Is it some other calculation of a combat power ratio? In any event, it is clear that neither numbers nor firepower tells us much unless we know the circumstances under which these numbers face each other and the manner in which the firepower is applied." (Dupuy 1979, 13).

In 1984, under the guidance of Dupuy, the Historical Evaluation and Research Organization (HERO)[1] conducted a study of battles that took place between 1600 and 1973. One of the main criteria for analysis was the ratio of forces. The study demonstrated that the attacking force with a ratio of three to one was successful in 74% of cases. The study also demonstrates that the attacker achieved a success rate of between 58% and 63% even when outnumbered, with a force ratio of 1/1.5:1 in favour of the defender. The same percentage expressing the success of the attacker was deducted in the situation of a ratio of forces in favour of the attacker, but less than 3:1. It is also noteworthy that only in 106 out of 598 cases analysed was the attacker able to achieve an advantage of 3:1. The detailed results of the study are presented in Table no. 2.

TABLE NO. 2

The balance of forces analyzed for battles from period 1600-1973

Nr. crt.	Raport de forțe ofensivă/apărare	Număr de bătălii/procentaj			
		apărare învingător	remiză	ofensiva învingător	Total
1.	Mai mic de 1:3	2 (40%)	0 (0%)	3 (60%)	5 (100%)
2.	Între 1:3 și 2:3	23 (51,1%)	1 (2,2%)	21 (46,7%)	45 (100%)
3.	Între 2:3 și 3:2	88 (35,8%)	16 (6,5%)	142 (57,7%)	246 (100%)
4.	Între 3:2 și 3:1	60 (30,6%)	12 (6,1%)	124 (63,3%)	196 (100%)
5.	Mai mare de 3:1	23 (21,7%)	5 (4,7%)	78 (73,6%)	106 (100%)
	Total	196 (32,8%)	34 (5,7%)	368 (61,5%)	598 (100%)

Source: http://www.dupuyinstitute.org/blog/2016/07/11/trevor-dupuy-and-the-3-1-rule/, accessed at 27.07.2024)

It is important to note that, while a numerical advantage for the attacker can influence the outcome of a battle, the underlying rules for establishing the balance of forces are not scientifically consistent. In consideration of the historical ratio of forces for the execution of the contact offensive, it is evident that in the event of its implementation, each force has the potential for success. Consequently, a ratio of 3:1, regarded as the optimal ratio for achieving success in the offensive, inherently implies reciprocal validity; that is to say, a ratio of 1:3 still allows the defender to repel the offensive. Furthermore, the defender will direct their actions to minimise the impact of numerical inferiority. For instance, the organisation of a defence centred on maintaining localities as strong points of the tern necessitates that the attacker supplement the quantity of forces. A force ratio deemed satisfactory is considered to be more than 5:1 in the latter's favour. Consequently, military planners can only orient their efforts in terms of this ratio, while also considering other factors that may influence success.

The 3:1 rule has remained inconsistent and unconstant to this day. During the Battle of Kyiv in February and March 2022, the Russian Federation's armed forces achieved a force ratio of over 10:1 on several occasions. However, they were unable to leverage their quantitative advantage, ultimately leading to their withdrawal (Zabrodskyi *et. al* 2022, 1). The application of combat power multipliers, including the synergistic integration of fire and manoeuvre, the accurate intelligence on enemy actions, the innovative technologies integrated into the strike complex, and the morale and will to fight enabled a force ratio that was considered more than sufficient to be effectively neutralized, facilitating Ukrainian victory. In contrast, the Ukrainian counteroffensive in the summer of 2023 was unsuccessful, in part due to the inability to concentrate sufficient forces and means on the main direction of the effort (Watling and Reynolds 2023, 1). The Suvorokhin defence line, a sophisticated Russian defence system comprising multiple anti-tank capabilities, proved highly effective in neutralising the determination and professionalism of the Ukrainian brigades, as well as the technological superiority of the weapon systems and armoured technology provided to them by Western states. In this context, a number of factors influencing the empirical rules that underpin the ratio of forces in different types of military operations can be identified. These include the quality of weapons systems, the level of training of forces, the accuracy and timeliness of intelligence, the ability to mislead the enemy and the realisation of surprise, the morale and will to fight of the military, the effectiveness and adaptability of doctrine, and the quality and professionalism of the leadership. These factors are present in all components of combat power and interact in a manner that is adapted to the specific circumstances of each situation.

Conclusion

The results provide an answer to the research questions and indicate that military planners and commanders should aim for a rational and tailored implementation of the principles and rules that are the subject of this paper. While the principles of operations are axiomatic in nature, they are not and will not be universally valid and may change over time. The greater weight of a particular campaign theme may influence the importance of a particular principle, just as the multinational nature of operations may emphasise the need to pay greater attention to another.

It is anticipated that the *rule of thumb* that supports operational planning will become integrated into the operational process of future conventional armed conflicts. However, it is important to recognise that they do not provide a sufficient scientific basis for success. The ratio of forces, which is modelled by the 3:1 rule, will become less consistent as the battlefield becomes more transparent. It is likely that commanders will seek and attempt to achieve numerical superiority on the battlefield, but they will not always succeed. It is therefore proposed that combat

power multipliers, including precision strike systems, multispectral ISR capabilities, a faster decision cycle than the enemy's, troop motivation and effective leadership, be integrated in order to compensate for the shortfall in forces and assets. Furthermore, the advantages of speed and surprise can compensate for quantitative insufficiency. Maneuver, as a function of combat, can temporarily and artificially create a superiority of combat power at decisive points of battle. With these aspects in mind and taking into account the results obtained, a number of recommendations concerning the entire operational process are put forth.

During the planning phase of the operation, several key steps must be taken. Firstly, effectiveness and performance indicators must be identified in order to assess the progress of the operation. Secondly, several potential decisive points of the battle must be determined and the distribution of effort planned in order to prevent the enemy from identifying the main direction of effort. Thirdly, an operational dilemma must be created in an attempt to counter the existence of multiple threats. Finally, a plan must be developed and integrated to mislead the enemy, no matter the level and scale of the operation being conducted. This entails the realisation of the war game, including from the perspective of integrating the principle of concentration of effort and the balance of forces expressed by established rules. Furthermore, in the course of developing courses of action, planners must also take into account the qualitative aspects of weapon systems, combat technology and military equipment, not only their quantity.

In the preparation phase, preceding the commencement of an operation, it is essential to ensure the successive dispersion and redeployment of forces in order to guarantee the preconditions for rapid concentration at the decisive moment of the operation. Furthermore, the multispectral camouflage of forces plays a pivotal role in reducing the enemy's capacity to identify concentrations of forces and assets or capabilities that act as a combat power multiplier.

During the execution phase, the progress of the operation should be continuously assessed to identify any potential dysfunctions that may have been caused by the faulty integration of the principle of concentration of effort and the 3:1 rule. Once any deficiencies have been identified, the operation should be promptly adjusted through the implementation of effective tactical adaptations. Furthermore, institutional adaptations should be made to alter the approach to the execution of operations, including a recalibration of the relevant doctrine.

Contemporary armed conflicts highlight the challenges associated with combat operations in an environment characterised by technological advancements that facilitate surveillance and precision strikes across both physical and non-physical operational domains. It can be observed that the adaptation of military organisations is an inherent and inevitable consequence of their need to survive in the new battlefield conditions. It is an unquestionable fact that, in the pursuit of

success, military commanders and their staffs will attempt to identify solutions that will afford their forces an advantage over the enemy. In order to achieve this, the principles and rules that underpin the fundamentals of warfare will be integrated in a rational and adaptive manner, while also adjusting in line with the evolution and changes in the operational environment.

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BULLETIN
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Resilience – effects multiplier in preparing counter-deception

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Abstract

This article examines the critical role of resilience as an effect multiplier in the preparation and training of military personnel. By developing the ability to operate under uncertainty and take calculated risks, armed forces can reduce their vulnerability to manipulation and disinformation. The analysis focuses on ways to build resilience, emphasizing the importance of mental flexibility, adaptability, critical thinking, and thorough preparation for dynamic challenges. The study also highlights the need to integrate these skills into military training programs to produce leaders capable of making informed decisions even in the absence of all necessary information. The findings suggest that a resilience-based approach can significantly improve the ability to counter deception and thus contribute to the operational success of the armed forces.

In today's world of increasing complexity and rapid change, deception has become a fundamental strategic weapon used by adversaries for malicious purposes to destabilize and manipulate different audiences. The technological characteristics of today's environment provide more and more opportunities for deception, while at the same time enhancing the destructive impact of such actions. Against this backdrop, armed forces are increasingly challenged to identify and counter-tactics specific to manipulation and disinformation operations. In this context, the article argues for the importance of effective preparedness in countering adversary deception, with the development of military organizational resilience becoming an essential component in maintaining operational effectiveness and ensuring force and mission protection.

Resilience, defined as the ability to adapt and recover quickly in the face of challenges and change, serves as an effect multiplier in the readiness of military structures. It enables personnel to operate effectively under conditions of uncertainty and to make quick and calculated decisions, even in the absence of complete information. Rather than waiting for the perfect moment to act, resilient leaders are prepared to navigate the complexities of unpredictable situations and take well-calculated risks to achieve their objectives.

Problem statement
Although deception is a historically proven and highly effective method in armed conflicts, and, as I will show later in this paper, the current operational environment increases the possibilities of success of such actions, as well as the negative effects on the deceived, Western armed forces, including Romanian ones, do not take sufficient steps to protect themselves against such actions. Specific doctrines in this area are either non-existent or very limited. Even literature notes that "there is hardly an adequate theory of deception, much less a theory of counter-deception." (Harris 2013, 551) Moreover, NATO's potential adversaries, Russia and China, are extremely experienced in using such methods, as deception is deeply rooted in the specific modus operandi of their militaries. Thus, I believe that this landscape highlights some systemic vulnerabilities of Western military structures, exposing them to increased risks of being deceived. Thus, **the research problem** that prompted this paper is the lack of an agreed doctrinal framework for countering adversary deception.

Research aim
Within this framework, the present study aims to analyze the relationship between two concepts highly relevant to the current operational context: resilience and counter-deception, in the context of preparing force structures for the information challenges specific to the current operational environment. **The main objective of this work** was to determine whether and how resilience can support counter-deception preparation, thereby contributing to reducing vulnerability to manipulation and increasing the chances of protecting military forces and their missions in contemporary armed conflicts.

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Research Methodology

The research was **qualitative** in nature, seeking to understand the nuances of the operational need for protection against adversary deception and the ways in which this should be achieved. It also sought to explore the specific ways in which resilience can ensure the amplification of effects realized in preparation for countering deception. In line with this kind of methodological approach, I used **inductive reasoning**, starting from the data collected and systematically analyzed towards a general conclusion (Creswell and Creswell 2023, 276).

The main research question of this study was: *How can resilience support the counter-deception preparation?* In this context, the following **research objectives** were pursued:

> ➢ To understand the operational relevance of countering deception in the current operational context.
> ➢ To explore how to counter adversary deception.
> ➢ To analyze and describe the role of preparedness in countering deception.
> ➢ To examine how resilience can support the process of counter-deception preparation.

Structure of the paper

In order to meet the research objectives, I have structured the paper in three parts. First, I carried out an analysis of the current operating environment in order to identify those aspects that determine the operational relevance of counter-deception. Then, based on the previous findings, I have set out the concrete countermeasures and the aspects related to the preparation of this process. Finally, I have examined the importance of resilience in the process of preparing to counter deception, highlighting the ways in which it can be a multiplier of the effects achieved in the process of protecting against the deceptive actions of the adversary.

The operational relevance of counter-deception

In an increasingly uncertain and complex operating environment, creating effects in the adversary's psychological dimension by shaping his perception of the operational reality tends to take on new valences in the strategies of international actors (MCDC 2020, 1-2; TC 7-102 2014, 1-2; JCN 1/17 2017, 1).

The high transparency of the operational space represents one of the major challenges in contemporary conflicts. It has become increasingly difficult to conceal military forces and actions nowadays. Moreover, in a conflict of attrition such as the one in Ukraine, where the ability to maintain a superior ratio of forces and assets for as long as possible may be the key to operational success, the need to find solutions to protect military forces and actions has become extremely urgent for armed forces. In this context, simulation and dissimulation, essential methods of deception,

have taken on new operational dimensions, ensuring gaining and maintaining the initiative on the battlefield, an essential principle of military operations.

While the sensor overload of today's battlespace might lead one to conclude that deception is no longer viable, the reality in Ukraine has demonstrated just the opposite (NATO Headquarters 2023, 27). Deceptive actions have become more relevant and essential than ever, ensuring that the conditions are in place to maintain operational capability at the highest possible level, while determining the adversary's resources to be wasted on false targets.

Yet, deception has been a constant of warfare, regardless of historical era (Freedman 2014, 3; Friedman 2017, 73). This could be considered one of the perennial features specific to the nature of armed conflict. The well-known aphorism that "all warfare is based on deception" has proven its validity countless times over the years. Achieving operational advantages over the adversary by manipulating his perception and influencing his behavior and actions is a practice as old as warfare (Pijpers and Ducheine 2023, 1; Friedman 2021, 113), deception being a critical tool in this regard (Ryan 2022, 102). The increased chances of misleading actions, as demonstrated by the longitudinal study of the well-known researcher in this field, Barton Whaley, increases the appeal of using such techniques in military operations (Whaley 2007, 76).

In addition, some features of the enduring nature of armed conflict, such as uncertainty and the human element of armed conflict, create an optimal framework for the use of deception. Uncertainty is a critical element in the success of deception operations, with the literature recognizing two broad types of deception in relation to it, Type A - ambiguity-producing deception and Type M - misleading deception. (Daniel, *et al.* 1980, 8; FM 3-13.4 2019, 1-6; JP 3-13.4 2017, I-9; MCTP 3-32F 2024, 2-9).

An equally important aspect of successful deception is related to exploiting the adversary's vulnerabilities, this type of operation being considered a cognitive process (Whaley and Busby 2002, 187). This emphasizes the importance of the human nature of conflict in deception. Furthermore, although rapid advances in technology have drastically changed our way of life, I believe that, at least for the foreseeable future, the human rather than the technological factor will remain the central element of armed conflict. For this reason, the viability of deceptive actions to exploit adversaries' perceptions and influence their decisions will remain a constant in warfare.

In addition, the characteristics of the current operating environment increase both the likelihood of success of misleading actions and their impact. We now live in a digital and information age, where society in all its aspects is becoming increasingly dependent on technology and information.

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The military, as part of society, does not ignore these influences and trends. The rapid advances in information technology and the increasing need for data from multiple sources for decision-making create the conditions for organizational vulnerabilities that can be exploited by potential adversaries through deception (Hays 2020, 56). While emerging technologies such as artificial intelligence, big data, or machine learning can support improved decision-making, they also open the door to disinformation campaigns, cyber-attacks, or hostile information manipulation. It is recognized that "with the scientific and technological revolution we are witnessing today, artificial intelligence and other emerging technologies can increase the effectiveness of disinformation" (Beauchamp-Mustafaga 2023, 35).

The characteristics of today's information environment add to the potential for deception. The sheer volume of data that can be shared simultaneously, the multitude of channels through which information can be transmitted, and the speed with which this can be done, all create the conditions for successful disinformation campaigns (Boswinkel, *et al.* 2022, 5). Nowadays, the ability to influence public perception has become much greater. One easy way to do this is through social media networks. The explosive growth of these applications has revolutionized the way we interact with each other. However, due to the magnitude of the resulting effects, social media has become one of the most widely used channels for influencing attitudes and misleading people on a large scale.

The importance of this channel of communication is also demonstrated by the conflict in Ukraine, where social media platforms are flooded with posts on a daily basis. The ability to maneuver information and win the battle of narratives against the opponent is a constant in all modern conflicts. Supporting one's own population at home and allies abroad, as well as keeping troop morale high, are just some of the benefits that have been demonstrated by the information warfare being waged in Ukraine. Therefore, gaining and maintaining information superiority on the modern battlefield is a critical aspect of operational success (Black, *et al.* 2022, 24; AJP3.10.2 2020, 1). Deception as a means of exploiting information is one of the most widely used and necessary methods in this regard (Watling, Danylyuk and Reynolds 2024, 31), helping to manipulate the adversary's mind, shaping his perceptions, and degrading his understanding of the operational situation.

Complementary to this, a US study on the operating environment of future conflicts identifies a number of methods and technologies that can give a decisive advantage to those who are superior to the opponent. The study refers to these as "potential game changers through 2035", and one of these capabilities with great potential to influence the battlespace is that of deception (TRADOC Pamphlet 525-92 2019, 13).

Moreover, NATO's potential adversaries, and by extension Romania's, Russia and China, have extensive experience in the use of deception in conflict, and the concept is deeply embedded in the operational art of these actors (AFM 2018, 3A-4; Kofman,

et al. 2021, 31; Paul, *et al.* 2021, 22; Cliff 2023, 45).

One can therefore see the timeliness and importance of deception in the current operational context. Accordingly, countering such actions is a prerequisite for any military force in conflicts specific to the contemporary operating environment. The application of specific countermeasures can provide the necessary protection in the face of such a scourge, thus ensuring a decisive advantage over the adversary.

The counter-deception process and the role of deceptive preparatory activities

Counter-deception involves "identifying and countering the adversary's deceptive actions designed to undermine the will, understanding, and proper use of one's own forces' capabilities". (AJP3.10.2 2020, 9)

As noted in the introduction, there is no generally accepted theory for counter-deception. However, it can be seen that it involves more than simple detection and is recognized by some actors as a process involving at least three phases (FM 3-13.4 2019, A-1), which follow a logical progression, each dependent on the previous results:

- detecting the adversary's deceptive actions;
- confirming the adversary's deceptive actions;
- exploiting the adversary's deceptive actions.

Figure 1 The process of countering deception
Source: author's conception

Detecting an adversary's deceptive actions involves identifying operational inconsistencies in the adversary's modus operandi, including suspicious gaps, contradictions with some previously adopted operational patterns, and confirmations that may seem dubious. However, given that "no imitation can be perfect unless it is the real thing" (Jones 1989), there should be clues to the detection of the adversary's deceptive indicators. In this respect, the reference system against which operational inconsistencies can be identified plays a crucial role. It is the degree of fidelity in understanding aspects of the adversary's modus operandi, the context of the operation, and the vulnerability of one's own forces to misleading elements that provide the reference system against which the adversary's deceptive actions can be identified.

Confirmation is the second phase of the counter-deception process and it aims to understand the adversary's overall deception plan, including the purpose, objectives, and scenario of the deception events. It is also necessary to identify the effects already produced by the adversary's actions up to the moment of detection. All this

information helps to make the best possible decision on the courses of action to be developed, thus ensuring a lower risk for the accomplishment of one's own mission. However, it is also necessary to take into account the time available to carry out the activities involved in this phase. There will certainly not be perfect conditions for decision-making. For this reason, it is necessary to analyze the level of information available and the possibility of losing the opportunity to exploit the detection of the adversary's deceptive intent.

The **exploitation** phase is designed to ensure that the opportunity created is capitalized on. In this phase, possible options are analyzed in terms of the benefits they could bring to the accomplishment of the force's original mission. For this reason, double-crossing the adversary, causing him to continue wasting resources on an ineffective deception plan, or publicly exposing the adversary's actions may be possible options to exploit. In all cases, however, the level of implicit risk should be analyzed and, if necessary, measures taken to mitigate it within the commander's risk tolerance. Developing as detailed a matrix as possible to support the decision and the alternatives to the plan can help streamline the implementation of the chosen option.

However, in order to increase the chances of success of the whole process, extensive preparation is required to counter deception. "A holistic analytical approach to fully effective counter-deception requires a trained mind and a trained organization. Achievable? Yes, but not easily." (Bennett and Waltz 2007, Introduction) For this reason, the present section aims to identify those indicators that can contribute to an organization's readiness to effectively counter deception, and then, building on the partial results obtained, I will show in the next section how resilience can contribute to making them a reality.

As mentioned above, **preparation** plays a critical role in successful countermeasures. It is recommended that it be initiated in peacetime to provide a greater chance of protection against the adversary's deceptive actions. It is extremely important because it provides the basis of knowledge and understanding against which operational inconsistencies in the adversary's modus operandi can be identified. Comparing what happens (reality) with what should have happened (expectations) can lead to the discovery of the adversary's deceptive intentions.
In addition, to maximize the effectiveness of counter-deception, preparation must also take into account elements specific to one's own forces that could be exploited by the adversary's actions, such as cultural aspects, prejudices and preconceptions, or different leadership styles.

In order to fulfill its purpose, therefore, preparedness must include activities aimed at both studying information about potential adversaries and one's own forces and creating the optimal conditions for applying the results of these analyses, as can be seen in the figure below. All this information will be materialized in the assessment of the adversary's potential deception. The degree of accuracy is of

paramount importance, as effective preparation creates the conditions for successful countermeasures.

ANALYSIS OF POTENTIAL OPPONENTS
- Analysis of mission, intent and operational design.
- MOM (Means, Opportunities, Motives).
- POP (Past Operational Practices).
- Analysis of cultural and organisational factors.
- Analysis of deception-specific organisation, doctrine and tactics.
- Analysis of enemy C2 and information systems.

ANALYSIS OF OWN FORCES
- Analyse and identify systemic weaknesses in your own decision making process.
- Analyse and identify vulnerabilities in your own information cycle.
- Analyse the peculiarities of your own C2 system.
- Analyse and identify the essential information that the adversary needs to successfully deceive.
- Analyse national attributes that can be exploited by the adversary.

