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Law Enforcement, Psychology and Security in Dialogue: Interdisciplinary Perspectives

CONFERENCE PROCEEDINGS

2nd LEPSY CEEPUS Network
Research and Cooperation Conference
12 March 2025

**Edited by
Imre Dobák - Johanna Farkas**

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Authors:

ANDRÉKÓ, Gábor	JÓLLUSKIN, Gloria
ANDRIĆ, Sanela	KORPICS, Márta
BÁCS, Zoltán György	LACA, Martin
BANEVIČIENĖ, Anželika	LACA, Nina
BARTA, Andrea	MÉHES, Tamás
BÉRCZI, Péter	MUTAVDŽIĆ, Ana
BOGNÁR, Gábor	PEREIRA, Tomás Nico
DOBÁK, Imre	RESPERGER, Viktória
FARKAS, Johanna	RUSU, Dan Octavian
GERGINOVA, Tatjana	SILVA, Isabel
GYARAKI, Réka	SZABÓ, Hedvig
HORVÁTH, Orsolya	ZSIGMOND, Csaba

The authors are solely responsible for the content of their papers.

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Editors: Imre DOBÁK - Johanna FARKAS

Peer reviewers: Noémi ZALAI-GÖBÖLÖS – Kund REGÉNYI

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Foreword

For the second time, Ludovika University of Public Service organized the LEPSY CEEPUS Network, Research and Cooperation conference (2025). The conference aimed to contribute to the further development of knowledge and competencies for future law enforcement, psychology and security professionals through interdisciplinary approaches.

The LEPSY CEEPUS Network intended to foster scientific dialogue between researchers, educators, and practitioners at an international level, particularly between law enforcement, psychology, security sciences, and related fields. Building on the success of last year's conference, the organizers welcomed an even broader range of presentations and provided opportunities for panel discussions, in which participants presented their current research findings and innovative approaches.

At the 2025 conference, LEPSY Network members and researchers continued to focus their dialogue on crossing disciplinary boundaries, seeking answers that can be applied in both scientific discourse and practice. The event featured almost forty presentations from eight countries.

We are grateful for the successful organization of the event and for the support of the collaborating institutions. We are confident that this year's conference once again provided participants with valuable experiences that contributed to achieving common goals.

The editors

Domestic violence as an escalating process. The dutch way of countering it

Zoltán György BÁCS

Ludovika University of Public Service Budapest, Hungary

e-mail: bacs.zoltan.gyorgy@uni-nke.hu

<https://orcid.org/0000-0003-3454-9539>

Dan Octavian RUSU

Babeş-Bolyai University Cluj-Napoca, Romania,

e-mail: dan.rusu@ubbcluj.ro

<https://orcid.org/0000-0002-8432-1965>

The way to domestic violence

Domestic violence is also a result of a process of radicalization within certain community. As a result, it reflects and marks the earlier stages of the radicalization, the accumulation and growth of tension both in the involved individuals and between them. The growing intensity of discrepancies, the unsolved conflicts and misunderstanding leading to higher and higher stages of confrontations beginning from the verbal aggression up to the trigger point when the conflict may turn into physical insults, all are parts of the radicalization process. Domestic violence remains a critical societal issue in Europe, affecting millions of individuals.

The topic of domestic violence in Europe has significant relevance due to its extensive societal impact and profound implications on public health, human rights, and economic stability. Approximately one in three women across the European Union have experienced physical and/or sexual violence in their lifetime (European Union Agency for Fundamental Rights [FRA], 2020). Such violence is not merely a private issue but reflects broader systemic inequalities and deeply ingrained societal norms that perpetuate gender-based violence (JOHNSON - OLLUS - NEVALA, 2008).

The effects of domestic violence extend beyond immediate physical injuries, significantly increasing the likelihood of chronic mental health conditions such as anxiety, depression, and post-traumatic stress disorder among survivors (JOHNSON - OLLUS - NEVALA, 2008). Furthermore, domestic violence negatively

impacts children's developmental outcomes, increasing risks of psychological distress and perpetuating cycles of violence across generations (HOLT - DEVANEY - ØVERLIEN, 2017).

Economically, the burden of domestic violence encompasses healthcare costs, legal and social service expenditures, and reduced workforce productivity due to absenteeism and decreased performance. These costs underline the necessity for effective legislative responses and preventive interventions to alleviate the long-term economic and social burdens (HOLT - DEVANEY - ØVERLIEN, 2017).

Despite the severity of this issue, reporting rates remain low, with only about 14% of incidents being officially reported due to barriers such as fear, stigma, and distrust in institutional responses (European Institute for Gender Equality [EIGE], 2024). This highlights the need for comprehensive policies, improved support services, and educational initiatives aimed at increasing awareness and reducing stigma.

All these stages have indicators, detectable for the members of the outer community leaving their marks on the mood, behavior, attitude and other features of the concerned individuals. If the confrontation turns into violence, it leaves physical traces of the committed act. What all these factors mean? Their meaning is that any phase of escalation might have a reaction on behalf of the micro society surrounding the individual, victim of the verbal or physical violence. Once the society has detected the fact of violence it has to take measures, to prevent further escalation, the further similar or even more violent acts, to stop the perpetrator(s) and to hold him/her accountable.

General Statistics on Domestic Violence in Europe, here are general statistical insights on domestic violence in Europe, drawn from authoritative sources such as FRA, EIGE, and Eurostat:

Prevalence: approximately 33% (1 in 3) of women across the European Union have experienced physical or sexual violence since age 15 (FRA, 2020), about 22% of women have experienced physical and/or sexual violence from a current or former intimate partner (EIGE, 2024).

Sexual violence alone (including rape), Affects approximately 17% (1 in 6) of women across the EU (FRA, 2020).

Sexual harassment, About 33% of women have experienced sexual harassment, frequently at workplaces or in public settings (EIGE, 2024).

Reporting to authorities: only approximately 14% of domestic violence incidents are reported to police or other authorities, highlighting barriers like stigma, fear, and lack of trust in institutional support (EIGE, 2024).

Impact on children: exposure to domestic violence in childhood significantly increases the likelihood of emotional trauma, behavioral issues, and becoming a victim or perpetrator later in life (HOLT - DEVANEY - ØVERLIEN, 2017).

Economic costs, domestic violence costs the European economy billions annually due to healthcare expenses, legal proceedings, social services, and lost productivity at work (Eurostat, 2023).

Statistical Overview Table:

Category	Statistic in the EU (%)	Source
Women experiencing violence (overall)	~33%	FRA (2020), EIGE (2024)
Violence by intimate partner	~20–22%	EIGE (2024)
Sexual violence (including rape)	~17%	FRA (2020)
Sexual harassment at workplace	~33%	FRA (2020)
Incidents reported to police	~14%	EIGE (2024)
Economic costs (healthcare, legal, welfare)	Significant societal cost	Holt, Øverlien, & Devaney (2017)

Domestic Violence Statistics in Hungary, according to the statistics, 9% of women in Hungary (18–74 years old) have been victims of physical and/or sexual violence in the 12 months before the survey interviews were conducted in 2012, 28% of women in Hungary experienced physical and/or sexual violence by a current or previous partner, or by any other person since the age of 15. 27% of women have experienced physical or sexual violence by an adult before the age of 15.¹

According to the Ministry of Interior, there were 14.693 victims (above the age of 18) altogether between 2019 and 2022.² Since then, the data show a worsening tendency. In 2019, the estimated annual cost of gender-based violence against women in Hungary was 6 354 909 616 EUR.³ In the same year, intimate partner violence against women cost Hungary 3 326 217 574 EUR.⁴ A part of all these expenditures could have been transferred for other less painful and sad purposes should the society or groups of individuals more responsive and cooperative with the local governments or with the law enforcement structures.

Domestic Violence Statistics in Romania (2023) Domestic violence remains a critical social issue in Romania, significantly impacting individuals, families, and

¹ Violence against women: an EU-wide survey. Main results report
<https://fra.europa.eu/en/publication/2014/violence-against-women-eu-wide-survey-main-results-report>

² The costs of gender-based violence in the European Union
https://eige.europa.eu/sites/default/files/documents/20213229_mh0921238enn_pdf.pdf

³ Ibid.

⁴ Ibid.

communities. Recent statistics highlight the magnitude and seriousness of this phenomenon:

- **Reported Cases:** in the first nine months of 2023, Romanian police responded to 79,442 cases of domestic violence, with 37,417 cases in urban areas and 42,025 in rural regions (*Statistica IGPR*, 2023).
- **Criminal Offenses:** during this period, 43,425 crimes related to domestic violence were registered, marking a 4.9% increase compared to the same period in 2022 (*Statistica IGPR*, 2023).
- **Protection Orders,** from January to August 2023, Romanian police issued 8,629 temporary protection orders, of which 3,606 were converted into permanent protection orders by courts (DCNews, 2023).

Distribution of Domestic Violence Offenses (Jan-Aug 2023)

Type of Offense	Number of Cases	Percentage (%)
Physical violence (assault, battery)	23,786	62%
Threats	4,678	12%
Family abandonment	3,288	9%
Violating protection orders	2,742	7%
Violating child protection measures	1,368	4%
Violating temporary protection orders	541	1%

(DCNews, 2023)

Additional Observations: compared to the same period in 2022, Romania experienced an increase in physical violence cases (from 23,151 to 23,786), violations of protection orders (from 2,166 to 2,742), and threats (from 4,441 to 4,678) (DCNews, 2023), tragically, in 2022, domestic violence resulted in the deaths of 42 women and 4 children, with approximately 40,000 women and 9,000 children becoming victims of domestic abuse in the country (Aradon, 2023). These statistics emphasize the need for effective prevention strategies, legal protection, and adequate support systems to reduce domestic violence in Romania.

Societal responses

It is clear that different parts of the society, different groups of individuals respond to emergencies in different ways even if the violent act takes place very close to them. Many people turn their head demonstratively away showing their indifference toward the act taking place and also to the victim of the violent act. The reason of this behavior might be fear being involved, fear of becoming

another victim with all the possible consequences. Once you are reported to the police your data will be registered, they must be accessible for the apprehended person(s) and you might become a target person of their revenge. If a case is filed by the police the persons might be called to testify what can cause certain discomfort for many people.

Many of the victims also try to avoid appearing in the focus of attention. They do not report the violent acts perpetrated against them fearing the repetition of the violence once the perpetrators are not taken under custody. They usually share an apartment, they live together, and once the perpetrator can continue terrorizing them in any possible way. Unfortunately, there are a few non-governmental organizations, societal groups willing to protect the victims and bringing them asylum and support. Usually, this kind of initiatives are hindered by the permanent lack of appropriate financial resources.

In our region, in Central and Eastern Europe the contacts between the locals and the law enforcement agencies, police forces are traditionally far from being trustful and friendly. People usually try to avoid contacts with police try to avoid getting into the scope of the law enforcement agencies. This distrust extends far beyond contacting them it also includes that people are unsure that police agents and other levels of jurisprudence deal with the cases with due attention and diligence. Just a couple of days ago a case appeared in the focus of tensions provoking large-scale protests and leading to the re-opening of a significant amount of domestic violence cases. It happened that after extinguishing a fire in an apartment in Budapest, a corpse was found. At the first instance it seemed that it was a case of suicide. Later new information emerged confirming the victim, a Japanese citizen had already reported domestic violence in 2022 and had asked the authorities to take measures against her husband. Due to the negligence of the authorities than and the superficial investigation at the beginning, the lady became a victim of a well-planned crime what could have remained unsanctioned. Under the pressure of the public protests the decision of re-opening even cold cases was taken by the highest-ranking police officials. As a result of the inspections carried out immediately, many perpetrators of domestic violence were taken under custody and accused of crimes.⁵

One of the reasons of the improper attitude on behalf of the police is the quantitative approach to effectiveness i. e. the amount of solved cases instead of the qualitative approach. Following this logic, the less crimes reported the better are the statistics. To demonstrate that the police meet the statistic requirements the officers in duty sometimes refuse to register complains of the victims.

⁵ „Meggyilkolt japán nő esete: öt fegyelmi eljárás indult az V. kerületi rendőrségen, egy osztályvezetőt felmentettek” Telex 11 February, 2025
<https://telex.hu/belfold/2025/02/11/japan-no-meggyilkolasa-rendorseg-bejelentes-sajtotajekoztato>

There are also historically based prejudices refraining people of contacting the police forces, based upon the bad experience that even the conscious citizen reporting a crime could be accused of being the perpetrator of the same criminal act.

Heading to the future

How to change this wrong attitude? How to build trust between the society and the law enforcement agencies? The appropriate, accessible communication for the public is essential. The public must be sure that the law enforcement structures, the police officers and even the private bodies assisting the police to keep and maintain the public order are ready and able to deal with every individual case respectfully, observing the human rights of everyone and they carry out their duties at a high professional level.

So, what to do, how the police can approach the public? The police in the Netherlands launched several good initiatives long time ago within the Program of Community Policing. One of them was "Talk to the police". They put a table on a central place in a city park with these words. At the table there were two officers in uniform. The public were surprised at first, they looked for the hidden camera. The people supposed that it was a new prank to create situations for lough. After a couple days the frequent visitors of the park got used to the presence of the police officers and as their curiosity grew they started to approach them. It was a strange situation that the police officers were ready to talk about what was important for the ordinary people without any limitation of topics. The interest was growing every day. It became a custom to greet the officers, to invite them to play basketball, table tennis, etc. ... The officers always had some snacks for the visitors, they offered them soda or some soft drinks. The initial reluctant attitude of the public was clearly going to vanish. Approaching to the public, tearing down the walls of distrust gave the police a useful tool to receive first-hand information on the problems of the communities, of different families and even individuals. The well-trained officers having a vast knowledge of psychology, communication and technics used usually for interrogations, having empathy and a sense of good humor got received a powerful tool to have almost real time information on the life of the given community. It gave them a real chance to prevent or to quickly react on many excesses, violent acts even within households. This kind of interactive communication can help the law enforcement agencies to detect, identify and filter signs of radicalization what is essential to maintain the public order.

Another project of strengthening the cooperation to prevent abusive acts and violence against the most defenseless and vulnerable group of every society, the children. Once the younger generation spend a significant part of their time playing computer games it was a logic decision to approach them through these

activities. The Netherlands Police set up special gaming studios in some police units, installed cutting-edge devices and programs. There have always been two uniformed officers to play any game with the young partners willing to compete them. A special platform was set up for these contests. Challenging a police officer to play, to have a chance to defeat him or her in a computer game became very popular. At least, there were long waiting lists for the children to play with the officers. As usual, during the games the competing partners communicated through the computer either in written or in vocal channels. This direct communication also strengthened the trust of the children in the representatives of the police thus they could use these channels to ask help, advice or alert them if it was necessary.

It must be clear all these initiatives would have been in vain without the necessary network of shelters, houses for victims, governmental bodies, organs of justice and law enforcement, social institutions, offices of local governments helping the victims, the individuals and groups bringing assistance and all kind of necessary help to those who were unable to protect themselves. Their well-organized cooperation, empathy, the well-structured legal frameworks and the wide-spread education programs at all the levels of education made possible to organize and run an effective system of prevention and protection giving hope and support to the victims for a better, a safer life.

Another question is whether the domestic violence and not only this kind of criminal act can be prevented and if yes, how? The author has already published studies and articles closely related to the use of a system of AI-assisted dynamic network approach for crime prevention and investigation. The gathering, processing of information obtained in this case from the local residents analyzed and assessed by this highly developed system might form an important support to the measures to be taken by the local authorities including the law enforcement bodies.

Artificial Intelligence (AI) has considerable potential to play a significant role in preventing and addressing domestic violence, drawing on experiences such as those from the Netherlands and other European countries. AI algorithms can analyze data from police reports, social services, healthcare providers, or emergency calls to identify patterns predictive of escalating violence (JOHNSON - OLLUS - NEVALA, 2008). The Dutch approach (e.g., *Veilig Thuis*), utilizing integrated databases and risk assessment tools, exemplifies successful multidisciplinary strategies for predicting and intervening early in cases of domestic violence. AI-driven chatbots and online support platforms can encourage victims to report incidents anonymously, reducing fear and stigma associated with formal reporting (European Institute for Gender Equality [EIGE], 2024). In the Netherlands, centralized support platforms offer anonymous reporting, emergency responses, and immediate psychological counseling. AI-driven analysis can recommend individualized intervention

strategies based on victim profiles and abuse history, enhancing tailored support and potentially preventing escalation (HOLT - DEVANEY - ØVERLIEN, 2017). Dutch multidisciplinary approaches have highlighted the effectiveness of customized interventions to address the unique circumstances and needs of victims. AI technologies, such as virtual assistants and chatbots, could deliver targeted educational resources and awareness campaigns designed to recognize early signs of abuse and provide guidance for seeking help. AI analysis of large-scale data can help governments identify areas of high domestic violence prevalence, enabling strategic resource allocation and policy improvements.

Limitations and Challenges. Despite the promise of AI, there are significant limitations:

- **Ethical and Privacy Concerns:** Risks related to data security, confidentiality breaches, and misuse of sensitive personal data.
- **Bias and Accuracy:** Potential biases in AI algorithms may result in inaccurate assessments or unintended consequences, particularly for marginalized populations.
- **Human Oversight:** Effective AI interventions still require significant human oversight and judgment, highlighting the necessity of training human personnel alongside technological advancements.

While AI can enhance prevention and response mechanisms, its effective integration requires careful consideration of ethical issues, privacy protection, and ongoing human collaboration to ensure sensitive, equitable, and victim-centered approaches.

Conclusions and limits

Insights from the Dutch experience highlight the effectiveness of integrated, multidisciplinary approaches involving coordinated responses from healthcare, social services, law enforcement, and educational sectors (Johnson et al., 2008). Initiatives like the Dutch "Safe Home" (Veilig Thuis) emphasize centralized support systems that enhance reporting rates, improve victim safety, and promote community awareness.

Despite these advances, significant challenges remain. Barriers such as stigma, fear, and mistrust significantly limit reporting rates, with only around 14% of incidents officially reported (European Institute for Gender Equality [EIGE], 2024). This underreporting underscores the need for targeted education, policy reform, and improved victim-support mechanisms.

Limitations of existing research include inconsistent definitions of domestic violence, limited longitudinal data, and insufficient focus on marginalized groups. Addressing these gaps through future research could lead to improved prevention strategies and more effective policy responses across Europe.

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Oversight and supervision of prisons in Lithuania: preventing violence and mistreatment

Anželika BANEVIČIENĖ

Mykolas Romeris University, Lithuania

e-mail: a.baneviciene@mruni.eu

<https://orcid.org/0000-0002-2855-6890>

Introduction

Human rights violations during imprisonment are a significant concern, undermining the purpose of punishment and hindering social reintegration for convicted individuals. Reports from the Council of Europe's Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT) highlight ongoing safety issues in Lithuanian prisons. The February 2024 CPT report indicates that the Lithuanian authorities have not adequately protected prisoners, with factors like drug use, informal hierarchies, and insufficient staff contributing to violence among inmates. The report also raises concerns about discriminatory treatment of vulnerable detainees, which may constitute degrading treatment under Article 3 of the European Convention on Human Rights. Seimas Ombudspersons can monitor detainees' rights following the Convention against Torture and related protocols, while Lithuanian courts can assess prison staff actions and award damages to victims of violence and ill-treatment. This leads to questions about whether Lithuania's legal framework aligns with international and EU standards for nonviolent environments in prisons and the effectiveness of the review systems by the courts and Ombudspersons.

This article aims to evaluate whether Lithuanian regulations meet these standards and how they protect inmates from violence and ill-treatment, emphasising the obligations of prison authorities to ensure safe conditions. The research methodology involved analysis of international, EU, and Lithuanian laws relevant to prisoner safety and decisions from Ombudspersons and courts from 2022 to 2024. This paper is based on the systematic analysis provided in other documents (BANEVIČIENĖ, 2024a; BANEVIČIENĖ, 2024b).

1. Human Rights Standards defined at International and EU levels

International and EU laws universally prohibit torture and inhuman treatment. Torture is defined as the intentional infliction of severe pain or suffering by a public official for purposes such as obtaining information, punishment, intimidation, or discrimination (UN Resolution 3452 (XXX), 1975: Art. 1). This prohibition is absolute and applies in all circumstances, including wartime or national emergencies.

This principle is enshrined in the Universal Declaration of Human Rights (1948: Art. 5), the International Covenant on Civil and Political Rights (1966: Art. 7), the European Convention on Human Rights (1950: Art. 3) and the Charter of Fundamental Rights of the European Union (2000: Art. 4).

The UN Convention Against Torture (1984) further establishes states' obligation to prevent acts of torture through legislative, administrative, and judicial measures. The Nelson Mandela Rules (2015), the Bangkok Rules (2010), and the European Prison Rules (2006) provide additional guidelines for humane treatment, emphasising prisoners' dignity and the need for protection against abuse.

International and EU documents also mandate that lesser cruel, inhuman, or degrading treatment be prevented and punished. States are required to take all necessary measures to ensure that prisoners are treated with humanity and respect, as outlined in various legal instruments, including the International Covenant on Civil and Political Rights (1966: Art. 10 (1)), the Basic Principles for the Treatment of Prisoners (1990: Art. 1), the European Commission Recommendation on Procedural Rights and Material Detention Conditions (2022: § 11).

To ensure prisoner safety, international and EU instruments emphasise minimum security measures, protection from staff and fellow inmate violence, and restrictions on the use of force. Prisons must prevent torture and ill-treatment, ensure staff training, and foster a safe environment. Prisoners must be protected from violence by staff and other inmates (European Prison Rules, 2006: §§ 49–52). Prison staff may use force only as a last resort, in self-defence, or to prevent escape (European Prison Rules, 2006: § 64). States must prevent inter-group violence and cultural or religious tensions among prisoners.

International guidelines and recommendations indicate that states should establish requirements for national prisons, assess individual risk levels, and apply security measures accordingly. The European Prison Rules (2006) state that special security measures should only be used as a last resort. When necessary, such measures should be proportionate to the risk posed and discontinued as soon as possible.

The Bangkok Rules (2010) prohibit the use of solitary confinement for pregnant women, women with infants, and breastfeeding mothers.

The Nelson Mandela Rules (2015) stress that restraints must never be used as punishment. Instruments of restraint should only be used when absolutely necessary and for the shortest possible time. The European Prison Rules (2006) require that any restraint be the least intrusive method available.

Searches of prisoners and cells must be conducted with dignity and respect for privacy. The Bangkok Rules (2010) require that female staff carry out searches of female prisoners.

The European Prison Rules (2006) state that lethal weapons should only be carried by staff inside prisons in cases of operational emergencies. Routine arming of prison personnel is discouraged to prevent escalation of violence.

Finally, international law requires that all prisoners be treated equally, without discrimination based on race, gender, language, religion, political opinion, or social status. The European Convention on Human Rights (1950: Art. 14) further prohibits discrimination based on a person's association with a national minority. The Nelson Mandela Rules (2015) extend this by requiring respect for prisoners' religious and moral beliefs.

In summary, the requirements defined in the International and EU documents emphasise the absolute prohibition of torture and ill-treatment in prisons. Member states must implement legal safeguards, enforce anti-violence measures, and establish independent oversight mechanisms. Protecting mistreatment and ensuring all detainees' safety remain key obligations for states under international law.

2. Anti-violence measures embedded in the national law

Lithuania's Criminal Code (2000) establishes the principles and conditions for executing punishments. Art. 1 of the Code upholds the principle of humanism, ensuring that prisoners' rights are protected and that they are not subjected to torture, cruelty, or humiliation. However, implementing this principle in practice is left to other legal acts.

The Law on the System of Execution of Punishments (2022: Art.11 & 13) mandates that prison staff respect human dignity and protect prisoners from harm. This law sets out when and how coercion can be used, allowing prison staff to use force only when necessary, such as to prevent imminent danger, riots, or criminal acts. The law also prohibits the use of coercion against vulnerable groups, including pregnant women, minors, and persons with disabilities.

Additionally, the Code of Conduct for Lithuanian Prison Service employees (2023: § 8) prohibits any form of torture, inhuman, or degrading treatment and mandates staff to uphold prisoners' rights and dignity. Special rules regulate restraints, ensuring they are only used as a last resort.

Lithuania has introduced several mechanisms to prevent violence and ill-treatment in prisons. These include risk assessments for new detainees, monitoring for violent behaviour, and training programs for staff. The Description of the Procedure for the Prevention of Violent Behaviour (2024) provides a structured approach to violence prevention, focusing on early detection and intervention. Upon arrival, prisoners undergo an assessment to identify their vulnerability and potential risk factors. Psychological evaluations are also conducted. Prison staff monitor inmates for signs of hostility, potential conflicts, or other risk factors. Resocialisation specialists work to promote non-violent behaviour through counselling. If violence occurs, prison staff must take immediate action, including separating those involved and relocating high-risk detainees to safer areas. Duty officers check prisoners daily for physical injuries, signs of intoxication, or other indicators of violence.

Lithuania has implemented regulations requiring transparency and accountability in prison operations to prevent mistreatment by prison staff. The Instruction for Protection and Supervision (2023: §§ 119 – 122) requires that interactions between staff and inmates be recorded in certain high-risk situations, such as searches, movement within prison facilities, and intoxication checks. Additionally, training programs emphasise the importance of human rights and non-violent conflict resolution for prison staff.

However, despite these legal safeguards, reports from oversight bodies indicate that cases of mistreatment by prison staff continue to occur, suggesting gaps in enforcement.

The Lithuanian Prison Service has implemented measures to prevent violence among inmates, including conflict prevention strategies and structured interventions. The administration must ensure that inmates are placed in safe environments and that violence risk assessments are conducted regularly.

The anti-violence mechanism under Instruction for Protection and Supervision (2023) includes various measures. Prisoners who experience violence receive psychological counselling and medical care. A commission within each prison analyses cases of violence and recommends preventive measures. Prison guards receive specialised training on handling conflicts and managing high-risk prisoners. The Lithuanian Prison Service has declared a strict stance against all forms of violence, including verbal harassment and intimidation.

Despite the legal framework and institutional mechanisms in place, Lithuania continues to face challenges in entirely preventing violence in its prisons. Reports from the European Committee for the Prevention of Torture (CPT) have highlighted instances of violence and inadequate enforcement of prisoner protections. Several key challenges can be indicated. While the law mandates oversight, enforcement remains inconsistent, leading to underreporting of abuse. Staff shortages and inadequate funding impact the ability to ensure safe prison

conditions. Prison subcultures that tolerate violence can undermine efforts to create a safe and rehabilitative environment.

In summary, Lithuania has developed a legal framework that aligns with international and EU standards for ensuring the safety of prisoners. Key measures include legal safeguards, risk assessments, staff training, and structured intervention programs. However, challenges remain in implementation, with gaps in enforcement and oversight. Strengthening monitoring mechanisms and ensuring compliance with existing regulations will improve prison safety and reduce violence.

3. Monitoring by Seimas Ombudsperson

The Seimas Ombudsperson's role in ensuring prisoners' safety in Lithuania is vital to maintaining compliance with human rights standards. Under the national violence preventive mechanism, the Ombudsperson is responsible for monitoring prison conditions, investigating complaints, and ensuring the protection of detainees from violence and ill-treatment.

The Seimas Ombudsperson derives its authority from the Law on Seimas Ombudsperson (1998), specifically Articles 3(3) and 19¹, which mandate oversight of detention conditions under the Convention against Torture and the Optional Protocol (2002). This mechanism aims to identify potential causes and risks of inhumane treatment, improve prison conditions, and prevent torture or degrading treatment.

Despite this mandate, the Ombudsperson's ability to effect meaningful change depends on its capacity to investigate violations, issue recommendations, and ensure their implementation by relevant authorities.

An analysis of Ombudsperson's practice revealed that Ombudsperson has a limited focus on violence in prisons. Only one comprehensive report addresses prison violence in detail (Prevention of Hepatitis B, Hepatitis C, Tuberculosis, Hiv/Aids, and Sexually Transmitted Infections (2023)

The Ombudsperson report highlights several shortcomings in Lithuania's prison system, particularly in addressing violence and ill-treatment. Prisons lack systematic investigations of violence. Cases of sexual abuse in prisons were underreported due to fear of retaliation, and there were no established procedures for handling such cases. There is a failure to preserve evidence. In some cases, prison authorities failed to secure video evidence of alleged mistreatment, raising concerns about accountability. Sometimes, there is an inadequate response to complaints. The Ombudsperson found instances where injured detainees were not provided with timely medical care or where investigations into abuse allegations were not conducted thoroughly. The report indicates that preventive measures alone have not been sufficient to eliminate violence in Lithuanian prisons.

In addition, the Ombudsperson reviewed several individual complaints regarding ill-treatment in prisons, not under the preventive mechanism. Two notable cases illustrate the challenges in ensuring prisoner safety.