CREATING THE OPTIMAL FRAMEWORK FOR COUNTER-DECEPTION
- Armed forces training.
- Development of operational doctrine and procedures.
- Development and implementation of OPSEC plan.
- Development and implementation of a STRATCOM plan.
- Development of force resilience to deception.
- Development and procurement of deception and counter-deception techniques and technologies.
- Testing personnel to determine susceptibility to cognitive limitations and perceptual errors.

Figure 2   Preparing counter-deception
Source: author's conception

The power of resilience to support preparedness and counter misconceptions

The complexity of today's environment, the rapid pace of situational change, and increasing uncertainty make **the concept of resilience critical for any actor**. Resilience is the ability of a system to adapt and quickly return to a state of good functioning after significant difficulties or changes (Cambridge Dictionary 2024).

Romania's National Defence Strategy presents resilience as the appropriate response to threats specific to the current operating environment (Administrația Prezidențială 2020, 5). It also plays a very important role in the military domain, Romania's Military Strategy including it among the essential concepts on which its armed forces must focus (Strategia Militară a României 2021, 30).

At the Madrid Summit in 2022, NATO recognized the need to develop the resilience

of nations in the face of threats in the current security environment (NATO 2022). Military resilience underpins the Alliance's deterrence and defense by developing its ability to anticipate, prepare for, and adapt to threats, and to withstand, respond to, and recover rapidly from strategic shocks (E-ARC 2024). This concept is not new, however, and is deeply rooted in the nature of the Alliance. It was one of the pillars of its defense against the Soviet Union during the Cold War (Dowd and Cook 2022).

The US also understands the importance of this concept, which is considered essential to the accomplishment of the military mission (FM 6-22 2022, 4-16). In this regard, the US has created a directorate specifically for developing personal and organizational resilience (United States Army 2024). Resilience is also recognized as one of the qualities of effective military leaders (FM 6-22 2022, 4-16), understood as the ability to persevere and adapt in the face of adversity in today's highly dynamic and uncertain operating environment.

One of the disruptive factors in the conduct of military operations is deception. History has shown on countless occasions, as mentioned earlier, that deceived military structures have found it difficult to recover, and in most cases have had to give up the fight.

The primary purpose of deception, to induce the adversary to take certain actions that cause operational disadvantages without even realizing it, is perhaps the best argument for its inclusion among the elements that have the potential to cause operational difficulties.

For this reason, this section focuses on how resilience development can support the ability of military structures to both anticipate and detect deceptive adversary intentions and to ensure a resilient system capable of absorbing such shocks and recovering as quickly as possible without seriously compromising the accomplishment of its core mission.

Preparing the structure to respond effectively to an adversary's deceptive actions involves more than simply identifying indicators that can increase the likelihood of detection. It requires developing the military organization's ability to absorb shocks and move on. Thus, **the ability to be resilient to an adversary's deceptive actions is perhaps as important as countering them**, providing the opportunity for rapid regeneration of structure and adjustment of plans to overcome the adverse moment (Joint Doctrine Publication 02 2021, 3). In this way, the window of opportunity for the adversary to speculate on the possible operational advantage he has created is minimized, or even conditions can be created in which it may not materialize at all. In addition, the Romanian Military Strategy identifies reduced resilience to disinformation as one of the challenges facing Romanian society (Strategia Militară a României 2021, 8), which further emphasizes the importance and relevance of introducing this activity in the training phase of military structures in order to counter the adversary's misleading actions. For these reasons, I believe that a

high level of resilience can mitigate the effects of the adversary's stratagems, thus contributing to the optimization of the overall strategy to counter the adversary's deceptive actions.

Complementary to this, developing the resilience of the military system can benefit the other activities specific to counter-intervention preparedness shown in Figure 2. First, an essential element of a resilient organization is **its flexibility and adaptability**. The high degree of adaptability of military systems can significantly reduce the impact of potential adversary missteps, thereby contributing to the effectiveness of the counter-deception process. Building a flexible force, both physically and especially mentally, must be a priority in the adaptive approach. The resulting mental flexibility directly supports the ability of those involved in the counter-deception process.

Flexibility and adaptability can create the conditions for identifying and reducing one's own vulnerability to potential deceptive actions. Critical analysis and awareness of one's own elements susceptible to deception directly contribute to increasing the level of resilience of the military structure in the face of potential deception attempts by the adversary. Given that the target of deception is the commander of the opposing forces, adaptation must sometimes include the ability to accept criticism, regardless of the position held. This is a matter of understanding one's own shortcomings and the desire to improve.

A critical element in building resilience is **education**. Nelson Mandela saw it as the most powerful weapon in changing the world. Education plays an essential role in both building resilience and increasing the chances of countering deception. First and foremost, education ensures an optimal level of awareness of potential threats. Adequate awareness of how deception works and its impact, but also the dangers to which superficial military structures are exposed, contributes directly to increasing both individual and organizational resilience, and also the preparation of counter-deception.

Education also contributes significantly to the development of critical and creative thinking among military personnel. The ability to correctly identify the real problems facing the organization, to analyze and determine their real and root causes, and to develop ingenious methods of solving them in a way that does not compromise the mission at hand, are characteristics of a critical and creative mind. These attributes are therefore *"sine qua non"* conditions for overcoming difficult moments on the battlefield. Critical and creative thinking can therefore be seen as a critical factor in shaping the resilience of any organization.

In this way, the conditions for preparing counter-deception are also ensured. In this way, staff with a developed critical sense, who are involved in this endeavor can ensure the premises for adequate results in terms of analyzing the adversary

and understanding the true nuances in terms of his intentions, motives, or modus operandi in similar situations. The ability to see things from other perspectives, to ask vital questions, to criticize one's own previous conclusions, to think openly, and to analyze existing assumptions in a relevant way, are characteristics of a person who has developed critical thinking skills in a refined and profound way, ensures the conditions for good preparation of counter-deception.

Ongoing **training**, by exercising its own structures under the most difficult conditions replicating contemporary battlefield situations, supports the development of the resilience of the military organization. Providing a training framework that incorporates potentially deceptive adversary situations of the highest possible complexity also enables the development of the structure's ability to counter and respond to such operational problems as effectively as possible. There is an unwritten trend within Western military structures towards military exercises. Most of them end with the success of the trained structure, which manages to resolve most of the situations created. Although I am aware of the moral benefits of such an approach, I believe that the armed forces should also encourage failure as a form of training. This, combined with a thorough analysis of its causes, may offer the chance to significantly increase the resilience of the armed forces. This is also in order to prevent misunderstandings. In addition, counterpart training (force against force) ensures a more realistic level of readiness for the armed structure. The possibility of fighting an adversary who is also thinking and planning to win increases operational uncertainty and requires a much greater intellectual effort from the personnel involved. Operating under such conditions leads the military to take calculated risks, rather than expecting optimal conditions for decision making. This creates the premises for more effective preparation of the military structure.

Another extremely important element in the development of military resilience is **leadership**, as mentioned above. It also plays a crucial role in countering deception. Commanders are the ones who set the training framework, select personnel, and identify the most appropriate positions for them, as well as set the internal pace and working environment, thereby influencing the moral component of their structure's combat power. A critical element for any leader is the desire for self-improvement, and in this sense the ability to recognize one's own limitations, the mistakes made in the act of leadership, as well as to accept one's personal prejudices and preconceptions, favor the development of resilience in the face of the opponent's deceptive actions. I can therefore conclude that leadership style has a direct impact on the performance of military personnel in countering deceptive behavior.
In Figure no. 3 I have illustrated how the specific elements of resilience provide the counter-deception preparation in order to highlight the factual way in which these two concepts are related.

1. Ensuring the military organization's adaptability and prompt response to emerging challenges

Flexibility and adaptability, core elements of resilience, enable organizations to adjust quickly in the face of adversary misleading actions while continuing to operate effectively towards mission accomplishment.

2. Develop shock absorption and rapid regeneration capability

A resilient military structure can absorb shocks caused by the adversary's decption actions, rapidly returning to an optimal operational state without affecting the accomplishment of its core mission.

3. Identifying the vulnerabilities of your own organization

Critical analysis and awareness of one's own vulnerabilities are facilitated by an increased level of resilience. As a consequence, this situation provides the appropriate framework for preparing the military structure in the face of possible misleading actions of the adversary, by identifying its own vulnerabilities that can be exploited by them.

4. Development of critical thinking

Critical thinking specific to elite organizations enhances the ability of military personnel to understand and critically analyse the elements of a potential adversary's misleading action, thus ensuring the preconditions for successful deception detection.

5. Realistic training to support resilience development

Exercises with realistic scenarios that involve deception incidents and encourage learning from failure develop the resilience of the military organization and implicitly ensure effective preparation to counter deceptive tactics.

6. Developing effective leadership

Leadership, an extremely important element in the development of military resilience, also supports counter-deception by creating the right training environment, selecting the right personnel and recognizing one's own limitations and mistakes that can be exploited by the adversary's potential deceptive actions.

Figure 3   Resilience support in counter-deception preparation
Source: author's conception

Conclusions

Resilience is the ability of an organization to adapt and recover quickly from significant challenges or changes. It is recognized by most actors as one of the solutions to the challenges of today's complex and highly volatile security environment. Its importance is also critical in the military domain, as it provides the conditions for an adequate response to the various threats and challenges of today's battlespace, thus creating the optimal framework for operational success.

Moreover, the characteristics of today's information environment make the ability to maneuver information and shape the desired perceptions of a target audience an extremely easy weapon for most modern armed forces. For this reason, preparing appropriate responses to the potential deceptive actions of adversaries must be a priority of any military structure in order to ensure a viable framework for accomplishing the assigned mission.

In this respect, resilience can be a critical factor in preparing forces to counter misdirected actions. In this endeavor, by developing and implementing effective resilience strategies, armed forces can secure multiple benefits. First, the increased level of critical and creative thinking that results from enhanced military resilience can facilitate deeper analysis of adversary information relevant to countering deception. Similarly, the development of organizational resilience can contribute to military-relevant outcomes by ensuring a more robust and adaptable structure against modern information challenges. In addition, increasing the level of training of the armed forces, another critical aspect of resilience will ensure that they are best prepared to counter deception.

In conclusion, I believe that by developing robust resilience, the Armed Forces will be better able to deal with the specific information challenges of the modern battlefield, thus preparing the organization to better counter potential adversary deceptive actions.

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BULLETIN

The reach of state power in a globalized world – some lessons for the EU and the Western Balkans

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Abstract

Globalization trends have significantly influenced the role and importance of state power, though certainly not to the extent that one could argue globalization has rendered states obsolete or unnecessary. Many of today's global challenges, such as terrorism, climate change, the migrant crisis, and others, are impossible to address within national frameworks, necessitating the cooperation of sovereign states as the 'appropriate measure' in responding to these and similar global issues.

Starting from the fact that the components of state power persist even in an increasingly interactive and globalized world and that the past decades have witnessed attempts to balance state power among the often disproportionate member states of the European Union, this paper posits the hypothesis that the Western Balkan states lack the independent capacity to build institutions modeled after those of EU member states. Consequently, this region serves as a striking example of a neglected area with missed opportunities for clear integration into the EU. Furthermore, the paper analyzes, in light of knowledge on variability and development, identity and diversity, opposition and contradiction, the circumstances that have led to a series of missed opportunities for progress in this volatile region, as well as the internal problems within the Union that affect the Western Balkan countries on their European path.

Keywords:

Key Components of Modern State Power

The greatest disagreement among theorists of international relations concerns the importance attributed to the concept of power in the context of international and national security. Consequently, answers to questions such as whether power is the determining factor in explaining the behavior of actors or states seeking their security, and whether power is crucial in determining how states will pursue their national interests, can serve as a good criterion for assessing an author's stance toward the realist theoretical approach. For the representatives of the realist school power represents the overall material capabilities of the state and the influence they can exert upon other less-powerful actors in the international arena. Morality on the other hand is highly subjective and is not a primary concern for states that are seeking to accomplish their strategic goals (Pevehouse and Goldstein 2017, 40-43). The structure of the international system that lies on these foundations propels countries to act in certain ways in order to secure their survival. In other words, anarchy and the power struggle are unavoidable elements of international politics (Little 2007).

On the other hand, scholars from liberal and social theories offer different explanations, emphasizing that humans are not doomed to eternal power struggles among nations. The evolution of human society paved the way for the development of international institutions, organizations, and international law all of which contribute to the "proliferation of peace". The interconnectedness of modern society and the global economy provides further incentives to avoid power struggles and lead states toward deeper cooperation (Pevehouse and Goldstein 2017, 73-81). In other words, the non-realist scholars although acknowledging the significance of state power, often prioritize other concepts, such as cooperation, ideas (social constructions), or emancipation which can circumvent war and conflict among states (Lipovac 2017, 75).

The attempt to permanently define national power "is not possible due to one of its most significant characteristics – transformation, precisely because of its inseparable connection with human relations, which also transform depending on the situation" (Subotić 2019, 110). However, authors such as Hans Morgenthau provide us with insights in order to better understand such complex issues. Namely, Morgenthau defines national power through aspects such as geography, national resources, industrial capacity, military preparedness, population, national character, national morale, and quality of diplomacy (Morgenthau 1948, 80-108). All these factors allow us to evaluate national power and the direction in which states formulate their foreign policies.

The fundamental elements that a population must fulfill to represent the strength and power of the state it presents are numerical size, education, and workforce capability. Mastery of modern technologies or the presence of natural resource

wealth can significantly mitigate the impact of the demographic factor. Therefore, in the modern era, it is not uncommon for small nations, due to certain circumstances (capabilities), to render their states influential in the global community. Common examples of small yet influential nations include the Netherlands, Switzerland, and Japan. However, we cannot overlook that a larger population gives great potential for economic progress as well as a better foundation for military power. As Morgenthau states, assessing the distribution of military power among countries is crucial to account for the number of people and potential growth of the country's populace (Morgenthau 1948, 93).

Geography and national resources of the state are some of the key components of state power because the principle is straightforward: the larger the territory, the greater the potential for spatial utilization. The significance of territory is strongly supported by Reymond Aron, who says that "if the territory of a state is space, then every international order is essentially territorial" (Aron 2001, 26). The quality of a given territory is determined by the degree of its various types of utilization: agricultural, mineral, mining, and energy. Having national resources a state can be self-sufficient giving larger freedom for political action in peace as in war. Ultimately, the power derived primarily from territory is enhanced by its positioning. This means that a state, connected with the most important transportation and other economic and communication links with other states, is difficult or impossible to isolate in economic, transportation, and even political terms. Good geography can bring much to the table regarding the defense and security of the state. Having large mountain ranges or large bodies of water a state can feel more secure; vice-versa, the absence of such natural phenomena can make a country less secure and vulnerable (Morgenthau 1948, 80-86).

In contemporary assessments of a country's industrial capacity, the following parameters are considered essential: diversity in production and export, a comprehensive and dispersed industrial basis, financial stability, and a well-educated scientific and technical elite capable of maintaining and advancing the economy. Conversely, a weak economic foundation and an underdeveloped economy result in a weak state whose influence on international relations is negligible. Such a state can easily be outvoted in international organizations and undermined in various ways. These nations typically lose their national and cultural identity and necessarily adopt another. "One thing must absolutely be avoided," argues the renowned French sociologist Emmanuel Todd, "and that is to forget that today, as in the past, the true forces are of a demographic and educational nature, while true power is of an economic nature" (Todd 2004, 203). Industrial capacity is not only important for civilian purposes but for the military as well. The technology of modern warfare relies heavily on vast industrial capacities and its ability to produce *en masse*. Having skilled workers, inventive scientists, and prudent managers a country can enhance its industrial capacity both for civilian as well as military purposes. It comes as no surprise, as Morgenthau underlines, that great economic power is often correlated with overall state power (Morgenthau 1948, 87).

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Military power remains one of the most important characteristics of a state's overall strength and continues to be legitimized as such. In contemporary power reconfigurations, it represents what is known as "hard power" and serves a dual function. While it is primarily conceptualized as a defensive or deterrent force against potential armed aggression, it often also represents an offensive potential directed toward other states. When it comes to the application of military force, "it is successfully employed only by powerful states" (Gaćinović 2007, 11). The criteria for measuring the strength of a state's military power vary. Traditionally, these criteria included the number of soldiers and the extent of military infrastructure; however, they have been significantly updated by modern times, which have introduced new technological possibilities. States without large military forces can still be militarily powerful if they possess cutting-edge military technology, and today, states with nuclear capabilities are considered militarily superior. The exact number of such states is not reliable, as there is suspicion that some are secretly developing "nuclear programs." However, it is "reliably asserted that today the United States, Russia, China, the United Kingdom, France, India, and Pakistan possess nuclear weapons, while Israel and North Korea are believed to have them, and Iran is presumed to be pursuing them" (BBC News 2020).

National character and national morale also represent one of the factors that influence the state's power. Both of these aspects are essentially tied to the strategic culture of one nation and explain how a nation "thinks" and reacts in specific circumstances. National culture represents a collection of ideas through which a given community defines what is important, valuable, and desirable for that society. Although the achievements of a nation today are often associated with economic and material indicators, accomplishments in classical culture (literature, music, painting) contribute to the prestige of both the nation and the state. Culture thus represents "the temporal stamp of a nation, relating to patterns associated with the thoughts, lifestyles, goals, and actions of the nation, and thus the state that embodies a particular culture" (Maciois and Gerber 2011, 43). Reading Morgenthau we can see that national character influences national power both in peace and war since it represents the thoughts and fears of the populace at large; as well as the nations' understanding of political surroundings and the country's position in the international arena. National morale, on the other hand, reflects the support of the nation for the government and its foreign policy. Morale is especially important in dire situations such as war since it constitutes the will of the nation to fight and overcome difficult times. All this is closely tied to the country's government and how it governs over its nation. As Morgenthau concludes, the quality of the government can be both a strength and a weakness regarding the overall national power, since the decision made by the government directly influences all other aspects of national power (Morgenthau 1948, 98-104).

Lastly, the most crucial factor in a state's foreign policy is its adaptability and quality of diplomacy. Broadly speaking, foreign policy adaptability is embodied in a state

that avoids conflicts, aligns with contemporary international political trends, and seeks allies in political, economic, and military spheres, all with the goal of preserving its own foreign policy identity and interests. The concept of neutrality, which has long served as a euphemism for foreign policy adaptability, has undergone various modifications throughout history. Traditional neutrality entailed political and military non-engagement, meaning non-participation in conflicts beyond its own territory. Although military neutrality often still implies political (state) neutrality, this is not a strict rule. For instance, "a state can be a member of international organizations, but if its military does not participate in the military operations of those organizations, it has the obligation to inform the international community that its armed forces will not engage in conflicts involving third states and will use force only if it is militarily attacked and thus exposed to foreign military power" (Radaković 2011, 299).

Balancing the Power of EU Member States

The position of smaller and medium-sized countries is characterized by a dichotomy within the international order. On one hand, great powers generally have the final say, while on the other hand, there are efforts to create a more orderly community of equal, sovereign states and a relaxed order based on rules within international institutions. Examples of "produced instability" following interventions in Iraq, Libya, or Syria illustrate that brute force alone is insufficient for resolving complex social problems, and the distinction between "small" and "large" does not guarantee the a priori success of the "large" actors. A notable example of a small country successfully advancing its interests against a much larger one is the so-called Cod War between Iceland and the United Kingdom, which ended in 1976 when "the United Kingdom accepted Iceland's 200-nautical-mile exclusive fishing zone" (Steinsson 2016, 37).

Moreover, the position of small and medium-sized countries is considered more favorable when they are part of a broader alliance organization defined by clear rules, which provides them with the opportunity to utilize specific instruments of action and influence. Perhaps the best example of this is the European Union. The original association (the EEC) was established in the mid-twentieth century precisely as a community of countries aiming to create an economic and political counterbalance within the strict bipolar international system.

With globalization, and the gradual shift in the international system where properly directed „soft power" plays an increasingly significant role, the relevance of the distinctions between „small," „medium," and „large" countries is being reassessed. Moreover, historical experience teaches us that the size of a state and its power need not be equivalent; that is, a small territory does not necessarily imply „powerlessness" in a given situation. Hill (Christopher Hill) rightly observes

that "size and position entail both substantial benefits and significant costs for a given country" (Hill 2003, 169).

The construction of the European Union, as well as the communities that preceded it, has consistently emphasized the sensitivity of relations between large and small countries. "This consideration was factored into the successive enlargements of the EU, both in terms of the formation of its main bodies and in the decision-making processes" (Lopandić 2010, 102).

Although there is no strict definition of what constitutes a small or medium-sized country today, it is generally considered that most EU member states fall into these two categories, with the exception of five countries that represent relatively "large" states within the European framework (Germany, France, Italy, Spain, and Poland). Accordingly, up to 22 out of the 27 member states of the Union could be classified as small or medium-sized. The advantage these countries enjoy within the EU is based on the Union's structure as a transparent political and legal system that operates on the principles of seeking compromise and aligning the interests of all member states, regardless of differences in size.

Thus, all 27 EU member states nominate one member to the European Commission. Additionally, the principle of the so-called blocking minority (during voting in the Council of Ministers) ensures that small and medium-sized countries cannot be easily outvoted by larger ones. Member states seek to exert greater influence by forming connections within various subregional groupings, such as the Visegrád Group, the Benelux countries, and the Baltic Trio, among others. This can, especially in the case of the Visegrád Group, present a potential problem regarding alignment on particularly sensitive issues, such as the ongoing issue of mass migration to Europe (Subotić 2022, 211). The decision-making process in the EU "is reflected in a constant search for ad hoc alliances, where the most crucial factor is each country's coalition capacity, which generally depends less on its size and more on the ideological and interest orientation of the member states" (Lopandić 2017).

The primary criteria for grouping EU member states arise from various classification parameters (such as wealthier or poorer, more "liberal" or "protectionist," more or less oriented towards consumer protection or favoring employers, and so on). Nevertheless, in the dynamics of negotiation within the EU, it cannot be overlooked that larger states, such as Germany and France, are in a better position to impose their views through bodies like the European Council, where the method of "intergovernmental cooperation" is applied. On the other hand, "small and medium-sized countries focus more on achieving a limited number of specific, but crucial national goals, which often provides them with better maneuvering space compared to larger countries, whose objectives are more numerous and therefore more diffuse" (Lopandić 2017).

The strength of small and medium-sized countries within the EU is most prominently demonstrated through their initiatives in regional contexts with "non-member" countries (e.g., Greece – Turkey, Poland – Russia, Croatia – Serbia, etc.). Such examples in recent years have led to numerous attempts by EU member states to automatically designate very narrow national interests (e.g., relations with neighbors, migration issues, challenges to certain achievements in human rights and freedoms) as "European" or to attempt to fully "nationalize" the EU's foreign policy. This trend has produced various tensions within the EU, both among member states and in relations between member states and the European Commission, which is the official representative of the Union's collective interests. Even in an environment that relies heavily on various institutional mechanisms, the process of power balancing, as discussed by realists, is inevitable. States will attempt to achieve their strategic objectives at the expense of their partners and allies, sometimes using soft balancing through diplomacy and the EU's institutional mechanisms. All this leads us back to the conclusion that strategies characteristic for the concept of balance of power are not necessarily tied to the idea of anarchy in the international system, but they can also be found in an "ordered" environment such as the EU (Little 2007).

The Western Balkans and the EU – Years of Missed Opportunities

Today, it can be rightly said that the region variously referred to by different authors (Southeastern Europe, the Western Balkans, the former Yugoslavia, etc.) represents a unique arena of geopolitical competition. This competition unfolds either in the immediate vicinity or within the states of the region itself. There are more than enough actors involved. In addition to the old imperial players and their associates, some of whom have assumed new forms, there are also new global actors who astutely blend geopolitics with geo-economics. The advance of "non-traditional" major players in this region is conditioned by numerous weaknesses of the regional countries, as well as the indifference of European administrations towards this area.

What can be attributed, to a greater or lesser extent, to all the countries of the Western Balkans is what is described within European frameworks as a "lack of good or democratic governance." The judiciary is neither effective nor independent, being susceptible to political influence. Corruption is widespread, and the fight against organized crime cannot yet be considered successful. In line with the trend of rising autocratic tendencies in Europe and across the world, "the region is afflicted by a plague of populism, characterized by the rise of right-wing beliefs, and the personal and almost unrestrained power of leading politicians has become a feature of nearly all political regimes in the Western Balkans" (Freedom House 2023, 10).

The most recent report, Nations in Transit, which covers 29 countries, indicates that the Western Balkans region is responsible for many concerning events and that

regional security is often used by many political leaders as a pretext to undermine democratic institutions and disregard democratic norms. According to Freedom House, 11 countries, classified as so-called "hybrid regimes" with characteristics of both autocracy and democracy, are situated between two geopolitical and normative blocks (Radulović 2024).

The economic crisis that began in 2008, combined with an unreformed and inflexible economic sector, further destabilized the region. The migrant crisis, with the flow of over a million economic migrants and refugees traveling towards Western Europe, as well as the crisis caused by the COVID-19 pandemic, are additional negative factors that complete this grim picture (Subotić 2024a, 49). The disparity between the development levels of the Western Balkan economies and those of the EU is not encouraging: "The region is, on average, only about 30 percent as developed as the EU average, with significant differences between countries" (Anastasijević 2018). The remnants of identity conflicts from the 1990s remain very strong, and there is an impression that European administrations are neither particularly attentive nor inclined to significantly engage in overcoming them.

An additional problem for countries in the process of European integration is the multiple crises facing the European Union, which has been unable to find solutions for a range of crises (economic, institutional, and identity, as well as the crisis of democratic deficit and political leadership) for several years. In such conditions, where there is frequent discussion about the possible disintegration of the Union, countries in the "waiting room" for membership naturally lose confidence in EU leadership and its willingness to continue accepting new members in the near future. The former magnetism of membership and the popularity of the EU option are waning across the region. Particularly indicative are surveys showing that "young people in the Balkans today believe that their countries will never become part of the European Union" (Jović 2019).

An interesting perspective on the EU-Balkans relationship is presented by Professor Eric Gordy from University College London, an expert on Balkan affairs, who suggests that "it is quite possible that all the candidacies were part of a plan for the EU to maintain influence over the Balkan countries, as it could always tell them that they would not become members if they did not behave well." He continues, "this strategy is becoming less effective as an increasing number of people seem to agree that these countries will never join the EU" (Rujević 2017).

An aggravating factor for candidate countries from this region is the trend of nationalizing EU policies, whereby conditions for further integration are imposed by individual member states, often in contradiction with the EU's common policy. The migrant crisis, which gained momentum in 2015, was an additional test that the Union failed due to its disunity, internal disagreements among member states, and a lack of solidarity and joint action. The inadequate response of European

institutions towards the countries of the so-called Balkan route and the speculations that emerged about returning a large number of migrants to the countries where they were initially registered further complicated the already complex relationship between the evidently divided EU member states and the Western Balkan countries in the process of accession.

The Diminished Power of the EU Towards the Western Balkans: Are More Favorable Winds Blowing?

Contrary to the optimistic expectations of European federalism theorists (Kovačević 2013), the emergence of the European Community, now the European Union, did not lead to the gradual marginalization and extinction of the power of European nation-states. Instead, it primarily resulted in their transformation within the peaceful European context. Europe has not abolished states—those "cold monsters," as Max Weber called them—but has instead transformed them into the principal units of the continental integration project.

It can be said that the process of aligning and dividing labor between the state, as the fundamental political community, and its supranational framework (the European Union) is still ongoing, with no clear perspective on a "unity in diversity." The European Union can be envisioned as a complex legal entity, a sort of "postmodern empire," or an external framework of a complex system empowered by its member states. The functioning of the EU today is inconceivable without the effective functioning of its member states as legal entities on which the entire structure of the Union rests. The Union primarily represents a community of national administrations and legal systems to which a part of national sovereignty has been transferred (either permanently or temporarily, wholly or partially) (EUR-LEX 2017).

Although European identity, marked by the development of science and technology, has been shaped over time, we are now witnessing how technology—not only bridging distances between people—also erodes cultural and civilizational differences between Europe and other regions that gravitate towards it. The populist nationalism we observe around us is merely an epiphenomenon, "before other factors continue to erode European history and culture" (Subotić and Pejić 2023, 29). In the digital age, transmitting history and tradition from one generation to another has become even more challenging than before. Now, everything can be deconstructed through competitive rather than shared narratives, while information floods European society and attention spans completely dissolve. Information overload is, as noted by Arnold, "an increasing problem exacerbated by the ongoing digitalization of the world and the intensifying (mis)use of information and communication technologies" (Arnold, Goldschmitt and Rigotti 2023). Under such circumstances, Kaplan argues, "preserving a distinct Western identity, separate from Eastern, Asian, or African, becomes an atavism from a bygone era" (Kaplan 2023, 334).

Where does this region fit within the internal dynamics of the Union, and what is the status of the gradual reintegration of the fragmented space of Southeastern Europe (or the Western Balkans) into the EU, as well as the formation of "subregional architecture" in the Balkans, which has been repeatedly characterized as "delayed integration"?

The delay in the process of EU accession has further deepened the disparity in development levels and economic potentials between the countries of the former Yugoslavia on one side and the rest of Europe on the other. The severe conflicts that arose during the violent disintegration of the former Yugoslavia, which marked the entire last decade of the 20th century, had profoundly negative consequences for the evolution and modernization process of the post-Yugoslav countries (with the exception of Slovenia). This period represents a new stage of globalization and technological change on a global scale, and in the European context, it signifies a period of transformation and integration of the continent around the European Union and NATO (Kasim and Menon 2024, 6). At the same time, the process of integration and transformation of national European states was accompanied in the Balkans by regressive conflicts over territory and borders. The last decade of the twentieth century thus represents a particularly grim period in the history of the post-Yugoslav countries with regard to adherence to fundamental "European values"—peace, democracy, human and minority rights. While the key terms in the EU during this period were "compromise and integration," the Balkans were dominated by terms such as "conflict and separation."

As previously emphasized, the European Union, as a sui generis international entity, did not entail the abolition of the nation-state and its power in favor of a supranational structure, but rather its transformation and modernization within the conditions of integration and globalization. The Western Balkans, specifically the countries of the former Yugoslavia along with Albania – at that time undoubtedly the most backward and isolated country on the continent (World Bank 2023) – had to channel the majority of their social and political energy into overcoming the effects of violence and rebuilding the "nation-state" within a radically changed regional and European framework. At the end of the 1980s and the beginning of the 1990s (before the onset of war devastation), the EU's strategy was to gradually integrate the Yugoslav space along with the rest of Central and Eastern Europe into the Union. However, the deepening Balkan conflict prevented this (CVCE 2021). It was only with the democratic changes and the replacement of authoritarian regimes in Serbia and Croatia, along with the partial stabilization of conditions in Bosnia and Herzegovina at the beginning of this century, that the conditions were created to redirect the "wheel of history" in the same direction as it was moving in the rest of Europe. This process, however, is neither swift nor easy, considering the internal difficulties and new international circumstances in each of the countries that emerged from the former Yugoslavia. Serbia's rapprochement with the European Union, with the goal of membership, entails a more intensive study of the EU as a highly specific organization that is in almost constant evolution, alongside equivalent monitoring of

trends indicating how conditions in the Western Balkans are changing, particularly in the context of tectonic geopolitical and security shifts following the Russian aggression against Ukraine in February 2022 (Subotić 2024b, 136).

At the same time, the trauma of the endlessly long journey towards Europe for Western Balkan societies and peoples is more than understandable. Over twenty years ago, on June 20, 2003, the Thessaloniki Summit announced a new era in the EU's relations with the Western Balkans. It formalized the European perspective of the region and provided hope for a better, more peaceful, and shared future. Although the countries of the Western Balkans achieved candidate status, secured visa liberalization, and signed free trade agreements with the EU during the subsequent period, only Croatia attained full membership. In short, the enlargement policy has become a depleted topic, characterized by a practice of low intensity with limited transformative power.

How did this situation arise? Of course, a significant part of the responsibility lies with the political elites in the region. Nevertheless, the proclamation by then-European Commission President Jean-Claude Juncker in 2014 that further enlargement would not occur during his mandate (The Economist 2014) had a detrimental effect on the motivation of candidate states to engage credibly in the process (BiEPAG 2017).

The European Neighborhood Policy has certainly yielded some results, primarily in the areas of intensifying political contacts, providing financial assistance, signing various agreements, and increasing trade exchanges. However, the power of the European Union cannot be measured solely by the resources it employs in a particular region, nor merely by the increase in trade exchange; it also depends on its ability to exert substantial influence on political circumstances, democratization processes, and reforms, which would, in turn, lead to greater support for the values of the European Union.

In this regard, one of the theses of this paper is that the transformative power of the European Union towards the Western Balkans has had a weaker impact due to the strong influence of the stability-democratization dilemma. From the very beginning of the implementation of the Stabilization and Association Policy, the European Union pursued dual objectives in the region—first stabilization, and then integration—which reinforced the dilemma: stabilization and state-building or democratization and institution-building (Elbasani 2008, 299).

By prioritizing effective governance over democratic management, the European Union has arguably contributed more to the entrenchment of undemocratic and corrupt regimes than to their transformation. Despite the reforms supported by the European Union, there is a growing perception of the strengthening of authoritarian regimes in the Western Balkans, as well as the increasing oligarchizing of the region (Lasheras 2016, 11).

The EU's ambiguous stance on the development of "stabilocracies"-hybrid regimes where autocratic tendencies are tolerated for the sake of stability-further impeded democratic progress in the region. In these societies, "democracy weakens, democratic safeguards such as independent media and strong institutions decay, and clientelism binds many citizens to the ruling elites through cooperation and coercion" (Ekonomist 2018). In such an environment, ethnonationalism emerges as an ideal tool for populist mobilization for domestic use, fostering distrust towards other ethnic and confessional communities in the Western Balkans. When this is combined with the aforementioned so-called "external populism," which has distinct rhetoric and recommends power holders as "factors of peace and stability in the region," it all together creates a particularly conducive habitat for consolidating the stabilocratic system of governance (Subotić and Dimitrijević 2018, 83). This circumstance largely casts a shadow over the "sincere and unequivocal" commitment of EU officials to strengthening democratic institutions such as citizen rights and freedoms, promoting tolerance, media freedom, and so on, which would greatly contribute to easing the perpetually tense relations in the region and reducing the undeniable extremist potential of this area.

In some cases, the European Union has clearly conducted a strict assessment of the fulfillment of conditions, while in others, it has acted more flexibly to avoid security risks, thereby affecting the consistency of the entire process (Anastasakis 2008, 366). Democratization has been the greatest casualty of this approach. The Western Balkan countries have lost more than two decades in terms of democratization, while at the same time forging closer ties with the European Union, creating a paradox where closer alignment with the Union is not tied to progress in democratization. In addition to the undeniable harm to the democratic development of regional countries, this approach also significantly damages the perception of the Union's power. While lasting peace in the Balkans is certainly a considerable achievement, peace without institutional progress can lead to potentially dangerous stagnation, with the risk of reopening new (old) security dilemmas.

Simultaneously, the European Union's power has been deactivated for many years concerning the successful conclusion of the dialogue between Belgrade and Pristina, leading to the alarming consequences we witness today. To make matters worse, the EU's geopolitical immaturity has resulted in oversight regarding key trends within its own "backyard," allowing China and Russia to fill the vacuum and, to some extent, limit the EU's political, economic, and social influence (Vulović 2023). Essentially, instead of taking concrete and decisive actions, the EU's passive approach has "lulled" the enlargement process.

Today, however, Russian aggression against Ukraine is directing the redefinition of the continent's security and economic architecture. Consequently, the enlargement policy has been placed at the top of the agenda. In a short period, the EU has granted candidate status to Ukraine and Moldova and a European perspective to

Georgia, followed by the awarding of candidate status to Bosnia and Herzegovina, visa liberalization for the citizens of Kosovo, and the commencement of accession negotiations with North Macedonia and Albania. Although encouraging, these steps should merely mark the beginning of further strengthening the enlargement process. The stakes are high: revitalizing the motivation of decision-makers and citizens in the Western Balkans is imperative for achieving European strategic autonomy while preserving the Union as an effective political and value-based community.

However, two decades after the "Thessaloniki initiation", the Union's lack of commitment to enlargement, coupled with the regression of Western Balkan states, has transformed into a vicious cycle of excuses and disappointments on both sides. By announcing the 2030 deadline, Charles Michel's team hopes to break this cycle, as it is deemed "ambitious yet realistic". They emphasize that the date is close enough to be perceived as achievable and worthy of the political investment of elected leaders in candidate countries (Bayer 2023).

Indeed, the political will within the EU to integrate Ukraine and Moldova, as a result of Russian aggression, has rekindled debates around enlargement. However, the Western Balkan states should not rely on the relaxation of enlargement criteria due to the current geopolitical context. Instead, a better approach would be for each state to advance at its own pace through incremental membership by implementing reforms, rather than the current binary approach of either being a member state or not. This so-called gradual accession would rebuild candidate countries' trust in merit-based processes and is already being discussed in many European capitals.

However, the EU must first regain its influence in the Western Balkan region by overcoming differences among member states on how to make its institutions more flexible and better equipped for gradual enlargement. The core package should include the following elements: participation in the single market, full integration with the EU's climate agenda (including access to the financial instruments of the European Green Deal), and access to EU structural funds (Tcherneva 2023). This initiative should have, as a prerequisite, full alignment of candidates with EU foreign policy and should originate from the European Council (not the European Commission) as a sign of strong political commitment.

Additionally, some member states fear that a rapid accession process could result in the "import" of leaders who increasingly oppose EU values, such as the increasingly prominent Hungarian Prime Minister Orban. To prevent blockades in the enlargement process, the European Council has proposed two measures. The first is a "trust clause", according to which new members cannot block future members; the second is the method of "constructive abstention", derived from the neutrality of Austria in EU discussions about the European Peace Facility, which finances the sending of weapons to Ukraine (Bayer 2023). While the first measure seems feasible, the second might be overly optimistic as it assumes a high level of political

maturity. Relying on constructive abstention to overcome blockades is unlikely to succeed among politicians new to Brussels who wish to demonstrate their political strength. Therefore, a gradual approach to accession, where new members receive an incremental increase in voting power, has the highest likelihood of defending against this threat.

Beneath the focus of some member states on enhancing and reforming the enlargement process lies a lack of readiness within the EU to support the Western Balkans. Efforts by Ursula von der Leyen and the aforementioned Charles Michel to revive this process in the Western Balkans and create better preparedness within the EU may fail if not taken seriously. Instead of delaying the promise of membership and risking losing the region to disappointment, instability, and other partners, the EU must take immediate necessary steps to prepare for enlargement. The call of history can easily turn into another historical missed opportunity.

Conclusion

The power of sovereign states has persisted, yet we are witnessing the increasingly clear positioning of sovereign states within various alliances based on clearly defined values and interests. The European Union, as an entity founded on democratic principles and values, as well as clear economic interests, is also part of various transformative processes – processes in which its power and spheres of influence are being redefined. The power disparity among member states has been largely leveled by the principle of the so-called blocking minority (during voting in the Council of Ministers), which guarantees that smaller and medium-sized countries cannot be easily outvoted by the larger ones. However, the challenges that the European Union has faced over the past decades, such as the economic and migrant crises, as well as aid to Ukraine in its defense against Russian aggression, have also revealed certain dissonances among the member states, raising questions about how the Union can act more cohesively and assert its power more effectively.

The European Union has been an influential actor in the Western Balkans, where it has applied a wide range of foreign policy instruments since the early 1990s: diplomatic and trade measures, financial assistance, civilian and military missions, and later, the enlargement policy, which remains its most successful foreign policy tool to date. The strong role of the European Union makes the Western Balkans a region where the Union's transformative power would be expected to be the strongest. However, it is increasingly evident that the success achieved in relation to the Central and Eastern European countries has not been replicated in the Western Balkans. This is the result of numerous factors, among which this paper highlights the following: the global crisis of the EU's transformative power and the dominance of purely security interests in the Western Balkans, which relegates the region's democratic transition to the background, as well as the region's distinctiveness marked by the strong legacy

of the wars of the 1990s. From this perspective, the European Union's influence on reforms, the democratization process, and the permanent resolution of conflicts in the countries of the European Neighborhood Policy is limited.

The incursion of non-traditional actors into the sphere of influence and power in the Western Balkans – primarily China, Russia, but also Turkey and some Arab countries – is a consequence of the unfinished processes in this region and has become increasingly noticeable over the past decade. Dangerous "abandonment" of reforms can lead to further democratic backsliding among EU neighbors and push them further east in search of allies. The unfavorable climate towards EU enlargement internally transfers to these regions, which have always been a paradigm for the intersection of interests and power of various global and regional actors. In the 1990s, Turkey strongly implemented its presence and influence in this region. The 2000s saw the return of Russian influence through economic and investment presence, while the second and third decades have been marked by China's significant increase in influence and presence in the region.

The prospect of further enlargement of the European Union primarily depends on aligning words with actions, specifically the concretization of the expressed political will on both sides (in all EU member states, as well as in the Western Balkans) to leverage the new geopolitical situation to achieve the historical opportunity of completing European integration in Southeast Europe. After "losing momentum" in European integration (initially during the last decade of the previous century, and then during the previous decades of this century), the countries of the region and their political elites now have the practical opportunity to finalize the historic goal of joining the EU, which will facilitate modernization and development of their societies and economies in the face of new and increasingly complex technological, social, security, and geopolitical challenges in the years ahead.

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BULLETIN
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Fire preparation for the offensive –
the need to update the planning algorithm

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Abstract

The purpose of this paper is to highlight the relevance of fire preparation in offensive operations and to argue for the need to update the current algorithm for planning such an action. The article presents the national and allied perspectives on the concept of fire preparation, aiming, on the one hand, to emphasise the relevance of this action in the current battlefield, including examples from the ongoing Russian-Ukrainian conflict, and, on the other hand, to highlight similar aspects of the characteristic elements and purpose of this action, found both in the presented normative framework and in relevant examples from the conflict. The differences between the two perspectives presented are not significant, as the same main ideas regarding the relevance and purpose of fire preparation are addressed, but the level of equipping with modern military equipment together with the availability of high-performance striking systems with diversified possibilities of target engagement are what allow for a different approach to preparatory fires at group force level. In the last section, the article argues for the need to revise and update the fire preparation planning algorithm to include current and future changes in the organisation, manning and equipping of national armed forces structures.