The first case 4D-2023/1-406 (2023) revealed the lack of medical care and investigation. In this case, a detainee sustained injuries due to prison staff's use of force. The prison failed to investigate, preserve video footage, or provide immediate medical assistance. The Ombudsperson concluded that prison staff did not fulfil their obligation to ensure detainees' safety and recommended an official investigation.

The second case, 4D-2022/1-638 (2022), revealed the existence of unjustified night inspections. In prison, staff conducted multiple night-time inspections without necessity, disrupting detainees' sleep and violating their rights. The Ombudsperson determined that these actions were disproportionate and unlawful.

Despite its mandate, the Ombudsperson faces several obstacles in effectively ensuring the safety of prisoners. The Seimas Ombudsperson's office has limited resources and small staff, limiting its ability to conduct frequent and in-depth inspections. While the Ombudsperson can issue recommendations, it lacks the authority to impose sanctions, making compliance with its findings voluntary. The reports indicate that prison oversight is sporadic and does not provide a comprehensive view of violence and ill-treatment.

In summary, the Seimas Ombudsperson plays a crucial role in safeguarding prisoners' rights in Lithuania. However, its effectiveness is hindered by resource limitations, inconsistent monitoring, and the lack of enforcement mechanisms. Strengthening the Ombudsperson's authority and ensuring compliance with its recommendations is essential. Prison authorities should be legally required to implement the Ombudsperson's findings. Allocating more resources to the Ombudsperson's office would allow for more frequent prison inspections, and encouraging detainees to report abuse without fear of retaliation is required.

4. Court decisions on ensuring the safety of prisoners

Lithuanian courts' role in ensuring prisoners' safety is crucial in holding prison authorities accountable for human rights violations. Court decisions provide legal recourse for detainees who suffer from violence and ill-treatment.

Between 2022 and 2024, Lithuanian courts adjudicated six cases involving violence in prisons. These cases highlight the continuing issues of mistreatment, lack of proper oversight, and the limitations of judicial intervention. Cases demonstrate how violence manifests in prisons and how courts have responded. In multiple cases, detainees reported being physically abused by prison staff, often without proper investigations or accountability. The judicial approach to cases

involving prisoner safety varies, with some cases demonstrating a recognition of human rights violations and others reflecting systemic shortcomings.

Courts reviewed cases where prisoners were subjected to violence due to the prison subculture, with limited intervention from prison authorities. In case I1-7778-473/2024 a detainee reported psychological abuse and coercion by higher-ranking inmates in a prison subculture system. Unfortunately, the court dismissed the claim due to the detainee's lack of formal complaints, ignoring the documented issues in CPT reports and previous court rulings on subculture problems.

In several instances, in case I1-4330-422/2023, prison staff failed to use body cameras or turn them off, making it difficult to establish the facts of violent incidents. The video footage in the case was inconclusive because the camera was turned away at a crucial moment. Unfortunately, the court sided with the testimony of prison staff, raising concerns about the impartiality of the review process.

Courts often awarded low amounts (70-200 EUR) for non-pecuniary damages, raising concerns about the deterrence effect of such rulings. For example, in one case, eI1-2396-505/2024, a detainee was assaulted by multiple officers, resulting in injuries. Despite the lack of video evidence, the court ruled in favour of the detainee and awarded 70 EUR in damages. The ruling acknowledged procedural failures but imposed minimal financial penalties on the prison.

Some cases (I1-809-596/2023) revealed that prisons failed to prevent violence despite prisoners explicitly reporting threats to their safety. In one case, a detainee was placed in a prison unit despite known threats against him. Other inmates beat him, and the court awarded 200 EUR in damages, citing the failure of prison authorities to ensure his safety. In another case, 1A-32-954/2024, two prison guards were convicted of excessive use of force, including using a taser and physically assaulting a prisoner. The court imposed fines and ordered compensation but did not impose prison sentences.

Despite the courts' role in protecting prisoner rights, significant obstacles limit the effectiveness of judicial intervention. These challenges include an excessive burden of proof on prisoners, low compensation for violations, and a lack of accountability for prison staff. Courts often require detainees to provide detailed evidence of mistreatment, even in cases where prison subcultures and systemic abuses are well-documented. The financial penalties awarded to victims of violence are disproportionately low, failing to act as a deterrent for future abuses. Many cases show that prison staff avoid consequences due to missing video footage, internal investigations favouring authorities, and courts relying on official explanations.

While Lithuanian courts play an important role in addressing prisoner mistreatment, their impact on improving prison safety remains limited. Judicial

reluctance to challenge prison authorities, the low compensation awarded to victims, and systemic barriers proving mistreatment undermine the effectiveness of legal protection mechanisms.

Several measures should be implemented to enhance the role of courts in ensuring prisoner safety. There should be a presumption of the existence of a prison subculture. Courts should acknowledge the existence of prison subcultures unless proven otherwise by prison authorities, shifting the burden of proof away from detainees. It should be mandatory to record interactions on video. Legislation should require all interactions between prison staff and detainees to be recorded to ensure accountability. The Courts should impose more substantial financial penalties for violence and ill-treatment to encourage institutional reforms. Independent bodies should review abuse complaints rather than relying solely on internal prison investigations.

Conclusions

While Lithuania has taken steps to align its legal framework with international and EU standards, significant challenges remain in implementing effective safeguards against violence and ill-treatment in prisons. Strengthening enforcement mechanisms, empowering oversight institutions, and ensuring judicial accountability are critical to achieving a nonviolent prison environment. Continued reforms are necessary to protect detainees' fundamental rights and uphold Lithuania's obligations under international law.

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Extracurricular Activities as the Main Indicators of Academic Excellence - Theoretical Review

Andrea BARTA

Department of Applied Psychology, Faculty of Psychology and Educational Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania

e-mail: andrea.barta@ubbcluj.ro

<https://orcid.org/0000-0001-8754-6097>

Extracurricular activities increase the chance of further education and decrease the chance of dropping out from education (ČOLOVIĆ, 2021; KRAVCHENKO - NYGÅRD, 2022; NEELY - VAQUERA, 2017). Attendance of students in extracurricular and co-curricular activities, like after-school preparing programs, science, art, sports group memberships, participation in competitions, conferences, have a positive effect on students' learning performance, as these activities improve those cognitive, motivational, emotional and social skills that contribute to successful school or academic adaptation, and learning (BATOOL - AHMAD, 2020; FREEMAN, 2017; HAGHIGHAT - KNIFSEND, 2019; ZHANG ET AL., 2019). Several studies investigated the relationship between learning achievement and extracurricular activities, and many of these highlighted a significant positive association between them (BATOOL - AHMAD, 2020; FERACO ET AL., 2022; FREEMAN, 2017; HAGHIGHAT - KNIFSEND, 2019; KRAVCHENKO - NYGÅRD, 2022; LAWHORN, 2008; REEVES, 2008).

The main aim of extracurricular activities is the deepening of students' interest regarding a certain scientific or other activity area, the improvement of explicit and implicit knowledge, the continuation of the learning process in an informal environment, like groups, laboratories, conferences. Thereby these activities ensure the positive development of students by factors like the opportunity for skill development, forming positive relationships with other students and adults (MODECKI et al., 2018). In 2008 Lawhorn established that extracurricular activities not only increase learning skills, but also help students to form new friendships, improving their social and leading skills. Massoni (2011) demonstrated the different positive effects of extracurricular activities, like positive behaviour, higher mean grades, better attitudes, better school achievement, improved social skills. Feldman and Matjasko (2005) also found a positive association between participation in extracurricular activities, high

learning performance and a reduced number of school drop-outs. Extracurricular activity attendance is a protective factor for youth (BLOMFIELD - BARBER, 2011).

1. Theories explaining the effect of extracurricular activities on learning achievement

The positive effect of extracurricular activities on learning achievement can be explained by three theoretical approaches: the social control theory, the social learning theory and the social capital theory. Social control is present in extracurricular activities, namely the participation in regular activities assumes compliance with the pre-defined rules of the institution, for which students could receive institutional reinforcement, reward. Based on the social learning theory, students could learn from their better achieving peers, from their teachers or from other experts, which also has a positive effect on their learning results. The social capital theory emphasises the role of extracurricular activities in forming relationships not only with student peers, but also with parents and educational staff members, which contributes to a more effective information flow and support from the people with various positions in the institutional hierarchy. As opposed to extracurricular activities, close relationships and friendships have a symmetrical effect on learning performance because these friendships could have positive but also negative effects on achievement. Nevertheless, relationships formed during extracurricular activities have an asymmetrical effect, since extracurricular activities amplify the relationships that have positive effects on the learning achievement and weaken damaging friendships, in the case of low achievement students (FUJIYAMA et al., 2021).

Some forms of extracurricular activities like competition attendance, promote learning success from multiple points of view. By trying out different competitions, by immersing in certain areas, students could explore which scientific, sports or art area corresponds best with their interest, in this manner competition attendance could promote the selection of a later academic and job profile. Competition attendance is not only determinant from the point of deciding for a certain area, but also broadens conceptual and procedural knowledge, which is essential in attaining expertise (HUVARD et al., 2020). Beside the acquisition of knowledge, problem solving and learning skills, competitions also contribute to the improvement of higher- order cognitive processes like metacognitive skills, critical thinking, creativity, which influence lifelong success and contribute to adaptation to new environments (PESOUT - NIETFIELD, 2021).

Lang (2021) raised attention to the role of extracurricular activities in the post-pandemic period. The organisation of as many extracurricular activities as possible is suggested, in the interest of the development of social interactions, communication, problem solving, critical thinking, and other skills that contribute to a successful school adaptation. The aim of extracurricular activities is the

development of metacognitive and emotional intelligence skills; besides competitions, collaborative activities are also organised for students.

2. The Effect of the Number and Types of Extracurricular Activities on Learning Achievement

The breadth of extracurricular activities reflects the number of extracurricular activities in which a student is involved at the same time (Fredricks, 2012). The breadth of activities is relevant from the aspect of learning outcomes, as it shows that the student acquires learning achievement determining skills in different contexts. The breadth of extracurricular activities influences learning performance, and the relationship between these two variables is mediated by the learning expectations, the time invested in homework, respectively the positive evaluation of the studies (HAGHIGHAT - KNIFSEND, 2019).

Freeman (2017) investigated the relationships between students' learning performance, their participation in extracurricular activities sponsored by the school and the amount of these activities. A positive relationship between extracurricular activity attendance and learning outcomes, grade point average was established, and this association was stronger when the number of extracurricular activities was taken into consideration. Students who participated in more extracurricular activities achieved higher grade point average than their peers who participated in less extracurricular activities. Comparing the results of men and women, there was no significant difference regarding the associations between extracurricular activity attendance and learning outcomes.

Batool and Ahmad (2020) also found that those students who participate in more co-curricular activities achieve better results than those who do not attend these kinds of activities. Based on the results of Reeves' (2008) study, extracurricular activities have a positive effect on learning results, those students who participated in more than two activities achieved higher grade point average than those who did not participate in any extracurricular activities. Similarly, another study investigating the association between co-curricular activities and learning achievement (LARAIB et al., 2020), found that the learning achievement increases with the increase of the number of extracurricular activities attended by the student.

The frequency of attendance is the indicator of the number of hours spent on extracurricular activities (BOHNERT et al., 2010). The quantity of hours spent on extracurricular activities could contribute to the conscientiousness of students and to the adequate distribution of their efforts between their activities regarding learning (like writing homework). Fredricks in 2012 detected that the breadth and frequency of extracurricular activities correlates with higher grade point average in tenth grade, with better mathematical achievement in twelfth grade, and with higher motivation at university.

Tanner (2017) summarised in a systematic review the research findings that explain the mechanisms behind the positive association between participation in extracurricular activities and learning success. One possible explanation is that extracurricular activity attendance balances the time students spend with learning and their free time, develops time management skills, offers an opportunity for social interaction and entertainment alongside learning, thus contributing to school success (BURROWS - MCCORMACK, 2011). During extracurricular activities students receive positive and constructive performance evaluations and feedback, which can improve their intrinsic and achievement motivation to attain outstanding academic results. Participation also increases commitment to the school, the sense of belonging.

There is a positive association between students' sense of belonging to their school and the number of participants in extracurricular activities, the higher sense of belonging the student has, the better the school performance. Extracurricular activities can also have a negative effect on learning achievement if the student attends too many activities, if the breadth of activities is high or the frequency of participation is high, because there is not enough time to complete compulsory school tasks and to learn. Another explanation for the negative relationship may be if the students' whole identity is defined by the role played in the extracurricular activity, if they define themselves as athletes, actors, artists, and the student status is overshadowed (TANNER, 2017).

In Morris' systematic review (2019), studies investigating the effect of different types of extracurricular activities on learning performance were analysed. Participation in extracurricular activities correlates with positive learning outcomes such as higher-grade point average, higher results on standardised tests, higher chance of finishing school, and further academic learning. These positive relationships were also established, regardless of the activity type, suggesting that it is not only the type of activity that is important, but also the experience that can be gained from more than one type of activity. In Behtoui's study (2019) a positive association between learning achievement, learning expectations and attendance in certain types of activities (sport, cultural, religious) was demonstrated, but a negative association between participation in less organised extracurricular activities and school performance was also found.

Sabirov (2019) pointed out in his study that different extracurricular activities improve different skills that contribute to good academic performance. Extracurricular activities teach students perseverance, sports activities have a positive effect on health, thus contributing to success in learning. In team sports, success or failure in these activities depends on the student's role in the team, and both participation in the organisation of the activities and participation as an individual competitor improve learning achievement. Communication skills improve by giving presentations, participation in conferences, and competitions. Fiction books, scientific and technology-related journals improve students'

creativity. Participation in different programmes requires planning, which also develops students' strategic thinking.

Abizada et al. (2020) examined the effect of secondary school students' participation in different extracurricular activity types on their language and mathematics achievement. Extracurricular activities were grouped into three categories: sport activities, art activities and membership in scientific or social clubs. Looking at the impact of sport activities, he found that they negatively influenced language performance. One possible explanation for this result is that students who spend their free time playing sports read less, thus they do not develop their language skills. Participation in sport activities did not influence the mathematics results, if the time spent with playing sport was not taken into consideration, but when students participate in more sports activities and if the number of hours spent with sport increases, mathematics results also increase, i.e. sport may have a positive effect on mathematics skills. In contrast to sports activities, participation in art activities had a positive effect on language performance.

For example, participation in theatre activities requires the reading of the plays performed, so it improves both reading and speaking skills. Similarly to sports activities, there is a positive association between art activities and mathematics achievement but only if the time spent with these activities is taken into consideration. Participation in scientific and social groups improves communication and cooperative skills and positively influences students' language and mathematics skills. The more group memberships the students had, the higher mathematics and language exam results they achieved.

3. The Effect of Demographic Variables on the Relationship between Extracurricular Activities and Learning Achievement

The effect of extracurricular activities on students' learning achievement has been investigated across different age groups, studies being conducted with primary, secondary school and university students. In a study conducted with primary school students (MEADOWS, 2019) a positive moderate correlation was found between the grade point average and the number of hours spent with extracurricular activities, and similarly, between the grade point average and the breadth of extracurricular activities. Myers (2019) also examined the effect of after-school basketball activities on students' learning commitment in the case of primary school children. These children were more successful, achieved higher grade point average, understood the relevance and role of learning in their future. Teachers reported that these students were more active and confident in class, learned leadership skills, and their self-regulated learning was also improved.

Balaguer et al. (2020) investigated how in the case of adolescents' certain demographic variables, like gender, age or the parents' education, influence the

relationship between extracurricular activities and learning achievement. Differences in learning performance were found along the stages of adolescence. In early adolescence, girls' learning achievement is higher, if they learn more with their parents, read more books and spend more time in extracurricular activities. Based on the study results in middle and late adolescence, there is an inverse relationship between extracurricular activity attendance and learning achievement, the more time students spend with extracurricular activities, like after-school sports activities, the lower the school performance.

The presence of physical activities in adolescence correlates with higher school grades, higher school security, increased perception of parents' and teachers' support (VAN BOEKEL et al., 2016) and with adult career (Koivusilta et al., 2012). Students who participated in sports consistently outperformed students who did not, and this difference became more accentuated as participation increased. Physical activities may have short- and long-time effects on learning performance. Immediately after engaging in physical activity, students can concentrate better on school tasks, which could increase learning achievement. If adolescents engage in long-lasting physical activities appropriate to their development, their increased physical fitness can improve their learning achievement in mathematics, reading and writing (CASTELLI et al., 2014). The most successful student athletes have higher mathematics grade point average than those with lower rankings (RICIPUTI - ERDAL, 2017). Playing sport improves learning performance by modifying both brain structures and functions (Hillman et al., 2011), increases the feeling of pleasure in class, immersion in the subject matter and motivation to learn (GRIECO et al., 2016). KRISTJÁNSSON et al. (2009) investigated in their study the correlation between the amount of physical activity and learning performance in the case of 5800 adolescents. The increase of the amount of physical activity leads to the increase of learning achievement. Beside physical activity, body weight and sedentary lifestyle also correlated with learning achievement.

Transfer of knowledge to everyday situations has an especially significant role in the case of health professionals, so participation in extracurricular activities increases knowledge transfer, social and time management skills of students. Medical students who were active participants in extracurricular activities achieved higher grade point average than their passive peers. Their extracurricular activity attendance and exposure to everyday situations reduces the perceived pressure and stress, thus students can be more productive in learning (UTOMO et al., 2019).

The effect of extracurricular activities on learning performance has also been investigated in the case of children of different socioeconomic status (REN & ZHANG, 2020). Results indicated that high socioeconomic status predicted participation in extracurricular activities (the amount of participation and the breadth of activities). Extracurricular activity attendance correlated with better

reading and mathematics skills for children from families with lower socioeconomic status, but in the case of children of high socioeconomic status this association was not significant. Shernoff and Shmidt (2008) also demonstrated that children from low-income families and minority children also developed by the participation in complementary after-school programs with technological, sports, art, and social components, organised in a structured environment, with adult support. In contrast, no significant relationship was found between participation in extracurricular activities and social skills (REN - ZHANG, 2020).

King et al. (2020) also investigated whether extracurricular activity attendance contributes to academic success and successful degree attainment in disadvantaged, underrepresented, minority undergraduate students. Most students were members of academic groups, involved in educational programmes and activities, respectively in volunteer groups, where they supported other disadvantaged students by tutoring and community service. Students reported that attendance in these activities helped them to cope with stress, increased their academic satisfaction, commitment and motivation. On-campus activities that especially increased academic success were volunteering in research projects, in study abroad programmes, in learning communities, and professional internships.

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Increasing the security awareness of the masses in order to national security

Péter BÉRCZI

Ludovika University of Public Service, Doctoral School of Military Sciences,
PhD student, Budapest, Hungary
e-mail: berczipeter79@gmail.com
<https://orcid.org/0009-0008-7355-6540>

With the disperse of the Internet, new security challenges have emerged that may pose a threat to groups in society or even to the state itself. These risk factors force national security and defence services to develop tools that are suitable for maintaining their capabilities in this changed security environment. One such tool system relies on the power of civilian masses, as in recent times, several extraordinary events (terrorist attacks, disaster situations, activities affecting cybersecurity) have shown that there is significant potential in involving the crowd.

Civilian resources have become more valuable, whether we are talking about national security, military conflicts, or terrorist activity. Increasing the security awareness of civilians and exploiting their potential has become a key issue. In addition to reducing the challenges threatening national security through their safety conscious lifestyle, more aware masses can also actively contribute to the more efficient performance of national security tasks. It is advisable to plan and develop interfaces and cooperation structures that can increase the „responsiveness” of the civilian population in situations where it can significantly serve the security of the nation.

But do not think of civilians only as a source of information. Hungary’s National Security Strategy also presents several priority security risks, of which can be effectively prevented or detected by sensitizing and raising awareness among civilians. Terrorist acts, counter-intelligence and intelligence operations, the activities of criminal organizations, or any kind of environmental disaster are all risks included in the „Strategy” where civilians can be effectively involved. The task of state actors is to examine and create opportunities that help, through information campaigns, increase citizens awareness and thereby the development of their responsiveness to events threatening national security.

Introduction

With the development of information and communication devices and the integration of the Internet into our everyday lives, we have all become part of the digital society in some form. In the European Union, on average, 90 percent of households have access to the Internet (Hungarian Central Statistical Office). Presence in cyberspace is present in the lives of „ordinary civilians” as well as in the lives of political, economic and military decision makers. The multitude of activities and activities available online is very convenient and can save a lot of time and other resources, but in addition to the countless advantages, our „networked” existence also carries with it many risks. This is due to the competition for increasingly scarce global resources and the variability of the local, regional and global environment resulting from the collapse of the bipolar world order.

The risks posed by the online space appear at the individual and societal levels too and are not independent of each other. Data handled by a person with a higher social status is typically at greater risk than average users, as parties with opposing interests – whether state or sub-state – may be more interested in it. However, that user can also be a significant risk factor, for example, if he is a member of an institution with a privileged status, through his – in the IT sense – vulnerability data from systems with stronger protection can be obtained by exploiting vulnerabilities.

This level of risk for the individual becomes equal to the risk of the system of which he is a part. Train of thought, it can quickly be concluded that a certain level of individual security risk may also include national risk. Decision makers, prominent economic actors, or civilians active in any strategic sector may also receive special attention from parties with opposing interests, even during their everyday activities. Even several such privileged security risks appear in the National Security Strategy of Hungary, which properly prepared civilians can become effective contributors, thereby facilitating the activities of national security services.

In this study, I examine risk factors that appear in the National Security Strategy of Hungary, and in which – in my opinion – effective cooperation can be established along the coordination of national security services by involving, training and sensitizing the civilian masses.

Security risks in the mirror of the National Security Strategy

The National Security Strategy of Hungary is government decree 1163/2020. (IV. 21.). The legislation states that the security of the nation in the present and future “requires the enforcement and cooperation of the nation as a whole”. The statement shows that an essential condition for the successful management of

security issues is that the entire nation, including the civilian masses, feel that the recognition of risks and the cooperation of national security bodies are their own. The highlighted security risks are listed in section 124 a) – q) of the legislation. In the study, I present only those highlighted security risks in which civilian masses effectively hinder the work of national security services.

„a) mass arrival of illegal migrants via the Western Balkans or other routes affecting our country.”

The first significant wave of illegal migration reached Hungary in 2014, on the southern border, from Serbia (Borbély – Farkas – Tózsér, 2017). The population living and working on the southern border can provide useful information related to suspicious activities noticed in their daily lives. Those working in agriculture, wildlife management, or those living in border settlements can be a resource that can share relevant information, even in real time. Another major national security risk of illegal migration is the closely related human smuggling, which has been an increasing burden on Hungary since 2015 (Minkó-Miskovics, 2023). Human smugglers have always played a prominent role in illegal migration, and are currently appearing more and more frequently on our borders, as Hungary is a transit country on the Balkan route.

Smugglers are typically members of international criminal organizations, so their detection, tracking and arrest cannot always be resolved within national borders. A signaling system built on a targeted application may even be suitable for detecting international smuggling networks (HOE-LIAN et al., 2020). One of the more prominent examples that have existed for years for effectively detect and track human trafficking and smuggling with involvement of civilians is the America's Missing: Broadcast Emergency Response (AMBER) alert system in the United States. Created in response to the abduction and murder of Amber Hagerman, a young girl in Texas, AMBER alerts are public announcements broadcast through various media platforms. (<https://amberalert.ojp.gov/>)

The useability of this methods can be standardized, like ISO (International Organization for Standardization) which shows the effectiveness and efficiency. Examples include task completion rate which can be used as a measure of effectiveness, and task completion time which can be used to measure efficiency. These constructs may be evaluated through usability testing, which measures users' performance of tasks using an application under controlled settings. In contrast, satisfaction is subjective in nature and refers to users experiences and attitudes that arise from using an application. The primary question is also what the perceptions are for the purpose of use. Well educated civilians can recognize the signs and clues which indicate a crime.

„c) coordinated and extensive diplomatic, information and intelligence operations, combined with financial and economic pressure, financial speculative attacks or military threats (hybrid) with the aim of destabilizing Hungary, weakening its government capacity, political stability and social unity, and limiting its ability to assert its interests internationally.”

Modern destabilization activities include information and influence operations. The opposing party uses various means to try to change and shape the opinion and value system in a region of its choice, even among the civilian population. Information operations conducted on social media and other online platforms can pose a threat to national security if they spread false information that could destabilize local or regional social groups. Groups with basic or lower digital skills are at particularly high risk, as they typically do not pay attention to the security of their devices and data, nor to a critical view of online news. In Hungary, the majority of the population (52%) does not pay attention to the protection of their personal data on the Internet, and the majority (59%) only use security software that is automatically installed on their smart devices. The lack of security awareness can be explained by the low level of digital skills. In our country, a quarter (25%) of internet users have more than minimal digital skills (Hungarian Central Statistical Office). Civilians with low skills may be less familiar with the tools of influencers present in the online space. Their exposure can be significantly improved by expanding their knowledge and developing a critical approach to sources. Training and development activities can reduce the success of influencing and destabilizing information operations, and thus the risk to national security.

“e) committing a terrorist act in Hungary or against Hungarian citizens or Hungarian interests abroad.”

Terrorist organizations also use the opportunities provided by social media and the internet. Global recruitment, online intimidation and disinformation are showing increasing activity. Hungary is not a primary terrorist target, but as a member of NATO and the EU, terrorism is definitely a risk factor. The civilian population can represent a significant resource in identifying online terrorist content and thus in detecting their activity as quickly and efficiently as possible. Online terrorist content can be clearly identified with the appearance of terrorist propaganda. One of the most active venues for this propaganda is social media. (Suller, 2023) Regulation 2021/694 of the European Parliament and of the Council (29 April 2021) regulates online terrorist content. The regulation defines the *„enhancing cooperation between the civil and defence sectors on dual-use cybersecurity projects, services, competences and applications”* for the period 2021-2027.⁶

⁶ Regulation (EU) 2021/694 of the European Parliament and of the Council. Chapter 6. (1) f.

The EU regulation also clearly shows that it considers it justified to involve the civilian masses in the fight against terrorism, since terrorist organizations can act quickly, isolated and anonymously or in a conspiratorial manner through media platforms. The involvement of civilians as a primary target group has become justified in the effective fight against terrorism. Training, educating the masses, and developing an online reporting system can also become critical issues here, since media service providers only act on the basis of statistical data in relation to „problematic content” reported by users, and do not have the capacity to truly investigate all cases. In addition, it also gives the spreaders of terrorist ideas the opportunity to create a completely new entity in a few minutes, in the event of restrictions on their online profiles, with which they can continue their activities.

„l) the rise and strengthening of the influence of criminal organizations and organized criminal groups in Hungary.”

Smuggling, which occurs alongside illegal migration, was discussed earlier in the study, so I only touch on the topic in this chapter. Nowadays, criminal organizations typically operate not only within the territory of one country, but also as international organizations (MINKÓ-MISKOVICS, 2023) in terms of their members and areas of activity. Accordingly, international criminal organizations commit their illegal acts across borders. Crossing national borders, especially at border sections where there is active border control and border protection, is a high risk for criminals. Smugglers typically try to avoid frequented crossing points and try to cross in places where the risk of being caught is lowest. In 2021, the police seized a homemade drone that was smuggling cigarettes from Ukraine. During the subsequent search, another drone and other evidences were seized (<https://magyarnemzet.hu>). The phenomena (sounds, lights, etc.) accompanying cross-border smuggling activity can be easily detected by the local population, who can see and hear the events. After reporting them, the authorities can take more effective action against the perpetrators. Residential communities that actively cooperate with the authorities can effectively reduce the spread of criminal organizations in their environment. (ESTELLÉS-AROLAS, 2022)

„n) industrial accidents and disasters occurring in the territory of Hungary or neighboring countries that have regional impacts”

The connections between the environment and social conflicts are complex and in many cases little known to the general public (JANIK, 2006). Despite this, the civilian population can be of significant assistance in quickly detecting any anomalies. Several large rivers enter our country from abroad, carrying with them everything that has entered them in the upper reaches. A hydrological emergency

can develop on these rivers at any time, which can seriously affect Hungarian agriculture, animal husbandry, and even the health of the population. Whether radioactive, toxic, or polluting substances enter the country, they can have a serious impact on the economic and social sectors. The cyanide pollution of the Tisza is a good example of the occurrence and damage of cross-border disasters. The first signs of pollution can be detected in real time by people living at the northern entry point of the river, which they can immediately notify the authorities. Based on the signs experienced, it is unlikely that civilians will be able to determine the nature of the disaster, but they can gain time to prevent the consequences by quickly sharing the critical information.

„o) the appearance and rapid spread of an epidemic disease in Hungary that poses a risk of mass and serious illness of the population”

There is already an epidemiological reporting system in place for the spread of epidemics and other conditions in the population, which includes family doctors and healthcare staff working in specialist care, so I will only mention this point. This reporting system is also a good example of the effective use of crowdsourcing in managing a risk that is also stated in the security strategy.