Keywords:

Russia's special military operation in February 2022 has set the context for unfolding a large-scale armed conflict where the Ukrainian military is waging a generally conventional fight against invading forces. Thanks to multiple open sources of information, we could observe how, for example, drone strikes, anti-tank missiles or anti-aircraft missile attacks aided the Ukrainian army in achieving success in the operation to defend the national territory, the conflict becoming over time one of attrition. Thus, the artillery fire duels and the difficulty of capturing fortified positions came to the fore, to which the limited action of air platforms contributed due to the increased density of existing air defence systems. The Russo-Ukrainian conflict is under the attention of military analysts and the scrutiny of doctrinal confrontation in the use of different military equipment and fire systems. In Russian conception, force structures manoeuvre in order to be able to engage with fire, while in Western conception fire engagement facilitates maneuver (Cranny-Evans 2023). The different conceptual perspectives on the employment of fire support systems may be one of the reasons why the quantities of artillery rounds fired by Russian forces are considerably higher in comparison to Ukrainian forces.

I have set out, through this article, to highlight the importance of revising the fire preparation planning algorithm to incorporate current and future changes in the organization and equipping of national armed forces structures. At the same time, my intention was to emphasize that this concept of preparatory fires – extensively detailed in older combat manuals – is still topical, its characteristic elements being present even today, including in the approach to attacks in the ongoing Russo-Ukrainian conflict.

In this paper, I have used documentary analysis as a method to systematically select, review and evaluate sources of information in the field of fire support with the aim of understanding and synthesizing those relevant aspects of fire preparation and the current national perspective of this concept. In order to argue for the need to revise and update the algorithm for planning preparatory fires, I brought into focus aspects describing the current perspective of the allied militaries as well as relevant examples from the ongoing Russo-Ukrainian conflict. For this purpose, I have taken into consideration the national regulations in force, as well as certain existing regulations at the level of the allied armies, which, in turn, are also implemented at the level of the Romanian Army. As an example, I mention *SMG-18/2014 - Doctrine for joint Operations of the Romanian Army*, which implements aspects of NATO doctrines for land, maritime and aerospace operations – *AJP-3.2, Allied Joint Doctrine for Land Operations, AJP-3.1, Allied Joint Doctrine for Maritime Operations* and *AJP-3.3, Allied Joint Doctrine for Air and Space Operations*.

An important aspect from the thematic perspective of this article is the fact that the same approach can also be observed in the field of fire support, as the most recent national regulations in force integrate the vision expressed at the alliance level. Thus, *F.T.-6 /2018 – Fire support manual for Force Group Operations* implements at national level aspects of NATO fire support doctrine – *AArtyP-05, NATO Fire Support*

Doctrine, as well as some NATO technical tactics and procedures for providing joint fire support, according to *AArtyP-01, NATO Joint Fire Support (JFS) Procedures for Land Operations*. Another example relevant to the topic of the paper is *F.A. 1. 3/2016 – Doctrine for Close Air Support and Air Interdiction Operations* which implements at national level relevant aspects in the field of fire support from both NATO doctrines such as *AJP-3.3.2, Allied Joint Doctrine for Close Air Support and Air Interdiction* and from regulations in force at Allied Army level such as *AFDD 2-1.3 Counterland Operations* and *JP 3-09 Close Air Support* of the US Army.

The Russo-Ukrainian conflict is an invaluable source of lessons learned in all areas of contemporary armed conflict, including the area of interest for this paper. We can observe here, including from open sources of information, a growing worldwide interest in the efficiency and effectiveness of the striking systems of the warring parties, whether owned at the outset of the conflict or subsequently received as aid or support from third parties. Thus, attacks executed with SHAHED drones, the destruction of armoured vehicles with JAVELIN missiles or the striking of various targets with HIMARS systems, etc., have become the focus of public interest, all of which have become subjects of analysis for the parties concerned and have subsequently been included in their own lessons learned (Deveraux 2024, 160).

At the national level, fire support for an offensive operation is usually provided in two main stages: ***offensive fire preparation*** and ***offensive fire support***. The specific lethal tasks planned and executed by the fire support systems available in these phases are similar to those specific to other armies. Differences in their approach are essentially due to the level of equipment and technologization of the armed force structures, however, the common element is the purpose for which these specific lethal tasks are planned and executed in an offensive operation.

What is the current perspective on fire preparation in the allied armies?

NATO Fire support doctrine – *AArtyP-05, NATO Fire Support Doctrine* mentions *preparatory fires*, along with *covering fires* and *defensive fires*, as an offensive-specific activity that can be conducted in close, rear and deep areas of operations (NATO 2015, 6-7). In NATO, fire preparation involves the intense and concentrated execution of fire, usually indirect fires, with all available fire support systems, prior to the attack and in its initial stages. The purpose of the fire preparation is to neutralize or partially destroy the intended targets in order to assist the manoeuvre element in executing the assault. The opportunity for executing a fire preparation before and in the initial stages of the attack depends on a multitude of factors such as the need to achieve surprise, the available information about the enemy and its elements, the availability of sufficient munitions and fire systems to engage all targets, and the desired effects of executing such a fire preparation.

An interesting aspect, from my point of view, is that NATO doctrine also mentions the concept of counter-preparation, executed by the enemy with the aim of denying freedom of movement to attacking forces. I find it interesting from the perspective of conducting command-post exercises, where conceiving a counter-preparation can be challenging for staff members in the operations structures, who have to develop the concept of operation with the associated fire support. It can also be challenging to conceive a fire preparation or counter-preparation by staff members in intelligence structures, those that "think red" and develop courses of action for the fictitious enemy's force structures.

From another perspective, NATO fire support procedures refer to fire preparation as a major fire engagement event (NATO 2021, 3-7) that requires deliberate planning for logistic support. Fire support planners must identify effective ways to build up and maintain the necessary quantities of munitions in close proximity to the fire support systems that will use them during fire preparation without also providing high-value targets for enemy fire systems. The NATO AArtyP-01 procedures emphasize the importance of accurate implementation of the target engagement matrix to avoid waste of resources and to reduce the "signature" of forces likely to be engaged by counterbattery fire.

Missions planned for the fire support system in offensive operations, established at both the joint and tactical levels, (Department of the Army 2014, 6-13) are accomplished through executing specific tasks of counterbattery fire, direct support, covering fires, preparatory fires, interdiction fires, suppression of enemy air defences, electronic attack or offensive cyberspace operations. In addition, the fire support elements in force group headquarters have similarly established specific responsibilities in offensive operations:

- conducting intense and concentrated fire preparation before and in the early stages of the attack;
- conducting covering fires to isolate the objective for decisive operations and supporting the shaping of the operational environment;
- augmenting brigade level fire support capabilities to execute continuous covering fires in order to ensure that friendly forces close in with the enemy;
- suppressing enemy air defence capabilities;
- conducting counterbattery fires to deny or limit enemy employment of fire support systems;
- producing destruction of high-value and time-sensitive targets designated by the higher echelon commander;
- prohibiting by electronic attack the enemy's use of critical command and control, intelligence or fire support systems;
- ensuring coordination and integration of offensive cyberspace operations.

An important point, from my point of view, is that in NATO's understanding fire preparation, no matter how intense or concentrated, cannot be sufficient

to annihilate or dislodge a determined enemy from defended positions (NATO 2021, 21). We have as an example in this regard the resistance of the Ukrainians in Bahmut despite the multitude of artillery barrages and relentless attacks by Russian forces (Patrick 2023). We have thus observed that the intervention of ground force structures is absolutely necessary because terrain, especially that which is considered a strategic or operational level objective, such as localities or critical infrastructure elements, must be physically occupied in order to be truly secured. Fire preparation is thus considered an important enabler in seizing land targets, especially those of operational or strategic value.

To emphasize the importance of the above, I bring to your attention the Russian forces' attempt to implement in 2024 an old interwar strategy to "reanimate" the front line. By conducting frontal attacks on several sections of the front while concurrently hitting targets (with artillery and aviation) from the operational and tactical depth of Ukrainian combat formation, the Russian forces attempted to breach the defensive system (Grace, *et al.* 2024) Important factors that apparently contributed to the failure of this strategy were the limited ability of the Russian forces to execute counterbattery fire, hit targets from the operational depth of Ukrainian combat formation and achieve surprise (Ivashkin 2024). I have chosen this example because it addresses aspects and elements presented in this article, which are also characteristic of fire preparations.

What is the current national perspective on fire preparation?

According to *F.T.-6 – Fire Support Manual in Force Group Operations*, the responsibility for fire support planning at the force group level rests with the fire support coordinator (FSCOORD) – the commander of the highest artillery echelon at the force group level. Fire support planning is based on planning field artillery fire support, (SMFT 2018, Annex 3) into which the fire support systems of other components participating in the operation are subsequently integrated. In line with the above, the fire preparation planning algorithm is described and detailed in F.T./Art.R.T.-1.3 - Artillery Fire Control Manual developed at the Land Forces level in 2010 (SMFT 2010, Annex 4). Based on this algorithm, the fire support coordinator at all hierarchical levels will determine the duration and structure for fire preparation and will allocate the targets to be engaged to the fire support systems available. Before briefly outlining the aspects entailed by this algorithm, I will present a few aspects describing the current national perspective on fire preparation.

The Land Forces' general tactics manual mentions preparatory fires as one of the specific offensive activities carried out during the approach and embarkation of assault forces (SMFT 2020, IV-24) The manual points out that insufficient fire preparation may jeopardize surprise or temporary neutralization of the enemy, and

recommends alternating fire missions executed as harassing fire with those executed as intense fire on planned targets as part of fire preparations.

Fire preparation is a necessity in order to neutralize/destroy as much as possible enemy forces in hardened positions, directly before their assault. The main purpose of fire preparation is presented as the destruction or neutralization of enemy fire support systems, command posts (brigade level and above), forward positions used for resupplying with ammunition, fuel, etc. (those Forward Ammunition and Resupply Point/FARP), as well as elements of the logistic support system. The conflict in Ukraine provides a multitude of examples in this regard as intensive firing, especially with indirect fire, prior to attacks is a common practice of Russian forces (Cranny-Evans 2023). This can also be observed in the Ukrainian forces as the physical and psychological effects on the defending enemy cannot be denied or ignored (Patrick 2023).

Another purpose ascribed to the execution of fire preparation, according to the general tactics manual, is to limit or prohibit enemy observation by the use of smoke and illumination of the battlefield. I consider this perspective to be limited and, in my opinion, this is due to the level of arming and equipping of the national armed forces structures in the sense that most fire support systems have a limited variety of ammunition available, usually explosive or special-purpose ammunition – smoke, incendiary, illumination or for distributing printed materials.

The current and future equipping of national force structures opens up the possibility of using a wider range of munitions (including various sub-munitions) which can be fired by modern fire support systems that have been or are being acquired, such as, for example, 155 mm self-propelled howitzers or HIMARS multiple rocket launchers. Concerning the aforementioned purpose of fire preparation, if we consider the multitude and diversity of sensors available to an enemy on the modern battlefield, limiting or prohibiting observation can be effectively achieved by "blinding" all types of sensors used by the enemy, which may be optoelectronic, acoustic, radar, infrared and electromagnetic sensors. Firing smoke rounds or illuminating certain parts of the battlefield is designed to blind certain sensors, but access to new types of munitions can open up the prospect of blinding other types of sensors available to the enemy, for example by disrupting radar activity, the electromagnetic or the infrared spectrum.

Fire preparation is also employed, according to the same manual, in order to neutralize the enemy's anti-air defences when their own air platforms are expected to act, but the important aspect in my view is the integration of strike capabilities belonging to the naval and air components of the joint force into the fire preparation. Naval Forces can contribute to fire preparation mainly with artillery-carrying ships – similar guns to Land Forces, while the Air Forces participate by executing their characteristic missions of air interdiction and close air support.

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With regard to the tactical level, the infantry division's combat manual mentions that preparatory fires (SMFT 2019, III-20) are a necessity during the forward movement of force structures towards the contact line from the moment they are in range of the enemy's major artillery systems, thus implicitly aiming to ensure force protection and freedom of movement. This perspective is also found in the mechanized brigade's combat manual, as being specific to a dynamic (in-stride) offensive (SMFT 2005, 131).

Fire preparation involves concentrating the effort of striking systems available to a force group in order to inflict losses and incapacitate the enemy so that he cannot influence or prevent attacking friendly forces from assaulting the defended positions. Depending on the extent of the enemy's defensive system, on the type or value of friendly forces and assets, fire preparation can vary in duration, from a few tens of minutes (the minimum time needed to limit the vulnerability of friendly forces during the approach and assault) to several days or even weeks, if we include pre-emptive strikes on targets or initial air strikes aimed at shaping the operation environment. In fact, the use of air strikes prior to major ground operations became common practice after World War II (Kugler, Baranick and Binnendijk 2009, 31).

The differences between the two perspectives presented, regarding the concept of fire preparation, are not significant in my view, as the same main ideas are addressed regarding the relevance and purpose of preparatory fires. One aspect that I find interesting is the implementation at the national level, through the general tactics manual, of the concepts of covering fires and defensive fires alongside fire preparation, as described in the NATO fire support doctrine AArtyP-5. The mentioned concepts of covering fires and defensive fires were not found (so far) at the national level included in the specialized manuals, their purpose and implicit tasks being grouped and detailed in a classical manner.

It is the level of arming and equipping with modern military equipment together with the availability of high-performance fire systems, with diversified target engagement possibilities, that enable a different approach to fire preparation at the force group level. The specific arming and equipping of a potential enemy are described in A/23 The Generic Enemy Forces Handbook developed by the General Directorate for Defense Intelligence in 2018. This facilitates the exploration, during command post exercises, of the possibility of using systems and munitions that are different from those in service with national armed forces structures, some of which are even banned - such as those with a chemical payload.

Why the fire preparation planning algorithm needs to be updated

As I mentioned in the previous section, the algorithm for fire preparation planning is detailed in Annex 4 of F.T./Art.R.T.-1.3 - Artillery Fire Control Manual from

2010. The central element of fire preparation is field artillery fire, which is planned to take into account aspects such as the commander's intent, the scheme of manoeuvre or available information about the enemy. According to the manual, fire preparation for the offensive at a force group level consists of three stages: (SMFT 2010, Annex 4)

> - shaping the area of operations;
> - securing friendly forces approaching contact;
> - preparatory fires for the attack.

The first stage, *shaping the area of operations*, comprises all actions and activities aimed at ensuring favourable conditions for the offensive operation by engaging enemy high-value targets such as fire systems, command, control and communications systems or forces structures that could intervene and influence actions in the area of operations. One of the purposes is to isolate the group of forces (objective) targeted by the offensive operation, which is generally accomplished by executing interdiction fires.

For planning actions and activities at this stage of shaping the area of operations, the force group's fire support coordinator takes into account, in addition to the essential aspects mentioned –commander's intent, scheme of manoeuvre or available information about the enemy – also the particular aspects of using artillery systems at disposal, such as the number and type of sensors and firing system necessary to engage targets, the desired effects or the possibility of providing logistical support for the planned actions and activities.

The second stage, *securing friendly forces approaching contact*, is specific to dynamic (in-stride) offensive operations and involves calculating the possibilities of striking enemy targets in order to cover friendly forces during their movement from assembly areas to the line of contact (forward line of enemy troops). This line of contact marks the transition to a third stage, preparatory fires for the attack, and its exact determination depends on several factors, among which I mention the type of assault conducted – embarked/disembarked, and the time needed to execute fire missions on the first offensive fire support phase line, which will begin immediately after the completion of preparatory fires. Securing *friendly forces approaching contact* is aimed at force protection and ensuring freedom of movement, especially from the moment friendly forces come within range of most of the enemy's available (artillery) firing systems.

Preparatory fires for the attack, the third stage of the fire preparation, is planned directly before assaulting enemy-defended positions which consist of determining the number of artillery systems needed to breach the defences and establishing the concrete way of its accomplishment in the form of a graph containing the time and structure of preparatory fires.

Determining the amount of artillery systems required to breach defences involves

determining the number of platoon-size strong points that can be neutralized simultaneously with other targets usually engaged with preparatory fires – artillery batteries, command posts, radiolocation systems, etc. An important aspect is that, in order to be able to engage as many platoon-size strong points as possible with preparatory fires, some of the targets mentioned are allocated to be engaged with aerial platforms or with direct fire systems.

I consider this aspect to be problematic today and, in my view, it is the subject of some updating in terms of the algorithm used for fire preparation planning and, implicitly, in determining the time and structure of preparatory fires for the attack. Current and future equipping of force structures, along with organizational changes implemented at various tactical echelons make it difficult to optimize target engagement resources in a fire preparation using the current algorithm. For example, the fire control manual specifies that targets engaged with aerial platforms, missiles or direct fire systems are not taken into account in determining fire requirements, but at the national level, there is no basis for determining the allocation of various targets to concrete striking capabilities of this sort, while and direct fire strikes can no longer be performed according to the manual because of existing differences in current organization and equipping of force structures.

At this time, we do not have detailed calculation bases showing the possibilities of striking targets, especially surface targets, in relation to the weaponization variants and the number of aircraft/helicopter sorties, type F-16 or IAR-330 PUMA SOCAT, that Land Forces would have available for fire preparation (or for any other action). The necessity of compiling these databases can also be argued by the fact that according to *F.A. 1.3/2016 - Doctrine for Close Air Support and Air Interdiction Operations*, the supported commander must know the type and impact of munitions used by air platforms conducting fire support for his mission (SMFA 2016, 26). Similarly, I consider it to be unclear at this time how to plan the engagement of targets, especially surface targets, with rockets fired by HIMARS systems, as there are no detailed instructions with their concrete possibilities and there is no detailed association of munitions with all types of targets feasible to be engaged with these systems.

If for classic fire support systems, we have at our disposal the calculation bases developed to determine their optimal use, exploiting modern fire support systems, newly acquired or in the process of being acquired, demands, in my view, the creation and implementation of a guide at every headquarter level of armed forces structures, which would contain how to determine the type and quantity of ammunition needed to effectively engage various targets. The generic data contained in the instructions used by other states, such as the US Army's *"ATP 3-09.32 JFIRE Multi-service Tactics, Techniques, and Procedures for the Joint Application of Firepower"*, are not sufficient, in my view, to plan the judicious engagement of targets with the new systems available or to be able to draw up the fire support concept for the offensive operation concept, as it also involves clearly determining the requirements for munitions of all types by phase/stage/action.

Another argument for the need to update the fire preparation planning algorithm is the current possibility of engaging targets using direct fires. Considering the disappearance or replacement from current armed structures of fire systems traditionally designed to execute these fire missions – 100 mm anti-tank guns and A.G.-9 type grenade launchers – together with the prospect of equipping national armed forces structures with SPIKE missiles, 155 mm self-propelled howitzers, attack drones of various types or with loitering munitions, updates are required, including in terms of assigning targets to be engaged by direct fire systems to the available fire support systems and, implicitly, in terms of planning the fire preparation.

From my point of view, command post exercises are very useful regarding the theme of this paper, as they provide the framework for visualizing and understanding fire preparation. Command post exercises allow training the staff in running the algorithm for fire preparation planning, whereas in a war game framework, they can analyze the viability of actions and activities specific to the three stages of fire preparation, but also discover some effective ways to combat them – from the enemy's perspective.

Conclusions

Fire preparation is a necessity and a reality of offensive operations in the modern battlefield, its planning and execution being used both to assist friendly force structures in attacking the enemy's hardened positions in a given sector of the battlefield and to mislead the enemy regarding the place and time of the actual attack. A further argument for this is that the purposes for which fire preparation is carried out are found and pursued in all types of armed confrontations, with examples in the use of fire support systems for shaping the area of operations, providing freedom of movement or force protection.

Updating the fire preparation planning algorithm is absolutely necessary in my view, on the one hand, to include newly-entered or prospective fire support systems - SPIKE missiles, HIMARS systems, 155 mm self-propelled howitzers, drones, loitering ammunition, etc., and on the other hand to review the engagement of targets with direct fire as part of preparatory fires, in the light of the disappearance or replacement of classical systems designed for direct fire – 100 mm anti-tank guns and A.G.-9 type grenade launchers.

The integration of aerial platforms that can doctrinally execute air interdiction or close air support missions within the fire preparation implies, as I have shown, acknowledgement of munitions' impact on land forces missions. In this respect, the commander of the supported structure and his staff must have at their disposal information or substantiated bases of calculation that they can use in planning a specific action, such as fire preparation, to be able to exploit the aviation resources

available for a phase of the operation in the form of aircraft/helicopter sorties, or simply to understand the type of fire support provided by aerial platforms that they can benefit from at a given moment. It is appropriate, in my view, to implement at the national level a guide for allocating or assigning targets to the appropriate strike system, which would be available to all military planners in command posts, regardless of hierarchical level.

The new military equipment, which has entered and will enter the equipping of national armed forces structures, such as F-16 aerial platforms, HIMARS systems or 155 mm self-propelled howitzers, can facilitate military planners' access to a wide range of munitions, some conventional with which we are familiar (explosive, illuminating or smoke) and others modern, high-performance – in terms of maximum range, destructive power, etc., but also very diversified – in terms of payload or type of potential submunitions.

Until the full range of these munitions is acquired, we can build the framework for their use through command post exercises. These are useful in practising fire support planning related to Blue Forces' courses of action and the use of a full range of munitions existing at the NATO level, which strike systems recently introduced in national armed forces structures could fire, thus exploiting in the operation the effects produced by various submunitions, some potentially controversial, such as anti-personnel and anti-tank mine type submunitions or flechette type submunitions. Moreover, during command post exercises, we have the opportunity – provided by the *A/23 The Generic Enemy Forces Handbook developed by the General Directorate for Defense Intelligence* in 2018 – to consider including the possibility of employing chemical airstrikes and artillery strikes in support of the Red Forces' courses of action. Under these conditions, fire preparation and counter-preparation can be explored by responsible staff members in command post exercises with the full range of potential munitions available to national force structures as well as to a potential enemy.

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BULLETIN
OF "CAROL I" NATIONAL DEFENCE UNIVERSITY

Consequences of the war in Ukraine on the Arctic: an analysis of post-conflict macro-scenarios

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Abstract

Russia's invasion of Ukraine has opened a Pandora's box with certain global consequences. From the beginning of the invasion, the first effects on government, research and economic activities also appeared.

This conflict has radically changed the dynamics of security in the Arctic. The deterioration, unprecedented since the end of the Cold War, in relations between Russia and the West has meant that cooperation between the two blocs has also disappeared in the main and perhaps the only region of the globe still spared from political tensions.

The outbreak of the conflict led to a breakdown in cooperation and an escalation of military tensions in the Arctic. How these disputes end will be decisive in determining the Arctic region's future political and strategic balances.

The seven remaining Arctic states denounced Russia's operation in Ukraine from the start, thus suspending all activities related to the Arctic Council. This is an immediate consequence and it indicates rapid and challenging changes for Arctic governance.

Methodology

In planning this particular scientific project, I considered it appropriate to adopt fundamental research as a way of working. The scientific research methodology approached within this scientific project had the task of guaranteeing the actuality, truthfulness and accuracy of the data presented so that the quality of the work reaches the highest possible level. For the purpose of the previously recorded research, we used as scientific research methods: the combination of the quantitative and qualitative approach of open sources, the analysis of official documents, such as the security strategies of the most important actors of the international scene and studies of security research institutes, from states with an important geostrategic position, the method of direct observation by identifying the most important elements belonging to the war in Ukraine. Also, through direct observation, we managed to identify characters who officially took part in certain international activities relevant to the ideas addressed in this project. I also used the inductive method to formulate some conclusions and proposals, starting from particular aspects and building up to general aspects.

Introduction – the three post-conflict macro-scenarios

It is difficult to predict how this war will end. This will largely depend on the commitment of the major players involved, particularly Russia and the United States. However, it is possible to identify three post-conflict macro-scenarios that can act as a compass for understanding the evolution of relations between Russia and the West and on the Arctic chessboard, namely:

1. Victory of Russia;
2. Victory of Ukraine;
3. A stalemate.

Victory of Russia

It is difficult to define in any way the scenario of a Russian victory in Ukraine, without ambiguity, since the stated objectives of the Kremlin regarding its *"special military operation[1]"* are often unclear and subject to constant change as the conflict evolves, although it remains clear that Russia's ultimate goal is a complete one, namely, the annihilation of the Ukrainian state and its territorial entry into Moscow's sphere of influence (Watling and Reynolds 2024). Given the difficulties on the ground, a possible victory could only happen if Russia were able to slowly advance towards the most strategic and important population centres in eastern Ukraine while limiting the effectiveness of any Ukrainian counter-offensives. If Russia could occupy and annex important cities in eastern Ukraine such as Kupyansk and Izyum, already

[1] Special military operation = an invasion condemned by most states of the world.

occupied by September 2022, Sloviansk and Kramatorsk, necessary for the total conquest of Donbass, followed by forcing the Ukrainian government to neutrality. Propagandistically, the Russian government may speak of *"victory"*, having achieved its stated goal of liberating Donbass and having Ukraine demilitarized (Wasielewski 2023).

Regarding a decisive Russian victory, although it is unlikely considering the progress of the war, however, we could only talk about the total occupation, or more than half, of the Ukrainian territory by the Russian army, with large cities such as Kharkiv, Dnipro, Odessa or even Kiev. This scenario would only be feasible in the medium or long term, following an intense war of attrition in which Russia would succeed in eliminating the willingness of Western countries, especially the United States, to support Ukraine militarily. Thus, it would confirm its numerical superiority in military, technical means and greater production capacity compared to the enemy, thereby leading Ukraine to a slow but inexorable defeat, or even a complete collapse of the war front.

Figure 1   Russian control over Ukrainian territory (updated 14.08.2024)
Source: Institute for the Study of War, https://www.understandingwar.org/backgrounder/
russian-offensive-campaign-assessment-august-14-2024

Victory of Ukraine

We can say with more certainty what *"victory"* means to Ukrainians, considering that the government in Kiev has repeatedly outlined as a goal the total regaining of the territories, conquered and annexed by the Russians since 2014. For this desideratum to materialize, Ukraine should be able to implement a series of counter-offensives that penetrate deep into Russian defences in strategic areas. First, it is vital that Ukraine may move beyond the lines and fortified positions located along the entire

front line, the so-called *"Surovikin line"*, where the Ukrainian counteroffensive effort is concentrated, albeit without any significant success. Reaching the Sea of Azov and liberating Mariupol, Berdiansk or conquering the 1,000 square km in the Kursk region would cut the Russian supply lines to Crimea leading to the impassability of the Kerchi bridge, which could create vulnerabilities thus leading to the rupture of the Russian front in two.

Given the failures of Ukrainian offensive efforts in 2023, this remains a long-term scenario (Posen 2023a). This would require strong military and economic support from the West. More attention should be paid to the loss of human life, and equipment and a progressive decline in the confidence of the Russian government and population in the success of the „*special military operation*". This scenario does not take into account the possibility of a third country directly intervening in the defense of Ukraine, as this possibility would make this scenario somewhat unpredictable, given the important consequences it would have on the global security structure.

A stalemate

A stalemate seems the most likely scenario. This is because the conflict has increasingly assumed the characteristics of a war of position and attrition, in which neither side is able to deliver a decisive blow to the enemy and resolve the war in its own way. This conflict could become similar to those present in the Caucasus, which always involve Russia, such as South Ossetia, Abkhazia and, although in the resolution phase, Nagorno-Karabakh, thus bringing with it the consequences of the crisis and its global consequences for many years to come, with serious consequences for European security (Wall and Wegge 2023). As an alternative to that, imagine the possibility, however remote now, of a peace treaty that provides for the maintenance of limited territorial gains by the Russians, the entry of Ukraine into the European Union and possibly NATO, and allowing for the expansion of the diplomatic relationship between Russia and the Atlantic Alliance, with mutual security guarantees.
For this to happen, there would need to be a rigorous awareness on both sides so that the possibility of obtaining other advantages from military conflict disappears. So far, the latter scenario seems possible only in the long term and only after a long and bloody war of attrition.

Possible consequences of the three macro-scenarios in the Arctic

With the Russian invasion of Ukraine, the period of Arctic exceptionalism in international relations ended. Due to the outbreak of war in the year 2022, the

Western countries of the Arctic Council, all except Russia, suspended their activity in the council. World War II neutrals Finland and Sweden have joined NATO, and numerous economic sanctions have been imposed on Russia, which is now turning to China to support its economy, which is heavily dependent on the export of natural resources. In this sense, the Arctic plays a primary role for Russia, because it is in that region that the largest number of natural resources, such as gas, oil and minerals are extracted, and China represents an important support in the development of Russian energy and infrastructure projects in the Arctic (Oberti 2023). In addition, the war has caused an increase in military tensions between Russia and NATO, and the Arctic is increasingly perceived as a potential conflict ground.

Russia suffers from "chronic" insecurity on its northwestern flank and, at the same time, sees the Arctic as a fundamental strategic "bastion" of national security (Boulègue 2019). The Northern Fleet, in fact, is a fundamental strategic component of Russia's national security: among its many functions, it guarantees the Kremlin's ability to carry out a swift nuclear second strike and thereby maintain the nuclear deterrent of the United States (Paul and Swistek 2022).

Next, I would like to highlight the main consequences that each of the three scenarios could have in the Arctic area:

1. A Russian victory in Ukraine is likely to encourage Russia to also pursue an assertive foreign policy in the Arctic. The reduced military effort in Ukraine forces the Kremlin to increase the degree of militarization in the region, especially near the borders with Finland. NATO's presence so close to the strategic naval base in Murmansk, the headquarters of the Northern Fleet, and the land military bases of Pechenga and Alakurtti would pose a strong threat to Russia, as an attack on the strategic infrastructure linking the Kola Peninsula to the rest of Russia would isolate in this way its military assets and would make them more vulnerable. However, the heavy losses suffered by the two Arctic brigades during the war in Ukraine, deployed first to Kharkiv and then to Kupyansk in 2022, certainly compromised the strengthening of Russian military capabilities in the Arctic in the short/medium term, which would guarantee NATO more time to continue its military development in that region.

2. A Ukrainian victory would likely have the opposite effect. A defeat of Russia in Ukraine could force Russia to adopt an assertive policy in the Arctic area. NATO may also prove ready to ease tensions in the region by reducing its military presence if adequate assurances are provided by Russia, and this would prompt Russia to slow down its developing militarization of the region (Wall and Wegge 2023). On the contrary, if the effects of Russia's defeat were to lead to the political destabilization of Moscow, there would be unpredictable consequences for the Arctic, and much would depend on the new regime that would be established in Moscow. It could turn out to be much more open to the demands and security guarantees of the West in the Arctic.

3. A "frozen conflict" would create the conditions for prolonging tensions and the emergence of a new Cold War in the Arctic, with a progressive militarization of the region and the expansion of military and naval bases, airports, radar and anti-aircraft systems (Wasielewski 2023). In the event of peace resulting from a prolonged military stalemate, it might become possible to resume diplomatic relations in the Arctic, with the imposition of Russia as the hegemon in the Arctic zone, as its economic interests in the region become increasingly large so that it can be believed that Moscow really wants an open military confrontation in this part of the globe (Trenin and Baev 2014). This scenario is much more likely than the one of resolving the conflict through diplomatic means, which could lead to a reduction of tensions in the Arctic as well as a resumption of dialogue, including through multilateral instruments such as the Arctic Council or the Euro-Barents Arctic Council.
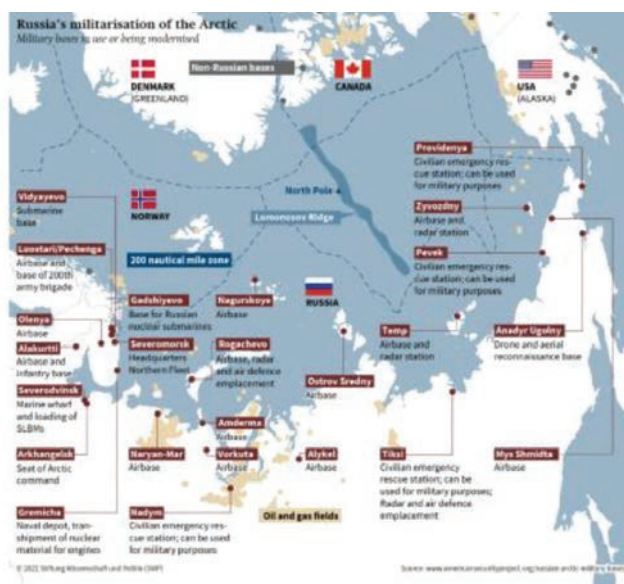

Figure 2   Russia's militarized system in the Arctic
Source:Nicole Franiok, Russian Arctic Military Bases, American Security Project, 22 April 2020,
https://www.americansecurityproject.org/russian-arctic-military-bases

Conclusions

Each of the three identified macro-scenarios projects the end of the medium/long-term war in Ukraine only.

What changes radically with the different scenarios is the political state of Russia, very important for defining the way in which the future relations between NATO and the Russian Federation in the Arctic will develop. However, it can be predicted that in all three scenarios analyzed above, given the failures and heavy losses suffered, Russia emerges militarily weakened.

In the first scenario, Russia is militarily weak but politically strengthened. These conditions would precede an increase in political-military tensions in the Arctic as well, although the chances of open conflict in the region remain low due to the

diminishing of the state's military power, and unlikely, in the short/medium term, the development of economic cooperation in the Arctic.

In the second scenario, Russia is seriously weakened militarily and severely weakened politically, too. The Russian government's loss of legitimacy caused by the defeat in Ukraine would make Russia less present in the Arctic. The risk of a military conflict in the region would be almost nil with an increased probability of the resumption of economic and political cooperation in the Arctic. This would depend on the willingness of Western countries to accept Russia back into collective regional governance. Also in the second scenario, the eventual defeat of Russia in Ukraine would cause the collapse of the internal political system, and the consequences on the Arctic would become extremely unpredictable.

In scenario number three, Russia is militarily weak but politically stable. Russia maintains a strong military presence in the Arctic, albeit with a defensive posture. We can see the impossibility of a strong opposing reaction to the entry of Finland and Sweden into NATO, as well as a possible strengthening of the military presence of the Alliance in the Arctic. In this situation, Russia could try a diplomatic approach to protect its economic and security interests in the region with a possible resumption of cooperation in the Arctic, although not in the short term.

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BULLETIN
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The case study– a useful research strategy in the field of military sciences

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Abstract

This article argues for the usefulness of adopting the case study as an effective and sufficient strategy from the perspective of developing research papers in the field of Military Science. In the first stage, using Saunders' model, I showed the logical course of a researcher's reasoning up to the moment of establishing a suitable research strategy according to his object of study, the topic of interest or the problem formulated at the initiation of the scientific approach. Afterwards, I justified the motivation for choosing the case study as a research strategy, bringing to attention the main advantages and disadvantages that it entails. I thus had two objectives in writing this article: to emphasize the importance of clarifying and establishing certain research design, exemplified by going through the layers of Saunders' model, and subsequently to highlight the versatility and flexibility of the case study as a research strategy, as it is accepted and used in all fields of scientific research.

In realizing this article, I used the documentary analysis method, a method specific to qualitative research (Okoko, Tunison and Walker 2023, 140), to systematically review and evaluate the documentary sources in order to select, understand and synthesize the data contained about what the research strategy represents, focusing on the case study. Documentary analysis facilitated the collection, examination and interpretation of data regarding the conduct of case studies in scientific research, in order to subsequently understand their usefulness and how to capitalize on them in the field of military sciences in order to generate knowledge.

My purpose in this article is to bring to the attention of the novice researcher the rationale of Saunders' model, which he or she could use in establishing a viable research strategy in his or her own scientific endeavour. In my view, this model can be an important source of inspiration in approaching scientific research design. The initial temptation of the researcher is to directly address the research question or problem posed in his paper in order to establish a suitable research method, tool or technique, but by understanding Saunders' model, he will be guided towards a step-by-step process of establishing these research methods, tools or techniques. In this way, the concrete method of data collection and analysis - the central element of Saunders' model - ends up being "discovered", after the progressive passage of each layer and the clarification of the aspects related to the *research philosophy*, the *approach* with the related *methodological options*, *research strategy* or *time horizon*, applicable to the research in question.

The relevance of using the case study as a research strategy in military science lies mainly in its usefulness. It can provide a complete description of an entity or a phenomenon – the object of study, and facilitates an in-depth understanding of the characteristic aspects but also of the context in which the object of study manifests itself. From another perspective, the case study is used to describe both current practices and innovative practices adopted by an organization, but it is also suitable for analyzing the difficulties and benefits arising from the implementation of new tactics or procedures at the organizational level.

1. The path to choosing *the case study* as a research strategy

The decision to develop knowledge in a field of study is the foundation of any research project undertaken within scientific commitments, and in trying to clarify his scientific approach to large-scale work, the researcher will probably encounter in his initial searches the "research onion" model proposed by Mark N. K. Saunders, Philip Lewis and Adrian Thornhill (Saunders, Lewis and Thornhill 2019, 130). Although, in the beginning, the temptation of any researcher is to enter directly into the stage of collecting and analyzing data about the subject or thematic field considered "interesting", I believe that going through the other stages - the layers of Saunders' model - is mandatory to clarify essential aspects regarding the research

and the researcher such as the contextual paradigm, the approach type or the nature of the scientific approach carried out.
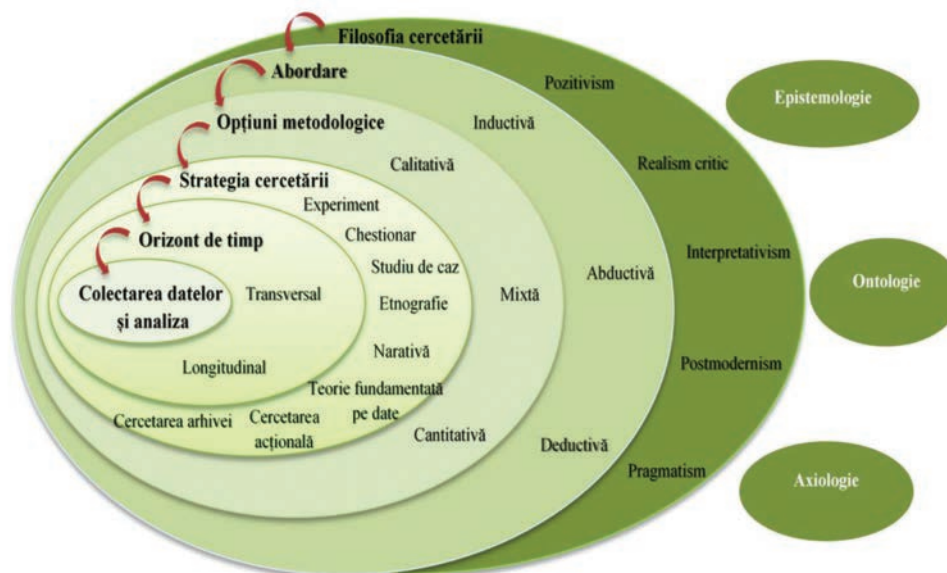

Figure 1   The „research onion" model
Source: Studypool 2021

According to this model, scientific research is multidimensional, and the first step (**the first layer**) in this endeavour is the clarification (or awareness) of the aspects related to the outer layer, that of the ***research philosophy*** - ontology, axiology and epistemology. In essence, the ontological dimension aims at the knowledge that describes *reality*, the epistemic dimension aims at the validity of the sources of knowledge of this reality and the axiological dimension considers the influence of personal values on the research. Conscious or not, the preconceived ideas regarding these dimensions will influence the process of knowledge development in the field of study (in all its stages) since the *"discovered"* aspects of reality are inevitably viewed through the prism of the researcher's own values. For these reasons, it is necessary, from the beginning of the scientific approach, for the researcher to understand his own philosophical perspective, namely the *paradigm*.

According to Thomas S. Kuhn, paradigms are scientific realizations that provide models for formulating and solving problems for a group of researchers and constitute complex entities comprising elements of a theoretical, instrumental and methodological nature (Kuhn 2008, 19). These paradigms include tacit knowledge (as he called it), different from theoretical knowledge - from scientific statements and theories, based on which a researcher unconsciously models the formulation and solution of his or her own problem.

The main paradigms in which a researcher can be found are positivism, interpretivism and pragmatism, these emphasizing either the objectivity of reality that can only be observed, the influence of the sociocultural environment on

individuals or, respectively, the importance of using the most suitable tools in the process of research (Phair and Warren 2021).

Once the paradigm is clarified, the focus will be on the entity – the object of study, which can be represented by individuals, collectives, organizations (formal and informal), institutions, activities and social events, objects or activities with impact in the cultural field (Haydam and Steenkamp 2020, 310). As we can see, the mentioned entities are also relevant in the field of military sciences and their clear determination as the object of the case study will further guide the research process. Although, in the field of military sciences, the beneficiary of the scientific results can establish from the beginning, through the formulated theme, the entity – the object of study, other aspects mentioned above remain relevant, therefore being necessary to clarify (raise awareness on) the paradigm in which the researcher is situated.

The entity object of study together with the formulated (identified) problem represent guiding elements to understanding the nature of the scientific research to be carried out. Choosing fundamental research to the detriment of applied research or vice versa is generally a decision made based on the two mentioned guiding elements. In terms of the *approach* **(the second layer)** to one's endeavour, the researcher needs to understand that *inductive* approaches involve generating theories from research rather than starting a project based on a theory, whereas *deductive* approaches start with a theory and seek to build on (or test) it through research (Phair and Warren 2021). Theories are built through induction and tested through deduction. The importance of clearly identifying the approach resides in the fact that it constitutes the basis of the actual scientific research activity, and will influence every stage of the researcher's decision regarding the concrete way of data collection and analysis within his study.

The *methodological choice* (**the third layer**) is directly dependent on the *approach* because, at this point, it will be clear to the researcher whether his scientific approach builds on something that is already there, that has a solid theoretical foundation or explores new directions that are not theoretically covered and that were not previously investigated. *Qualitative* research usually involves an inductive approach and focuses on the collection of text, audio or video data, while *quantitative* research aims to collect numerical, and statistical data about the object of study.

Establishing the *research strategy* (**the fourth layer**) comes to practically clarify, based on the proposed objective, the way the research process will be carried out. Due to the fact that *the case study* as a research strategy is the object of this paper, I did not address the other research strategies. I have tried further to argue the usefulness of this strategy in the field of military sciences because I consider it to be an easy tool, within the reach of any of us. The motivation for choosing the case study as a research strategy as well as the inherent advantages or disadvantages of this choice have been detailed in the following sections.

Once the case study is determined as a research strategy, one can opt for any combination of content elements in the following layers of Saunders' model. The *time horizon* can be both *cross-sectional* and *longitudinal* and the concrete methods of *data collection and analysis* will be chosen depending on the purpose and the concrete conditions for carrying out scientific research, the palette being quite comprehensive: *interview, questionnaire, direct observation, documentary analysis, content analysis,* etc.