“p) the occurrence of major floods and extensive inland waters, as well as the regular occurrence of other natural disasters – prolonged periods of drought, heat and cold waves, severe storms, devastating forest or vegetation fires.”

The flood protection warning system has been in place since 2007, both by river and by river section, within the framework of international cooperation, when the European Union had already incorporated the provisions of Directive 2007/60/EC. The directive stipulated the establishment of an active warning system between the Member States, which must be reinforced with a continuous human presence if necessary. Civilians participating in dam protection are all active parts of the warning system. The inland water protection system, like the flood protection system, maintains a 3-level state of readiness. The level of readiness varies based on the reports of landowners and the findings of disaster management experts (extent of inland water).⁷ There is no warning system for damage caused by storms and forest fires in Hungary yet, but in these natural disasters, the authorities primarily rely on reports from the civilian population.

⁷ Dél-Dunántúli Vízügyi Igazgatóság

Conclusion

The study presents a wide range of security risks. In all cases, it can be stated that civilian participants can be used as a significant additional resource in matters affecting national security. Whether it is a natural disaster or international organized crime, local civilians may have information that national security services and the acting authorities could only obtain with a significant expenditure of energy and an uncertain time. The data available from the statistical office and other sources do not reveal whether their exposure can be reduced by educating the population and creating interactive online platforms whose primary purpose is to disseminate knowledge and provide data. However, it is certain that those who are more familiar with the knowledge of local and regional security risk factors are the first to recognize suspicious activities or natural anomalies taking place around them.

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The potential of the Online Space - Data and Methods for Security

Imre DOBÁK

Ludovika University of Public Service, Budapest, Hungary

e-mail: dobak.imre@uni-nke.hu

<https://orcid.org/0000-0002-9632-2914>

Hedvig SZABÓ

Ludovika University of Public Service, Budapest, Hungary

e-mail: szabohedv@gmail.com

<https://orcid.org/0009-0000-8403-8943>

Introduction

The use for security purposes of information resources (be they information or the means to collect and analyze it) available on open platforms in the online space is not a new phenomenon. It is present in related areas of the business sector and not least in the organizations of state actors (law enforcement, military, national security, and other government agencies) that use it as part of their security functions. Their directions also present a highly complex picture, effectively integrated into the basic and background intelligence and evidence-gathering processes of law enforcement, disaster management, counter-terrorism, and cyber security activities (BIHARI - MAGYAR, 2023). On the user side, however, they can also be found in the toolbox of cybercrime, as openly available data can be seen as a fundamental element in many cyberspace-related crimes and deception and manipulation activities (e.g. social engineering).

From a technological point of view, the technical solutions for interpreting openly available data and information are undergoing a major transformation, which is accompanied by new strategic approaches and the rise of market processes in the space. In addition to the fact that cyberspace, with its diversity and complexity, provides an infinite framework for the emergence of open information, the number of devices and solutions connected to the Internet is increasing, and the emergence of artificial intelligence and its impact on almost all stages of OSINT has further enriched the field.

But what is the real power of open data? If we start from the basic assumption that much of the information we need is available somewhere in cyberspace, the answer seems obvious. Whether it's information that helps us in our daily lives, or complex economic, business, and security information that can help us understand past and present relationships, or that can point to unforeseen future contexts, processes, and events. But the big question is how we can access this data and make it directly meaningful and usable for decision-making.

In the online space, behind the masses of data and information visible to the everyday person, there is an almost invisible layer of additional data and metadata that, at first glance, may not seem to be of much value on their own, but when placed in the right context or even in bulk form, can become sensitive data sets with value in their own right. (NÉMETH – MAGYAR, 2021, 218–231) They can refer to processes, activities, habits, preferences, or even just by extracting the content behind the visible data, deeper processing (e.g. metadata from photos, videos) can provide more accurate information. In our online world of pseudo-information and disinformation, all of this brings with it the need for users to extract information content, analyze it, and increase its credibility. The reasons for this can be extremely diverse, ranging from the need for information to help people get by in their daily lives, to business activities, to higher-level decisions based on credible information for the security of society.

Numerous summary studies have been published on the topic, analyzing international literature, many of which are related to the direction of application for security purposes. (BROWNE – ABEDIN – CHOWDHURY, 2024) The purpose of this short paper is to raise awareness of the importance and the unstoppable development of the use of open "resources" and "information sources" available online for security purposes. The essay will explore the issues that arise in the evolution of OSINT and its online capabilities that will affect the future of the field.

Range of skills and use

The underlying assumption is that as technology evolves, open-access data, methods, and solutions that can contribute to the analysis and deeper understanding of information in the online space will become more valuable. However, there are a number of factors that limit the scope for open information-gathering activities in the information space and the credible use of the results. Such constraints may include our digital skills and expertise, the ability to access data, the tools and methods and the legality and ethics of their use, or the ever-changing nature of cyberspace-based methods and solutions. While some data sources are available for free, others only after registration or for a fee, in other cases the effectiveness of the capability depends on the depth of our related knowledge. The latter is particularly true for more advanced, professional-level

solutions, which can at the same time enable more complex and deeper levels of data processing. New and emerging online tools for open information are appearing almost daily, while others are losing their capability or are becoming more expensive, even incorporating AI capabilities. (EVANGELISTA et al. 2020)

But what are the generally known advantages of OSINT?

- Access to a wide range of information sources: open sources offer an almost unlimited amount of data from various types of sources.
- The use of search engines, web browsers, solutions specifically designed for OSINT, and artificial intelligence, which enhance capabilities and make them more efficient.
- Targeted information retrieval, context recognition, searching for past events, real-time data collection, and analysis.
- The possibility of creating structured data to facilitate organization and more efficient analysis.
- Cost-effectiveness: Open-source methods can provide a cheaper alternative compared to other information-gathering solutions.
- Flexibility: The direction of data collection can be quickly and easily adjusted to adapt to new information.
- Revealing hidden connections: By analyzing large amounts of data, underlying relationships and patterns can be discovered.

At the level of the average citizen, browsers and the free solutions available for this purpose represent the capabilities and tools of OSINT. The main advantage of these essentially open tools is their ease of access and use. They allow rapid data exploration and simple analysis without the need for deep technical knowledge. However, these simpler tools have limited functionality and are not always suitable for analyzing complex security data. If we want to dig deeper into the understanding and context of information, there are a number of professional applications available, but their use is becoming more professional and time-consuming.

At the other end of the scale are the business actors that develop and offer specific OSINT system-level solutions (platforms) and the users (including state organizations and business actors responsible for security). Here, the growing demand is followed by the development and service market segment, where a significant increase is forecasted.⁸ Professional, complex OSINT solutions (often higher versions of the basic versions) are now able to meet deeper and more complex information needs, in return for a professional development and

⁸ See: www.marketresearchfuture.com (<https://tinyurl.com/3wzwwjw7>) or Open Source Intelligence Market Trends – Growth & Forecast 2023-2033, <https://www.futuremarketinsights.com/reports/open-source-intelligence-market>

operational environment, increased expertise and technical knowledge, and a user-side subscription linked to the market approach. What other issues these may raise, including for public bodies responsible for security in terms of data access capabilities (e.g. outsourcing of intelligence capabilities (BERREFJORD - BJØRSTAD, 2024), or even what strategic approaches⁹ might be envisaged), are not explored in this study, but it is worth noting that, in particular for cyberspace capabilities, the importance of an integrated approach, public-private partnership, and collaboration may be particularly appreciated, which will help to further develop the skills and competencies needed for the security sector.

Along the scale from individual user to organizational level user activities, which mostly reflects skills, a number of other aspects emerge that may influence the depth of the activity:

- the different differences between individual vs. mass processing of data (manual vs. factory),
- complex analysis solutions to ensure comparability of data,
- the specific or even systemic technical solutions for interpreting the metadata behind different types of data (e.g. text, image, video),
- or even the credibility of the methods themselves, which can produce results that can be used even in professional, e.g. expert, work.

All this may of course raise new questions and directions to be explored, including the authenticity of the data, the legitimacy of data acquisition, the visibility (interactivity) of the data, the usability of the data, and not least, the emergence of AI.

Some issues worth examining

The current presentation of the topic does not go into detail about the legal aspects of open-source intelligence (OSINT), but we would like to note that these can significantly influence the development of the information-gathering methods themselves, as well as the lawful usability of the collected data. Consider the protection of personal data or even the presence of solutions that may, in part, overlap with hacker activity tools.

The complexity of ethical and legal considerations (this study does not examine the possible broader authority of the applying organization's activities) is also reflected in the question of the usability of open information in the process, as well as the associated credibility concerns. Along this line, we can even arrive at open-source solutions that are accepted in digital forensic activities, which can provide credible results.

⁹ IC OSINT Strategy 2024-2026, The INT of First Resort: Unlocking the Value of OSINT, https://www.dni.gov/files/ODNI/documents/IC_OSINT_Strategy.pdf

The simpler, open-source information-gathering solutions are primarily distinguished from digital forensic methods by the depth, reliability, and regulation of the processes. Digital forensic investigations – whether it concerns computer, database, network, malware, mobile, or hacking forensics – exclusively use approved methodologies and tools that ensure the process is repeatable, credible, and verifiable.

In contrast, simpler OSINT techniques are often less structured, although more flexible, but they do not always guarantee reliable and legally acceptable results. A fundamental requirement in digital forensic activity is transparency, as the methods and procedures used must be repeatable, credible, and verifiable. The tools and techniques used during forensic investigations must be based on approved methodologies, and the entire process must be documented in such a way that the results can withstand legal scrutiny.

It is clear, however, that there is a "gray zone" in OSINT activities, as it is difficult to define where ethical and legal practices end and where potentially illegal practices begin. The question may arise as to what is decisive: the open nature of the information sources or the transparency of the methods used? Although some data sources are freely accessible, the legality of the methods and techniques used can often be disputed. There are specialized techniques, software, and even passwords whose use may raise questions about their legality and ethics. Special attention should be given to the massive nature of publicly accessible metadata or, as many studies point out, the collection of data that infringes on individuals' privacy—data that participants did not intentionally share, but rather did so carelessly (due to a lack of knowledge about the system) on platforms such as social media (ZULKIFLEE – GHANI – NOORDIN, 2024, 100-116). When this data appears as a concentrated dataset, it can become sensitive information. This is because digital traces can reveal our habits, and preferences, such as through profiling or social networks. The analysis and use of such data raise serious data protection, legal, and ethical questions. Therefore, ensuring lawful data collection and use is of paramount importance, taking into account the protection of personal data and the methodological boundaries that separate ethical and legal practices from potentially problematic solutions.

A specific aspect of OSINT activity is its visibility, leaving traces, and even intervening in processes (interactivity), which can occur on multiple levels. Passive methods (where minimal interaction is visible, only publicly accessible, freely available information sources are used) are generally less controversial from a legal standpoint. However, with semi-active (occasional interaction occurs, traces are left behind during information gathering, e.g., logging into websites) or even active methods (conscious, direct interaction), there is a higher potential for legal violations, such as violations of data protection rules or unethical behavior.

It is definitely worth addressing the question of responsibility—who is accountable during the use of openly accessible (primarily technical) solutions,

whether for the ethical or legal correctness of the applied methods, or for the "accuracy" of the data and analysis, and the precision of the method. Is it the platform providing the data, the developer, or even the user (analyst)? This is an extremely complex issue, especially in the digital space, where information spreads rapidly and is easily manipulated. Responsibility is thus almost certainly interpretable on multiple levels. This study does not wish to address the question of the credibility of information sources in today's highly complex information environment; however, it is clear that verifying the truthfulness of data by an ordinary user is almost impossible today. Consider the phenomena of fake news, misinformation, and disinformation, which are further strengthened by several factors: the intent of the distributors, the speed at which news spreads, or even the possibilities for the application of deepfake and manipulative solutions. (BALOGUN et al. 2025) Indeed, artificial intelligence could represent progress in this area as well. (SZABÓ, 2024)

From the perspective of open tools and solutions, even the partial responsibility of the developers who create them (not accountable) might arise (e.g., accuracy, reliability), but in most cases, this responsibility disappears with open-source software. Therefore, much of the responsibility falls on the user's side, including the direction of data collection and usage, where the rights of others may be infringed. They are also responsible for verifying and evaluating sources, as well as using methods in accordance with legal and ethical standards.

In this entire process, artificial intelligence (AI) brings forward an extraordinary change, and its effects are highly complex (STRZEPEK, 2024). On one hand, the capabilities offered by AI are incorporated into traditional open solutions as a tool to increase efficiency. However, many AI variants can independently provide valuable information, where an AI-based search no longer only provides access to information, but rather offers an analyzed, evaluated, contextualized, and enhanced version. AI has appeared in almost every area of OSINT at an extraordinary speed, supporting the increasing demands from the user side for greater automation and processing.

This can represent a significant advancement, as up until now, valuable information was often derived from individual solutions through lengthy processes, while with AI assistance, this happens in one step (information gathering and analysis merge). AI can be an effective tool in information gathering and processing, but as we move toward expert directions, it raises several questions. While a technical solution, for example, applied in digital forensics, must meet specific requirements, even if the same result is produced by an AI-based solution, it may still raise the question of whether its credibility is acceptable in this field. Considering the expectations and methodological requirements (Transparency, Authenticity, Reliability, Repeatability, and Reproducibility) placed on digital forensic activities. However, AI applications are still often viewed as a "black box," where the underlying decision-making processes and the

authenticity of the data are unclear, and with constantly updating models, reproducibility—ensuring unchanged results—is also not guaranteed. At the same time, the use of AI in forensics is a significant advance in this field as well. (BOKOLO – LIU, 2024)

Overall, it is clear that while the use of open sources and methods offers many advantages, there are several limitations that make their application more challenging:

- Information Overload (Information Dumping)
 - It is difficult to find relevant information among the vast amounts of public data.
 - Filtering and organizing information is time-consuming, especially when using simpler tools.
 - More advanced technologies (such as AI-based filters) can help, but they require higher-level technical knowledge.
- Complexity of Information Processing
 - The combination of different types of data (e.g., text, images, metadata) requires complex processing.
 - Simple tools are only suitable for basic processing, while more detailed analyses require expert-level knowledge and specialized software.
- Need for Expert Knowledge and Technical Tools
 - Some methods require unique technical knowledge, specialized software, and advanced tool usage.
 - These methods may be inaccessible for beginner users, while expert-level processing demands significant time and resource investment.
 - The issue of the credibility of the applied methods and the potential use of findings in official procedures, even as evidence.
- Question of Information Authenticity and Reliability
 - Open sources may contain false information, misleading data (misinformation), intentionally deceptive content (disinformation), or even deepfakes.
 - Simple tools may not always be able to detect manipulated data.
 - Reliable analysis requires source verification, deeper research, and advanced analytical methods.
- Considering Legal and Ethical Aspects, which—especially as the technological environment has surpassed the general levels of legal regulation in many areas—bring to the forefront ethical and legal concerns (particularly regarding privacy violations), which require a more complex examination of the issue.

Summary

When considering OSINT and its tools, platforms, and unique solutions, it is important to remember that it is a vast and complex category, whether in terms of the diversity of its sources, their types, the possibilities for analysis, or their intended use. At the same time, the user side is interested in obtaining faster, more accurate, and more relevant information with the least amount of effort. These factors have amplified the adoption of OSINT's complex applications, which are likely further strengthened by various other influences. On one hand, the increasingly complex information environment opens up opportunities for users to move from dealing with just specific segments of OSINT to solutions that offer more comprehensive, complete, and deeper informational responses. Instead of individual, often changing OSINT platforms and solutions, system-level (e.g., modular) approaches enable user-friendly operation, and the additions provided by AI have further expanded the possibilities of OSINT. On the other hand, the responsibility for the reliability of the methods and data, or even the legality behind certain methods (the "grey zone") (HRIBAR – PODBREGAR - IVANUŠA, 2014), as pointed out in this study, is increasingly transferred to the OSINT solution-providing platforms. The rise of AI and its integration into OSINT processes is already visible. With the vast amount of information characteristic of OSINT, AI applications can further improve processing capabilities, increase accuracy, and allow for the discovery of hidden correlations that could assist in predicting future challenges and risks. All of this signals the growing value of the OSINT market, where the goal for users is no longer just acquiring open-source data, but accessing complex information that has been assembled into a product from open sources.

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Data Security Challenges and the Role of Cooperation in Cybersecurity

Réka GYARAKI

Ludovika University of Public Service, Budapest, Hungary

e-mail: gyaraki.reka@uni-nke.hu

<https://orcid.org/0000-0002-5733-5974>

1. Introduction

In the digital age, data protection faces increasing threats, requiring robust cybersecurity measures. Public institutions, including law enforcement agencies, the National Authority for Data Protection and Freedom of Information (hereinafter "the Authority" or "the NAIH"), and educational systems like eKréta, are prime targets for cyberattacks. These entities store sensitive personal data, making them attractive to hackers seeking financial gain, political leverage, or disruptive influence. Addressing these threats requires a collaborative approach involving multiple stakeholders to strengthen defenses and ensure compliance with data protection regulations.

Cybercriminals continuously evolve their techniques, exploiting technological vulnerabilities and human error. The rapid digitalization of public services has expanded the attack surface, making it crucial for organizations to adopt proactive security measures. Government agencies, private-sector cybersecurity firms, and international regulatory bodies must coordinate their efforts to mitigate risks and enhance cybersecurity resilience.

2. Data Security Challenges

Data security is the process of protecting digital information throughout its entire lifecycle to prevent corruption, theft, or unauthorized access. It encompasses all aspects, including hardware, software, storage devices, and user devices, as well as access controls, administrative measures, and organizational policies and procedures.

Data security relies on tools and technologies that improve visibility into a company's data and how it is being used. These tools help safeguard information through techniques such as data masking, encryption, and redaction of sensitive

data. Additionally, effective data security processes assist organizations in streamlining audit procedures and ensuring compliance with increasingly stringent data protection regulations.

Taking into account the state of the art, the costs of implementation and the nature, scope, context and purposes of processing as well as the risk of varying likelihood and severity for the rights and freedoms of natural persons, the controller and the processor shall implement appropriate technical and organisational measures to ensure a level of security appropriate to the risk, including inter alia as appropriate:

Data Security Challenges refer to the problems and threats that endanger the security, integrity, and availability of data. The goal of data security is to protect sensitive information from unauthorized access, modification, theft, or destruction. These challenges arise from various factors, including technological vulnerabilities, human errors, cyberattacks, and legal or regulatory complexities.

2.1 Ransomware Attacks

One significant challenge is ransomware attacks, where cybercriminals encrypt institutional data and demand ransom for its release (KRUSE CS et al. 2017). These attacks have surged in frequency and sophistication, targeting critical infrastructure and public institutions. Law enforcement agencies, responsible for investigating such crimes, often struggle with resource limitations and jurisdictional issues when dealing with international cybercriminal networks (PATTERSON et al., 2023). Ransomware incidents not only disrupt operations but also lead to financial losses and reputational damage.

Public-sector institutions are particularly vulnerable due to outdated security infrastructure, insufficient patch management, and lack of incident response preparedness. The WannaCry ransomware attack in 2017, which impacted healthcare and governmental organizations globally, underscored the consequences of weak cybersecurity measures (PATTERSON, 2022). Such attacks highlight the urgency of implementing robust backup strategies, endpoint protection, and threat intelligence sharing among stakeholders.

2.2 Data Breaches and Unauthorized Access

Vulnerabilities in public-sector cybersecurity infrastructures, as evidenced by data breaches in the eKréta system, raise concerns about student and teacher data security (ZHANG et al. 2022). The breach highlighted weaknesses in authentication mechanisms and data encryption protocols, underscoring the need for enhanced security measures.

Data breaches often occur due to misconfigured databases, weak passwords, and unpatched software. High-profile incidents, such as the 2021 attack on a

European educational platform exposing millions of student records, demonstrate the scale of potential harm (WILLIAMS - ZHANG, 2023). Strengthening access control policies, implementing multi-factor authentication, and conducting regular security audits can help mitigate these risks.

2.3 Phishing and Social Engineering Attacks

Another critical issue is phishing attacks, where cybercriminals deceive employees into revealing sensitive information (NGUYEN - PATEL, 2020). Public institutions, often lacking advanced cybersecurity training, are particularly susceptible. Phishing remains one of the most common attack vectors, leveraging psychological manipulation to exploit human vulnerabilities.

Spear-phishing campaigns, which target specific individuals with personalized messages, have been used to infiltrate governmental networks. In 2022, a major cyberattack on a European government agency was traced back to a phishing email that compromised administrative credentials (GARCIA, 2023). Raising awareness through simulated phishing exercises and continuous employee training is essential to reducing the success rate of these attacks.

2.4 Insider Threats

Insider threats, whether due to negligence or malicious intent, pose significant risks to data integrity and confidentiality (MITCHELL, 2019). Employees with access to sensitive data can unintentionally expose systems to cyber threats through poor security practices or deliberate sabotage.

Government agencies and educational institutions must implement strict access control policies, user behavior analytics, and data loss prevention measures to detect and mitigate insider risks. Regular security training and a culture of cybersecurity awareness can help prevent accidental breaches and foster a security-conscious workforce.

3. The Role of Cooperation in Cybersecurity

Data security challenges encompass a wide range of risks that can compromise the confidentiality, integrity, and availability of data. As organizations increasingly rely on digital systems, they become more vulnerable to cyber threats such as hacking, malware, and data breaches. Human errors, such as weak passwords or accidental data leaks, also contribute to security vulnerabilities. Additionally, evolving regulations and compliance requirements add complexity to data protection efforts. To mitigate these risks, businesses and institutions must implement robust security measures, conduct regular cybersecurity training, and stay updated on emerging threats and best practices.

3.1 Interagency and International Collaboration

Cooperation between law enforcement, regulatory bodies, and IT professionals is essential for preventing and mitigating cyber threats. Rapid information sharing, joint cybersecurity drills, and cross-border collaboration help improve responses to cyber incidents (TAYLOR et al., 2021). The European Union Agency for Cybersecurity (ENISA) plays a crucial role in facilitating cooperation among member states and providing guidelines for best practices (ENISA, 2023).

Interagency task forces dedicated to cybersecurity investigations enable faster response times and improved coordination. Europol's European Cybercrime Centre (EC3) has successfully disrupted major cybercriminal operations by working with national law enforcement agencies and private-sector partners (Europol, 2022). Strengthening legal frameworks for data sharing and cybercrime prosecution is crucial for enhancing global cybersecurity cooperation.

3.2 National Authorities

The Hungarian Police, as a general investigative authority, perform a wide range of tasks related to crime prevention, investigation, and law enforcement. Their responsibilities include detecting, preventing, and investigating criminal offenses while maintaining public order and ensuring the safety of individuals and property. They oversee border control and immigration enforcement, monitoring border crossings, preventing illegal migration, and addressing cross-border crimes. Counter-terrorism efforts are also a key function, involving the identification, prevention, and response to terrorist threats and activities. Additionally, the police enforce traffic laws, investigate traffic-related offenses, and safeguard critical infrastructure by protecting essential national assets from potential threats. Cooperation with domestic and international law enforcement agencies is another essential duty, particularly in combating organized crime and transnational offenses.

In the digital space, the Hungarian Police have specialized responsibilities to address the growing threats of cybercrime. They investigate cyber-related offenses such as hacking, online fraud, identity theft, and cyberstalking. Digital forensics plays a crucial role in their work, as they collect, analyze, and preserve electronic evidence to support criminal investigations. A significant aspect of their duties involves protecting children online by preventing and investigating cases of child exploitation, abuse, and human trafficking. The fight against cyberterrorism is also a priority, involving the monitoring and prevention of extremist activities, radicalization, and terrorist financing conducted online. The police actively engage in cyber threat intelligence, analyzing potential cyber threats, monitoring dark web activities, and identifying emerging risks. Given the transnational nature of

cybercrime, they collaborate with international agencies such as Europol and Interpol to combat global cyber threats. Additionally, they conduct awareness and prevention campaigns, educating the public and businesses about cyber threats, fraud prevention, and safe online behavior. Financial cybercrime, including online financial fraud, money laundering, and illegal transactions, is another area where the police play a key role, working to prevent and investigate such offenses. These specialized duties ensure that the Hungarian Police can effectively respond to both traditional and modern security challenges, maintaining safety in both the physical and digital realms.

The National Authority for Data Protection and Freedom of Information is responsible for monitoring and promoting the enforcement of two fundamental rights: the right to the protection of personal data and the right to freedom of information (access to data of public interest and data accessible on public interest grounds) in Hungary, as well as promoting the free movement of personal data within the European Union.

At the national level, organizations like the NAIH work to enforce data protection regulations and investigate breaches. However, their effectiveness depends on timely cooperation with national and international entities. Governments must allocate adequate resources to cybersecurity agencies, improve legislative frameworks, and encourage reporting mechanisms for cyber incidents.

National Computer Security Incident Response Teams (CSIRTs) play a pivotal role in detecting, analyzing, and mitigating cyber threats. Investing in cybersecurity infrastructure, research, and workforce development is essential to building a resilient digital ecosystem (MEYER - MÉTILLE, 2023).

3.3 Public-Private Partnerships

Public-private partnerships also play a crucial role, as private-sector expertise can enhance governmental cybersecurity efforts. Companies specializing in cybersecurity solutions contribute by providing threat intelligence, risk assessments, and security audits. Collaboration between tech firms, financial institutions, and law enforcement agencies has proven effective in combating cybercrime. For example, the Cybersecurity Information Sharing Act (CISA) in the United States promotes real-time information exchange between businesses and government agencies, improving threat detection and response. Similar initiatives in Europe aim to foster collaboration between industry leaders and policymakers to enhance digital security.

3.5. Case of eKréta

In recent times, there has been a significant increase in the number of data protection and cybersecurity incidents, despite the fact that a comprehensive regulatory framework governs the protection of data, as well as the security of information systems and the electronic data stored within them.

However, in cases such as a ransomware attack, if the affected organization processes personal data and the security of these personal data is compromised during the attack or threat—leading to unauthorized access by individuals—multiple organizations must be notified, in addition to the individuals whose personal data has been obtained. This notification "obligation" and its shortcomings will be examined through a legal case.

In connection with a data protection incident involving the "KRÉTA" system (Public Education Registration and Study System), which is mandatory in general and secondary schools, students' personal data were compromised. As a result, the company operating the system was fined HUF 110,000,000 by the National Authority for Data Protection and Freedom of Information (NAIH).

The case came to the attention of the authorities in November 2022, when the attackers publicly disclosed on the Telex news portal that they had carried out a phishing attack, obtaining the credentials of an employee. Notably, this employee was the one with full access to the system. Upon realizing the breach, the employee only informed their employer several days later. The employer then erased everything from the affected computer instead of taking the necessary measures. As a result, no report was made to the National Authority for Data Protection and Freedom of Information regarding the personal data breach (data protection incident), nor to the National Cybersecurity Institute of the National Security Service regarding a cybersecurity incident, nor to the police regarding the commission of a criminal offense.

Following the public disclosure of the case, NAIH imposed a fine of HUF 110 million on e-Kréta Informatikai Fejlesztő Zrt., the company developing the Public Education Registration and Study System (KRÉTA). In its decision No. 1245-29-2023, NAIH provided a detailed justification for the fine, stating that the company failed to comply with its obligations under Article 32(1)(b) and Article 32(2) of the GDPR. Specifically, it did not adequately consider the risks arising from unauthorized disclosure or access to personal data when configuring the data security settings of its IT development environment. Consequently, the company failed to ensure the continuous confidentiality, integrity, availability, and resilience of the systems and services used for personal data processing.

3.4 Cybersecurity Awareness and Education

Educational institutions must implement stronger cybersecurity awareness programs to equip users with the knowledge to recognize and prevent cyber threats (ANDERSON & LEE, 2020). Public awareness campaigns can educate users on best practices, such as using strong passwords and recognizing phishing attempts.

Cyber hygiene training for employees and students can significantly reduce the likelihood of successful attacks. Integrating cybersecurity education into school curriculums and professional training programs ensures that future generations develop a security-first mindset.

4. Conclusion

Protecting data from cyber threats demands a collaborative approach. Strengthening cooperation between law enforcement, regulatory bodies, and cybersecurity experts allows public institutions to enhance their resilience against cyberattacks and safeguard sensitive information. By investing in technology, training, and international partnerships, governments can build a more secure digital ecosystem.

Future efforts should focus on legislative advancements, cross-border cooperation, and continuous cybersecurity improvements. A unified approach to cyber defense will ensure that public institutions remain protected in an increasingly interconnected world.

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A pedagogical paradigm shift in higher education? - Analysis of a programme to support community learning

Márta KORPICS

Ludovika University of Public Service, Budapest, Hungary

e-mail: Korpics.Marta.Katalin@uni-nke.hu

<https://orcid.org/0009-0004-2971-4565>

Tamás MÉHES

Ludovika University of Public Service, Budapest, Hungary

e-mail: mehes.tamas@uni-nke.hu

<https://orcid.org/0000-0003-1725-4149>

Introduction

Higher education is facing major challenges from environmental influences such as globalisation, student and labour market expectations, digitalisation and societal changes. Higher education institutions need to respond to these changes by finding and implementing successful strategies. In higher education, a shift in pedagogical ambitions has been observed in the last decade (Tóth, 2018). Improving the quality of education has also come to the fore as a challenge for institutional and organisational development (Kálmán, 2019). The response to change can work on the basis of well-established change management models. The changes taking place at the university presented in this paper can be well understood on the basis of the Kotter model (Kotter, 1996) (Bajnok-Korpics 2023). Several studies have examined the application of this model in the context of higher education (EDGE et al. 2022, KANG et al. In response to this change, the University announced the Creative Learning Programme (hereafter KTP, the programme) in its Institutional Development Plan 2020-2025, which aimed to establish a pedagogical paradigm shift. In this paper, we present an important element of the programme and its communication, a good practice that can be well linked to the series of responses and change efforts to the challenges affecting higher education.

The Creative Learning Programme at the National University of Public Service

Since its inception, KTP has been committed to supporting and encouraging creative solutions and sharing them with the full University community. One such programme element was the Innovative Department Award competition. The initiative was launched in 2021 and has been announced three times. The Award is a competition whereby departments present their innovative and creative solutions based on a set of pre-defined and announced criteria. The winning departments will share their good practices with the University's faculty in workshops in the year following the award. The introduction of the Award will benefit the University's teaching practice in many ways, and this will be achieved through the communication of good practice. It provides an opportunity for the department to showcase and share good practice with the public and also supports these departments through the prizes associated with the Award. The workshops will be included in the KTP's development of teaching methodology, offering the opportunity for collaborative learning with other university colleagues. The Prize also signals to students the department's commitment to creative, interactive teaching methods.

It is also an important indicator of the department's move towards innovation. You can follow the annual workshops and their content on the KTP website. The presence on the website is also an excellent way of evaluating this programme element.¹⁰ Evaluating the paradigm shift as a change management process in the design of the programme is also a good way to follow the recommendations of Kotter's eight-step model (1996)¹¹ for communicating change and results. According to the model, a change process should involve all members of the organisation, which is why communicating the vision (Step 4) is given a prominent role. Step 6 calls for the rapid delivery of results, which the communication channels described above were appropriate for sharing. Due to the scope of the study, only one element of the programme's operation will be examined and analysed from two perspectives. One aspect looks at the functioning of the creative principles for higher education and the other at the achievement of the objectives set out in the programme's strategy. The action plan for the strategy set out the objectives in two major areas, namely the renewal of the teaching methodology and the implementation of the mentoring programme. A total of 9

¹⁰ <https://www.uni-nke.hu/oktatas/kreativ-tanulas-program/innovativ-tanszek-dij/2021-evi-palyazat>

¹¹ The eight steps are: Create A Sense of Urgency. 2. Build A Guiding Coalition. 3. Form a Strategic Vision. 4. Communicate a vision. 5. Empowering Others to Act on the Vision. 6. Planning for and Creating Short-Term Wins. 7. consolidating Improvements and Producing Still More Change. 8. institutionalising New Approaches (KOTTER 1996).

objectives were set in these two areas (Table 1). For the first aspect, the book *An A-Z of Creative Teaching in Higher Education* by Ashton-Stone (2021) was used. The two authors present the characteristics and expectations of creative teaching in higher education by associating the letters of the alphabet. From these 25 aspects, we selected five along which we analysed the good practices presented in the workshops. The choice is partly subjective, and neither the scope nor the description available to us allows for an analysis of the 25 aspects, but an analysis according to the five selected aspects does. The selection of the five criteria was based on the characteristics of the IFT and the call for entries for the Innovative Departments Award, and thus cannot be considered subjective, as the criteria were selected in relation to the objectives of the programme. Thus, by selecting five different creative characteristics, the two aspects of the study could be combined. Creative teaching requires that the teaching be active (*A - as in active*), with student-centred learning. An important aspect is communication (*C as in communication*), which involves looking at how the teacher can connect with the students, using tools, questions and tasks to do so. Design is also essential (*D for design*), which should cover all elements of learning. Working with groups (*G as in Group*) is also an essential part of creative learning, exploring collaboration in real and online spaces.

The fifth element is the experiential aspect (J for Joy), which focuses on how to find joy in teaching and learning. A brief description of the workshops was provided by the departments, which was used to examine whether the five letters of the creative alphabet creative teaching criterion was met in the department's workshop. The objectives identified in the Action Plan were compared with the five creative criteria selected, so that we could examine the fulfilment of the five creative criteria and the nine objectives identified in the Action Plan in one single analysis (Table 1)

Table 1: Comparison of Action Plan objectives and creative aspects

Target	Creative aspect	Comment
Strengthening training and outcome requirements based on learning outcomes	A, C, D, G, J	All five aspects are important to achieve the goal.
Reviewing traditional educational principles, focusing on the learning process	A, C, D, G, J,	All five aspects are important to achieve the goal.
Improving the learning environment and tools	D, G, J,	It is an important background activity that has an impact on the teaching-learning process.
Sensitising teachers to the use of creative methodological tools/processes/solutions in education	A, C, D, G, J	All five aspects are important to achieve the goal.

Achieving a renewal of teaching methodologies in education to develop and assess student skills	A, C, D, G, J,	All five aspects are important to achieve the goal.
A paradigm shift in education: sensitising teachers to the use of innovative/creative methodological tools/procedures/solutions in education; raising teachers' interest in methodological training	All five aspects are important to achieve the goal	More creative criteria than this were presented at the various workshops.
Creating a supportive learning environment	C, D, G, J,	A goal to engage students.
Mentoring individual learning journeys and building personalised professional communities	C, G, J,	It is based on communication and working with groups, but experientialism is also a strong motivator.
Mentoring system on teaching methods	-	A later commitment to the programme, it has not yet played a role in the Innovation Department Award.
creating a student-centred learning environment	A, C, D, G, J,	All five aspects are important to achieve the goal.

Analysis of two workshops of the Innovative Chair Award

As previously reported, the Prize has been launched three times during the life of the programme (in 2021, 2022 and 2023). In the first two years, the winners presented good practices that were typical of the department's teaching practice and portfolio in workshops held the year following the award ceremony. In the third year, there were no workshops, so two items from the first two years were selected for analysis, the content of which provided sufficient information to identify the criteria for analysis. A total of 18 descriptions were included on the programme website, some of which were even available under the Professional Materials - Good Practices menu, thus providing teachers with an insight into the good practices of other teachers.¹² One of the Innovative Departmental Awardees analysed below was the Department of Military History, Philosophy and Cultural History, Faculty of Military Sciences and Officer Training, Workshop on War Games (Table 2). For the analysis, we analysed the description previously

¹² More information on other workshops of the Innovative Department Award will be available in a forthcoming book of papers on the research of the Creative Learning Research Workshop.

uploaded by the Department to the Best Practise Section, because the Innovative Department Award-winning material included only a very short description. The other workshop selected was the workshop of the Department of Public Administration and Infotechnology of the Faculty of Public Administration (Table 3).

Department of Public Management and Information Technology of Faculty of Public Governance and International Studies

Table 2: Using war games to develop strategic thinking

Compliance with the creative ABC	Specificity of the workshop for the given criterion
A - Activity: student-centred learning	listener curiosity; acquire and verify knowledge; creative shared decision-making; developing critical thinking; small group learning organisation, interactive group work
C - Communication: connecting with students, tools, questions	the teacher's explanation gives an introduction to the scenario; the teacher moderator; helps to resolve conflicts; preparing them for their changing teaching roles; increased communication within the group analysing the results of other groups - developing critical thinking;
D - Planning: course and teacher planning	a scenario based on fictional or real events; ensure links to the curriculum; to learn about historical figures and events; Play is never an end in itself, it is always part of the learning process
G - Working with groups - cooperation in real and online spaces	team building (student coaches working together) individual and group work; team cohesion; experience cooperation and competence together; strengthening social relationships (developing social competences);
J - Joy, Joy in learning	learning by playing; historical situation simulated by the game; the shared narrative captures what is learned more deeply; simulation - real positioning;

The use of wargaming to develop strategic thinking workshop covered all five aspects. The methodology and the teaching role used strongly support the learning process, actively developing social competences, especially the 4K (communication, cooperativeness, critical thinking, creativity) skills, both on the part of the teacher and the students. 4K skills are of paramount importance in jobs in the 21st century. Based on the content of the workshops studied and analysed, it can be concluded that they met both the creative aspects and the strategic objectives (APA 2015, CHICKERING – GAMSON, 1987; Nikolaidis et al. 2022) Moreover, it reflects well the changing learning environment and the needs of the students, fully complying with the learning by doing learning method The importance of student activity is highlighted by this paradigm, learning is broadly understood; "*learning by doing, learning by interacting*" (ANZAI – SIMON, 1979; THOMPSON, 2010; REESE, 2011). In this way, the learning environment also plays a more important role.

The other workshop selected and included in the analysis gives an insight into the work of another faculty department. The workshop was titled Digital Talent Management and presented the benefits and difficulties of student competitions and how talent management is increasingly being brought into the digital space.

Table 3: Digital talent management (own ed.)

Compliance with the creative ABC	Specificity of the workshop for the given criterion
A - Activity: student-centred learning	talent management focuses on individual student work; involving students in research at master's level; competitiveness as a student achievement; tutorial videos and podcasts;
C - Communication: connecting with students, tools, questions	involving students in joint work; changed teaching roles; motivating students, working with teachers;
D - Planning: course and teacher planning	the changing landscape of talent management in education; gamification; e-learning solutions in design;
G - Working with groups - cooperation in real and online spaces	the student community (student union), joint scientific achievements;
J - Joy, Joy in learning	the joint creation of a decision support simulation; playful elements in learning-research;

From the description of the workshop, it is clear that it meets the selected creative aspects and that for each aspect there are several learning support elements that enable creative learning. The activity aspect shows that the method is able to motivate the students, making a subject that is more distant from young people interesting, comprehensible and understandable. Support for talent and collaborative learning have a strong motivational effect on young people. From a communication point of view, the most important thing is to find and choose the right communication channel (visual) and to integrate it into the teaching. A new element in the design was the use of digital interfaces and e-learning interfaces and, in this context, the experience and enjoyment aspects. Research on school effectiveness has highlighted the importance of retention communities and belonging in university life. The innovativeness of the faculty provides a framework for the creativity of the individual faculty members to make the preparation for the profession student-friendly and experiential (KOLNHOFER DERECSEI-NAGY-ZOLTAY, 2017; ROBYN, 2013; CSÍKSZENTMIHÁLYI, 2008).

Conclusion

The two workshops selected and analysed fully met the five creative criteria selected. It can be concluded that both organisational innovativeness (BRIDGSTOCK ET AL., 2011; SERES-BUSI -HEGEDŰS, 2024) and individual, instructor creativity (KOLNHOFER DERECSEI - NAGY - ZOLTAY, 2017; CSÍKSZENTMIHÁLYI, 2008) were present in the selected two workshops. Moreover, these methodological innovations fit well into the University's Creative Learning Programme.

These good practices are also exemplary in the sense that they are not an end in themselves, but support and help the learning of the curriculum in all cases. The design aspect has therefore been included in the analysis, not only to assess the creativity of the methodology, but also to evaluate the extent to which these methodologies support the transfer and student learning of important knowledge elements. One of the objectives of the KTP was to support individual learning pathways, which is well met in the methodologies studied through the use of different learning channels and greatly supports the education of this generation (ASHTON-STONE, 2022; ROBINSON-ARONICA, 2018; APA 2015; EINHORN, 2015; PÉTER-SZARKA ET AL., 2015; JENKINS ET AL., 2013; TARI, 2011; NAHALKA, 2002).

The content of the workshops was also successfully communicated, supporting the change management process. The Kotter model was most valuable for the rapid communication of results (step 6), but the publication of workshop descriptions on the website and the transfer of information at the workshops also had an impact on the organisational culture (step 8).

Summary

The study presented an analysis of one of the programmes of a special Hungarian higher education institution related to its Institutional Development Plan. For the third year running, the Innovative Department Award has been organised by the University to reward organisational innovation and individual creative and teaching excellence. The Prize is not only useful for the winning departments and lecturers, as the workshops held by the winning departments are open to all university citizens and provide an opportunity to share knowledge and learn about good practice. The workshops were examined using the methodology of document analysis, based on the selected criteria of a creative ABC describing creativity in higher education. The methodologies and creative teaching tools presented and analysed meet the criteria of creativity regardless of the discipline and are fully suitable to meet the changing learning needs of young people currently studying in higher education. The communication of the Innovation Award and thus its role in the change management process was also appropriate. It also provides a good example of the importance of communicating this type of programme to the stakeholders of the institution (AZZIZ, 2014; BURUKINA, 2021; ALI - NYAMBUGA – ADAMS, 2018).

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Analysis of information during interrogation using nonverbal communication

Martin LACA

Academy of the Police Force in Bratislava, Slovakia

e-mail: martin.laca@akademiapz.sk

<https://orcid.org/0000-0003-3059-5116>

Introduction

Have you ever considered that information can be obtained during an interrogation not only through verbal communication? By analyzing available sources, I have found that, in the conditions of the Slovak Republic, no research has been conducted so far focusing on the tactic of verifying information through nonverbal communication. In my opinion, this is a mistake that needs to be corrected. To begin with, it is essential to emphasize that there is no single nonverbal signal that would allow us to definitively determine whether a person is lying. As Joe Navarro, whom I consider a global leader in this field, says: *"There is no such thing as the Pinocchio effect."* In other words, when people lie, their noses do not grow like Pinocchio's in the fairy tale. According to many so-called "experts" in nonverbal communication, crossing arms and legs is a defensive posture or, in other words, a state in which a person disagrees with you. I do not agree with this approach, as I believe that such definitive statements by some "experts" are not accurate, mainly because findings in nonverbal communication cannot be scientifically verified. Simply put, a nonverbal communication observation is not like a mathematical equation where we can say that two plus two equals four. Despite the fact that findings in nonverbal communication are not scientifically proven, analyzing information through nonverbal expressions can provide insight into whether a person is in a state of comfort or discomfort.

1. Interrogation as a form of information gathering

It is clear that in the process of investigation, we cannot do without interrogation as an evidentiary tool. I argue that in the conditions of the Slovak Republic, the Criminal Procedure Code rigidly defines, for example, the interrogation of a witness, a suspect, or a defendant, but it does not specify which interrogation

tactics should be used. By comparing the methods of conducting interrogations between investigators in the Slovak Republic and FBI agents in the United States, I have concluded that the application of nonverbal communication knowledge during interrogation is beneficial. My findings are also based on the fact that I regularly participate in procedural acts in practical application, specifically as a person present during interrogations. I will share with you a case in which, based on the analysis of nonverbal communication findings, I was several steps ahead of the investigator conducting the interrogation while I was present as an observer. This case involved the immediate and unrepeatable act of restricting the personal freedom of suspected perpetrators who were luring young Roma girls into sham marriages for financial compensation with men from Turkey, Pakistan, and similar countries. The entire case began when, before a young Roma girl from Slovakia could say her "Yes" to her future husband, the act was interrupted by police officers. Urgent actions were taken to secure forensic evidence necessary for the case.

When I learned which room the interrogation would take place in, I arrived first with the investigator's permission. I positioned my chair strategically so as not to unnecessarily unsettle the suspect while I recorded detailed reactions (i.e., nonverbal communication expressions) to the investigator's questions on my tablet. I have often encountered the phrase, "Many people look, but few truly see." This is not just an ordinary saying but a factual reality in such situations. A 19-year-old Roma girl entered the room. With a quick "scan" from head to toe and back up again, my first note was that the clothing she wore had been purchased that same day. Consider this as my hypothesis, which needed verification and proof. There was a significant inconsistency between the new (clean) clothing and one crucial detail: while the clothing was fresh and clean, the girl's personal hygiene suggested the opposite. Her hair was greasy, the odor in the room began to shift, indicating she had not bathed, her palms were dirty, some nails were bitten, and on others, the nail polish was chipped.

At this point, a major question arose for me: if the girl had not maintained basic hygiene, why was her clothing brand new? My working theory was simple-her fiancé had purchased the outfit for her that same day. This assumption was further supported by the fact that her shoes were also new. I noticed a manufacturer's sticker still attached to the sole when she sought reassurance by anchoring herself to the chair. Yes, she was seeking comfort in the chair-her toes were planted on the ground while the heels of her shoes pressed against the front legs of the chair. The last detail I want to share with you is that the girl had a hole in her right knee.

I assumed this resulted from the police intervention. My theory was confirmed when I later reviewed footage of the operation, where the girl immediately dropped to her knees upon the officers' entry, causing the tear in her clothing. If we summarize this case briefly, we see that the information I gathered

through nonverbal communication helped me form hypotheses, which, of course, can evolve during an interrogation. The area I focused on was image-specifically, the clothing the girl was wearing at that moment. It is crucial to emphasize caution when evaluating such information. One day, a person might wear a suit, and the next, work clothes. What do I mean by this? We cannot categorically judge a person based on their clothing alone. However, in a given situation, such details can carry significant informational value.

2. Basics of non-verbal communication

In general, people try to control such non-verbal expressions as, for example, gender, body type, age, social status and, to some extent, social status. Whether we strive for this control or not, all of these elements are carried out in face-to-face communication, even if individuals are not aware of it. „Positioning people in a face-to-face position creates a natural barrier to verbal lying and at the same time releases the mechanisms by which lying is manifested non-verbally (restlessness, blushing, sweating, scratching hair, coughing, etc.).” (BAČÍKOVÁ - LACA, 2014, 32-33.)

Non-verbal communication refers to certain hidden communication channels that are independent of speech. It is carried out not only by movements of the hands, possibly the body, eyes, facial expressions, a kind of laughter, sighs, etc. It is a type of communication that does not belong to written speech. These are certain signs of human behavior that are a source of information about the state, attitudes, intentions, situation, etc. Verbal expression is also accompanied by facial expression, movements, facial expressions, physical posture, distance and many other expressions. The way a person communicates something is just as important as what he actually communicates. The difference between non-verbal communication and verbal communication lies in the fact that verbal communication includes a codified system of signs that must be learned, and it also includes a communication intention that is related to human will. In non-verbal communication, there is no codified system of signs that one would need to learn, if one does not mean the sign forms of speech conveying the meaningful contents of the language, such as e.g. Sign Language. Non-verbal communication also lacks a conscious intention, so the perception of non-verbal communication is not conscious. At the same time, the presence of perception can be proven, as immediately or later, a behavioral response to the received communication can be demonstrated, and this can be the activity of non-verbal communication channels, a verbal reaction, or another change in behavior. The difference between verbal communication and non-verbal communication can be observed primarily by analyzing the following features: (ČECH, 2000, 157.)

Continuity – Verbal communication begins and ends with words, while non-verbal communication is continuous. Imagine a vestibule in which two defendants

meet on their way to a confrontation. Even if they are accompanied by police officers, they may exchange a word or two despite the ban while they are led to the rooms by investigators or authorized officers. Even if they don't talk to each other, they constantly exchange non-verbal information - looks, gestures, facial expressions, about how they experience the given situation, how they see its further development and, above all, what they expect from the person they are confronted with.

Channel – verbal communication requires a single channel – words, while non-verbal communication uses multiple channels.

Degree of controllability by will – verbal communication is subject to the individual's conscious control, it is possible to choose words, non-verbal communication can only be controlled for a certain time. It is not possible to control those verbal cues that are part of habits and unconscious behavior. Certain possibilities of control are made possible by the completion of socio-psychological training in communication.

Structure – verbal communication is structured, governed by the formal rules of grammar. Manifestations of non-verbal communication are mostly not realized by the individual, their sequence is not planned.

Method of acquisition - there are many formal rules determining verbal communication - grammar, educational level, degree of socialization influence verbal expression. Most non-verbal communication is not taught - the individual learns it situationally - primarily by imitating others, mostly close relatives.

The basic functions of non-verbal communication include: (Compare for instance.: BAČÍKOVÁ - LACA, 2014, 30-31.; ČECH, 2000, 157.)

- Non-verbal cues complement verbal information if they are analyzed simultaneously with its meaning.
- Nonverbal cues regulate verbal communication.
- Non-verbal messages can replace or be used instead of verbal communication.
- Nonverbal messages often emphasize what individuals say.

A person's non-verbal expressions can be divided into the following groups:

Easily noticeable manifestations. These are usually the most important in application practice. They enable their immediate use when adjusting tactics and the course of individual implemented actions - it can be, for example, coughing, sweating, scratching, purposeless movements (playing with a button), biting nails, tremors, rubbing one's nose, etc.

More difficult to notice manifestations. The subject carrying out the course of reconstruction is not clearly aware of them, they are realized intuitively, e.g. change in the color of the skin on the face, movement of toes in shoes, etc.

Uncaptured and unprocessed expressions. As a rule, almost imperceptible, they occur without the possibility of conscious control of the individual, e.g. processes in the stomach, increased heart rate, faster breathing, etc.

Among the most frequent manifestations of non-verbal communication at the moment we include: (ČIRTKOVÁ - ČERVINKA, 1993, 331-339.)

- Facial expressions – facial expressions.
- Ophthalmology – sight, activity of the eye part of the face.
- Paralinguistics – voice color and strength and formal features of speech, e.g. accent, emphasis, pauses, melody, speed of speech.
- Kinesics – movements of hands, feet, head, body.
- Gestures – culturally established movements and positions – gestures.
- Proxemics – maintaining distance during social interaction in communication.
- Posture - position and posture.
- Haptics – immediate contact by touch.
- Image – modification of the exterior.

Facial expression. It is considered the most important non-verbal means of communication. It tells about the current psychological state through facial expressions. States of happiness, surprise, fear, anger, sadness, satisfaction, or interest can be determined with relatively high accuracy from the human face. In addition to them, facial expressions can be used to determine general characteristics of psychological states, such as states: pleasant - unpleasant, active - passive, weak - strong, real - pretend, expected - unexpected. Facial expressions are created by movements of the mouth, cheeks, chin and forehead. Surprise is best identified in the area of the forehead and eyebrows. A cluster of so-called "thinking wrinkles", which express concentrated thinking about the content of the communicated. (BUDA, 1988, 105-109.)

Ophthalmology. A conversation with the eyes takes place even without words. Natural eye contact is important in establishing an appropriate psychological contact between the controlling subject and the subjects performing the reconstruction, which provides a range of information about their emotional state. Based on where the subjects' gaze is directed, whether they avoid eye contact, how quickly they transfer their gaze from object to object, it is possible to estimate their probable psychological state - uncertainty, sincerity, surprise, etc. Eye knocking can express fear, nervousness, an attempt to avoid the true answer to a question. (Compare for instance.: ČECH, 2000, 170.; ČIRTKOVÁ - ČERVINKA, 1993, 331-339.; BAČÍKOVÁ - LACA, 2014, 32-37.)

Paralinguistics. The strength of the voice can indicate the certainty of one's own expression, or, on the contrary, doubts. Increased speed of speech may indicate an attempt to escape from the given situation - to get the reconstruction over with as quickly as possible.

Kinesics. The current psychological state of the participants (nervousness, aggressiveness, mental exhaustion) can be inferred from the movements of the limbs, trunk, neck and head. An important indicator of inner turmoil can be the so-called "useless" activities, e.g. unjustified repeated wearing of glasses, walking from place to place and many others.

Gesture. These are basically hand and body movements that are usually linked to a certain culture. A gesture is a spontaneous and often unconscious movement of the body or part of it (most often the hand or arms). Gestures refine communication. Lifting your shoulders up and down can indicate a misunderstanding. Looking at the wristwatch more often signals lack of interest and waiting for the end of the action. Most of the gestures can be said to be relatively readable.

Proxemics (zooming in and out). Proxemics can be briefly defined as the influence of social distance on the psychological effect of a communication act. Every person has his personal space in which he feels safe. Every interpersonal contact with another person is in relation to his personal space in a certain spatial relationship - distance. The following main categories of distances are distinguished: (Compare for instance.: BUDA, 1988, 124-127.; BAČÍKOVÁ – LACA, 2014, 36.)

- *Intimate zone* (from 0-30-45 cm) usually reserved for partners, children, intimate friendships. We are dissatisfied, tense, if another person crosses the border of this zone without our consent.

- *Personal or informal distance* (30-45 cm-1.2 m). We maintain face-to-face conversations and contacts with people.

- *Formal - social zone* (1.2-2.2 m). Used in meetings with strangers, public figures or superiors.

- *Public distance* (3.5-7.5-8 m). Reserved for various gatherings, conferences, lectures.

In case of violation of the boundaries of individual distances towards the intimate zone, the individual may feel uncomfortable, his psychological tension increases, and since he cannot correct the distance himself, he has to bear this violation.

Posture. The posture of the body and the mutual position of all its parts also have a certain informative value. The teacher can especially notice the position of the student's body at rest. The student is sitting on a chair without performing any activity. Psychology has experimentally confirmed that confidence and self-confidence are accompanied by an upright head, a closed chest and an elevated

position of the shoulders. On the contrary, insecurity is usually accompanied by a bowed head, sunken chest and drooping shoulders.

Haptics (touches). We consider haptic to be the direct contact of people through touch, handshake, involuntary touch, etc. The very handshake at the beginning of the act indicates the psychological state of the participants before its performance.

Image (editing the exterior). Appearance modification mainly includes the selection and modification of clothing, which characterizes in a certain way the personality of the persons participating in the act. Distinctive motifs on clothing can indicate the interests of the participant, specific accessories for belonging to a certain community, etc. (Compare for instance: ČECH, 2000, 170-194.; ČIRTKOVÁ - ČERVINKA, 1993, 331-339.)

Conclusion

The power of nonverbal communication in the investigative process can be a valuable tool for analyzing and verifying information. In this scientific study, we partially focused on analyzing a case where, based on the image of a girl during interrogation and by comparing current information, we could predict a certain development and sequence of events. It is very important to be cautious and vigilant when evaluating information. Misinterpretation of nonverbal communication signals can influence the entire investigation process, even in a negative way. This research is one of the outcomes of the international research project „Confrontation in Criminalistics Theory and Practice,” conducted at the Academy of the Police Force in Bratislava under research number 247.

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The participation of child soldiers in armed conflicts as a significant social and security problem

Ana MUTAVDŽIĆ

University of Criminal Investigation and Police Studies, Belgrade, Serbia

e-mail: ana.mutavdzic@kpu.edu.rs

ORCID: 0009-0007-2280-536X

Introduction

Child soldiers are not a new phenomenon, but they do represent a contemporary social problem. Their involvement in armed conflicts is one of the greatest security challenges of today. The exploitation of children for warfare constitutes a serious violation of human rights and leaves lasting consequences on their mental and physical health.

According to UNICEF data, between 2005 and 2022, more than 105,000 children were confirmed to have actively participated in armed conflicts, although the actual number is believed to be much higher.¹³ Children in armed conflicts are used for various roles: as soldiers, couriers, spies, auxiliary military personnel (logistics), and for sexual exploitation. Their involvement in hostilities can be either voluntary or forced. Both state and non-state armed actors (rebels, terrorists, mercenaries, etc.) can recruit children into armed forces.

The aim of this paper is to highlight the limitations of the term “child soldiers”, describe recruitment as the most critical phase of child exploitation in armed conflicts, and examine the legal aspects of the issue. Studying this topic is of utmost importance, especially since the latest data (Unicef Annual Report 2023)¹⁴ indicate that as many as 450 million children live in conflict zones, making them vulnerable not only to the horrors of war but also to the risk of becoming child soldiers.

1. Defining “Child Soldiers”

“The image etched in our minds: a boy, dressed in a T-shirt, shorts, and flip-flops, holding an AK-47 rifle, his helmet covering his aged eyes...” This image is

¹³See: [Children recruited by armed forces or armed groups UNICEF](#)

¹⁴See: <https://www.unicef.org/reports/unicef-annual-report-2023>

disturbing because logic clearly indicates that something is wrong when children become soldiers, as Rosen (2005, 1) pointed out.

The existence of child soldiers defies the conclusion of the Diplomatic Conference on the Reaffirmation and Progressive Development of International Humanitarian Law (1974-1977), which states that children must never lose their civilian status under any circumstances or assumptions. The term “child soldiers” is inherently contradictory because the concept of a soldier or combatant is completely different from the concept of a civilian or a child. Furthermore, Cohn & Goodwin-Gill (1994, 132) emphasize that the number of children who actively participating in conflicts is always smaller than the number of child victims of war. This is likely one of the reasons why no international legal document has yet defined the term “child soldiers.”