2. Reasoning for choosing *the case study* as a research strategy

The researcher may choose to use *the case study* as a research strategy if, for example, he or she intends to study in detail a person, a group, an institution, an event or a phenomenon in order to gain an in-depth understanding of its characteristic aspects and to be able to later generalize what has been "discovered". It is worth mentioning that such a decision may provide clues about the path through the layers of Saunders' model since, from this perspective, the case study will also consider the social or cultural context of the object of interest and will usually be situated in the sphere of *qualitative* research.

From another perspective, an argument for choosing the case study in the military sciences is that it is considered an appropriate research strategy to answer research questions formulated using *How...?* or *Why...?* (Pathiranage, Jayatilake and Abeysekera 2020, 364) In these situations, events unfolding in an organizational context, events over which the researcher has little or no control, can be analyzed in depth.

In terms of research questions, case studies can be of three types: explanatory, exploratory and descriptive. Thus, the case study can be an appropriate research strategy to explain causal relationships in order to theorize about the object of study, to explore particular situations or processes, and also for descriptive analysis of cause-effect relationships.

Other specialists (Collis and Hussey 2021, 61) mention four types of case study approaches: descriptive, illustrative, experimental and explanatory. While the descriptive case study aims to describe current practices, the illustrative case study is a research study of new and innovative practices adopted by some organizations. The third type, the experimental case study focuses on the difficulty of implementing new tactics or procedures in an organization in order to evaluate the benefits gained. The explanatory approach involves using existing theory to understand and explain what is happening in the case. The brief explanation of possible approaches through the case study demonstrates that such a research strategy is readily applicable to the military sciences.

Process tracing is a commonly used method in the military sciences, and is exploited in identifying causal relationships or testing hypotheses about causal relationships

(Venneson and Wiesner 2014, 93). Process tracing is suitable for determining causal mechanisms and explaining cause-effect relationships to thereby understand how a particular outcome was reached. The case study using process tracing can be conducted as a step-by-step test of the causal mechanism as opposed to a simple description of the events of the case under study (Beach and Petersen 2013, 5).

Another argument for choosing *the case study* as a research strategy is that it allows for an empirical investigation of a contemporary phenomenon in its context of manifestation (Hinkelmann and Witschel 2013). Through case study one can develop and deepen knowledge about aspects of the real world by coming, as I mentioned, with the answer to the questions *How...?* or *Why...?* is happening what is happening, taking also into account the contextual conditions relevant to the phenomenon under study.

A final argument, which I consider to be elementary, is the ease with which the case study can be understood and used as a research strategy. Each of us frequently uses case study principles when we refer to a person, when we relate an anecdote or an illustration of an incident, or when we relate personal experiences. Case study elements can be found also in short stories - commonly used in journalism, but also in various works exploring a phenomenon and its effects, where the author illustrates what is told with "lived" examples. The common aspects are the abundance of details of time, place, incidents and multiple experiences, and these aspects are also valid for scientific research through case studies. Because of its everyday exposure and frequent use, people generally associate case studies with storytelling. To be considered research however, storytelling must be a systematic investigation with the aim of generating evidence that will subsequently lead to the "discovery" of new knowledge in the field of study.

A simple way of phasing case study research could be as follows (Collis and Hussey 2021, 61):
1. Selecting the case
2. Preliminary investigation
3. Data collection
4. Data analysis
5. Writing the report

Case selection is directly dependent on the entity being studied and the problem formulated at the time the research was initiated. Most likely a critical case will be selected that encompasses the issues of interest to the research. A selection of several similar cases may also be made if the objective is to demonstrate a generalization of the theory formulated. The choice of multiple cases is associated with performing multiple experiments. They may lead to similar or contrasting results depending on the objective of the research – to generalize a theory or to extend (modify) it.
Preliminary investigation is the process of familiarizing oneself with the context in which the research is conducted. Whether or not the researcher is initially familiar

with the field of study has advantages and disadvantages in both cases. It is the established purpose of the research and the awareness of the paradigm in which the researcher finds him/herself that matters at this point.

Data collection can be carried out by any of the methods outlined above that the researcher considers appropriate, but the most commonly used in the case study are documentary analysis, interview and observation. The sources of evidence (Chelcea 2022, 477) should be combined to ensure a high degree of reliability and validity of the study and the results obtained through this approach.

Data analysis may also be carried out by any method considered appropriate in relation to the purpose and concrete conditions of the case study. If the study concerns a single case, full familiarization of the researcher with the material is necessary in order to be able to construct detailed descriptions of the events or phenomena with a view to identifying patterns in their manifestation. The study of several cases should highlight those similarities and differences that assist the researcher in identifying common patterns.

Writing the report can become a challenge when searching for the most appropriate structure to demonstrate the relationship between analysis and obtained results with the multitude of data and information collected. The chronological approach is the easiest and, obviously, the most commonly used as it allows for a narrative of the unfolding of events as they happen.

3. Advantages and disadvantages of using
the case study as a research strategy

A primary advantage of using the case study as a research strategy in military science is that it can be both *factual* and *fictional* in nature.

The factual case study deals with real (existing) entities or phenomena involving people, organizations or processes of interest to the researcher or the beneficiary of the study results. This type of case study has the advantage that it is based on realistic, practical events or solutions that can be verified. The usefulness of the factual case study in the military sciences can also be seen in the answers to the research questions, as mentioned above, such as *How...?* or *Why...?* and which concern military organizations, such as: *How did the military structure (object of study) solve a certain problematic situation?* or *Why did the solution (object of study) work in one military structure and did not work in another?*

The fictional case study is based on real (existing) entities or phenomena but, for various objective reasons, presents imaginary events and organizations, thus acquiring a purely theoretical character. This type of case study has the advantage, which can also be observed in military exercises, of facilitating, for example, the elaboration of problematic events or situations to be effectively solved (object of study) by military structures.

Another major advantage of using case studies as a research strategy is the lack of constraints on the use of certain scientific research methods or tools. Case studies are not method-dependent and are not constrained by time or resources (Leavy 2014, 458). It can be carried out over several years to explore changes in the field of study in order to explain what and why things have happened, but it can also be carried out over short periods to capture the actual, the contemporary. The case study is thus characterized by a high degree of flexibility which can be extended to the way in which the results obtained are recorded or communicated. The knowledge "discovered" through case studies in the military sciences can be recorded or communicated both in academic language, and in a consistent work, but can also be disseminated in the form of lessons identified – a concept also common in this field, to improve the work or performance of military structures in general.

Case study limitations

Due to the deliberate selection of the cases studied, there is a risk of bias as there can always be a motivation or justification for the choice made. This can have both positive and negative influences on the way research is conducted and should always be recognized and assessed.

The data obtained are usually unique and specific to the object or phenomenon being studied and the conclusions researchers draw may be difficult to generalize. Sometimes the very validity or reliability of the research itself can also be a challenge. Furthermore, the conclusions of case study research are seen as rather subjective, which is why some sceptics in the quantitative research community consider it to be an *unscientific* method of research (Okoko, Tunison and Walker 2023, 70). However, the case study is one of the most widely used and accepted research methods or strategies in all fields of scientific research.

A disadvantage of using case studies as a research strategy is the uniqueness of the case being studied. There is a belief that only studying a sufficient number of identical cases can truly generate knowledge in the field, which is not universally true. A comprehensive and detailed description of a case that those interested in the military field are familiar with will highlight to the reader the similarities to or differences from what is known about that case or its particular context. In other words, military specialists will understand what is being described and the context in which the case being studied is manifested, will have their own interpretations and associations about their own experiences, and will thus gain knowledge and gain a new perspective on what is being studied. Another useful outcome can be observed when the researcher and the reader alike find that certain key concepts or processes addressed through the study of a single case are transferable, with the possibility of encountering them in other cases or contexts.

On the other hand, another disadvantage of using the case study strategy in the military sciences is the sensitive nature of the "truth" discovered, which, by being publicly revealed, could put the researcher, the beneficiary of the study or the military institution in general in a difficult position. This aspect can also be emphasized by the fact that the temptation for the researcher in the field of military science is to exploit data and information about the subject of the study or the "discovered truth" which can be classified or which, although unclassified, cannot be published and cannot receive the necessary approval from the security structures of military institutions.

The subjectivity of the researcher or participants in the study can be another disadvantage of the case study, which is valid in many other research methods, especially those specific to qualitative research. This can be seen as a research bias that needs to be countered; however, a dose of subjectivity is necessary in case studies to understand and interpret the perspective or experiences of the study participants. By implementing effective measures and procedures to discipline subjectivity in order to ensure the validity of the study participants' representations of the "truth", the researcher can demonstrate a reflexive approach by monitoring the potential influence of his/her own perceptions and values on the data collected, analyzed or interpreted.

Conclusions

The case study can be a research strategy available to any researcher regardless of their field of interest. Conducting a case study is a familiar, small-scale application of what we experience on a daily basis, each of us consciously or unconsciously going through the characteristic steps of case studies. Perhaps this is one of the reasons why case studies are one of the most widely used and accepted research methods or strategies in all areas of scientific research.

As I have shown, by going through the layers of Saunders' model, the researcher in military sciences will arrive at the moment of determining the research strategy and, depending on the object of study and the problem formulated, can exploit the advantages of the case study, having the freedom to choose the most appropriate methods and tools as well as the flexibility to record or communicate the "findings" and results obtained from his scientific endeavour. As for the disadvantages of using case studies as a research strategy, these must first be recognized and then mitigated in terms of influence, by implementing effective research measures or procedures aimed at ensuring the necessary degree of reliability and validity of obtained results.

The versatility of the case study as a research strategy in the field of military sciences also lies in its usefulness, for example, to describe actions or the context in which they were undertaken, to explain causal links that may intervene in an action or to explore new situations where the results of the action – the object of study – are unclear.

In my view, the case study has been, is and will remain an invaluable source of lessons identified (and subsequently learned), due to the fact that it involves a detailed description and analysis of aspects concerning the entities or phenomena of interest. The conduct of case studies in the military sciences develops knowledge by providing answers to questions such as *How...?* or *Why...?* through an empirical, experience-based investigation of the "interesting" incident or event and the way it unfolded in a particular context – real or fictional. The relevance of using case studies in the field of military sciences can be concentrated, in my view, in the statement that *Military Thinking* exists and is constantly developing due to the application of specific principles of conducting case studies.

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BULLETIN

The Correlation between the Military Transport Network and the Trans-European Transport Network

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Abstract

Currently, the problem of military transport in the European area is being debated by the leaders of security-generating organizations. The Trans-European Transport Network, although developed for transporting civilian goods and personnel, can be a solution for moving military troops, equipment, and materials in Europe. This article aims to highlight the extent to which the existing corridors on the trans-European transport network correspond to the military transport network and the solutions that could simplify the process of civil-military use of the already existing network. At the same time, the authors intend to correlate the existing elements with those necessary to ensure military mobility in the European area, through the methods of documentary and comparative analysis.

The role of the development of the Trans-European Transport Network (TEN-T) is to build a multimodal transport network by rail, road, inland waterways, and inland sea routes or by air, in order to ensure sustainable economic growth for European states. However, given the current geopolitical context, it has become increasingly evident that there is a need to use the already existing network and adapt it to specific military needs so that the rapid deployment of military forces, equipment, and techniques in any region of Europe can be ensured.

However, in order to allow for increased military mobility within the European area and beyond, improvements in the dual-use capabilities of the transport infrastructure within the TEN-T network are needed, as they are essential for ensuring Europe's security and defense. The development of TEN-T to enable military mobility would ensure the removal of bottlenecks, the filling of existing gaps in transport networks, and the removal of technical barriers, while also reducing the environmental impact of transport and increasing the safety and resilience of the network (European Commission 2024).

The issue of transport in Europe has been debated for many years. In 2005, the Trans-European Transport Network was developed, a project that reduces the distances between European states by building various transport routes, which ensure access to any corner of the continent. However, the discussions on military mobility are relatively recent, this being a topic that has taken shape, especially after 2017.

The purpose of this article is to conduct some research in order to analyze the similarity and coherence between the trans-European transport network and the military transport network, so as to highlight the gaps that exist at the moment and possible ways in which they can be eliminated.
The article will conclude with proposals of future measures or activities that could support the faster movement of military troops using the TEN-T and measures to adapt to military transport needs.

The research consisted in analyzing a considerable number of bibliographic sources in the field of civil and military mobility in the European area, such as: scientific articles, doctoral theses, articles from specialized journals, online media sources, press releases, and reports prepared by the European Union (EU), the North Atlantic Treaty Organization (NATO) or the member states.

The research aims to identify coherent and pertinent answers to the following research questions:
1. What is the current level of development of the link between the two types of transport networks?
2. Why is the correlation of dual-use mobility important to improve security in the European area?
3. What measures could support efficiency in ensuring full coherence between the two types of transport networks?

In order to identify the answers to the research questions formulated above, the authors intend to develop the following research route: they will analyze, based on the identified bibliographic sources, data on the trans-European transport network. Then, from the same perspective, they will identify the specific elements related to the military transport network. Subsequently, they will compare the two transport networks, in order to identify the existing similarities or differences to finally determine potential solutions to improve the development of a dual-use transport network. The research methods used will be the documentary analysis, so as to identify the necessary data on the two types of transport networks and, subsequently, the comparative method, to compare the data obtained. The potential limitations in the development of the research would consist in the lack of access to a large number of scientific sources, given the nature of the field studied and the lack of different perspectives for the development of the work, taking into account the fact that the main entities interested in this field are the EU and NATO organizations.

The motivation for this research comes from the authors' interest in understanding the relationship between the two analyzed components: the trans-European transport network and the military transport network.

Evolution and Purpose of the Trans-European Transport Network

Efforts to develop an integrated transport system in the European area began to take shape in 1990 when the European Commission adopted the first action plan on trans-European transport networks (in the fields of energy, telecommunications, and transport). The aim of the creation of TEN-T is to develop and integrate a transport network that facilitates the rapid movement of citizens and goods in Europe.

In 2005, the European Union established the creation of a transport network connecting all Member States. From that moment until now, the EU has been putting pressure on Member States to improve their own transport infrastructure (European Commission 2005).

In 2009, the EU adopted the document entitled "*Towards a better integrated trans-European transport network at the service of the common transport policy*", which laid the foundations for *Regulation (EU) no. 1315/2013*, which set out the priorities and standards of the Member States on transport. Even though this regulation was only adopted in 2013, there were other similar documents before that, which were based on directives published between 1996 and 2010.

The *2013 TEN-T Regulation* provides for 2 elements to make up the European transport network: *the core network* and *the comprehensive* network. Both elements encompass all types of transport (rail or road for goods or passengers, inland waterways, short sea routes, ports, airports, etc.), on which specific components of transport infrastructure such as service areas, refueling stations, etc. were located.

The comprehensive transport network is planned with the aim of ensuring adequate accessibility and connectivity between all EU regions, and the deadline for completion is 2050.

The core transport network comprises the most important strategic links between European cities and is organized into nine administrative corridors, to be completed by 2030. The nine TEN-T corridors cover the most important long-distance transport flows and aim at the interoperability and interconnection of different modes of transport, thus also improving cross-border links (European Parliament and EU Council 2013).

The nine corridors that make up the TEN-T network are: North Sea-Adriatic Sea; North Sea – Baltic Sea, Mediterranean, Eastern/Eastern-Mediterranean; Scandinavian-Mediterranean; Rhine-Alps; Atlantic; North Sea-Mediterranean and Rhine-Danube (European Commission 2021).
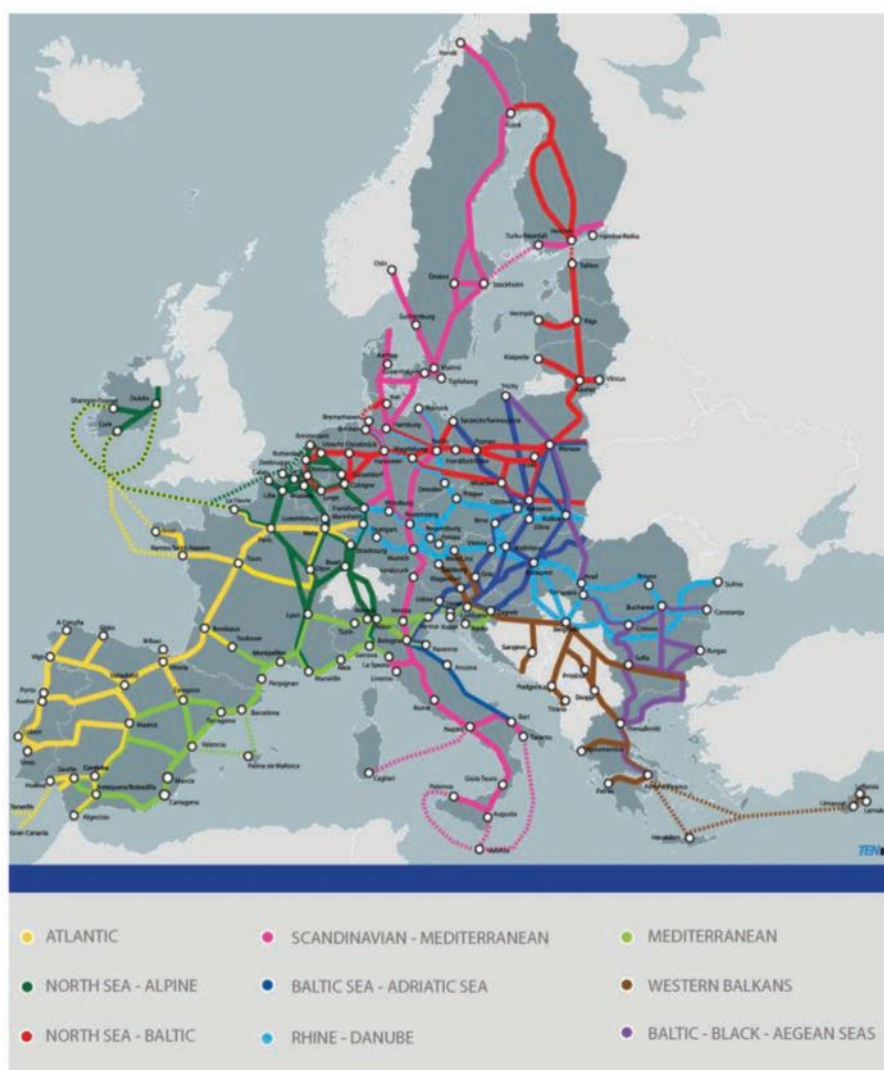

Figure 1   TEN-T network (European Commission 2021)

In the same regulation, two of the EU's priorities for the transport network refer to the development of an "*European Rail Traffic Management System*" (ERTMS), which aims to establish an unique signaling system for rail transport in the EU and the creation of "Motorways of the Sea" (MoS), that will increase the level of use of maritime transport for logistics supply.

The 2013 revision is important for the further evolution of the TEN-T as it involves the development of an integrated network with a two-level structure and related corridors. Since 2013, the construction and financing of the TEN-T have followed a common set of rules in all EU countries (Debyser and Polluveer 2023).

Projects for the development of TEN-T are financed by the EU through the Connecting Europe Facility (CEF), an institution created through Regulation 1316/2013, which intends to develop transport infrastructure by allocating funds from the EU budget (Champion, 2016). The CEF is the EU's most important instrument for financing energy, telecommunications, and transport projects. In the period 2014-2020, the budget allocated for the development of transport infrastructure was 22.4 billion euros (Luica, 2018), and for the period 2021-2027, this budget was 25.81 billion euros, of which 12.83 billion euros for general transport development projects, 11.29 billion euros for joint projects and 1.69 billion euros for military mobility. Other funds for the development of the European transport network come from the EU Member States' own sources, but also from European Structural and Investment Funds, such as those allocated under the programs initiated by InvestEU and the European Investment Bank (EIB) (Debyser and Polluveer 2023).

In December 2021, the European Commission presented an amendment to the 2013 TEN-T Regulation, calling for speeding up of projects to complement the existing transport infrastructure, ensuring the development of urban nodes and the realization of international rail connections. The proposal for the revision of the regulation was adopted on 13 December 2021, as part of the legislative package for the efficiency of transport and green mobility. This revision highlights the need for aligning the network at European level and to change infrastructure governance requirements. The new changes had the role of supporting projects related to the decarbonization of transport and the reduction of greenhouse gas emissions by 90% by 2050, the completion of the TEN-T network in three stages instead of 2: the core network in 2030, the extended core network in 2040 and the comprehensive network in 2050. It also had the role of increasing the speed of train movements, the efficiency of cross-border operations, the increase in the number of transportation nodes and multimodal terminals for passengers, and the connection of large airports to rail transport (Debyser and Polluveer 2023).

In response to Russia's aggression against Ukraine, the Commission adopted, on 27 July 2022, an amendment introducing several changes in the field of transport, the most important of which were the unification of the TEN-T network by using European standards on rail gauge and the connection with Ukraine and Moldova, by extending transport corridors (Council of the EU 2024).

In 2023, a new intention to revise the TEN-T Regulation was launched by the European Commission. This was necessary for the modification of the TEN-T maps, as a result of the enlargement of the Union and, implicitly, of the transport network, for the development of infrastructure in the Western Balkans (Wolters 2024).

The latest revision of the TEN-T Regulation was in June 2024 and it aims to build a sustainable, quality transport network that ensures connectivity within Europe, with no interruptions on transport routes, bottlenecks, or unfinished connections (Council of the EU 2024).