The term “child soldiers” was defined by UNICEF, the organization most dedicated to advocating for children's rights and well-being. According to UNICEF, child soldiers are “all children, boys and girls, under the age of 18 who are part of regular or irregular armed forces or groups in any capacity, including but not limited to cooks, porters, couriers, as well as children in such groups who are not in the presence of their family members; also, girls who are exploited for sexual purposes or forced marriage” (Capetown Principles, 1997). This definition, which is an integral part of the Cape Town Principles, was revised a decade later in Paris. UNICEF proposed replacing the term “child soldiers” with “children associated with armed forces or groups.” The Paris Principles define children associated with armed forces or groups as “persons under the age of 18 who have been recruited or used by an armed force or armed group in any capacity, including but not limited to children used as fighters, cooks, spies, or for sexual purposes” (Paris Principles, 2007).

Thus, this definition differs from the previous one in terms of the timeframe for child soldier status. Specifically, it includes not only individuals under 18 who are currently child soldiers but also those who were once child soldiers but no longer are. Additionally, this definition no longer limits sexual exploitation to girls, recognizing that boys can also be victims of sexual violence in war.

2. Recruitment of Child Soldiers

Children have participated in armed conflicts throughout history. However, there are no precise records of how far back the practice of using children for direct combat extends. As Singer (2006, 9-15) notes in his book *Children at War*, historical examples show that children were actively involved in armed conflicts, though not as direct combatants; their role in earlier war periods of human history was primarily logistical.

In fact, it can be said that the widespread practice of using child soldiers began during World War II, with perhaps the most notable example being Hitler's

Hitlerjugend (Hitler Youth) movement. Toward the end of the war, child soldiers from this movement became ruthless killing machines, and the division to which they belonged was known as the *Baby Division* due to the fact that it included twelve-year-olds (DEFTA, 2022, 167-169).

Today, child soldiers actively participate in armed conflicts on almost every continent and in nearly all ongoing wars. The process of using children for direct participation in hostilities generally occurs in three phases: recruitment, indoctrination and training, and direct involvement in combat. Since recruitment is the foundation of the child soldier phenomenon, this paper will focus only on that aspect.

This issue is not limited to developing countries but extends to all regions affected by political instability and armed conflicts. Such conditions - characterized by poverty, lack of education, and weakness of social and healthcare services - contribute to the increasing number of child soldiers.

Recruitment is one of the key aspects of this serious social and security problem. Children can be recruited either forcibly or voluntarily, though voluntary recruitment is often linked to hidden forms of coercion (TIEFENBRUN, 2007, 426).

A report by the Special Representative of the Secretary-General for Children and Armed Conflict indicates that in 2023, a total of 8,655 children were recruited and used for war purposes. Of these, 4,356 were abducted, with the highest numbers recorded in the Democratic Republic of the Congo, Somalia, and Nigeria. The number of abducted children increased by 13% compared to the previous year, and about 40% of the abducted children were girls (UN *Report A/79/245*, 2024, 3). Also, according to UN data (25 Years of Children in Armed Conflict, 2022, 18) from 2016 to 2020, more than 80% of child soldiers were recruited by non-state armed groups (including 86% in 2020). The most common method of recruitment is coercion, which can be extremely traumatic as it typically involves violence and intimidation. Non-state armed actors most often force children into their ranks through abductions. Armed groups take advantage of existing conflicts to raid villages, schools, and hospitals, frequently snatching children directly from their parents or off the streets. The children are then taken to military camps, where they undergo indoctrination and rigorous training for combat. Besides abductions, another form of forced recruitment involves threats. Armed groups often use fear as a means of coercing children into joining paramilitary formations. They threaten them with violence against their families, murder, or abuse if they refuse to fight.

As Maclure and Denov (2006, 123) note, all the boys they interviewed, participants in the civil war in Sierra Leone reported that they had been kidnapped or forcibly recruited into the Revolutionary United Front (RUF). One of the interviewed boys stated: “*The rebels came onto our farm and killed my parents in front of me, then ordered me to take valuable things and go with them*” (MACLURE - DENOV, 2006, 124).

Additionally, violent extremist and terrorist groups engage in forced and brutal recruitment of children by kidnapping them, threatening them, or purchasing them from human traffickers (Handbook, 2017, 12). Organizations such as Al-Shabaab, Boko Haram, the Islamic State in Iraq and the Levant (ISIL), and the Lord's Resistance Army (LRA) continue to abduct children to bolster their ranks. Boys make up three-quarters of documented child abductions, but girls are also at risk, primarily for sexual exploitation (UN Report *A/70/836*, 2016). Also, in case of Chad, girls accounted for 61% of all children abducted by Boko Haram between 2017 and 2019. Testimonies indicate that these girls were either sexually exploited or forcibly married to commanders, including forcibly recruited boys (25 Years of Children in Armed Conflict, 2022, 20).

One reason why non-state armed actors are more likely to recruit children is that adult men are already part of official armed forces, making it harder for these groups to recruit soldiers (VUKOVIĆ, 2016, 13). Besides, the proliferation of light weapons - such as small, thin, and lightweight rifles, pistols, and grenades, which non-state armed groups primarily use - allows children to actively engage in combat (VALENTINE, 2003, 119). Furthermore, children are less demanding and more easily disciplined.

Forced recruitment by state forces, at least in recent times, is not as prevalent according to available data. In cases where child soldiers serve in national armies, they are often included in paramilitary formations and rarely publicly presented as part of regular armed forces (VAUTRAVERS, 2008, 105). However, the case of Myanmar should be mentioned as one of the better examples of the extreme and violent use of children in national armed forces. In the Myanmar state military, there were about 65,000 children in 2002, and in other armed groups of the Southeast Asian country, around 5,000 (OH, 2013, 2). The most common method of coercion used in Myanmar is the kidnapping of children after they are mostly lured by civilians (in some cases even officers), so-called recruiters, with job offers, taken with them, often drugged through food or drinks, and then sold to the military (MARKOVIC - MARKOVIC, 2022, 194).

Voluntary recruitment of children is often more controversial than forced recruitment. This primarily stems from the fact that children, due to their age, are often unable to fully grasp the consequences of participating in armed conflicts. For example, during the civil war in El Salvador (1980–1992), soldiers under the age of 18 made up 80% of the government army's total forces. After the war ended, a UNICEF study revealed that 91.7% of boys voluntarily joined government forces (Miller, 2016, 3). Similarly, Singer argues that approximately two out of three recruited child soldiers voluntarily engage in armed conflicts. In this context, he cites research conducted in East Asia, which showed that 57% of children voluntarily enlisted in armed forces (SINGER, 2005, 61).

Since these are not the only statistics showing a similar trend, the question arises as to the circumstances and conditions under which children decide to participate in armed conflicts and what lies behind this *voluntariness*. Given that most wars take place in less developed parts of the world - already known for inadequate living conditions even in peacetime - their decision to voluntarily engage in armed conflict is often motivated by a simple need for survival. In other words, the choice to join state or non-state armed actors in an armed conflict is, at that moment, merely a choice of the lesser evil.

Numerous studies have examined the factors influencing a child's independent decision to join armed forces. Brett (2003, 858), after interviewing 59 children from nine countries who identified as voluntary participants in armed conflicts, found that their decisions were primarily influenced by war, poverty, education, unemployment, and family. These are the main, or universal, factors. Similarly, Peters (2005, 5) notes that economic, cultural, and ideological factors, as well as family and peer influence, are the most common reasons children voluntarily engage in armed conflicts.

In this sense, it is inappropriate to speak of *complete voluntariness*, as it is largely irrelevant in the case of children, particularly younger ones. After all, war zones blur boundaries - if a child witnesses the murder of their parents and subsequently joins an armed group for protection and food, is this choice truly free, or is it a result of desperation? (WESSELS, 2006, 33).

3. International Standards relating to Child Soldiers

Children are the future of humanity, but due to their incomplete mental and physical development, they require the most protection (Krivokapić, 2010, 1167). In this regard, children's rights are protected by numerous acts of international law, which also include international humanitarian law. The primary sources of law for the protection of children in armed conflict are: Additional Protocols I and II to the Geneva Conventions (1977), the Convention on the Rights of the Child (1989), and the Optional Protocol on the involvement of children in armed conflict (2000).

Sections of Additional Protocol I, which relates to the protection of victims of international conflicts, stipulates that the parties involved in the conflict must take all possible measures to ensure that children under the age of 15 do not participate directly in hostilities. In addition, states should refrain from recruiting children under the age of 15 and, if children aged 15 to 18 are recruited, preference should be given to older children (Additional Protocol I, 1977, Article 77 | 2).

Additional Protocol II, which concerns the protection of victims of non-international armed conflicts, stipulates that children who have not reached the age of 15 should not be recruited into armed forces or groups, nor should they

be allowed to participate in hostilities (Additional Protocol II, 1977, Article 4|3|c).

Norms that protect the position of children in armed conflict are also contained in the Convention on the Rights of the Child (1989). According to this Convention (1989: Article 1), a child is any person under the age of 18 unless the age of majority is reached earlier in that country. However, Article 38, which concerns children and armed conflict, stipulates that states are required to take all appropriate measures to ensure that persons under the age of 15 do not participate in direct armed conflict (Convention on the Rights of the Child, 1989). It is presumed that the reason for this solution was the intention of the United Nations to harmonize the provisions of the Convention with the sources of international humanitarian law.

The United Nations, ten years after the adoption of the Convention on the Rights of the Child, adopted the Optional Protocol on the involvement of children in armed conflict (2000). This protocol introduced additional measures to protect children from recruitment for military purposes. It stipulates that 18 years is the minimum age for recruitment carried out by the state (Optional Protocol, 2000, Article 1). Additionally, states that are parties to this protocol have committed to raising the minimum age for voluntary recruitment in their national armed forces above the age set in Article 38 of the Convention on the Rights of the Child. That is, the Optional Protocol sets 16 years as the minimum age for voluntary recruitment into state forces and defines specific rules for this, stating that no person under the age of 18 can directly participate in hostilities. The norms of the Optional Protocol are of exceptional importance because, in addition to specifying the minimum age for the recruitment of children into military formations and clearly defining the responsibilities of states, this protocol also, for the first time, emphasizes that armed groups that are not state armed forces should not recruit or use persons under the age of 18 in hostilities under any circumstances.

In addition to the aforementioned sources of international law, the prohibition of the participation of persons under the age of 18 in armed conflict is also highlighted in the Convention on the Worst Forms of Child Labor (1999), as well as in the African Charter on the Rights and Welfare of the Child (1990). Furthermore, according to the provisions of the Rome Statute of the International Criminal Court, the recruitment or mobilization of children under the age of 15 and their use for active participation in international and non-international armed conflicts is considered a war crime (MIJALKOVIĆ - BAJAGIĆ - POPOVIĆ MANČEVIĆ, 2023, 212).

It should also be emphasized that, although it is clear that existing sources of international law explicitly prohibit the recruitment of children under 15, numerous examples show that children even younger than this participate in armed conflicts. This means that despite the existence of an adequate legal

framework, the application of these norms remains a challenge in many parts of the world. Non-state armed actors often ignore international regulations, and in some cases, even state armies include underage recruits in their ranks. The fundamental problem is the lack of an effective control and sanctioning mechanism. As Higgins (1995, 1) said, international law is not a set of rules, but a normative system.

Conclusion

The goal of this paper was to highlight just a few segments (out of many) of this significant social and security issue. From the very beginning, this represented a challenge because, despite pointing out that the term “child soldiers” is inadequate, we must conclude that, at this moment, there is no alternative for it. However, this does not undermine the fact that the term is logically contradictory and cannot be harmonized with the norms of international law.

Furthermore, we pointed out that recruitment is the first and most significant phase of the abuse of children for warfare purposes. Recruitment itself can be twofold – voluntary and forced. While forced recruitment is characterized by violence, voluntary recruitment in most cases occurs in deceptive ways. Therefore, it remains questionable whether this division is the most adequate. Re-evaluating the existing division could be significant in the future, not only for determining the responsibility of child soldiers (which is a separate topic) for their participation in armed conflicts but also for potential criminal acts that are an inevitability in any war. However, this will be the subject of future research.

We also pointed out the fact that, in recent times, children are most often recruited by non-state armed groups. This puts additional pressure on the issue because non-state armed groups are illegitimate participants in armed conflicts under international humanitarian law, and there are currently no strict supra-national mechanisms that could influence them to avoid the exploitation of children for warfare.

Moreover, we presented the most important documents of international (and humanitarian) law that protect children's rights in armed conflicts and concluded that the body of legal norms is extensive, but clearly insufficient, given that the number of child soldiers continues to rise, and the violence these children are exposed to is becoming increasingly brutal.

Finally, we would like to emphasize that this paper lacked space to address the reintegration process of child soldiers into society. A successfully carried out reintegration process is crucial for preventing the victimization of child soldiers in adulthood. This is especially important when considering the potentially upcoming trend of the recruitment of former child soldiers by private military companies.

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Integration of AI into University Education: Opportunities, Regulation, and Ethical Dilemmas

Nina LACA

Academy of the Police Force in Bratislava, Slovakia

e-mail: nina.laca@akademiapz.sk

<https://orcid.org/0000-0002-0492-1283>

Introduction

Digital transformation and the implementation of artificial intelligence (AI) tools will have a significant impact on higher education. Its use can streamline and modernize educational processes, improve learning outcomes, and provide support not only to students but also to educators. However, on the other hand, questions arise regarding regulation, ethical aspects, and the responsible use of AI in an academic environment.

1. Legal basis of AI

The European Council set a strategic agenda for 2019-2024, which focused on four main priorities: protecting citizens and freedoms, developing a strong and healthy economic base, building a climate-neutral, green, fair and social Europe and, last but not least, promoting European interests and values on the global stage. Within the priority of developing the economic base, the digital transformation is a key aspect. The requirement for the European Union (hereinafter referred to as the EU) to reflect on digital developments, including aspects of AI, is emphasized. An extraordinary meeting of the European Council was held on 1 and 2 October 2020, which concluded that the EU should be a world leader in the development of safe, trustworthy and ethical AI. In this context, the European Council called on the Commission in its conclusions to propose ways to increase investment in AI research and to “*provide a clear, objective definition of high-risk AI systems*”.¹⁵ On 21 April 2021, the European Commission

¹⁵ Special meeting of the European Council. 2020. Available at: <https://www.consilium.europa.eu/media/45930/021020-euco-final-conclusions-sk.pdf> [Cit.05.03.2025].

proposed an Artificial Intelligence Act. The main idea of the act is to ensure that the use of AI is regulated in terms of its potential to cause harm to society, *“based on a risk-based approach: the higher the risk, the stricter the rules.”*¹⁶ The Commission’s initial proposal was supplemented by comments and views from a number of stakeholders. The Council of the EU adopted its position on the proposal on 6 December 2022 and the European Parliament adopted its negotiating position on 14 June 2023 with 499 votes in favour, 28 against and 93 abstentions. The provisional agreement on the Artificial Intelligence Act, adopted on 9 December 2023, was an important step towards ensuring the protection of fundamental rights, democracy and the rule of law by setting rules for the use of AI based on its potential risks. To protect citizens’ rights and democracy, the co-legislators agreed to ban:

1. biometric categorisation systems that use sensitive characteristics (e.g. political, religious, philosophical beliefs, sexual orientation, race);
2. non-targeted extraction of facial images from the internet or CCTV footage to create facial recognition databases;
3. emotion recognition in the workplace and in educational institutions;
4. social scoring based on social behaviour or personal characteristics;
5. AI systems that manipulate human behaviour in order to circumvent their free will;
6. AI used to exploit people’s vulnerabilities (e.g. due to age, disability, social or economic situation).¹⁷

Exceptions were also applied in the area of law enforcement, which consist in enshrining safeguards and exceptions for the use of biometric identification systems in publicly accessible places for law enforcement purposes. Their use will require prior judicial authorisation and will only be applicable for a defined list of criminal offences. Obligations were also set in the area of AI systems classified as high-risk, safeguards were set for general AI, as well as sanctions for breaches of the act. On 21 May 2024, the European Council formally adopted the Artificial Intelligence Act and on 12 July 2024 it was published in the Official Journal of the European Union. As the Artificial Intelligence Act entered into force on 1 August 2024, Member States must intensively prepare for its implementation. One of the first steps in this process is the designation of the competent national authorities, which can be divided into three categories. The first is the market surveillance authority, whose task is to ensure that only products that comply with

¹⁶ Artificial Intelligence Act: Council and Parliament reach agreement on the world's first rules for artificial intelligence. 2023. Available at: <https://www.consilium.europa.eu/sk/press/press-releases/2023/12/09/artificial-intelligence-act-council-and-parliament-strike-a-deal-on-the-first-worldwide-rules-for-ai/>. [Cit.05.03.2025].

¹⁷ Artificial Intelligence Act: deal on comprehensive rules for trustworthy AI. 2023. Available at: <https://www.europarl.europa.eu/news/en/press-room/20231206IPR15699/artificial-intelligence-act-deal-on-comprehensive-rules-for-trustworthy-ai> . [Cit.05.03.2025].

EU legislation appear on the Union market. The second is the notifying authority, responsible for identifying and carrying out the procedures for the assessment, designation and notification of conformity assessment bodies. *“Conformity assessment bodies are institutions that carry out testing, certification and inspection as independent third parties.”*¹⁸ A third type of authority, namely national public authorities, is to be established to monitor compliance with fundamental rights in relation to high-risk AI systems (listed in Annex III of the Act).

The AI Act allows Member States to choose the structure of the aforementioned bodies, but they must be designated or established by 2 August 2025 at the latest, pursuant to Article 113b. In the Slovak Republic, national competent authorities within the meaning of Articles 28 and 70 have not yet been designated. The above-mentioned status also applies to the designation of a body for the protection of fundamental rights pursuant to Article 77. In Slovakia, the Standing Commission for Ethics and Regulation of Artificial Intelligence (CERAI), which was established on 2 November 2020, operates in the field of AI regulation. This independent advisory body is dedicated to the analysis of ethical, legal and social aspects related to the research, development and use of artificial intelligence. In addition, the Slovak Centre for Artificial Intelligence Research – AISlovakIA – was established in 2019, serving as an open platform connecting the academic, private, public and non-profit sectors. The aim of this initiative is to create a space for cooperation and development of artificial intelligence in Slovakia, with an emphasis on research and practical applications of AI technologies.¹⁹ These organizations and initiatives jointly contribute to the development of artificial intelligence in Europe and Slovakia, while paying attention to the ethical, legal and innovative aspects of its use. An example of a European initiative is the popAI project, which aims to strengthen trust in the use of artificial intelligence and AI-driven mechanisms in the field of security. The aim is to raise awareness, support societal engagement and gather expertise from various sectors, including academia and non-academics. This initiative will offer a unified European perspective for law enforcement authorities and at the same time contribute to the creation of an ecosystem that could serve as the basic structure of a sustainable and inclusive European center for artificial intelligence in the field of security. The popAI project consortium consists of 13 partners from 8 European countries, including Greece, Ireland, Spain, Italy, Belgium, the Netherlands, Germany and Slovakia. The Academy of the Police Force in Bratislava is responsible for Slovakia in this project.²⁰

¹⁸ Overview of all AI Act National Implementation Plans. 2025. Available at: <https://artificialintelligenceact.eu/national-implementation-plans/>. [Cit. 10.03.2025].

¹⁹ AISlovakia. Available at: <https://aislovakia.com/>. [Cit. 10.03.2025].

²⁰ PopAI project. Available at: <https://www.pop-ai.eu/>. [Cit. 10.03.2025].

Following the newly introduced rules by the AI Act, there was a need for their regulation at EU level. To this end, the Commission established on 22 February 2024 the Artificial Intelligence Authority, which is a key centre of expertise in the field of AI. Its main objective is to support the development and implementation of trustworthy AI that respects fundamental human rights, democratic principles and the rule of law. The Authority plays a significant role in the implementation of new AI legislation, in particular in the regulation of general-purpose AI models, while supporting innovation in this rapidly developing field. The Authority is currently working on the development of a Code of Practice on General-Purpose Artificial Intelligence, which will be a key tool for general-purpose AI providers to assess and mitigate risks.²¹ In addition, it acts as the secretariat for the Artificial Intelligence Board. The Artificial Intelligence Board is composed of representatives from each EU Member State and ensures the effective implementation of the Artificial Intelligence Act. Their main task is to provide assistance with the implementation of the AI Act and to create AI policies in EU conditions.

2. Ethical frameworks for the use of AI

In addition to the adopted AI Act, there are several other legal and ethical frameworks in the EU that regulate the use of AI in education. The most important ones include:

1. General Data Protection Regulation (GDPR) – this regulation ensures the protection of personal data, which is crucial when using AI systems in education. Many of them process sensitive information about students and teachers and therefore must meet strict requirements for the protection of personal data.

2. Ethical principles for trustworthy AI – in 2019, an EU expert group developed guidelines that emphasize the need for an ethical approach to the development and deployment of AI technologies, including in education. The emphasis is on transparency, security and respect for fundamental rights. Guidance for educators on the use of AI and data in education is a document issued by the European Commission that provides teachers and educational institutions with practical recommendations on how to effectively and responsibly use AI tools in the teaching process. It emphasizes the need for correct interpretation of data and protection of student privacy.²²

²¹ General-Purpose AI Code of Practice. 2025. Available at: <https://digital-strategy.ec.europa.eu/en/policies/ai-code-practice>. [Cit. 10.03.2025].

²² Ethical guidelines for educators regarding the use of artificial intelligence and data in teaching and learning. 2022. Available at: https://www.paneurouni.com/wpcontent/uploads/2024/02/eticke_usmernenia_pre_pedagogov_tykajuce_sa_pouzivania_ai.pdf. [Cit.10.03.2025].

3. National initiatives in the field of AI – the Association for Artificial Intelligence was established in Slovakia, which deals with ethical, legal and innovative aspects of AI. The aim of this organization is to support cooperation between educational institutions, technology companies and research centers so that AI is used responsibly and effectively.²³

These regulatory and ethical frameworks, together with the AI Act, create a comprehensive basis for the safe, ethical and effective introduction of AI into the education system. In the conditions of the Slovak Republic, a strategic document "Long-term plan of the Ministry of Education in educational, research, development, artistic and other creative activities for the field of higher education institutions for the years 2023-2028" was approved in 2023, which is aimed at determining strategic goals, priorities and means to achieve them. One of the strategic goals in the field of higher education institutions is the support of the principles of open science and academic ethics. In this context, a working group for academic and scientific integrity and ethics was created, which fulfilled the coordinating role in the preparation of the national code of ethics. The need for its creation arose from Act No. 172/2005 Coll. on the organization of state support for research and development. The code is a basic prerequisite for the creation of a national ethics commission, which is to assess and control the quality of codes of ethics at the level of higher education institutions. *"University codes do not have to be identical to the National Code of Ethics, they can be stricter and more detailed, but not looser."*²⁴

*"The mission of the Code is to contribute to the general, integral observance of demanding ethical requirements, to prevent unethical or dishonest conduct and behavior in the field of science, research and development, and thereby to increase their quality and credibility in the domestic and international context."*²⁵ Article 4 of the Code offers a certain enumeration of violations of research integrity and ethics. Violations of good research practice are divided into two categories. The first category is represented by serious violations of research integrity and ethics, which include fabrication of results, falsification or plagiarism. The second category is represented by questionable

²³ The AI Association ASAI, universities and the student council of universities in Slovakia launch a survey: Together for better education. Available at: <https://www.asai.sk/clanky/asai-spusta-prieskum-o-vzdelavani/>. [Cit.10.03.2025].

²⁴ Long-term plan of the Ministry of Education in educational, research, development, artistic and other creative activities for the field of higher education for the years 2023 - 2028. 2023. Bratislava. M. Fedák: Slovakia will have a binding code of scientific integrity and ethics for the first time. 2023. Available at: <https://www.minedu.sk/m-fedak-slovensko-bude-mat-po-prvykrat-zavazny-kodex-vedeckej-integrity-a-etiky/>. [Cit.10.03.2025].

²⁵ M. Fedák: Slovakia will have a binding code of scientific integrity and ethics for the first time. 2023. Available at: <https://www.minedu.sk/m-fedak-slovensko-bude-mat-po-prvykrat-zavazny-kodex-vedeckej-integrity-a-etiky/>. [Cit.10.03.2025].

scientific practices, which “constitute actions or behavior that are contrary to the generally accepted requirements of research ethics and integrity, also formulated in this Code.”²⁶

The category of dubious scientific practices related to publication and conference activities or submission of proposals for research or development or educational (grant) projects also includes the use of AI intelligence applications or other automated means without its proper declaration.²⁷

AI brings significant changes to higher education, being used in adaptive educational systems, automatic assessment, personalized tutoring and administrative processes. These technologies can improve the educational process, increase efficiency and provide support to students and teachers. However, with their expansion in universities, important questions arise regarding regulation, ethics and responsible use. In this regard, universities are gradually implementing recommendations for the responsible and transparent use of AI addressed not only to students but also to teachers. For example, in the Czech Republic, the organization prg.ai and Charles University have established a working group whose members will discuss the need to introduce regulatory measures for the use of AI in the educational process. Charles University's stance on the use of AI tools is positive, but they emphasize the need to introduce clear rules for their use. Charles University's Vice-Rector for Information Technology, Prof. Tomáš Skopal, stated that “AI tools have the potential for many benefits, but it is important that their use respects academic integrity and is fair.”²⁸

Masaryk University was the first to introduce comprehensive recommendations for the use of AI tools. In its position paper, it expressed support for the use of AI in higher education and set rules for its ethical, safe and effective use. It sees AI as an opportunity to improve the educational process, but is also aware of the challenges associated with academic integrity and ethics. In its position paper, it recommends that students should be:

1. Curious - this means getting to know AI and its use in education.
2. Pragmatic - using AI to support learning and not to deviate from critical thinking.

²⁶ Code of research integrity and ethics in Slovakia. p. 13. Available at: <https://vaia.gov.sk/wp-content/uploads/2024/07/Bod-2.-KODEX-vyskumnej-etiky-a-integrity-2024.pdf>. [Cit. 10.03.2025].

²⁷ Code of research integrity and ethics in Slovakia. p. 13. Available at: <https://vaia.gov.sk/wp-content/uploads/2024/07/Bod-2.-KODEX-vyskumnej-etiky-a-integrity-2024.pdf>. [Cit. 10.03.2025].

²⁸ The initiative of Czech universities, under the leadership of the UK and prg.ai, aims to prepare Czech education for artificial intelligence. 2023. Press release, Charles University. Available at: <https://cuni.cz/UK-12656.html>. [Cit.10.03.2025].

3. Honest and transparent – requiring respect for academic ethics, reporting on the use of AI in papers.
4. Responsible – being aware of the consequences of using AI and verifying the information obtained.

The following recommendations were formulated for educators:

1. Be open to innovation – look for ways to integrate AI into teaching.
2. Support students – teach them to use AI ethically and declare its use.
3. Set clear rules – determine the conditions for using AI in studies and assessments.
4. Be prudent – ensure the protection of sensitive data and academic integrity.²⁹

In the conditions of the Slovak Republic, Comenius University has developed internal regulation No. 2/2024 Directive of the Rector of Comenius University in Bratislava on the use of artificial intelligence tools at Comenius University in Bratislava. In the aforementioned directive, the university expresses support for the use of AI in education, scientific research and administrative activities. It sets out rules and recommendations for students, such as that AI tools should serve as support for learning and developing skills, helping them to improve and effectively apply their knowledge. However, it is not allowed to use AI to generate entire texts, formulate conclusions or create statements that should be the result of the student's independent work. Educators are recommended to support the use of AI among students, while guiding them to its responsible, ethical and transparent application in their studies. The directive also includes Annex No. 1, which sets out recommended ways of citing outputs or using generative AI.³⁰

3. Challenges associated with the use of AI in education

Incorporating AI tools into the educational process undoubtedly brings many positive aspects. Students should not use text generation tools (e.g. ChatGPT, Gemini) only to create written assignments and final papers. The spectrum of use of chatbots can be wide, for example, improving writing skills if a student requests feedback on the text he created, or to correct grammatical errors in the text. A

²⁹ Opinion on the use of artificial intelligence in teaching at Masaryk University. 2023. Group for AI in teaching at Masaryk University, under the supervision of Mgr. Michal Bulant, Ph.D., vice-rector for education and quality. Available at: <https://www.muni.cz/o-univerzite/uredni-deska/stanovisko-k-vyuzivani-ai>. [Cit. 10.03.2025].

³⁰ Directive No. 2/2024 of the Rector of Comenius University in Bratislava on the use of artificial intelligence tools at Comenius University in Bratislava. 2024. Available at: https://uniba.sk/fileadmin/ruk/ovv/2024/smernica_rektora_AI.pdf. [Cit.10.03.2025].

teacher can use AI tools, for example, when creating lesson content for students or in administrative work. (TAKÁČ, 2024)

Despite the many advantages of AI, it is also necessary to address the risks that cannot be ignored. The use of AI brings several risks, including:

1. Uncritical acceptance of AI-generated content without verification, which can lead to misunderstandings and misinformation,
2. Dependence on AI technologies, which can weaken critical thinking,
3. Plagiarism, as AI can generate texts without properly citing sources,
4. AI inaccuracies, for example in the form of inaccurate or misleading results, which can lead to misinterpretations and problematic use.

“While AI-supported education reforms bring significant opportunities to improve the educational process, they also bring with them a number of ethical questions that need to be actively addressed. These challenges require careful consideration, ethical oversight and a commitment to putting the rights and interests of students at the center of AI-supported education reforms.” (DÖNMEZ, 2024, 147.)

The Slovak Accreditation Agency for Higher Education said in a statement that it sees the use of AI tools more as an opportunity than a threat. It recommends that universities make sense of incorporating AI tools into their educational activities. It also emphasizes the need to introduce *“regulation of the use of artificial intelligence into the internal quality assurance systems of universities, with an emphasis on maintaining academic integrity.”*³¹

Conclusion

The integration of AI tools into education is an irreversible process, within which universities should gradually take adequate measures to ensure their responsible use by both students and teachers. The introduction of manuals or guidelines on the use of AI in universities is a prerequisite for the regulation of AI tools, so that academic integrity and ethics are maintained. A very important aspect, which concerns mainly creators and providers of AI technologies, is ensuring sufficient protection of users as well as raising awareness and prevention. A useful tool for raising awareness about the safe and also ethical use of AI tools would be the introduction of courses and trainings intended for teachers and students. Such trainings could include workshops focused on the practical use of AI in the teaching process. In this way, digital literacy would be supported. The main task of educational institutions in the near future will be to ensure a balance between AI innovations and ethical standards in the academic environment. Last but not

³¹ Statement of the Slovak Accreditation Agency for Higher Education. 2023. Available at: <https://saavs.sk/sk/vyhlasenie-slovenskej-akreditacnej-agentury-pre-vysoke-skolstvo/>. [Cit.10.03.2025].

least, it is important to emphasize that the use of AI in education is not intended to replace the role of the teacher, and it is also important that it does not replace student effort.

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Work Psychology Aspects of the Operation of Terrorist Organisations

Viktória RESPERGER

Hungarian University of Sports Science

e-mail: resperger.viktoria@tf.hu

<https://orcid.org/0009-0003-6901-9965>

1. Introduction

Last Christmas, it was proven again that nobody is entirely safe at mass events, even in the most developed countries in Europe. On the December 20, 2024, Taleb A. from Saudi Arabia drove into a crowd at a Christmas market in Magdeburg, Germany. The attack, which lasted not more than three minutes, killed six people, including a nine-year-old boy, and injured nearly 300 other civilians. Although news and events of this kind have become part of everyday life, it is still difficult to grasp the motivations of the perpetrators and why they sympathise with the values of certain terrorist organisations. My past research has long focused on the psychology of terrorism, but recently I have been trying to explore this field of study from a specifically work psychology perspective. How do terrorist organisations recruit, and based on what criteria do they select the individuals? What role could artificial intelligence play in shaping recruitment strategies, given its ability to automate repetitive tasks, analyse data, and support better decision-making?

Therefore, the question of how terrorists and (suicide) bombers are recruited and trained is becoming increasingly important. Research shows that the reasons for joining terrorist organisations run a wide spectrum: shame, love, conviction, religious fanaticism, humiliation, a desire to regain honour, or simply no other choice in the case of female terrorists. Recruitment strategies have become more sophisticated, with terrorist recruiters often using techniques used by professional intelligence officers. They send friend requests online, initiating conversations with candidates to assess their chances of recruitment, which they draw from previously acquired data and observations through social media and artificial intelligence. Once this has been done, they select the most fitting recruitment process narratives for the individual. This article aims to present these interesting and very well-developed recruitment process narratives.

2. Experiences in recent years

Not a week has gone by in the past 10-15 years without the news mentioning some type of terrorist attack happening around the world. This could include bombings at mass public events, shootings in editorial offices, driving into crowds, etc.

These are just a few of the many methods terrorists use. Despite the overwhelming media coverage, Europeans still cannot understand the motivations behind these attacks. Why would someone be willing to give their life for such a cause? Why does someone drive into a crowd, injuring hundreds of people? Why does someone risk certain death for the success of the mission? Why join such an organisation in the first place? (RESPERGER – TÚRI, 2021.)

Many trends have emerged on the subject in recent times: the expression of aggressive aspirations, the idea that terrorists are a product of mental illness, and the notion of religious differences, but relatively little is said about how our world has changed. Young people spend most of their days on the internet, interacting with all types of content, while artificial intelligence and sophisticated terrorist recruitment strategies make them potential 'new member' candidates. They are like gazelles in the savannah, being eyed by lions. Terrorist organisations monitor what videos are watched, when, and what is posted or liked. Based on this information, they create an image of the ideal candidate: someone who is depressed, craves a sense of belonging, is afraid to act on his or her abnormal desires, searches for satisfaction online, has unsupportive parents, and feels lost, potentially still in their vulnerable teenage years.

3. Recruitment in terrorist organisations

Aggression is man's most primal instinct, which has been demonstrated in recent years by wars. However ancient the instinct, we follow the daily events in the press with horror, whether it is the war between Russia and Ukraine, the Israeli-Palestinian conflict, or the Magdeburg Christmas market. Fear is the terrorists' main tool because it is their way of demanding attention. Fear-mongering is their basic objective, which is perfectly achieved by various acts of aggression. This strategy can be broken down into the following steps:

- First, a plan is needed: a long and precise preparation period usually precedes the actions, including the preparation of the personnel and the activation of sleeper cells in the country of interest. Preparations can last for multiple months. If the goal is clear, an attack can be organized in 1-2 weeks.
- Second, choosing a high-priority target.

- The next step is to use pyrotechnics: backpack, flammable material, crowd, vehicle, anything.
- Following that: destroy. The point of destruction is to create the strongest psychological effect and instil fear in people.
- After the destruction: inducing panic is a great way of distracting the public from your next plans.
- The initial necessity is publicity: the media is paramount to terrorist organizations, but most actions receive more traction if carried out by a woman. (RESPERGER – TÚRI, 2021)

In the 1980s, research led a CIA analyst to conclude that terrorists are all pathological personalities and that there are two different types:

1. The anarchist type: often abused by their parents and feels hatred towards them.
2. The nationalist type: seeks to retaliate for injustices against their parents and family. (PÓCZIK, 2007, 30)

Other research also suggests that traumas suffered in childhood and adolescents who are emotionally imbalanced during puberty are more likely to be drawn into a terrorist organization (RESPERGER – TÚRI, 2021, 34):

- "A severe psychological influence in childhood that prevents normal emotional development (in many terrorists this is the violent death of parents, exacerbated by the child's personal experience of the loss of a loved one), which determines the direction of further personality development.
- During puberty (between the ages of 10 and 14), an emotionally impressionable individual seeking support and recognition, suffering from a so-called 'personality deficit' due to a traumatic childhood experience, is influenced by an external factor to subscribe to an ideal that provides him with cathartic enlightenment and meaning in his life.
- This personality develops in a society of serious conflicts, where violence plays a great role in the means used to assert public interest." (TÜTTŐ, 2008)

When looking at the motivations of applicants, the following factors should be mentioned as motivators for entry:

1. The possibility of taking action.
2. The need to belong.
3. To achieve a certain social status.
4. Material reward.
5. The struggle against perceived injustice and the restoration of moral order.

6. Search for an identity, to which a strong group and a charismatic leader can contribute.
7. The need for community.
8. Revenge, shame, and regaining lost personal or family honour. (Póczik, 2007, 32)

Considering what has been described so far, one can only speculate whether there is a psychopathological background to the predisposition to terrorism. Currently, we believe that terrorists are not mentally ill. Terrorist organisations strive to avoid mentally unhealthy people because of the risks involved in their use and deployment. A certain psychological stability, perseverance, and professionalism are required to carry out planned terrorist actions. They are specifically looking for people familiar with the internet and various social networking sites. (ZSIFKÓ, 2008) In principle, it is not possible to draw up a typical terrorist profile, but what can be said is that young men aged 18-25, usually unmarried, from large cities, upper or middle class, educated or studying at university, are the most likely to join terrorist groups. Those with a lower level of psychological development may find it safer to join such an organisation too. It is easier to attract those who have been brought up in a closed, strict normative environment where parents have mainly used punishment as a means of education. (BOLGÁR – SZTERNÁK, 2005)

In their article, Dounia Bouzar and Carol Rollie Flynn detail the plausible recruitment strategies. They identify seven main motivations, methods, and narratives based on research conducted in France:

1. The 'better world' narrative: this approach attempts to recruit people because they can build a new society in which equality, brotherhood, and solidarity will prevail.
2. The 'Mother Teresa' narrative: in this case, recruiters target young people who see themselves or work in areas where they can help people: e.g. nurses, caregivers, and social workers. During the recruitment process, they are shown videos of horrific actions (e.g. Assad gassing babies). This causes such a shock that people can be convinced that jihadism remains the only way forward.
3. The 'Savior/Redeemer' narrative: when the recruiter meets someone who has recently lost a loved one, they take advantage of the person's desire to meet them again. Recruiters also show different videos to candidates, the content of which focuses on reunification. This gives some peace of mind to the troubled soul of the young person who has experienced the loss, thus easing their grief. Believing that in Heaven, everything will be different, they can be reunited with their family and lost loved ones.
4. The 'Marriage Narrative': this method is used to identify physically and psychologically weak women who have been through some form of sexual

or physical abuse. The recruiters advertise that one can "find a husband who will never leave you".

5. The 'Lancelot narrative': this method targets men who believe in heroes, heroic behaviour, and historical characters. They are shown videos of warriors, accompanied by motivating, powerful music.
6. The 'Zeus narrative': this recruitment method builds on a sense of omnipotence and mainly uses young people who live their lives with risks: drugs, unprotected sex, reckless driving, etc. They behave as if they are omnipotent - testing and pushing their limits. They do not submit to God's will but do things in God's name.
7. The 'Fortress Narrative': in this instance, recruiters target adolescents who are driven by compulsive sexual desires and fear that they will be found out and socially ostracised. These men may be heterosexual or homosexual, and in some cases, they may also be pedophiles. The term 'Fortress' suggests that when young people enter the organisation, they can find a better version of themselves, which protects them from following their sexual compulsions. (BOUZAR – FLYNN, 2017)

From the examples above, it is clear that the terrorist recruiters of various organisations are very skilled at their jobs. The target demographic defined by age is easily identifiable.

They go after young people in their twenties. Orphaned children are also frequently recruited in Palestine, while in Chechnya girls are sold at a very young age, leaving them no choice or forcing them to join by other violent means. The strategy is constantly adapting to the expectations and habits of young adults because people at this age are usually looking for an identity, a group to which they belong. During this period, adolescents are emotionally impressionable. It is worth examining what is happening in their heads at this time because it will help clarify their susceptibility to join different organisations. The onset of the hormonal system causes physiological difficulties during puberty. They intend to find out what consequences their actions could have. They wonder if they could solve certain problems. Their critical faculties flourish during this period, which can be a source of conflict. At the same time, they need parental support. If this is missing or not adequate, a group or organisation can offer them help. (RESPERGER – TÚRI, 2021.)

In 2014, an analysis was carried out in France on why people would join radical groups. Four areas were highlighted in the research:

1. Tailoring the message: recruiters have become increasingly sophisticated, imitating techniques used by intelligence agents. They go online posing as friends, initiating conversations with candidates to assess recruitment opportunities, and forming relationships with them. Once they select the most appropriate candidate, they use one of the seven narratives/recruiter

- stories mentioned previously. Each narrative, however, is infused with emotion and the importance of belonging to an ideal group.
2. Virtual and real relationships: the 21st century is witnessing a boom in online relationships. At the same time, in many cases, the use of social networking sites can be preceded by real, face-to-face encounters.
 3. Age, gender, and social class of recruits: all socio-economic classes were represented in the study. Candidates often came from low-income backgrounds, but there were also candidates from middle-class families and wealthier backgrounds. Sixty-four percent of teenage candidates were female.
 4. Religious beliefs. (BOUZAR – FLYNN, 2017)

From what has been described so far, it is clear that terrorist organisations are looking for mentally healthy people and have adapted their extraordinary recruitment techniques accordingly. But what happens to the recruited people? How are the selected potential terrorists shaped? Noam Chomsky writes extensively on how people can be manipulated in general, some points of which may be worth mentioning in this context. For example, a charismatic leader who is followed almost without thinking by his followers plays an important role in this.

This charismatic or political leader also plays the role of a saviour who can bring a better future to the world through his leadership. Hence the other very important fact: you have to make people believe that everything we have now is wrong. They are told that even if they cannot improve their own lives, they will make a better world for future generations. To do this, it is necessary to 'educate' people in isolation, by influencing their emotions. Terrorist organisations in some cases reinforce this with various drugs and physical abuse. It is also essential to foster a sense of herd mentality: to awaken a sense of shame and helplessness, and to raise awareness of the need to conform and join as an alternative. A herd without individuality is always easier to control, monitor, and influence. (CHOMSKY, 2005, 76.)

Conclusion

The evolution of terrorist groups' recruitment capabilities is adapting rapidly to the modern opportunities of the 21st century. Their strategies are becoming more sophisticated, and they use social media to find the people they can recruit with increasing precision. Some studies also report that not everyone remains a member of the terrorist group, there are also drop-outs who realize that they are not getting what they were promised, but this is less common. The greatest challenges of the 21st century therefore remain the eradication, prevention, and combating of terrorism.

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Police ethics and international police cooperation

Sanela ANDRIĆ

University of Criminal Investigation and Police Studies, Belgrade, Serbia

e-mail: sanela.andric@kpu.edu.rs

<https://orcid.org/0000-0001-8295-4833>

Introduction

The process of globalization has led to the strengthening of supranational international institutions, the weakening of nation-states and the interdependence of all countries and societies. International institutions such as the International Monetary Fund (IMF), the World Bank (WB), the World Trade Organization (WTO), the United Nations (UN), the North Atlantic Treaty Organization (NATO), have been established. However, in the global village, crime has also become global – it has risen above the national level and connected into international organized criminal groups. National, domestic criminal groups have grown into international criminal organizations, and crime itself has taken on new forms – human trafficking, organ harvesting, cyber and high-tech crime, terrorism, environmental crime, etc. For organized criminal groups, profit is the main denominator, and solidarity and unity transcend national, religious, and political differences (NIKAČ 2015, 1-2). Hence, as crime in modern society is global and criminal groups are internationalized, the fight against modern forms of crime is no longer a matter (only) of nation states. Organized criminal groups are often one step ahead of law enforcement agencies, thanks to forensic awareness and the use of technical-technological and information-communication technologies. Therefore, international criminalistic-police cooperation in uncovering modern forms of organized international crime is necessary.

International criminal-police cooperation is based on national and international legal frameworks, and is achieved through the ratification of international conventions, resolutions and declarations and harmonization with domestic legislation. The Republic of Serbia has ratified most international documents and adopted domestic acts that regulate the field of international police cooperation in the fight against modern forms of organized crime. Among the most important international documents are the Convention on Combating

Organized Crime, the Convention on International Police Cooperation in South-Eastern Europe, etc., while at the national level, the most important are the Constitution of the Republic of Serbia, the Police Law, the Criminal Procedure Code, the Law on International Legal Assistance in Criminal Matters, etc. The purpose and objective of the aforementioned conventions, resolutions and declarations are to harmonize the work of national police forces, especially in the area of respect for human rights and freedoms and the dignity of victims.

1. Police ethics as a type of work ethics

Police ethics and police morale are insufficiently discussed in both theory and practice. There is a paucity of research on police morale, and it mostly deals indirectly with police morale, and there are even fewer works that deal with police ethics from an epistemological perspective. In the content analysis, a total of fifty-three issues of the *Bezbednost* and *NBP* journals from 2010 to 2018 were analyzed. Topics in the field of police ethics and police morality are mentioned in only seven papers, in two papers from the *Bezbednost* journal and five papers from the *NBP* journal. In all papers, the given issue is implicitly represented, and the authors drawn conclusions and opinions through content analysis. None of the papers deal with police ethics from an epistemological point of view, while the issue of police morality and police conduct can be analyzed implicitly. In two papers in the *Bezbednost* journal, the topics of police ethics, police morality, and police work are (implicitly) addressed from a legal and criminological perspective (ANDRIĆ – TOMAŠEVIĆ, 2019). Most research deals with the relationship between police ethics and artificial intelligence, as its use in police work has experienced a boom (ANDRIĆ – IVANOVIĆ, 2023).

After World War II, there was a sudden surge of interest in the moral aspects of the police, thanks to documents such as the United Nations Charter of 1945, the Universal Declaration of Human Rights of 1948, the European Convention on Human Rights of 1949, and the Convention for the Protection of Human Rights and Fundamental Freedoms of 1953. Cognitive and theoretical interest in police morality could only arise in free, democratically organized societies, in which the ideals of humanism were developed. The study of police morality and police ethics as cognitive and theoretical disciplines is most developed in highly developed countries with the longest liberal-democratic tradition. In former socialist countries, the practice of cognitive-theoretical treatment of police morality developed in the true sense only after the adoption of the values and patterns of liberal democracy (JEVTOVIĆ, 2009; LUKIĆ, 2011). For example, the first democratic elections in Serbia were held in 1999/2000.

Morality is a set of mandatory, imperative norms of human behavior, that is, unwritten rules of behavior based on which we value our own and other people's behavior as right or wrong, good or bad, moral or immoral. It is exclusively a

social phenomenon, socially constructed and the result of social consensus (LUKIĆ, 2011, 135-162). Moral virtues are positive, good and desirable personality traits that are necessary for the manifestation of morality, moral development and moral maturity of an individual. Although they are culturally conditioned, some general virtues are: philanthropy (humanity), altruism (compassion for others), solidarity, self-respect, modesty, honesty, punctuality, self-criticism, fairness and autonomy (independence). General social virtues are: civic courage, patriotism, tolerance, sociability, non-vindictiveness, kindness, solidarity, focus on the collective. Then, professional virtues are hard work/value, self-reproach, discipline, responsibility, self-initiative, self-control, incorruptibility, cooperation (cooperativeness). Moral flaws are bad, negative and undesirable traits. Particularly negative traits are malice, spite, envy, aggressiveness, hatred, sadism, cynicism, sarcasm, moral indifference, greed, avarice, vanity, arrogance, pride, haughtiness, etc. (JEVTOVIĆ, 2009; LUKIĆ, 2011).

When it comes to police morale, the level of moral responsibility is always individual. The morale of a police institution, police work organization, police collective, and police profession/service are based on their morality. Police morale is an objective result of the subjectively expressed morality of its individual members. The police collective, on the other hand, is the bearer of a specific professional-service culture, and therefore represents the basis for the manifestation of police morale. The morale of the police collective plays the role of a traditional core, a generator of police morale (JEVTOVIĆ, 2009). As examples of desirable moral values and traits, we can cite: patriotism, pro-democratic stance, pro-normative stance, anti-corruption stance, empathy, fairness, humanity, solidarity, tolerance, respect for the human being, responsibility, loyalty, credibility, respect for the norms of general and specific work ethics of the police profession, etc. (Code of Police Ethics, Official Gazette of the Republic of Serbia, No. 85/2023).

On one hand, police ethics is a theoretical discipline that deals with the study of the police as an environment in which specific morality is based and from which specific morality emerges, criteria for the moral evaluation of the entire actions of police officers and police activities, goals and meaning of moral will and actions in the police. On the other hand, practical police ethics does not have a sufficiently defined subject of research (JEVTOVIĆ, 2009). Practical police ethics refers to the moral standards and principles that guide police officers when acting and enforcing the law, which are crucial for the image of the police, public trust in security services and ensuring fairness and justice. The basic principles that guide police officers are integrity, respect for basic human rights and freedoms, impartiality and fairness, responsibility, professionalism, transparency in work, etc. (JEVTOVIĆ, 2009; LUKIĆ, 2011).

2. Normative framework of international police cooperation

International police cooperation encompasses cooperation between nation states and their police authorities with the aim of maintaining international peace and order and jointly combating organized crime. The actors of international cooperation are public security authorities, judicial and criminal police, as well as governmental and non-governmental international organizations, while the subject of cooperation is the exchange of information, processing of letters of request and undertaking procedural actions, joint actions of police authorities, and mutual technical and other assistance. The subjects of international police cooperation are national and international organizations and individuals/citizens (NIKAČ, 2015, 16-23). International police relations are conditioned by the state of international political relations between nation states. The Republic of Serbia is making efforts to achieve successful international police cooperation. From the very beginning, it has been a member of the international commission and later of the international criminal police organization – Interpol (RISTOVIĆ, 2019, 153-175).

The normative framework of international police cooperation is international and internal/domestic legal sources, and we will focus on those that are significant for our work. The most significant international legal sources are legal sources in the European Union (EU), regional legal sources and bilateral legal sources. When it comes to the Republic of Serbia, the most significant legal source is the Police Law (NIKAČ, 2015, 79-89).

Among the legal sources at the United Nations level, it is necessary to mention the *UN Convention against Transnational Organized Crime of 2000*, better known as the "Palermo Convention", which aims to improve international cooperation in the fight against transnational organized crime (NIKAČ, 2015, 79-89). Some of the important provisions of the *Convention* relate to the fight against money laundering; the fight against corruption; criminal prosecution, trial and sentencing; confiscation of property, international cooperation, jurisdiction, extradition; mutual legal assistance; witness protection; assistance and protection of victims (*United Nations Convention against Transnational Organized Crime*, General Assembly resolution 55/25 of 15 November 2000). The "Palermo Convention" is a revolutionary international document that has contributed to the further fight against organized crime and the unification of police practice and the jurisprudence of national courts (NIKAČ, 2015, 79-89).

Other international documents important for international cooperation and the fight against transnational organized crime include the following: *UN Convention on Laundering, Search, Seizure and Confiscation of the Proceeds of Crime*; *Naples Political Declaration and Global Action Plan against Transnational Organized Crime* (1994); *Recommendation of the EU Committee of Ministers REC (96) 8* to member states on combating organized crime and organizing national criminal police forces to

combat organized crime; *UN Convention against Illicit Traffic in Narcotic Drugs and Psychoactive Substances* (1998); *Council of Europe Convention on Action against Trafficking in Human Beings* (2005). When it comes to the regional normative framework, the following documents should be mentioned: *the Police Cooperation Convention for CEE – PCC SEE* (2006), the *SELEC Convention* and the Southeast European Law Enforcement Center. As for the bilateral normative framework, it refers to agreements, memoranda and other international documents regulating the area of international police cooperation of the Ministry of Internal Affairs of the Republic of Serbia with the governments of countries such as the Russian Federation, the Republic of Croatia, the Republic of Cyprus, the Republic of Austria, the Republic of Italy, the Republic of Greece, the Republic of Bulgaria, the Republic of North Macedonia, the Republic of Bosnia and Herzegovina, the Republic of Hungary, and the Swiss Confederation.³²

The activities of international institutions that are of direct relevance to police morale include the United Nations (UN), the Organization for Security and Cooperation in Europe (OSCE), the Red Cross and Red Crescent, and the International Civilian Ethics Tribunals.

As for the Republic of Serbia, the European Code of Police Ethics was adopted on 19 September 2001, the Guidelines on Police Ethics were adopted on 15 April 2003 (Official Gazette of the Republic of Serbia, No. 41/2003), the Code of Police Ethics (Official Gazette of the Republic of Serbia, No. 85/2023), while the Guide to Democratic Policing was compiled by the Senior Police Advisor to the OSCE Secretary General in 2007. Also, the Republic of Serbia has ratified all necessary international documents, conventions and declarations and harmonized them with domestic legislation.

A key aspect of international police cooperation must be respect for human rights and ethical standards. All police actions aimed at combating organized crime must be conducted in accordance with the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the European Convention on Human Rights. Law enforcement agencies must be guided in their work by ethical principles such as proportionality and necessity in the use of force, non-discrimination and protection of vulnerable groups, and transparency (JEVTOVIĆ, 2009; NIKAČ 2015; RISTOVIĆ 2019). The normative framework of international police cooperation is based on international law, ethical principles and human rights standards, which provides guarantees that police actions respect the rights of the individual/citizen and adhere to ethical guidelines, which is crucial for maintaining legitimacy in international operations. This framework helps protect vulnerable populations, prevents abuse of power, and builds trust among cooperating countries, ensuring effective and fair policing globally.

³² For more information, see: Nikač, Željko (2015): *International Police Cooperation*, Belgrade: The Academy of Criminal Investigation and Police Studies.

3. The importance of police ethics for international police cooperation in contemporary society

In times of social turmoil, when the Cold War is only changing its movements and old flashpoints around the globe are rekindling, the importance of police morale in international police cooperation remains at an unprecedented level. Given global security challenges such as transnational organized crime, terrorism, human trafficking and cybercrime that transcend national borders, international police cooperation has become an imperative.

International police cooperation and respect for ethical principles at the global level are necessary to build trust and legitimacy in security forces, ensure respect for basic human rights and freedoms, ensure consistency in international practice, share responsibility, prevent corruption and abuse of power, and promote ethical police work. All of the above leads to a common goal – reducing global crime (NIKAČ, 2015).

Nation states have different legal frameworks, but ethical guidelines and standards help to bridge these differences and harmonize procedures. When police professionals in different countries adhere to common ethical standards, the legitimacy of their actions is enhanced both domestically and internationally. This is particularly important when cooperation involves cross-border law enforcement activities such as joint investigations or shared intelligence. Ethical consistency and standards also help to avoid misunderstandings or misinterpretations of legal and cultural practices, which can help to avoid conflicts or legal challenges arising from different policing standards at the national level. Consequently, ethical standards in international police cooperation reduce the risk of corruption, both nationally and globally.

Some of the ethical standards are: integrity and honesty, impartiality and fairness, respect for human rights and freedoms, professionalism in work, respect for the law and legal authority, duty (deontology), ethical decision-making (discretionary powers), transparency and accountability, confidentiality and privacy (information protection), trust (PRINSLOO – KINGSHOT, 2004; NEYROUD, 2012; NIKAČ, 2015).

In contemporary society, the importance of police ethics for international police cooperation is immeasurable. Ethical police work forms the basis for mutual trust, the protection of basic human rights and freedoms, legal consistency and transparent, accountable cooperation beyond the borders of nation states. By adhering to common ethical principles, security services can more effectively deal with global crime, ensure fair treatment of individuals and foster positive relations between different countries.

Conclusion

Police ethics and police morale are insufficiently researched in theory and practice, with most research focusing on the relationship between police ethics and new technologies, such as artificial intelligence, that are increasingly present in policing. However, fundamental questions regarding the moral and ethical principles that guide police work, as well as their application in practice, remain under-researched. Research and development of both theoretical and practical police ethics and morale will contribute to a better understanding of how moral principles shape policing, as well as the importance of ethical leadership in policing for building a professional, accountable and respected institution that will build fairness and public trust.

After World War II, interest in the moral aspects of police work grew, especially under the influence of key international documents that laid the foundations of human freedoms, rights and democracy. Pro-ethical awareness is more developed in countries with a long liberal-democratic tradition, while in former socialist countries, such as Serbia, it began to develop only after the adoption of the values of liberal democracy.

International police cooperation is a key element in the global fight against organized crime and in maintaining international peace and order. This cooperation includes the exchange of information, joint police actions, as well as the provision of technical and other assistance, and both national and international actors play a significant role. The Republic of Serbia, as an active participant in international police cooperation, actively cooperates with numerous states and international organizations such as Interpol, the EU and the UN, thereby contributing to the global fight against transnational crime.

The normative framework for this cooperation is made up of international treaties and conventions, such as the Palermo Convention and other important documents regulating areas such as money laundering, the fight against corruption and the protection of victims. Regional and bilateral legal frameworks also play a significant role in enhancing cooperation at the regional level.

A key aspect of international police cooperation is respect for human rights and ethical standards. Police work must be directed towards respecting fundamental human rights as guaranteed by the Universal Declaration of Human Rights and other international instruments. In order to prevent abuse of power and guarantee fairness, police services must be guided by principles such as proportionality, transparency, and respect for vulnerable groups. Adherence to ethical standards such as integrity, impartiality, respect for human rights, professionalism and transparency allows international police actions to be fair, legally consistent and to avoid unnecessary conflicts between different legal systems and cultures. These standards not only enhance the legitimacy of police

activities, but also reduce the risk of corruption and abuse of power, both at the national and international levels.