The development and importance of a military transport network in Europe

Military mobility is an essential concept for ensuring the security of citizens and the European territory. However, in order to ensure the movement of military personnel, equipment, and technique over long distances, including across borders, bridges, or through tunnels, the infrastructure must be appropriate to military requirements, and not to civilian purposes, for which it was originally created. Hence the need for additional or adaptation of the dual-use transport infrastructure. After the dissolution of the Soviet Union, investments in military mobility were no longer a priority, and projects for the development of military transport infrastructure were underfunded or no longer carried out. Although cooperation between the EU and NATO has increased every year, investments in infrastructure and maintenance, which could have responded to the need for faster deployment of forces, have been disregarded.

In 2014, Russia's annexation of Crimea highlighted Europe's need to quickly bring forces from different areas to the Alliance's eastern flank. At the moment, the priorities of European leaders are to modernize and standardize infrastructure and bureaucratic procedures to facilitate interoperability and improve military functionality and readiness. The infrastructure network suffers from deficiencies in many European countries, especially in the East.

The main differences regarding the current transport infrastructure in Europe and military needs are determined by: delays in standardization, precarious investments since the economic crisis of 2008-2009, and the lack of digitalization. The current infrastructure must ensure the specific needs of military transport in a fast and safe way. Current military equipment and techniques are usually oversized and have lengths, heights, and widths greater than those of previous generations. Therefore, the height of tunnels, the capacity of bridges, and the width of railway trains must be modified or adapted to current needs. While many bridges on the main transport routes can bear the weight of current and even future generations of military equipment, bridges in rural areas cannot be taken into account for military transport

planning, even during exercises, due to their degree of deterioration. Also, eastern states, such as those in the Baltic Sea region, still have a different track gauge, of 1520 mm, compared to the 1435 mm, used in Western Europe. These differences cause delays and non-synchronization in the process of deployment of military forces. On the other hand, NATO intends that future generations of trailers, trucks, and tanks to be built with a weight exceeding 120 tons, being difficult to move even by air, which means that rail, road, or bridge transport will be very important from the point of view of military logistics (Aboutaous, Ghio and Stuerzer 2021).

In view of studies showing that the TEN-T network corresponds to approximately 93% of military needs (Brauss, Hodges and Lindley-French 2021), this could be a possible solution for the future of military transportation. Compared to the civilian transport network, the military one involves an intergovernmental approach, as it is both a military emergency and a political necessity.

For the development of projects on dual-use transport infrastructure, the European Commission provides financial support through the CEF, allocating a special budget for the development of military mobility in the Multiannual Financial Framework (MFF) (for the 2021-2027 period, this budget is 1.69 billion euros). The EU provides funding only for dual-use projects. Any project that serves only military interests or only civilian interests must be financed by the interested states. Precisely for these reasons, part of the military infrastructure will be built outside the TEN-T framework (Bellomo 2023).

In the 2021 report of the Center for European Policy Analysis (CEPA), the authors encourage the idea that NATO states, which are also EU members, submit projects for the development of civil-military transport infrastructure, as they could benefit from CEF funding. These initiatives play a key role in the development of projects that relate to the main supply routes and transport corridors positioned along the TEN-T (CEPA Task Group 2021).

In the paper "*The CEPA military mobility project: moving mountains for Europe's defense*" developed by specialists in the field, such as Heinrich Brauss, Ben Hodges and Julian Lindley-French, the authors refer to five possible scenarios according to which troops are deployed from the west to eastern Europe. The organization has aimed, through the development of these scenarios, to generate multiple recommendations for creating better military mobility in Europe. The main problems identified in the process of deployment of military forces in the European space consist of the need to develop and improve infrastructure, the implementation of clear and effective rules and regulations at the level of NATO member states, a strong command and control structure, the imposition of a common network of contact points on military mobility at NATO and EU level and the establishment of territorial command authorities, to facilitate the transit of military forces (Brauss, Hodges and Lindley-French 2021).
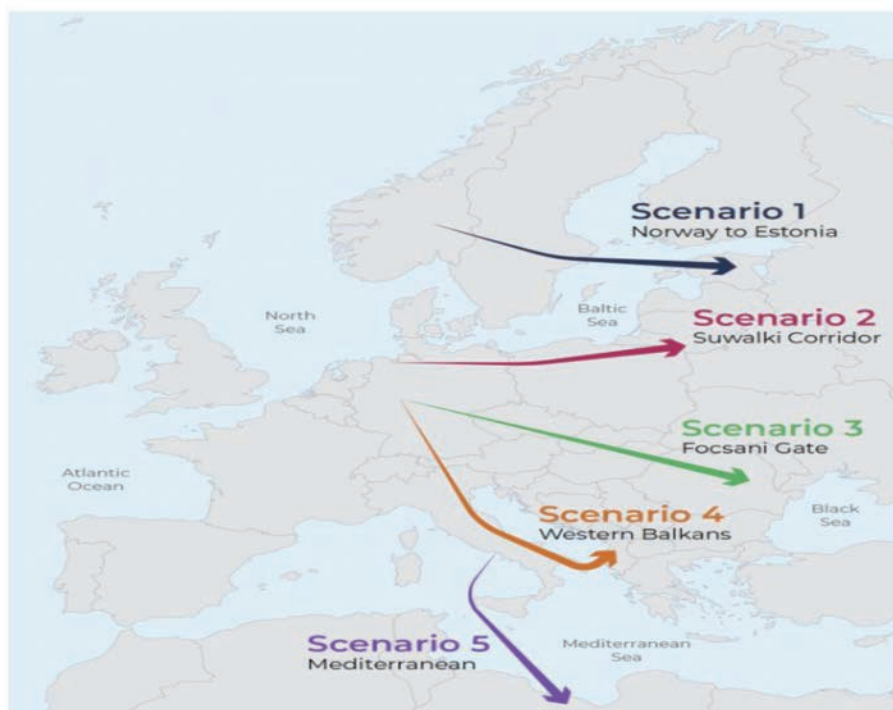
Figure 2 The CEPA military mobility workshop scenarios (Brauss, Hodges and Lindley-French 2021)

The five scenarios involving the development of military mobility are situated on the following routes: North Sea – Baltic Sea; Suwalki Corridor; Focşani Gate; Western Balkans; The Mediterranean area.

Scenario 1: North Sea – Baltic Sea: examines the movement of a defined package of NATO forces from Norway, through Sweden and across the Baltic Sea, to the Baltic States and Poland. This scenario overlaps with the North Sea – Baltic Sea corridor on the TEN-T network.

Scenario 2: Suwalki Corridor: involves identifying possibilities for the movement of military forces from Germany, through Poland, to the Baltic States, with a focus on the Suwalki corridor – a stretch of about 60 kilometers stretching between the Polish-Lithuanian border, between Belarus and Kaliningrad, which the allied forces would have to cross. A solution for transporting military troops to these regions would be the North Sea-Baltic Sea corridor on the TEN-T network.

Scenario 3: Focşani Gate: aims to test NATO's ability to strengthen its forces in the south-eastern region of Europe, mainly the forces that should cross the Carpathian Mountains and the usefulness of the Danube River for military transport to the Focşani Gate – an area suitable for maneuvers, which, however, allows opposing forces to penetrate the eastern gate and allow access to the Western Balkans. Although it has an important position from a strategic point of view, the Focşani Gate also highlights possible problems, such as the ability of the allied forces to reach the predetermined area, given the obsolete infrastructure and the influence that

Russia still exerts on some points of debarkation (POD) in the region. The TEN-T corridor that military troops could use for deployment in this region is the Rhine-Danube corridor.

Scenario 4: Western Balkans: involves the development of an operation under the aegis of the EU, supported by NATO, whose forces will be moved in Europe, to the Western Balkans, to restore order and counter Russia's actions of influence. The most relevant TEN-T corridor for this scenario is the Eastern Mediterranean corridor, which extends from the north of Thessaloniki (Greece) to Central Europe. *Scenario 5: Mediterranean Area:* is meant to test the logistics, technical, and military challenges for deploying forces from Europe to the Mediterranean Sea area, an area known for instability, prone to conflict and civil war in order to execute a peacekeeping mission (Brauss, Hodges, & Lindley-French, 2021). The deployment of forces in the Mediterranean area could be achieved using the same TEN-T corridor as in scenario 4: Western Balkans-East-Mediterranean.

Effects of the TEN-T network on the military transport network and vice versa

Considering the approximately 93% similarity between the two transport networks, we identify the need for the simultaneous development of the European transport network, which corresponds to the civil-military needs. Dual-use infrastructure is essential for military mobility, and investments in the development of transport infrastructure automatically contribute to military mobility.

The TEN-T network has developed continuously and still needs to be improved, modernized, or continued as a result of the enlargement of the European Union. On the other hand, from the point of view of military mobility, a new transport network cannot be built on which only the deployment of military forces can be achieved, adapted exclusively to the needs of military equipment and vehicles for several reasons: the costs would be enormous and unjustified, the time taken to carry out this project would exceed acceptable limits, and such a project is difficult to carry out at the moment, as the corridors would affect the urban planning already established at European level.

Precisely for these reasons, as early as 2014, when the issue of military mobility began to take shape, the decision was made to use the already existing trans-European transport network and adapt it to military needs. However, according to specialists' calculations, a fairly high level of this network could be used without problems for military mobility. Even so, there are some differences, determined by the different levels of infrastructure development between Western and Eastern states, which also affect the transport of military equipment and personnel. The main problems faced by the civil and military transport network are:

       - The difference in the gauge of the railways between the Baltic States and other countries in Eastern and Western Europe. This difference results from

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their positioning, for too long under Russian auspices.

- Different development of infrastructure in European countries. If in countries such as Germany, France, the Netherlands, or Norway, the infrastructure is modernized and adapted to the current transport needs, with roads, railways, ports, or airports adapted to civil or military transport standards, in the Eastern European area the states still face poorly developed infrastructure, the lack of essential portions that would connect both domestically and international, blockages, and so on. For example, in some states, bridges are so old that can no longer allow access to cargo vehicles. That makes it impossible to use them and requires either consolidation or complete replacement

At the moment, the military transport network is developing according to the civilian transport network. The states are allocated European funds only for the development of dual-use projects. Although the level of similarity between the two networks is quite high, efforts are still needed to ensure that military transport is carried out smoothly and in the shortest time possible, through all existing civilian transport methods.

The authors consider that through the ideas stated up to this point, they have identified the current level of development of the link between the two types of transport networks. Next, regarding the importance of correlating dual-use mobility to improve security in the European space, they will formulate several ideas.

Firstly, European security is ensured, almost entirely, by expeditionary forces that can execute specific missions in times of peace, crisis, or conflict. These forces cannot be deployed at 100% if their deployment is hampered by the lack of infrastructure or its failure to adapt to military needs or bottlenecks along transport corridors.

Secondly, this correlation is important in order to simplify procedures and decongest the transport situation at the European level. Thus, by understanding both transport systems and the existence of a common database of civil-military transports, traffic blockages at the European level will be avoided, and any situation that could affect the rapid transport of troops and military equipment to certain areas of Europe, especially to the Eastern flank, will be deconflicted. Currently, European leaders are concerned with a TEN-T policy that ensures common standards between all European states and creates an infrastructure whose technical requirements eliminate the disparity between Western and Eastern European states. The military issue is very important in this situation, as the full security of the European space can be achieved only if the two systems: civilian and military, individually and together, perform the tasks for which they were constituted and can achieve a collaboration in a crisis or conflict situation, in order to give maximum efficiency.

Thirdly, dual-use mobility ensures a much higher quality of infrastructure in the European space. The under-development of transport capabilities is a significant problem, which should be taken into account when talking about modernizing

the European infrastructure and preparing it for military mobility. The weight-bearing capacity of roads and bridges, the height of tunnels, and the existence of highways are indicators of the functioning of transport infrastructure for military purposes. Whether it is military transport or civil transport of goods or people, the infrastructure must be built to the highest quality standards, in order to avoid accidents, and situations through which people's lives could be endangered. Thus, by building a transport network adapted to military needs, its quality will be very good, which will allow its use by civilian personnel in the best safety conditions.

For the third question for which this article would come up with an answer, regarding the measures that could support the increase in efficiency in ensuring complete coherence between the two types of transport networks, we can say that we have identified the following solutions:

- Promoting, at NATO and EU Member States level, projects regarding the development of dual-use transport infrastructure and civil-military collaboration. This measure would materialize if the states involved in the two PESCO projects, Military Mobility and the Network of Logistics Hubs in Europe, would be publicized through all official communication channels, so that more and more civilian actors, military, private companies, or even non-governmental organizations become aware of the need to modernize the transport infrastructure so that troops can move quickly to any point in the European area. Planning work meetings, conferences, online meetings or academic projects could be the solution to raise awareness of the need for rapid development in this field.

- Allocating additional funds for the development of the TEN-T network, with a focus on projects related to military mobility. This measure is mainly aimed at the states involved in the project, within NATO or the EU, and is an incentive for them to increase the budget allocated to transport. The states involved in the PESCO project on military mobility receive funding from the EU budget to develop dual-use infrastructure projects. However, the effort must also be supported at the national level, and in addition to the availability of funds, states must also have relevant, serious, and achievable initiatives, which must be approved annually by the EU. Despite the precarious financial situation, many states, especially those in Eastern Europe, need to provide their military forces with adequate and secure infrastructure. Precisely for these reasons, at the annual budget allocation, the Ministry of Transport must receive a considerably higher percentage, which will allow it to build efficient transit corridors.

- Creation, at the European level, of joint civil-military structures, which simplify cooperation, reduce decision-making times, and reduce bureaucratic procedures. This measure would result in the creation, at the EU level, of an additional structure, such as a command that would include both civilians and military personnel from EU and NATO member states, in which access to information for those involved would not be restricted, and they would be able to plan and monitor military transports in all European countries.

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In view of the measures mentioned, we believe that they can be easily implemented in order to harmonize the inter-institutional approach at the national and international levels to the development of the dual-use transport network.

Although the TEN-T was originally created for civilian transport, it can easily cope with the process of military mobility, even if, in this regard, it must be helped by additional measures related to the adaptation and presentation of military transport needs. The military transport network must adapt to the TEN-T, not the other way around. If the current structure and level of development of the TEN-T does not correspond to military needs, Member States will have to allocate additional funds to support the development of military transport infrastructure. In view of the current threats, the length of the TEN-T corridors needs to be adjusted from a military perspective so that troops have easy access to Europe's eastern flank.

On the other hand, a positive aspect of the two networks is that the TEN-T network has already integrated all modes of transport, which facilitates the deployment of forces by any route, in any region. Thus, whether it aims to transport its troops by air, sea, or land, NATO or the EU have at their disposal the airports, ports, roads, or railways already built, positioned along the TEN-T corridors.

Conclusions

Transport at the European level is an intensely debated issue both from the point of view of European states and in the multinational framework. This is because the infrastructure requires modernization, new investments to adapt to current transport needs, which are much higher than 20 years ago, standardization of transport networks in all EU member states, and the elimination of bottlenecks or shortages that could prevent travel in certain European regions.

When it comes to military transport, the situation is much more complicated, since, in addition to civilian needs, the movement of military equipment, and personnel involves special security measures, adapting the infrastructure to the specifications of combat vehicles, ensuring the ability of the infrastructure to support the oversized technique and the speed of transport, so that the forces reach the landing point in the shortest time.

At present, much of the trans-European transport network can easily cope with military transport, in almost any region of Europe. The five scenarios envisaged by CEPA military analysts can be put into practice, if necessary, using the already existing TEN-T corridors. However, there are some limitations, caused by the lack of funds for infrastructure development, the existence of obsolete and unreliable transport networks, or the incompatibility of the existing network in the eastern states with the rest of the European network. If these problems are solved as soon as possible, then the applicability of the scenarios can be considered by European military leaders for the deployment of forces in order to ensure the security of European space.

Taking into account the information mentioned so far, we believe that the article responds to the proposed theme and presents the main common aspects of the TEN-T network and the military transport network, but also elements that can be improved, so that military transport can be fully integrated into the transport network already existing at European level, so as to overcome any syncope in the correlation between the two networks.

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Russia-China relationship in the context of the war in Ukraine: Bonding Over Shared Ideology or Western Sanctions

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Abstract

In the face of the Russia-Ukraine war, Russia's trade and economic potentials have been limited and restricted mostly due to the imposition of sanctions. Consequently, a bond between Russia and China has developed, putting aside their former disagreements and disputes. This goes together with the fact that both countries face a shared adversary from the US and the West, which has worked in pulling them closer to each other. Amidst the dynamic environment of worldwide trade, the economic collaboration and strategic alignment between China and Russia stand out as a crucial axis. This article investigates the interdependency and asymmetries of their bilateral partnership and how they have shaped their global trade relation. Furthermore, it also analyzes the historical background of Sino-Russian connections, emphasizing significant milestones and policy changes that have influenced their present economic interconnection. It analyses the problem areas of their relation and whether this bonding will withstand future changes in the global order.

Russia and Ukraine share cultural heritage, ethnic background, borders, and political history. Despite tense relations since the end of the Soviet era, Russia has been a major commercial partner for Ukraine. However, since the 1990s, Ukraine has sought membership in NATO and the EU. Putin believes Ukraine's unfriendly nature and Western alignment pose a threat to Russia's security (Hall 2023, 112-113, 116). Russia opposes this Western integration thus leading to Ukraine's invasion in February 2022 (Hall 2023, 113-115). As a response to Russia's invasion of Ukraine US and its partner nations are using Western institutions like the EU, NATO and G-7 to counter and punish Russia for the conflict in Ukraine (Hall 2023). Sanctions are policies implemented by nations to restrict interactions with a specific country, aiming to force it to modify its policies or address potential international regulations and convention breaches (Morgan, Bapat and Krustev 2009; Syropoulos *et al.* 2022). The impact of sanctions varies significantly, based on nature and the imposer country. They include unique circumstances like trade and finances and can be complete, partial, and imposed by a single country or multiple countries (e.g. UN versus US sanctions) (Morgan, Syropoulos and Yotov 2023, 13). Sanctions pressure governments to change policies, discourage aggressive behaviour, penalize transgressions, and demonstrate resolve against military actions. However, Putin's incursion into Ukraine is unlikely to be halted. Still, only in the case of a military overthrow or forced ousting, this is possible (Schott 2023, 2,8). Russian coal exports faced challenges in Europe on account of the energy revolution and sanctions related to the war in Ukraine, prompting Russia to increase coal shipments to China along with other Asian nations.

China and Russia have a long history spanning from eras of diplomatic and security cooperation to periods of competition, crises, and even a border war in the 1960s. The modern ties between the two nations started with the fall of the Soviet Union in 1991. According to several analysts, the present state of affairs can be traced back to 2014, when sanctions imposed by the US, the EU, and other nations in response to Russia's initial invasion of Ukraine prompted Moscow to seek out closer connections with China and other nations (Barrios and Bowen 2023). The historical dynamics of China-Russia relations have always been marked by rivalry. However, due to China's increasing influence in global affairs and Russia's military conflict with Ukraine, the two countries have now formed a bond based on a shared adversary: the United States and NATO.

Relations have strengthened between Russia and China since Russia invaded Ukraine in 2022, as Russia has grown more reliant on China due to significant international sanctions. Moscow also uses BRICS and SCO initiatives to strengthen relationships, feeling betrayed by Ukraine's post-Cold War "tilt" towards the West (Hall 2023, 113-114). Even though Russia has expressed irritation with China's focus on its economic interests, Beijing has increased its attempts to strengthen bilateral relations since the war started (Chimits and Hmaidi 2022). China is also a major Russian oil and gas export destination. Russia seeks advanced technological imports from China

for military capabilities. Putin chose China for strategic cooperation. President Xi Jinping supports Moscow's incursion into Ukraine by helping Russia financially to evade sanctions. The Chinese government, in turn, has characterized the relationship as a "no-limits" friendship (AP News 2024). The crisis has bonded them.

Russia-China-US dynamics

The US views China and Russia as strategic allies, challenging the rule-based international order, its economic interests and American global dominance. China opposes economic sanctions on Russia, which are aiming to isolate and put a blockade on the nation (Bo 2023; Chang-Liao 2023; Trush 2022). The relationship between Russia and China is characterized by mutual support. Typically, this is the way Russia and China portray themselves in relation to Ukraine (Hall 2023, 117). The US-Russian relationship is expected to remain strained due to disagreements over ballistic missiles, Russian interference in elections, espionage, and ongoing sanctions against Russia (Eran and Magen 2022, 2). China's perception of threats from Russia differs significantly from its relationship with the US. Both Russia and China refrain from labelling each other as a threat in their formal engagements with other nations and the US respectively (Korolev 2021, 25). China is identified as the top threat in the US global strategy, with Russia ranking second. China and Russia's autocratic continental powers and Western democratic states, led by America, are creating tension, as the increasing nuclear capabilities of the US are bolstering a Russia-China alliance to maintain negotiating power on key matters (Dibb 2019, 11; Yoder 2022, 290). The Security Council's structure perpetuates the "East-West divide" among Permanent Five, while Beijing criticizes US and NATO expansion as a provocation against Russia and unhelpful to global peace and stability (Hall 2023, 119).

Despite US sanctions on Russia's economy and prominent figures, non-Western countries like China will continue business with Russia, potentially intensifying the conflict beyond Ukraine's boundaries. Washington is isolating Russia and asking other major powers, including China, to join it (Hall 2023, 17-117). Chinese President Xi Jinping and Russian President Vladimir Putin are expected to improve relations due to shared goals, perceived dangers, increasing hostility from the West and the US, and the potential for power gain against US leaders' declining leadership. There are certain drivers in their relationship like reversing US military advancements in regions crucial to both nations, cooperating in commerce and investment, and countering US influence globally (Sutter 2018, 40-41). Western dominance is driving China and Russia together.

Key Milestones in the China-Russia relationship

The Soviet Union established diplomatic relations with China in the 1950s, fostering robust connections through the Sino-Soviet Treaty of Friendship, Alliance, and Mutual Assistance establishing a security alliance, substantial economic, military,

and technological support and collaboration (China Power 2022). In the late 1980s, China's pragmatic foreign policy thwarted tensions with the Soviet Union, culminating in the 1989 Sino-Soviet Summit, marking the restoration of normal diplomatic relations (China Power 2022). In 1992, President Yeltsin visited Beijing and withdrew Russian troops from Mongolia, declaring a balance between East and West. President Jiang Zemin's historic visit in 1993 marked a significant shift forming a "constructive partnership" by 1994 (Norling 2007, 34-35).

The US-led NATO intervention in Kosovo in 1999, conducted without a mandate from the UN Security Council, caused China and Russia to become more apprehensive about the unilateral actions of the United States. During this period, the rise of Islamic extremism in Central Asia and Chechnya strengthened the relationship between Beijing and Moscow, with the West criticizing Moscow's tactics in Chechnya and China relating it to its Tiananmen Square incident. Putin's approval of NATO expansion into the Baltics, US withdrawal from the ABM treaty, and US forces' presence in Georgia sparked Chinese concerns, but the Treaty of Good-Neighbourliness and Friendly Cooperation in 2001 alleviated these (Norling 2007, 36).

Sino-Russian relations have become unpredictable in the 21st century due to Putin's pro-Western policies, China's dissatisfaction with Russia's involvement in the 'war on terror', and US military presence in Central Asia (Norling 2007). Russian foreign policy shifted towards a Russo-Chinese equilibrium between 2003-2004, influenced by Operation Iraqi Freedom and the establishment of the Shanghai Cooperation Organization (Norling 2007, 38). The year 2004 marked a significant period in strengthening Russian-Chinese friendship, with 2006 designated as the 'Year of Russia in China' and 2007 being the 'Year of China in Russia' (Solomentseva 2014, 6).

In 2011, China and Russia reached a comprehensive strategic partnership, influenced by their close relationship (Bolt 2014, 48). The year 2019 was marked by "Comprehensive Strategic Partnership of Coordination for a New Era", highlighting political trust and cooperation (Barrios and Bowen 2023). On 4 February 2022, Russian President Vladimir Putin and Chinese President Xi Jinping visited China, marking the first in-person meeting since the Covid-19 pandemic. The visit marked a shared declaration underscoring the strength of the Russia-China bond and the unrestricted nature of cooperation, asserting no limits to their friendship (President of Russia 2022; China Power 2022). Over the years, they have come closer.

Political regimes of Russia and China

Moscow and Beijing's governments view the Western-led US as a challenge to their political structures, with their state-centred autocracies serving as a foundation for their strategic alliance, with governance ideologies converging and fostering stronger support to withstand Western pressures (Lukin 2020, 375). China and Russia are both authoritarian regimes, with China as a one-party state and Russia as a multi-

party system, with Putin's United Russia party dominating. Both countries have weak political institutions, a dominant ruling party, and a legislature that approves decisions without opposition. Key sectors are influenced by political elites, and the media is controlled by the government. Public demonstrations against leadership are illegal, and criticism of the leader is suppressed (Duben 2022, 15). Russia and China emphasize democracy as a fundamental right with citizen involvement in governance. They acknowledge diverse approaches to democracy not limiting to certain nations and believe that the determination of a country's democratic status lies with its people (Eran and Magen 2022, 4). Their democratic ideologies are congruent to an extent.

China challenges US power and liberal democratic order, accusing the US of provoking Russia's aggression to oppose NATO expansion. Despite neutrality, the Chinese government abstains from UN involvement (Li 2024, 26). China and Russia have demonstrated diplomatic cooperation by uniting against Western efforts to use military force or impose economic sanctions on countries accused of human rights abuses. They vetoed four resolutions on Syria, thwarting the US's efforts to destabilize the Assad administration (Korolev 2021, 23). China and Russia, as permanent members with veto power, have consistently supported each other at the UN Security Council since 2004, ensuring their veto power is used without each other's backing. Russia and China, despite differing interests in Central Asia, have managed to avoid conflicts and collaborate through the SCO to maintain regional security. Maria Repnikova reveals that Russia exhibits a more aggressive approach in global competition with the West, while China adopts a more deliberate and strategic approach (Fong and Maizland 2024).

Russia, influenced by European culture, is associated with the Western world, while China has a unique cultural and political identity independent of Western influence (Yakhshilikov 2023, 197). Therefore, it can be said that there are certain resemblances in their political ideologies; while Russia exhibits an authoritarian capitalist system, China, on the other hand, follows a pragmatic approach in its political dealings. Their similarities lie in the fact that both countries oppose the Western-led rule of order as well as the idea of a unilateral world order while supporting multi-polarity. Moscow and Beijing are also advocates for the advancement of developing and third-world nations.

Russia-China trade and economic relations: Inter-dependent, Diverse or Asymmetrical

Scholars argue that Sino-Russian relations are based on trade partnerships, with China and Russia being 'mutual gain economic partners' (Yakhshilikov 2023; Xia 2018). Moscow aims to reduce US influence in Europe and the Middle East, while Beijing focuses on its Asia-Pacific presence (Yakhshilikov 2023, 196). China's relationship with Russia focuses on three main objectives: supplying Russia with

energy resources to support its growing industrial sector, enhancing its influence in Central and North East Asia, and modernizing its military (Saraswati and Nasrum 2023, 91-92). China and Russia's strong ties in the Asia-Pacific region are due to mutual security interests and shared adversaries (the US) (Yakhshilikov 2023, 201). Putin's 2012 "pivot to Asia" shifted to a "pivot to China" following the Ukraine crisis. Russia's government deemed it necessary to accommodate China in the onslaught of Western sanctions, potentially assuming a subordinate role in the partnership (Gabuev 2015, 3). Russia and China's relationship has been centred around oil, with hydrocarbon sales accounting for 70% of Russia's budget revenue. A gas agreement was finalized in May 2012, involving Gazprom and CNPC to sell Eastern Siberia gas of about 38 billion cubic metres by 2030 to China (Gabuev 2015, 4). Also, recent events, such as Russia's border with NATO, sanctions, and Skripal poisoning, highlight the US's contentious relationship with Russia and its closer ties to China. Western sanctions have deepened ties with Russia since 2017 (Lidder 2021). The Russia-China relationship is influenced by US attempts to undermine global order. In short, Russia's strained relationship with the West continues.

A US intelligence report indicates China is supporting Russia's military operations in Ukraine, bypassing sanctions and providing essential technologies. China has increased Russian oil, gas, and energy exports following Ukraine's invasion (Luce 2023). This expansion was facilitated by China's financial system, which enabled Russia to carry out transactions without interference from Western powers. China has become a crucial economic ally for Russia and is actively implementing various economic support measures to help Russia deal with the negative effects of Western sanctions and export bans. The Chinese Embassy in Washington defends Beijing's stance on Russia and Ukraine, claiming transparent commercial contacts and no arms sales. China surpasses pre-war trade levels with Western states and is Russia's most important commercial partner (Luce 2023). China provides Russia with machine tools, drones, turbojet engines, cruise missile technology, microelectronics, and nitrocellulose, aiding in space-based capabilities enhancement for Ukraine deployment and providing imagery for military campaigns (Atwood 2024). Russia and China are enhancing their strategic collaboration by selling advanced military weapons to China and organizing joint drills in the Baltic and East China seas, demonstrating a growing political-military force beyond their own boundaries (Dibb 2019, 13). Russia and China engage in joint drills to demonstrate readiness and support each other. These exercises improve armies' operations and tactics, benefiting Chinese officers. Both countries prioritize regional stability and apprehension about potential terrorism spillovers. China's Belt and Road Initiative (BRI) investments in Central Asia require security, including collaboration with Russia. The convergence of their security objectives and perception of the US as a threat will drive future defence collaboration (Taylor and Shullman 2021, 7). Thus, their trade relationship is driven by a shared enmity to a large extent.

In May 2014, Russian officials visited China to explore Western credit substitution with Chinese financial institutions. The team supported Beijing and proposed measures to reduce reliance on the euro and dollar in bilateral trade (Gabuev 2015, 5). Russian businesses may leverage China's prospects more, while China is leveraging Russia's dissociation from Western markets for Chinese-negotiated deals and financial experiments, enhancing Beijing's financial system (Gabuev 2015, 6). The Chinese currency is appealing to Russia due to its protection against inflation and Western sanctions. Economic ties between Russia and China have deepened, but Chinese businesses have refrained from long-term commitments. Russia's reliance on China could impact political relationships, but China's use of economic influence for political purposes remains uncertain (Kluge 2024, 27). It is unclear what specific demands the Chinese government may present. Russian President Vladimir Putin is unlikely to back down in the conflict with Ukraine, even if it means facing further economic isolation. Meanwhile, Beijing is interested in ensuring Putin's political survival (Kluge 2024, 34). China is very cautious in its attempts towards supporting Russia.

China and Russia have re-evaluated their strategic partnership to address security concerns, uphold regional peace, and promote a new security paradigm through multilateral cooperation frameworks like the "Shanghai Five" and trilateral dialogues with other nations (Guan In 2001, China and Russia formed the Shanghai Cooperation Organization with Kyrgyzstan, Kazakhstan, Tajikistan, and Uzbekistan, promoting mutual trust, mutual benefit, and common development) (Guan 2022, 25). The BRICS mechanism, involving emerging economies like Brazil, Russia, India, and China, was initiated in 2009 to mitigate the 2007-2008 US financial crisis and steer global governance towards fairness, with the G20 mechanism serving as a crucial platform (Guan 2022, 26). Thus, through such multi-lateral mechanisms too, Moscow and Beijing strengthen its cooperation.

Chinese and Russian leaders, Xi Jinping and Vladimir Putin see each other as allies in a contest against the U.S.-dominated international system while maintaining a strategic focus in a dynamic and uncertain environment. They emphasize the importance of viewing each other as opportunities for development and global partnership (Barrios and Bowen 2023). To be precise, the Russia-China partnership focuses on challenging the US-led world order.

In 2023, Russia and China's trade volume reached 241 billion dollars, with Russia importing 36.5 per cent of goods from China. Trade reached a historic high of $240 billion, a 64% increase since 2021 (Kluge 2024). Russia imports equipment, machinery, vehicles, and electronics, while China imports fossil fuels, metals, ores, and wood (Kluge 2024, 10). Russia faces challenges in exploring and developing fresh oil reserves due to technology-intensive processes as Chinese energy businesses cannot compete with Western service companies that are leaving Russia due to sanctions (Kluge 2024, 19). In 2023, China has established itself as Russia's primary trade partner, while Russia holds the position of being China's sixth-largest trade

partner (Ng and Ma 2024). So, from the trade point of view, their relationship has definitely grown.

Diversification

Chinese enterprises and the Chinese authorities are extremely cautious in order to avoid facing repercussions from the U.S. and EU in the form of international sanctions (Yang 2024). The diplomatic engagements between the two countries are set to continue, with Beijing focusing on the cautious regulation of commercial endeavours involving China and Russia. The European Union recommend sanctions against Chinese companies for their involvement in supporting the Russian military. The sanctions are intended to support the EU's initiative to eliminate any potential loopholes that could enable Russia to acquire the necessary military know-how for its weapons production. The Chinese Foreign Ministry has expressed its disapproval of the sanctions imposed by the EU, deeming them as unacceptable. China firmly rejects the imposition of unlawful sanctions or extraterritorial jurisdiction on China in light of the collaboration between China and Russia.

However, the level of energy cooperation between China and Russia is not substantial when compared to that of Middle Eastern nations. China is working towards diversifying its energy sources by incorporating oil, natural gas, coal, and nuclear power (Saraswati and Nasrum 2023, 92). Also, Russia prefers not to be involved in territorial disputes in the East or South China Sea, while China perceives the Kremlin as easily swayed into unneeded conflicts. China's stance on Ukraine reflects this, while a "soft alliance" between Russia and China is possible (Gabuev 2015, 7). Trade and economic dependency are there, but not exclusively.

Asymmetries

The economic connections between China and Russia are characterised by asymmetry, with China's economy being significantly larger and more dynamic. China is the second largest market for Russian exports, following the European Union. Conversely, Russia ranks as the ninth-largest market for Chinese exports. The bilateral relationship between Russia and the People's Republic of China is characterised by Russia's significant role as a major supplier of energy imports to China (Reuters 2024).

Beijing has not officially sanctioned Ukraine's invasion, while it has also stubbornly refrained from denouncing it. China did not cast a vote in either the late February or late March UN Security Council or General Assembly resolutions denouncing Russia's incursion (Duben 2022). Despite the friendly language used to describe their collaboration, the agreements that China is ready to negotiate with Russia are expected to be far less profitable for Moscow compared to the arrangements it had previously made with Western Europe. This places Russia at an over-time structural disadvantage (Duben 2022, 7).

In the case of the Belt and Road Initiative (BRI), there also seems to be some asymmetry in their relations. During his State of the Nation speech in February 2019, Putin emphasised the importance of Russia's relations with China for domestic stability and economic growth. He specifically mentioned the "harmonising" of Russia's Eurasian Economic Union (EAEU) initiative with China's enormous Belt and Road Initiative (BRI) (Taylor and Shullman 2021, 5). The China-Kazakhstan railway if connected to Iran, Turkmenistan, and Uzbekistan via the China-Central Asia-West Asia line, will reduce Russia's influence in Central Asia while allowing Central Asian countries to adopt a multi-vector foreign policy approach and counter Moscow's efforts to involve them in the Eurasian Economic Union or expand their economic integration (Zhang, Alon and Lattemann 2018, 137). Russia's economic decline, caused by the drop in oil prices and Western sanctions, is currently hindering Moscow's ability to fulfil its economic obligations to carry out hydroelectric power plant projects in Kyrgyzstan and provide military aid to Tajikistan. This has weakened Russia's international standing in the post-Soviet region (Zhang, Alon and Lattemann 2018, 138). Nevertheless, right now the focus remains on maintaining a friendly demeanour.

The Road ahead

China and Russia criticize US democratic rule initiatives as disruptive and used for geopolitical expansion, highlighting common ground in their belief in interference in their own affairs. China and Russia are collaborating to develop domestic alternatives to foreign technologies, for reduced dependence on the West. They are focusing on issues of mutual interest, such as Iran and North Korea, and international organizations. Despite their animosity, they are forming a stronger alliance through frequent contact and increasing technological exchanges. This collaboration is aimed at reducing dependence on the West and improving their chances of overcoming long-standing animosity (Taylor and Shullman 2021). A 2020 Ipsos poll revealed that over 80% of Russians believe China will positively impact world affairs in the next decade. Russia supplied China with modern fighter aircraft, air defence systems, and missiles from 2014-2018, contributing to the Chinese People's Liberation Army's efforts (Taylor and Shullman 2021, 5-6). Since 2014, Russia and China have partnered more closely in defence industries, seeking alternative supplies like electrical parts and naval diesel engines including missile defence drills and exercises. This has helped mitigate Western embargo effects. Russia's strategic command-staff exercises (Vostok 2018; Tsentr 2019), including China's participation, have become more intense (Taylor and Shullman 2021, 6).

China has become the sole non-Western state with the ability to significantly counterbalance the collective sanctions imposed by Western countries. Putin certainly took into account the economic assistance from China when initially strategizing the invasion of Ukraine. In the medium to long term, China will

probably be able to provide Russia with considerable economic relief, helping it to mitigate the effects of sanctions in the trade, finance and technology spheres (Duben 2022, 10). Nearly 14% of Russia's foreign exchange reserves had been converted to the Chinese yuan by the time the conflict in Ukraine broke out in 2014. China's UnionPay system has declined to collaborate with Sberbank, Russia's leading financial institution, and has halted discussions with other Russian banks that are under sanctions in order to avoid potential secondary sanctions. China has established its own Cross-Border Interbank Payment System (CIPS) to facilitate the settlement of foreign transactions using a distinct global yuan payment and clearing mechanism. When the SWIFT ban was imposed in early March, some Chinese media proposed that CIPS could be used to counter these restrictions, but it has since become evident that this will provide very little short-term relief for Moscow (Duben 2022, 11). China faces an increased risk of reliance on open global markets due to US and European caution, and deteriorating trade relations. Therefore, Russia is collaborating to build a de-dollarized financial system, limiting US power (Taylor and Shullman 2021, 20). Russian natural gas along with other reserves may find a new long-term client in China if they are unable to sell them to Western nations (Duben 2022, 12). The ensuing conflict in Ukraine will further strengthen the existing bond between China and Russia in terms of their structural relationship. In addition to capitalizing on the commercial void created by the departure of Western goods and brands from Russia, Beijing likely views it as a political necessity to support Putin's government, as long as it can do so discreetly and circumvent US retaliatory actions (Duben 2022, 14).

As of 2023, Beijing is showing less enthusiasm for openly endorsing Russia's ongoing conflict with Ukraine, which marks a departure from its aggressive diplomatic approach. Instead, there is a renewed willingness to rebuild relationships with the international community and former trading partners, in order to address the distrust and accusations that have strained China's ties with Western countries (Peters 2023, 1669). China has refrained from providing military support to Russia and, such as other BRIC countries, has chosen not to condemn the war in Ukraine. However, certain critics contend that the battle has revealed the limitations of the China-Russia relationship, prompting China to downplay its ties with Russia and reconcile its conflicting foreign policy objectives (Peters 2023, 1668). China does not have any desire to establish a formal partnership with Russia, nor does it intend to create an anti-U.S. or anti-Western coalition of any sort. Beijing desires that China and Russia can sustain their relationship in a manner that ensures a secure setting for both nations to accomplish their development objectives and mutually assist each other through advantageous cooperation. This would serve as an exemplar of how significant countries can effectively handle their disparities and collaborate in a manner that fortifies the global system.

Problem areas in China-Russia ties

Russia and China, vying for central Asia control, held conflicting views on their border, possibly due to resentment towards a diminishing authority (Eran and Magen 2022, 3). China's growing power surpasses Russia's in Central Asia, introducing new dynamics in the China-Russia relationship, with China expanding economic aid to strengthen its influence (Saraswati and Nasrum 2023, 91). Russia and China's trade and energy dependence increases, while the US escalates the "New Cold War" (Quadri, *et al.* 2023). European leaders are cautious about confronting China as they consider it inadequately empowered to resist the US (Quadri, *et al.* 2023, 162). Russian President Putin emphasizes the importance of Russian-Chinese collaboration in establishing a multipolar world order, contrasting it with a unipolar system dominated by a single centre (Lukin 2020). China's economic and technological asymmetry could impact the military equilibrium between Russia and China. The upcoming Chinese leaders may view Russia as a subordinate ally, potentially leading to a shift in perception of Russia as a more potent force (Lukin 2020, 377). The US's nuclear expansion is fostering a strategic partnership between China and Russia to counter the US and maintain bargaining power, despite disputes over Central Asia influence, highlighting the decline of American influence (Yoder 2022, 290-293). Russia's leadership acknowledges the possibility of becoming a subordinate partner due to China's increasing influence in its "near abroad" sphere. Moscow's strategy is to secure the highest status and influence over Beijing through infrastructure projects and energy access (Ozawa 2019, 4). China and Russia have no formal treaty alliance, meaning they are not obligated to provide defence assistance. Russia's cordial relationship with India during the Cold War is a problem since China has border disputes (1962 war) and standoffs with India (Fong and Maizland 2024). However, this does not imply a lack of strong military collaboration (Korolev 2021, 6). Russia and China are collaborating globally to counterbalance the US, significantly deepening their military cooperation. Chinese Minister Wei Fenghe emphasized this during a visit to Moscow, highlighting the strong bond between their armed forces (Dibb 2019, 12). Russia's economic alliance with China is seen as a short-term strategy to increase leverage on the US amid the Ukrainian crisis (Kaczmarski and Kuhrt 2023; Eran and Magen 2022, 5). Whether temporary or permanent, it challenges the US-led world order.

Conclusion

Undoubtedly, Russia-China relations have seen an upsurge in recent times following the Russia-Ukraine war. However, to describe the relationship as a 'limitless partnership' or a 'relation of convenience' needs to be further investigated. It is also true that there is a common factor in their relation: the Western ruled based order. As of now, their relationship seems asymmetric with Russia accepting being a subordinate partner. At present, the leadership in China appears to be not taking

advantage of its influential status in relation to Moscow. The future course of relations will depend much on the ever-evolving politics in Russia and China. Russia can depend on China for trade and economy but in political terms, it is difficult to assess if it can help Russia defy the pressure of the Western-led order as they have not signed any formal alliance to protect each other in case of an invasion. Another very important aspect of their relationship is that both countries stay away from getting involved in each other's disputes or affairs. Their existing connection illustrates a friendship defined by the present situation. There are promising prospects for amicable relations ahead. In my opinion, the perception of their shared adversaries constitutes a more compelling argument than a connection founded on analogous ideologies.

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