Contemporary security challenges require a unified and coordinated approach to international police cooperation, and police ethics are the foundation for building trust and successful cooperation at the global level. By adhering to ethical principles, police services can respond effectively and fairly to global threats, thereby ensuring better protection of human rights and freedoms, as well as building stable and constructive international relations.

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Innovation Race Among National Security Agencies?

Hedvig SZABÓ

Ludovika University of Public Service, Budapest, Hungary

e-mail: szabohedv@gmail.com

<https://orcid.org/0009-0000-8403-8943>

Imre DOBÁK

Ludovika University of Public Service, Budapest, Hungary

e-mail: dobak.imre@uni-nke.hu

<https://orcid.org/0000-0002-9632-2914>

1. Innovation in the national security domain

In national security operations, the same phenomenon has emerged as in many other areas of modern life - everything is unpredictable, and agencies must carry out their tasks in a constantly shifting security environment filled with unforeseeable challenges. The key challenges of the 21st century - globalization (or rather, decoupling), digitalization (or rather, artificial intelligence), and the radical transformation of the geopolitical landscape - have introduced new types of threats against which traditional methods are no longer effective.

In military and national security operations, asymmetric threats now pose the greatest challenge, and in most cases, it is not even clear who is behind these threats—whether non-state actors such as terrorist groups, organized crime networks, or cyber attackers. Additionally, in conflicts between nation-states, we see that, alongside the military force that has been employed for centuries, elements of hybrid warfare, information operations, and disinformation campaigns have also emerged.

In this dynamically changing environment, security organizations can only remain effective if innovation becomes part of their daily operations. While it is well understood that innovation is crucial, security studies still tend to overlook the topic of innovation itself (RIETJENS et al., 2024). Security agencies acknowledge as a fact that rapid technological advancements create new opportunities, but in addition to leveraging their advantages, they must also develop the ability to adapt to constant change - which is, in essence, innovation.

Thus, security institutions must continuously evolve and renew themselves, even though bureaucratic structures and traditionally hierarchical operations often slow down innovation. Beyond adopting new technologies, it is essential to improve organizational structures and internal workflows, such as integrating agile approaches—long used in the business world—into intelligence processes or accelerating the use of open-source intelligence (OSINT) in decision-making.

Ultimately, innovation is a strategic factor that ensures the resilience of security services in the long term. Innovation is not merely about introducing new technologies; it is about creating an operational framework characterized by flexible adaptability. The speed of response increasingly depends on how effectively security organizations can harness the opportunities provided by new technologies, how they incorporate them into strategic planning, and most importantly, how they apply them in everyday operations.

2. Theoretical Approaches to Mapping Innovation in the National Security Sector

It is a fundamental principle that national security agencies are integral parts of society and the economy. Therefore, strengthening an innovation-driven approach is essential for achieving the strategic objectives of these agencies. This includes enhancing cooperation between the state, the market, and the academic sector, as major technology companies, innovative startups, and research institutions play a key role in shaping modern security technologies and innovations. In the 20th century, the defense industry led innovation, but in the Western world today, it has become primarily a consumer of innovation. The development of new technologies is now predominantly driven by the private sector, which focuses on business and commercial users while showing less interest in defense industry collaboration due to bureaucratic barriers and lower financial incentives. (LEWIS, 2021)

China follows a different approach in the current technological competition, advancing its technological capabilities with significant state support while maintaining integration between military and civilian developments—a characteristic that is no longer prevalent in the Western world. This strategy is known as "Military-Civil Fusion." (BITZINGER, 2021) By the 21st century, it has become evident that the pace of innovation has accelerated to the extent that security organizations struggle to keep up. This speed challenges the resilience and adaptability of traditional security institutions. Emerging technologies such as 5G, artificial intelligence, and quantum computing are fundamentally transforming intelligence gathering and security approaches. (GERSTELL, 2019)

Regardless of whether states adopt a market-driven model or a Military-Civil Fusion model, the success of the national security sector in the 21st century depends on its ability to integrate innovation into its strategic and operational

processes. Countries that effectively adapt to technological and methodological advancements can gain a significant advantage in the global security landscape. (SHRESTHA, 2024)

Most studies examining the relationship between national security and innovation focus on external factors, particularly the role of the private sector, rather than analyzing the innovation activities within national security services themselves. (ROBSON-MORROW, 2022) When these studies do address the internal aspects, they tend to emphasize technological innovation while overlooking other forms of innovation related to organizational structures, processes, or human resources. (DOVER, 2019) One of the key questions in the coming years will be whether national security organizations can effectively merge traditional methods with modern innovations and develop a new security approach capable of effectively addressing future threats.

The innovation activities of national security services can be analyzed using Freeman's concept of national innovation systems, which examines the role and position of national security agencies within a country's innovation ecosystem. (FREEMAN, 1987) This includes a thorough investigation of the innovation ecosystem of a given country and the role played by national security agencies within it. Additionally, the relevance of the Triple Helix model within these agencies' ecosystems can be assessed. (RANGA-ETZKOWITZ, 2015) Furthermore, the integration of the Quadruple Helix model, which incorporates media and civil society dimensions into service relationships, can be examined. (CARAYANNIS et al., 2009) Finally, the presence of the Quintuple Helix innovation model's environmental sustainability component, including collaborations related to the natural environment, can be evaluated. (CARAYANNIS et al. 2012),

The United States serves as the most illustrative example of a national security innovation ecosystem. Firstly, the country ranks third in the 2024 Global Innovation Index³³. Secondly, the U.S. national security strategy considers innovation not only as an economic and military asset but also as a fundamental element of American national identity. The 2017 National Security Strategy (NSS) particularly emphasized the protection of innovation as a factor crucial to the well-being and security of the United States.³⁴ The protection of innovative capabilities is thus not merely about maintaining economic and military power but is also closely linked to preserving the American way of life and identity. The U.S. innovation policy is significant not only for its economic role but also for its cultural and political implications. (MCCARTHY, 2021) The study of U.S. national security agencies' participation in the innovation ecosystem is particularly useful because extensive publicly available information exists regarding this system.

³³ World Intellectual Property Organization (WIPO) (2024). Global Innovation Index 2024

³⁴ <https://www.cia.gov/about/organization/directorate-of-digital-innovation/>

Regarding the national security innovation ecosystem, Lewis concluded that the United States can maintain its innovation superiority in the national security sphere only if the government actively adapts to the market-driven innovation ecosystem. This requires new types of financing and procurement models, more flexible regulations, and the reinforcement of a risk-taking culture. (LEWIS, 2021) He argues that a risk-averse organizational culture hinders innovation within the national security community, and the regulatory environment does not facilitate the rapid adoption of new technologies due to lengthy and bureaucratic procurement procedures.

According to Lewis, solutions may include increasing funding for non-traditional innovation organizations, making existing procurement regulations more flexible, and fostering a greater willingness to take risks.

3. Shaping the Innovation Ecosystem within U.S. National Security Agencies

Innovative Solutions of the NSA (National Security Agency)³⁵

Although it is a fundamental principle that innovation is not limited to technological advancements, this study focuses on the national security agency that is the primary custodian of the United States' SIGINT responsibilities and is responsible for providing technological support to the operations of the national security community. (TEWKSBURY, 2022) The NSA employs various programs as part of its innovation ecosystem, one of which is the Technology Transfer Program (TTP). This innovation initiative aims to transfer research and development (R&D) outcomes created within the intelligence agency to the market. Technological innovations developed by the NSA are utilized through patent licensing agreements (PLAs), open-source software (OSS), cooperative research and development agreements (CRADAs), educational partnership agreements (EPAs), and technology transfer agreements (TTAs) in both the governmental and commercial sectors.

Patent licensing agreements (PLAs) enable the NSA to transfer its patents to the private sector, facilitating the commercialization and broad application of federally funded research. Through its open source solutions, the NSA encourages the application of its technological developments, providing opportunities for code enhancement. Cooperative research and development agreements (CRADAs) establish long-term collaborations between industry, government agencies, and academic institutions, following the classic triple helix model. Educational partnership agreements (EPAs) aim to integrate NSA expertise into education, promoting scientific and technological training.

³⁵ <https://trumpwhitehouse.archives.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>

Technology transfer agreements (ITTSAs) ensure legal protection for NSA innovations and oversee their commercialization and market integration.³⁶

The NSA's innovation programs align with innovation models commonly applied in the business sector, providing companies with opportunities to accelerate their technological developments with the agency's support. (NSA Innovation Programs) One advantage of this collaboration is that partners are not required to obtain security clearances before engaging with the NSA. Additionally, they can directly collaborate with NSA experts. These programs facilitate corporate partnerships and the creation of joint technological solutions, benefiting business actors by providing valuable experience that can offer advantages in future opportunities. The NSA focuses on genuine innovations and breakthrough technologies, which are essential for addressing national security threats, rather than engaging in superficial innovation processes.

To achieve disruptive advancements, the NSA employs the IDEAS program (Innovative Discovery and Exploration of Advanced Systems), a contractual framework that allows industrial and academic partners to present their innovations to the agency. Launched in 2018, this initiative supports basic and applied research, concept development, and capability demonstrations and is open to all companies and research institutions. Additionally, the NSA periodically announces technological challenges within the Acquisition Resource Center (ARC) system, for which registered partners can submit proposals. The most promising solutions can secure fixed-price contracts worth up to \$2 million, with a maximum duration of 12 months. Specific contracting opportunities are also available for small businesses, supporting the integration of new market entrants (startups) into national security innovations. The NSA's objective is to expand the innovation ecosystem and support the rapid development of new technologies to effectively address continuously evolving threats.

*CLA Solutions for Innovation*³⁷

In 2015, the CIA established the Directorate of Digital Innovation (DDI) to maximize and systematically integrate digital solutions into the agency's intelligence operations. This structure enables the CIA to effectively link traditional intelligence capabilities with innovative technological and digital solutions, providing a resilient operational framework. Alongside the creation of this directorate, the Agency Data Office (ADO) and the Chief Data Officer (CDO) were also established to address the emerging challenges of data-driven intelligence. The primary mission of the DDI is to integrate digital technologies into intelligence operations. This organizational unit consolidates expertise in information technology, data management, artificial intelligence, cybersecurity,

³⁶ <https://www.nsa.gov/business/programs/programs-for-innovation/>

³⁷ Directorate of Digital Innovation - CIA

and open-source intelligence (OSINT), thereby creating a unified and efficient digital intelligence infrastructure.

Today, the DDI represents an integrated approach to the CIA's technological, human intelligence (HUMINT), and clandestine operations capacities, merging previously separate fields to provide effective responses to threats emerging in cyberspace. Addressing the challenges of cyber intelligence (which extends beyond SIGINT), the directorate prioritizes agility, creativity, and a strong commitment to its mission.

The CIA also places significant emphasis on collaboration with the private sector. (Roberts-Schmid 2022) One of the key tasks of the Digital Futures division is to foster partnerships between the CIA and companies developing innovative technologies. The agency funds startups through its nonprofit investment organization, In-Q-Tel (IQT), which operates in strategic technology fields such as artificial intelligence, cybersecurity, big data analytics, and sensor technology. The objective of IQT is to ensure that the intelligence community has access to breakthrough technologies that directly contribute to protecting U.S. national security interests.³⁸

One thought about human intelligence

The role of human expertise cannot be overlooked. While artificial intelligence dominates current discourse, human intelligence remains a critical factor in the implementation of innovation within the CIA and NSA. The effective application of new technologies requires specialists with the right skills and mindset. Professionals working in traditional intelligence and security fields must acquire new competencies that enable them to manage rapidly evolving threats and technological environments. This necessity extends beyond technical knowledge to include the ability to address complex, interdisciplinary problem-solving challenges. An innovative workforce can drive the initiative for the national security sector to redefine innovation under the Industry 5.0 paradigm. This framework integrates industrial digitalization and technology (Industry 5.0) with human-centric, societal, and knowledge-based dimensions (Society 5.0). (TROISI et al., 2024)

4. Closing Thoughts

To ensure that innovation occurs in the national security sector at least at the same level as in the private sphere is of strategic significance, as only innovative national security services can withstand the changing and uncertain security environment.

³⁸ <https://www.iqt.org/>

In the 21st century, new types of security challenges have emerged that cannot be addressed with traditional, outdated methods. Innovation within security agencies does not only mean the adoption of new technologies but also the development of a new operational mindset in which close cooperation between the state, private, and academic sectors play a fundamental role. World-leading intelligence and security organizations such as the NSA and CIA—just like the entire U.S. economic system—have recognized the necessity of creating an innovation ecosystem. Leading intelligence agencies do not merely adopt the latest technologies; they also develop organizational and operational models that enable rapid adaptation to a changing environment and the timely identification of threats. Transforming traditional, hierarchical organizations, introducing agile methods, and establishing innovation partnerships all contribute to ensuring that national security organizations can effectively respond to unknown security challenges.

However, national security innovation must not be limited to technological, process, and organizational innovations. Innovation can only be truly successful if the right people are in place—employees with the necessary skills and mindset who can collaborate effectively and solve complex problems. This leads to the inevitable application of national security innovation: the technology-driven Industry 5.0 approach must integrate with a human-centered, social, and knowledge-based approach—the concept of Society 5.0.

The key to future solutions will be how well national security organizations can integrate the 5.0 approach into their practice and apply a new security paradigm accordingly. States that successfully implement innovation in both their strategic and operational functioning may gain an advantage in shaping a new global security environment. For this reason, it is crucial to recognize that applying innovation is not merely an option but a necessity in modern security strategies.

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Subversive activity as an element of hybrid warfare

Tatjana GERGINOVA

Faculty of Security-Skopje, University “Sv. Kliment Ohridski”-Bitola,
North Macedonia

e-mail: tatjana.gerginova@uklo.edu.mk
<https://orcid.org/0009-0007-3669-0209>

Introduction

The modern world is facing changes in interrelationships, a shift in the center of power at the regional and global levels, new political processes, technologies and weapons. New geopolitical tensions have brought new security challenges to the European Union. These challenges are increasing and are accentuated by the hybrid nature of many threats. Such complex military-political relations in the world have brought hybrid wars to the stage.

Uneven economic development, the imperialist pretensions of great powers (such as the USA, Russia), terrorist attacks in the USA and Europe, the ongoing conflicts in Ukraine and the Gaza Strip, and the wars in the Middle East (primarily in Syria, Iraq, and Afghanistan) have led to the creation of complex and intricate political relations between states.

Hybrid wars are taking on a new dimension with the emergence of modern technology and the digital world, where cyberspace could be manipulated by spreading propaganda and weapons in the form of cyber-hacking. Hybrid warfare, by fusing conventional military techniques and unconventional technologies with conventional methods, has become the leading generation of tools that the world is slowly confronting.

In today's digital age, almost every crime has a digital component. Technologies and tools are also used for criminal purposes, including those necessary to guarantee our society's need for cybersecurity, data protection, and privacy (See: Strategic Agenda - European Union - Brussels, 18.10.2023 COM(2023) 665).

A contemporary challenge is the effective implementation of legislation in the European Union – in order to protect public safety and to prevent, detect, investigate and prosecute crime (although significant efforts have been made at the European Union and national levels, - through the implementation of

legislation, as well as capacity building and innovative initiatives, legal and technical challenges still persist.

Within the framework of preparing the content of the paper, the author uses the following methods for security research - the author used the general scientific methods: the descriptive method, the normative method, the comparative method and the content analysis method as a special scientific method. As a basic methodological procedure or technique for collecting data, the author uses content analysis of publications, reports, conference materials, reports and analyses of various articles, journals, and content analysis of websites that relate to the subject of research.

The scientific justification of my paper is – the research of subversive activities is an important scientific content related to the fight to deal with hybrid threats. I especially give an overview of certain unconventional actions - they are undertaken in the direction of achieving global stability and peace.

The term hybrid threat, hybrid war

The first content that I analyze in the paper is content about hybrid threats, hybrid warfare. The term "hybrid threats" appears after the end of the Cold War and the beginning of the unipolar era in the world, followed by the entry of important non-state actors, parallel to state actors, into the sphere of security competitiveness in the world. Non-state actors are (criminal groups, foreign-funded extremists, foreign fighters, returnees, terrorists, etc.).

As a result of the impact of globalization (development of technology, media, the increasing dominance of multinational companies, etc.), and the loss of clear ideological differences between the policies of the great powers, in the late twentieth and early twenty-first centuries, there was a loss of the classic form of "state-state" conflict that prevailed in the twentieth century. Namely, the formulation of new "controlled" and "measured" conflicts can be observed as a direct result of the influence of globalization, but also as a result of certain aspirations towards the center of power and separate elites for the pursuit of own interests.

Today, in the current world hierarchy of relations, there is no clear and definite ideological difference between the main actors on the geopolitical scene, but rather an interesting confrontation is in effect, which aims to achieve dominance in the area of one's own interest.

In doing so, global and regional powers apply identical models and approaches to planning hybrid operations, and the only difference is the level of ambition, which depends on the strength of the state, i.e. whether it is positioned as a global or regional power (MITROVIĆ, 2017).

Hybrid warfare involves a combination of the use of illegal combat operations, sponsorship, organization and implementation of political protests, and economic

measures, which are accompanied by strong information campaigns. All these activities are organized and implemented with the aim of achieving the strategic interests of the great powers or of the separate centers of power (corporations, internal groups) in order to determine the state of disruption of the balance of power in international relations and the achievement of one's own interests, most often by non-combat means (KOFMAN - ROJANSKY, 2015).

The term "hybrid" (Greek: hybrid) comes from the Greek language, and in the modern world, it means a mixture or combination of something. The term "hybrid threat" - often used interchangeably with references to hybrid warfare - identifies the nature of the challenges (i.e. ethnic conflict, terrorism, migration and weak institutions), the diversity of actors involved (i.e. regular and irregular forces, criminal groups) and the variety of conventional and unconventional means used (i.e. military, diplomatic, technological) (GERGINOVA, 2023). With the word "war", the hybrid gets it again its original, negative connotation. The term "hybrid war" contains various meanings, ranging from cyberwar, information warfare, various scenarios for low-intensity asymmetric conflicts, through global terrorism, piracy, illegal immigration, corruption, ethnic and religious conflicts, transnational organized crime, to the systemic economic collapse of the state with the aim of creating demographic changes and the use of weapons of mass destruction. "Hybrid warfare", or "combined warfare", refers to a complex military strategy that is a combination of conventional and unconventional, cyber, psychological and information warfare. The London-based International Institute for Strategic Studies in 2015 gave the following definition of "hybrid warfare":

"The use of military and non-military instruments in an integrated campaign to achieve surprise, seize initiative, and gain psychological advantage that is used in diplomatic actions; large-scale and rapid information, electronic, and cyber operations; covert and covert military and intelligence activities; combined with economic pressure" (GIEGERICH, 2016, 65).

The definition accurately reflects the key differences between hybrid wars and traditional conflicts. Hoffman (HOFFMAN, 2007) and Newson (NEWSON 2014), define hybrid warfare through hybrid threats - Hybrid threats encompass a wide range of different conflict models as a cocktail of conventional military capabilities, including other conventional security capabilities, and regular tactics and formations, terrorist acts, random violence and coercion, insurgency, guerrilla warfare, as well as organized criminal acts and unrest, cyber warfare, and advanced military technology. The main role in achieving the goals of war is played by the use of non-military means, such as psychological and propaganda operations, economic sanctions, embargoes, criminal activities, terrorist activities, and other subversive activities of a similar nature.

New features of hybrid warfare – conduct of covert subversive activity

Hybrid warfare is a form of threatening the security of states, and is initially based on subversive activities that involve forms of manifestation of force in international relations. The basis of the concept of hybrid warfare lies in subversion. In the most general sense, the term subversion (Latin: subversio - coup, destruction, demolition) means complex forms of institutional violence - it is characterized by the indirect and direct use of all forms of force and can be public or covert.

Subversive activities at the international level refer to the actions of states from a position of power and the use of force against other international entities - with the aim of subordinating them to their own interests. Today, there are situations where one side may not be in a classic war with anyone and may be susceptible to hybrid actions by other state and non-state actors – without being aware of it.

The complexity and multifaceted nature of the term "hybrid warfare" is also reflected in the fact that this term describes various events: from the actions of "Al Qaeda" and the Taliban in Afghanistan to the use of automated underwater probes in the South China Sea (BURGERS & ROMANIUK). Another event is Russia's involvement in the events in Ukraine in 2014 and in 2022 (to date 2025) or the involvement of the United States in the numerous color revolutions around the world (KORYBKO, 2025).

In hybrid warfare, the role of the use of non-military means is particularly emphasized. However, at the heart of hybrid warfare (just like in classical warfare) lies armed conflict. Hybrid warfare, as an armed conflict, is conducted in a combined manner – with military and non-military means. The main role in achieving the goals of the war is played by the use of non-military means, such as psychological and propaganda operations, economic sanctions, embargoes, criminal activities, terrorist activities and other subversive activities of a similar nature. The aggressor's military actions are carried out in secret with irregular forces in combination with symmetrical and asymmetrical methods of combat operations against the entire society and in particular against its political structures, state bodies and local self-government, the state economy, the morale of the population, and against the armed forces. In the fight against hybrid threats, content related to unconventional actions takes an important role. Unconventional actions (known as unconventional warfare) include intelligence-subversive, military, political, economic and other activities that are covertly or openly conducted in an area that is under the actual control or influence of forces or states whose interests are contrary to the interests of the force waging a special war (GOCEVSKI, 2002, 41). The most common synonyms used to define non-intelligence activities are: Covert operations, secret operations, covert actions, special activities, and unconventional actions.

One of the basic forms of subversive actions is ideological and political indoctrination. In a broader sense, this term denotes an effort by a movement or state, using all available means, to impose a certain understanding, beliefs and ways of behaving on the broader layers of the population of the attacked state (MILJKOVIĆ, 2016). Propaganda is usually in the form of multimedia communications that provide ideological or practical instructions, explanations, justifications, or promotion of terrorist activities, rebellious activities, etc. The next form of hybrid wars are Color Revolutions - in fact, they are realized with the active participation of the masses in street demonstrations and with political and financial support from outside. They represent a type of coup, which is mainly realized through nonviolent resistance to the regime (MILENKOVIC - MITROVIC, 2019).

The goals of such illegal activities can be the complete or partial disintegration of the state, a qualitative change in its internal or foreign policy, the replacement of the state leadership with loyal regimes, the establishment of external control over the state, its criminalization and subordination to the dictates of other states or transnational corporations. This type of revolution occurs in the following way – first, non-governmental organizations and intelligence services in certain countries form political and civil associations and strengthen them to the point where they become strong enough to oppose the legal government.³⁹ Of course, if color revolutions fail, there is a next stage in which certain members of such revolutions become rebels or terrorists and armed intervention begins against such groups.

In NATO, insurgency is defined as "the set of activities of an organized, often ideologically motivated group or movement, which aims to bring about or prevent political change by the ruling authorities, focusing on persuasion and intimidation of the population - using violence or subversion" (According to NATO, Allied Joint Doctrine for Counterinsurgency (COIN) AJP-3-4.4, February 2011, p.1). The following definition is used in the German army. Insurgency is a process of destabilization caused by political, economic or social dissatisfaction, which affects the effectiveness and legitimacy of the government system. An insurgent is a person who carries out or supports asymmetric activities as part of an insurgency (According to German army office, Preliminary basics for the role of land forces in counterinsurgency, Cologne, 2010).

Another definition that gives us the most essential elements of an insurgency is: An insurgency is a long-term political-military struggle aimed at undermining or displacing the legitimacy of a government or a constituted occupying force, full or partial control of the resources of a certain territory through the use of

³⁹ see:

https://www.researchgate.net/publication/357182302_Colour_revolution_in_the_hybrid_warfare_paradigm

asymmetric forces and illegal political organizations. A common denominator for most rebel groups is their goal of gaining control over a population or a specific territory, including its resources.

Conclusion

Globalization has established a new distribution of power on the stage of global governance. Namely, with its negative effects, globalization generates conditions for the intensification of antagonism and the existing demands for the outbreak of unconventional forms of conflict. In practice, globalization, with its effects, encourages the existing preconditions for the emergence of hybrid wars and the emergence of hybrid threats.

The increasing role of hybrid wars in achieving the geopolitical goals of opposing sides indicates that a different approach is needed when creating a strategy for dealing with hybrid threats (each nation-state needs to create such a strategy).

Given that hybrid warfare targets essential and vulnerable components of society, a preventive component needs to be developed in the fight against hybrid threats. Prevention is the creation of such political, social and economic circumstances that eliminate the conditions for the creation and spread of hybrid threats in all forms of their manifestation.

Hybrid warfare is tasked with conducting, organizing, and reviewing actions that differ from those of the adversary. The goal is to take the initiative and achieve greater freedom in creating activities in order to achieve strategic goals.

Preventing a situation that would proactively approach creating a defensive attitude towards hybrid threats implies planned preventive action. Such an approach would mean a strategically conceived attitude towards the crucial structures of the state and society.

Applied in practice, the preventive response to hybrid threats implies the development of all elements of the state and society, such as military capacities and capabilities, economic, diplomatic, information and communication, intelligence and security, legal and judicial, scientific, educational and administrative potentials of the state (According to CACI, „Dealing With Today’s Asymmetric Threat to U.S. and Global Security“, An Executive Summary of the May 8th 2008 Symposium, 2008 CACI International Inc.).

Every nation-state is exposed to forms of hybrid warfare that contain elements of unconventional actions aimed at exploiting vulnerabilities, weakening national values such as sovereignty, independence, and territorial integrity, undermining democratic values and freedoms, destabilizing state institutions, and damaging the reputations and influence of nation-states.

- Strengthening resilience requires a long-term approach based on mitigating the root causes that contribute to crises and strengthening capacities to better manage future uncertainty and change;
- The implementation of a multi-layered strategy and a broad systemic perspective is needed, aimed at reducing the multiple risks of crises and at the same time improving mechanisms for rapid response and adaptation at the local, national and regional levels;

In relation to the implementation of the preventive component in the fight against hybrid threats, - an approach based on building resilience is needed, which would identify and reduce vulnerabilities and minimize the effects of potential threats. This indicates the importance of the capabilities of the entities implementing response and recovery actions.

In 2023, the European Union adopted the Security Union Strategy 2020-2025, which defines the main priorities for the Union in the field of security. Strong progress has been achieved across all four pillars of the Strategy - from protecting critical entities to strengthening cyber resilience. This strategy identifies numerous tools that are being developed and strengthened to improve the European Union's ability to effectively address hybrid threats (According to Strategic Agenda - European Union - Brussels, 18.10.2023 COM(2023) 665

Given the high risks, the EU continued to develop cyber capacity-building activities and foster partnerships with third countries, including through dedicated cyber dialogues, to actively contribute to its overall resilience. A number of tools have been developed, revised and strengthened to improve the Union's ability to effectively address hybrid threats, as described in the 7th Hybrid Threat Progress Report published on 14 September 2023.

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3D-Printed Devices and their Criminal Law Relevance

Orsolya HORVÁTH

University of Pécs, Faculty of Law

e-mail: horvath.orsolya@pte.hu

<https://orcid.org/0000-0003-2570-2618>

1. Introduction

The technology of 3D printing has undergone significant development over the past decades, leading to its current application in a wide range of industries and fields, including healthcare, aerospace, and even the arts and fashion. Thanks to additive manufacturing, objects can be created layer by layer, opening up new possibilities for customized and rapid prototyping. Despite the numerous advantages of 3D printing, it is essential to acknowledge the emerging challenges in criminal and criminal procedural law, particularly the illegal production of firearms and other hazardous devices.

The advancement of technology, increased accessibility of 3D printers, and the ease of sharing digital blueprints have made it possible for individuals with the necessary knowledge to manufacture functional firearms or their components even in domestic environments. One of the most pressing challenges related to printed weapons is their “invisibility”—they often lack serial numbers and may evade metal detectors, making their tracking and regulation particularly difficult for law enforcement agencies and legal systems (MARÓTI – HORVÁTH, 2018, 74–75). The use of 3D printing for illicit purposes raises further concerns across various domains. Chief among these is the violation of intellectual property rights, as protected products or their replicas may be reproduced without authorization. The technology also enables the creation of devices intended for terrorist acts or other violent crimes with relative ease. As a result, traditional regulatory frameworks are often inadequate, particularly when it comes to emerging technologies (EUROPEAN PARLIAMENT 2018).

In the context of printed firearms, critical legal questions remain unanswered: Who bears responsibility for the production or design of specific components? What methods can be used to detect and trace these weapons? Addressing such questions demands substantial resources and specialized training. An effective regulatory and enforcement framework must include mechanisms for tracking

digital blueprints, identifying printing devices, and educating users on the responsible use of 3D printing technology. International cooperation is essential in this area, as digital files can be shared globally without geographic limitations, necessitating coordinated and harmonized global regulation.

In summary, while 3D printing offers substantial benefits to individual users, it also presents significant challenges for the fields of criminal law and criminology. A proactive response from law enforcement agencies is essential to ensure public safety and uphold the rule of law—without hindering technological progress. This study provides a comprehensive overview of the areas of 3D printing most commonly associated with illegal activities, explores the related challenges faced by law enforcement, and outlines key objectives for future regulation and prevention strategies.

2. 3D printing and the potential for crime

2.1. Printing illegal weapons and ammunition

Firearms produced through 3D printing—commonly referred to as ghost guns—pose a significant challenge to law enforcement agencies, primarily due to their lack of serial numbers, as previously noted. These weapons may consist entirely of 3D-printed components or may include only partially printed parts, such as grips, frames, or sights. The digital blueprints required for manufacturing these firearms can be publicly shared among users, and accessing them does not necessarily require visiting the darkest corners of the internet.

The first 3D-printed firearm blueprint, the single-shot "Liberator", was uploaded to the internet by law student Cody Wilson. By the time U.S. authorities intervened and removed the files, the blueprints had already been downloaded millions of times (JACOBS – HABERMAN, 2017, 119). Since 2012, both the technology and the designs have advanced considerably: the early prototypes, which posed serious safety risks to the user, have increasingly been replaced by more functional weapons, which have reportedly been used by criminal organizations in various attacks.

Although more than a decade has passed since the first publicly available 3D-printed firearm, legal regulation is still attempting to catch up with past developments. Most current laws do not explicitly cover firearms that can be produced using 3D printing under domestic conditions. In the United States, regulations regarding the manufacture and possession of printed firearms vary from state to state, while in Europe the legal framework remains equally fragmented—existing laws can only be interpreted broadly to include printed weapons. In the U.S., the Second Amendment of the Constitution guarantees the right to bear arms, which complicates the establishment of clear regulatory guidelines. In contrast, the European Commission has stated that the regulations set forth in relevant directives concerning firearms must also be applied to 3D-

printed weapons. The necessity of this extension is underscored by the growing number of crimes involving printed firearms recorded in recent years, particularly in Spain, Germany, and the United Kingdom (SCHAUFELBÜCH, 2024).

2.2. Printing tools used in drug production

3D printers also play a role in the production of illicit drugs, posing significant challenges for law enforcement authorities. On the one hand, the technology presents promising potential in supporting personalized medicine by enabling the production of precisely dosed and tailored pharmaceuticals. On the other hand, these same capabilities exacerbate challenges in criminal investigations. Both detection and prevention strategies must be developed in light of these challenges to effectively address future criminal activities.

The Advantages of Printed Pharmaceuticals and Substances

Personalized dosage options are essential prerequisites for implementing individualized treatment plans. 3D printing technology, which is capable of producing even highly complex pharmaceutical combinations, offers clear advantages over traditional manufacturing processes (ADMANE et al. 2024, 2–4). By eliminating unnecessary production materials, manufacturing costs can be reduced, and small-batch production becomes economically feasible—particularly beneficial for medications requiring unique dosage forms for patients with specific conditions (Soni et al., 2024). In terms of cost-effectiveness, it is also important to mention that automation allows for reduced operator involvement in the compounding process, thereby increasing overall efficiency (RODRÍGUEZ - MACINEIRAS et al., 2025).

Furthermore, printed drug manufacturing provides benefits such as the production of formulations with controlled active ingredient release, which in turn improves therapeutic outcomes for patients (GUPTA et al., 2024, 1032–1035). In addition to all these advantages, printed pharmaceuticals comply with the European Pharmacopeia, exhibiting accurate active ingredient content, mass uniformity, and temporal stability (RODRÍGUEZ - MACINEIRAS et al., 2025).

Despite the advantages, the challenges must also be briefly addressed. Each pharmaceutical formulation requires the optimization of different printing processes, making ongoing development and the overcoming of emerging obstacles essential in this dynamically evolving field (SONI et al., 2024). It is clear that while the application of this technology presents numerous opportunities for healthcare, it also enables unauthorized individuals to misuse it in ways that can harm both individuals and society through the illicit production of printed substances.

Risks and Consequences of Printed Substances

Thanks to 3D printing, drug manufacturing can now occur outside traditional production facilities, thereby circumventing established oversight and regulation mechanisms, and allowing operations to hide behind illegality (YANISKY-RAVID – KWAN, 2016, 109). Materials used and produced in unregulated processes pose significant health risks, regardless of whether they are marketed as pharmaceuticals or narcotics (DOBRYNSKA et al., 2024, 159).

Detection and Prevention Strategies

Portable drug detection devices, such as smartphone-based colorimetric sensors combined with artificial neural networks, can assist in the on-site analysis of suspicious substances (CRUZ et al., 2024). Other portable tools also deserve mention, particularly those capable of identifying amphetamines and their derivatives in field conditions (MENGALI et al. 2013, 1–2). The dual-use nature of 3D printing necessitates the development of appropriate regulatory frameworks—ones that simultaneously foster innovation for legitimate applications while safeguarding public safety (PEAK, 2019).

2.3. 3D printing explosives and detonators

Just like 3D-printed firearms, the production of 3D-printed explosive devices offers advantages for military and industrial applications, as rapid prototyping and customization reduce costs compared to traditional manufacturing. However, this domain also faces the risks of illicit use and intent. The fabrication of improvised explosive devices (IEDs) and detonators has become easier and more accessible through 3D printing, thereby increasing the threat of terrorist activities. The components of such devices can be customized, making their detection and tracking significantly more difficult. As the quality of printed materials improves daily thanks to technological advances, the identification and neutralization of these devices poses a growing threat to public safety. Similar to the fight against 3D-printed weapons, the prevention and elimination of 3D-printed explosive devices represent a global challenge requiring international cooperation. Therefore, counter-terrorism strategies must adapt to address these emerging threats.

According to some researchers, four technologies are suitable for printing explosives, propellants, and initiating devices: vat photopolymerization, binder jetting, fused deposition modeling, and direct ink writing. The application of additive manufacturing technologies to energetic materials has been under investigation since 1999, initiated by the U.S. Defense Advanced Research Projects Agency (DARPA). Today, several countries and their specialized

laboratories are developing explosive ink composites for use in additive processes (TAN et al., 2024).

Recent reports indicate that 3D-printed weapons and explosive devices are actively being used in conflict zones, such as the ongoing Russia-Ukraine war. For instance, RKG-3 grenades have been modified into munitions, and “candy bombs” have been created—improvised explosive devices encased in 3D-printed shells containing C4 or shrapnel. Beyond Ukraine, Myanmar has also seen the adoption of 3D printing technologies for military purposes. The People’s Defence Force (PDF) uses additive manufacturing to produce weapons and components, thereby reducing or eliminating dependence on external arms suppliers (Dass, 2014).

3. Law enforcement and judicial aspects of 3D printing

3.1. Tracing and identification options

Homemade and decentralized 3D-printed devices and firearms pose significant challenges for law enforcement agencies. Traditional tracking methods, such as serial numbers or manufacturing marks, are not applicable in these cases, necessitating the development of new identification techniques. Gao and colleagues propose the integration of watermarking techniques to combat counterfeiting, aimed at protecting intellectual property and preventing the unauthorized reproduction of digital designs (GAO et al., 2021, 2805–2810). Similarly, researchers at the University at Buffalo, New York, suggest embedding QR codes into digital files, enabling verification of the model’s authenticity by preventing duplication and ensuring traceability (MICHELLE, 2018).

Despite these efforts, such methods are not suitable for identifying the printers themselves. Hardware imperfections occurring during the printing process result in deviations within the models, which appear repeatedly, forming unique textures that serve as identifiable features. Through digital fingerprinting—based on microscopic defects left by printers—identification becomes possible. Each printer’s mechanical configuration and calibration differ slightly, allowing for the differentiation of production patterns and the creation of a reference database of printer profiles (LI et al., 2018, 1306–1307). Cyber-physical systems are also capable of recognizing 3D designs, including those related to firearms and explosives. In an experiment conducted by Vedeshin and colleagues, a dataset of 5,831 3D files was used to test whether a cyber-physical system could effectively contribute to the protection of intellectual property (VEDESHIN et al., 2020, 74–76).

3.2. Legal regulation of 3D printing

In the United States, individuals are able to circumvent both federal and state regulations regarding the production, licensing, and registration of 3D-printed firearms. Authors who have examined this issue in depth recommend a tripartite approach as a solution—one that encompasses the regulation of weapons, the protection of individual freedoms, and the promotion of technological development (TAN – DISEMADI, 2023, 149). Legislators in the European Union and its Member States are also making efforts to combat the illegal manufacture and distribution of firearms. However, monitoring activities conducted in the digital domain remains a significant challenge. Future regulatory frameworks are expected to focus on stricter oversight of online content and the restriction of access to raw materials used for 3D printing firearms.

3.3. International cooperation and crime prevention strategies

3D printing represents a field of increasing relevance in terms of both national and international security. The decentralized nature of the technology and its digital characteristics hinder the ability of individual countries to respond effectively and independently to emerging threats. Accordingly, international cooperation and information sharing are of paramount importance in this area. The ease with which weapons can be manufactured using 3D printing technology has the potential to challenge and transform existing arms control agreements and security frameworks. INTERPOL actively monitors and analyses risks related to 3D-printed weapons. The organization aims to coordinate cross-border data exchange and provide technical support to law enforcement agencies for identifying printed devices. EUROPOL, headquartered in The Netherlands, also addresses the issue of illegally printed items. According to its reports, criminal organizations are increasingly using 3D printing technologies to manufacture weapon components. EUROPOL's role is to facilitate information sharing, conduct operational analyses, and provide technical support for analyzing seized devices (EUROPOL 2022). On the American side, the FBI is likewise engaged in investigating the criminal implications of 3D printing (HORNICK, 2018). In the future, international cooperation will become even more crucial in light of the above. The development of joint investigative protocols, databases, and technological tools will be indispensable for tracking 3D-printed devices, establishing regulatory frameworks, and enabling professional, rapid identification. Knowledge transfer and joint training initiatives must also be integral elements of crime prevention strategies.

4. Challenges and opportunities for the future

Among the proposed risk mitigation strategies, export controls stand out, including the establishment of regulations aimed at monitoring 3D printing technologies and materials that could be used for weapon manufacturing. Enhancing cybersecurity measures, raising awareness regarding associated risks, and fostering industrial self-regulation are also among the key recommendations. These proposals underscore the need for comprehensive approaches to address the risks linked to 3D printing technology, while preserving its dual-use character and maintaining its innovative potential (FEY, 2017).

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Difficulties in measuring and researching corruption

Csaba ZSIGMOND

Ludovika University of Public Service, Faculty of Law Enforcement,
Budapest, Hungary

e-mail: zsigmond.csaba@uni-nke.hu
<https://orcid.org/0000-0001-6765-7670>

1. Introduction. The concept of corruption, its dangers and the importance of fighting it

The dangers of corruption have been highlighted by the OECD since its inception: it deepens social inequalities, weakens economic growth, undermines the resilience and proper functioning of democracies, and hampers people's representation and trust in government. The 2024 report shows that while OECD countries have begun to improve their anti-corruption frameworks in recent years, the work is far from complete. (OECD, 2024)

Corruption as a phenomenon of crime is addressed by several disciplines: law, sociology and criminology, so it can be defined from the perspective of several disciplines. For this paper, I have used the following definition of corruption, which is also used by Transparency International: "Corruption has been defined as: the offering, giving, soliciting or acceptance of an inducement or reward, which may influence a person to act against the interests of the organisation." It is true that this concept is more appropriate to one specific corruption offence, bribery, and in practice it almost completely overlaps with the bribery offences in the Hungarian Criminal Code, but it provides a good basis for this study.

One of the foundations for effective action against corruption is an accurate knowledge of the phenomenon, for which it is essential to conduct objective research, and to know its extent and scope. However, this phenomenon is a difficult area to research, given the latency resulting from the specific nature of the crime. It is difficult to obtain a realistic picture using classical statistical analyses. (FINSZTER, 2008, 39-57) In this paper, I briefly summarise the work of a few foreign and national authors on research methods and the specificities of measuring corruption.

2. Specificities of measuring and researching corruption

Géza Finszter wrote about the specifics of measuring corruption. According to him, in addition to statistical analysis, it is advisable to use the so-called interview method. In order to identify the causal factors of corruption, three factors need to be identified: the motivation of the perpetrator (internal causes), the organisational causes and the dysfunction of the organisation. (FINSZTER, 2008, 39-57)

As a method to measure corruption, it is important to mention the Corruption Perceptions Index used by Transparency International as an NGO. Transparency International is a social organisation that monitors and publishes the extent of corporate and political corruption at an international level. It publishes an annual Corruption Perceptions Index on the extent and distribution of corruption worldwide. It is based in Berlin, but has national organisations in more than seventy countries. (KUMAR – STEINMANN, 1998, 208)

In addition to the Corruption Perception Index, the Global Corruption Report and the National Integrity System are published annually. The Corruption Perceptions Index measures how seriously international and local analysts and business people perceive the problem of corruption, which is a specific score. The lower the score the more serious the perception, a high score indicates low corruption. (HACK, 2009, 24-37) As recently as 2009, Transparency International rated our country's corruption index at 50 in a 2023 report, with a score of 42.

The Global Corruption Report focuses on a different area each year: for example, it measures the corruption infestation in business. In addition, the already cited Corruption Perceptions Index is published annually, broken down by country.

The National Integrity System - also developed by Transparency International - aims to identify the legal gaps and practical failures that allow corruption situations to develop. In general, the following shortcomings in the Hungarian state institutional system were highlighted: opaque party and campaign financing, high risk of corruption in public procurement, weak law enforcement, weak sanctions, high social acceptance of corruption, weakness of the civil society, lack of political will to curb corruption.

The possibilities for measuring corruption are discussed in a publication in 2021. (NÉMETH et al., 2021, 1963-1980) The authors explain that the measurement of corruption can include the experience of corruption, the perception of corruption and the perception of corruption. Measurement can include fact-based surveys, statistical analyses, and estimates. However, they point out the limitations of these results in view of the high latency and mention peer review, micro-level phenomena and case studies as other measurement methods. There are also a number of risks associated with measuring this phenomenon: the survey organisations cannot be considered independent, the methodology they

use is not fully known, the key concepts used are not defined and are therefore interpreted differently in some countries. A common problem identified by the authors is that the reporting of results on perceptions of corruption is often presented as objective results on corruption, and perception surveys do not rely on a representative sample.

A further measurement risk is that the results may portray the phenomenon of corruption in a country as if only the state were involved as a passive briber, ignoring the fact that the active party may be a private foreign actor. The criteria for objective measurement of corruption are: the independence and objectivity of the measuring organisation, the precise definition of the object of the research, the definition of the purpose of the survey, the questions and their consistency, the review of relevant literature prior to the research, the formulation of hypotheses and the conclusions at the end of the research.

One interesting method of measuring corruption was used in a 2011 publication: the media representation of corruption (SZÁNTÓ et al., 2011, 53-74). In this study, press releases published on 8 domestic Internet news portals between 2001 and 2009 were analysed using search terms such as corruption, corruption, slush money, bribery, bribes, money laundering. Based on this, the following results were found for the media outlets studied: the percentage of suspected cases of corruption by corrupted and corruptors in the period under study was 46% for individual, 46.7% for group and 7.3% for institutional offences among corrupted, while 55% for individual, 39.5% for group and 5.6% for institutional offences among corrupted.

The proportions of the distribution in the business and municipal / governmental spheres: 5.9% of the corrupted were in the business sphere, 88.6% in the governmental/municipal sphere, 5.5% were from other institutions. 81.1% of the corruptors were from the business sector, 8.4% from the government, municipal sector, 30.5% from other institutions.

The actors involved were: corruptors from low status 47.5%, from higher, managerial status 52.2%, corruptors 38.4% from low status, while 61.6% were from higher status.

Finally, the institutional breakdown of corruption cases: police 26.7%, court 3%, municipality 17.5%, ministries 24.8%, tax office 4.8%, VPOP 7.7%, non-national entities 6%, other 9.8%.

The specificities of measuring police corruption were examined by Kardos (KARDOS, 2014, 183-199). In his paper, he also explains the difficulties of measuring and researching corruption: the misleading nature of statistical data (high latency) and the risk of subjectivity in questionnaire-based surveys.

It refers to the results of several previous corruption studies. One of them was a 1998 survey of the population (KRÁNITZ, 1998, 224-249), based on a questionnaire, which showed a discrepancy between the public's perception of police corruption and the statistics on the number of corruption and bribery cases.

During this survey, a total of 251 people returned their answers (note: 1,100 questionnaires were distributed), of which 159 were subject to police action and 159 were fined. 22% of the respondents were fined more than the legal limit (between HUF 5-10,000) and 30% did not receive a receipt for the fine. 10% of the respondents criticised the rudeness of the police, 21% criticised their unprofessionalism, 13% said that the police were corrupt and the same number said that the police officers simply pocketed the amount of the fine handed over. Overall, the survey found higher levels of corruption among police officers than the statistics, based on citizens' personal experience. The study therefore did not confirm the extent of police corruption at the time as indicated by the statistics. Kardos also refers to another study conducted in 1999 among part-time students of the Police College who were actually doing police work while continuing their studies. (KRÉMER, 1999, 40-69)

According to the results of the research, police officers serving in rural areas perceived police corruption to be significantly lower than those in Budapest: 29% of those serving in rural areas and 50% of those serving in the capital considered police corruption to be a frequent phenomenon. Half of the Budapest respondents cited police action in connection with on-the-spot fines as the scene of police corruption, compared to only 29% of the rural respondents. The survey unanimously confirmed the presence of "pocketing fines" in the organisation at the time. The survey cannot be considered representative.

Finally, he mentions a study also carried out in 1999 (BENDZSÁK et al., 2000), based on interviews with police officers. This survey showed a higher incidence of corruption. As a reason for corruption, the surveyors mention that the police, being part of the surrounding society, cannot be independent from its general corruption tendencies. Two levels of corruption were identified in the research: the lower level, the so-called "police corruption". "There are two levels of corruption. The research also examined corruption by branch of service and formulated that anti-corruption activities in the police force are limited to "small police forces", identifying low salaries as a root cause of corruption. Based on the data collected, the research also made recommendations for law enforcement managers. A common feature of the latter two studies was that both investigated police corruption solely on the basis of interviews with police personnel. Hence, the objectivity of the findings is questionable, but they did provide an accurate picture of the internal attitudes of police personnel towards corruption.

In conclusion, Kardos explains that the questionnaire method used to assess corruption acts should always take into account the group involved in the assessment: the group's world view, social situation may distort the true picture, and it is necessary to obtain more objective statistical data and to combine the two results to get a more objective picture of the corruption situation (KARDOS, 2014, 183-199). A specific method of measuring corruption is used in an Italian study from 2005: it takes the amount of public money available to a province for

infrastructure development as a basis and compares it with the amount of money available to develop a given area in the period when it was available. Where there is a visible difference between the implementation and the money originally available, there is a reasonable presumption of corruption. The study stresses that while determining the capital available is a relatively straightforward task, identifying and assessing the physical infrastructure is a much more complex operation. However, the authors also argue that this research method could be used to assess corruption not only in Italy, but also in several larger EU Member States: Germany, France and the then UK.

3. Summary

Everyone agrees that corruption and various forms of bribery are a growing threat to society: not only practitioners and academics, but also the general public. As it has been seen from the writings of different authors, the possibilities to measure and research corruption are severely limited given the latency of corruption.

Several authors mention questionnaire-type surveys as a measurement method, which should preferably be representative. However, as is generally the case with questionnaire surveys, the complete objectivity of the results is often disputed: the possibility of influencing the sample during the survey is highlighted as an argument. Some point out that statistical data should also be taken as a basis and that the two measurements should be analysed together and evaluated in a consistent manner. Similarly, it cannot be considered sufficient to rely on statistical data alone, as this is only the "tip of the iceberg" in terms of corruption data.

The own method used by the Italian authors mentioned in my paper (amount of public money available, percentage of investments made) may give a more realistic picture, but it requires complex calculations and budget transparency.

It can be seen that it is difficult to get a realistic picture of the exact corruption situation, which is one of the difficulties of measuring and researching this area.

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The Russian theory of the world's geopolitical space and the classification of powers

Gábor ANDRÉKÓ

Ludovika University of Public Service Budapest, Hungary

e-mail: andreko.gabor@uni-nke.hu

<https://orcid.org/0000-0002-7977-0387>

1. Theoretical issues of the classical Western geopolitical structure

The science of geopolitics, barely a century and a quarter old, is now once again a popular method of inquiry. It is based on a combination of Western and Russian theories, which this paper aims to compare. The first sub-chapter presents the theory most commonly accepted in Western interpretation, on which the second chapter builds to present Russian geopolitical trends. The third sub-chapter attempts to define 'great power' as a key concept in geopolitical thinking.

The three-dimensional model, developed by Saul David Cohen, was first published in 2003 and has since been published twice, providing a theoretical background for the study of the laws and characteristics that affect the space between great powers (Cohen, 2015). The geopolitical structure outlined consists of three vertical plates and four possible role plates of the collision space in the space between great powers. Geopolitical structures are hierarchically ordered vertical levels, or plates in geography jargon, and can be organised along the horizontal plane of collision plates as follows:

Vertical plates:

1. Macro level is the geostrategic area - or geopolitical sphere of power, which means the great power or empire itself and its entire extension, this is the most extensive plate.
2. Mesoscale is a geopolitical region - a division of the empire, a federation of several states or territories, representing the middle level or plate.
3. micro level, which is the smallest plate, consists of nation-states, highly autonomous regions, quasi-states and territorial divisions within states.

Horizontal plates:

The horizontal layout divides the entire space between the great powers into the area of no interest to the great powers - for example, in history, the unexplored

areas and areas of no interest even in the absence of interest and will on the part of the great powers - and the area of interest to the great powers (COHEN, 2015).

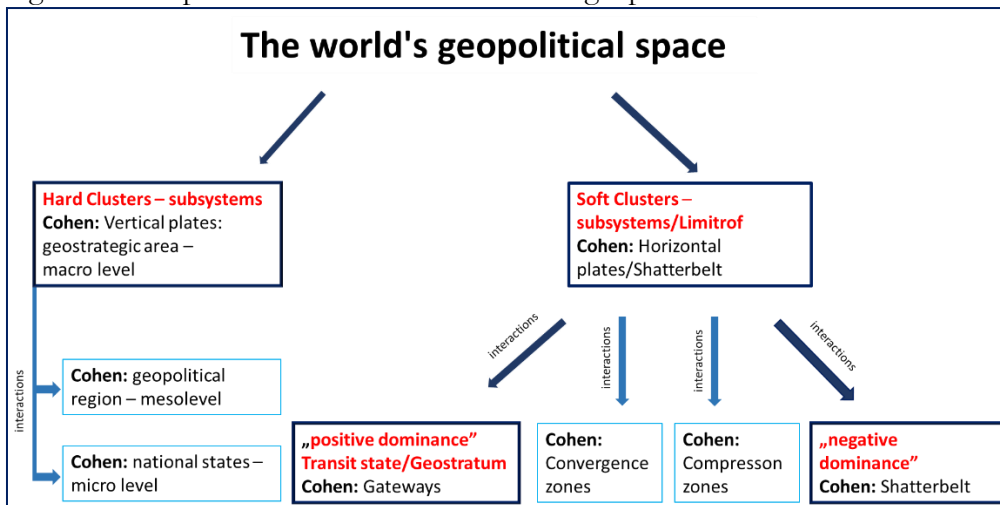
1. The "shatterbelt" - a region torn by internal conflicts, whose fragmentation is exacerbated by the intervention of major external powers (COHEN, 2015).
2. 'Convergence zones' - regions that are located between empires but whose final state has not yet been determined. Regions or medium-sized plates are constantly changing their area, shape and boundaries according to geopolitical influences. They may move towards integration into an empire or, if environmental conditions are favourable, they may shift towards a gateway state role as they embark on a path of trade and economic development, becoming convergence zones until the process is complete (COHEN, 2015).
3. 'Compression zones' - smaller geographic scales, smaller atomized areas located within or between geopolitical regions. Such zones can be fragmented by a combination of civil wars and intervention by neighbouring countries (COHEN, 2015).
4. Gateways - micro-levels that serve as gateways between empires, regions or states. They can be established in places over which the major powers do not yet have influence, or where the balance of power between two or more major powers in the region is balanced, or where there is a mutual interest in developing and promoting economic cooperation. In this case, such intermediate regions can become bridges or 'gateway states' (COHEN, 2015).

2. Russian theory of the world geopolitical space, similarities and differences with classical Western geopolitics

Russian political science, like Western geopolitical science, pays attention to the workings of world political and economic processes, and its conclusions are in many respects compatible with the model outlined by Cohen. However, the Russian theoretical background is less detailed in some respects (see Figure 1), and its thought process shows traits of imperialism in terms of the need to maintain buffer zones.

For international political and economic processes and contacts, the world geopolitical space (VGT) provides the environment. In every historical period, this is the space in which interactions take place, its composition is heterogeneous and constantly changing to reflect the current balance of power. Its structure, however, can be broken down into two large, distinct subsystems, or Clusters, because of its different characteristics. (KVITSIANI et al. 2018) Relatively stable subsystems, or Hard Clusters (HCs), are geopolitical regions in which a 'core state' can be detected. A CC is essentially identical to the geostrategic region considered by Cohen as a macro-level.

Figure 1. Comparison of Western and Russian geopolitical theories



Source: own figure based on literature.

The functioning of the VGT is determined by the CCs, but they do not exist alone, because the space between them is filled by intermediate subsystems through which the exchange between regions, i.e. the set of interactions, takes place. These subsystems, which often involve intensive exchanges, are also known as Soft Clusters (SCs). They are characterised by a high degree of mobility, geopolitical instability and, most strikingly, by the absence of a 'host state', i.e. a major power (in Western geopolitical terms, a 'vacuum space').

The term "limitrophus" goes back to the late Latin word "limitrophus" and is a compound of two words: the Latin "limes" (limit) and the Greek "trophos" (nourishment, feeding). Its early meaning was 'to provide for the subsistence of frontier troops stationed on the frontiers of the Roman Empire' (Merriam Webster Dictionary, 2023) In this sense, its first official use was recorded in 1763- and after the First and Second World Wars in Russia the meaning was changed to 'on the frontier', 'on the border', 'bordering', 'adjacent'. The reason for this is the "transformation" of the geopolitical space of the former Russian Empire and the newly formed Soviet Union, the restructuring of its "near" foreign land. At first, "the term 'limit trophies' was used to refer to the new independent states (including Finland and Poland) that emerged on the western periphery of the Empire - the territories of its western provinces" (KVITSIANI et al. 2018, 7), which directly bordered Russia and formed a kind of protective zone.

One of the characteristics of limitrophic zones/areas is that they are very dynamic geopolitical formations, have increased "energy" and are therefore

"energy surplus" boundary fields. Another characteristic is their heterogeneity." (KVITSIANI et al., 2018, 2) Limiting trophies can be divided into two broad groups depending on the type of inter-state relations between them. In the case of "negative dominance" (the more so, because the dominant type of interstate relations, according to the Russian interpretation, is conflict), the threat of violence between states comes to the fore, which exacerbates conflicts in all spheres and ultimately leads to the daily occurrence of wars fought by psychological, information, economic, commercial and military means. Such regions often contain conflict areas and become unstable because they are characterised by a high potential for conflict and/or open conflict ('high instability index'). The location of states in the zone (Cohen's role) is not stable, it can change at any time based on geopolitical influences, most of them are located at the nodes of "civilisational plates". The boundaries of the "civilizational plates" cover the civilizational fractures as formulated by Huntington⁴⁰, and this type of limit troph corresponds to the buffer zone outlined in Cohen's model, or the role of the states in the zone as buffer states.

In the case of "positive dominance", the limit trophic is characterised by intensive economic, resource and information exchange, dense socio-cultural and other communication, dominated by negotiation procedures and focused on development by the interacting parties. (GORELOVA - RYABTSEV, 2018) Such a non-confrontational geopolitical space is also referred to in the Russian literature by the specific term *geostratum*, or *geostratum* (a word merged from the Greek *geo*-land and *stratum*-ground) (MAYSAYA, 2015), which has the meaning "the land or geographical area that controls the processes and events that take place immediately around it". The *geostratum* is a geographic segment of strategic importance that is a typical area of effective cooperation between clusters in VGT, where, through various parameters, confrontational relations are transformed and an atmosphere of peaceful coexistence between all the players involved is created. The *geostratum* is characterised by transparent and open diplomatic relations, a high degree of tolerance towards religions, a limitless space, dialogue between civilisations, financial centres of influence and a clustering of geo-economic projects. In addition to the positive-dominant term limit troph or *geostratum*, a third term is also used: 'transit states' (TUROVSKY, 1999, 4) in Cohen's terminology is also used in the sense of 'gateways'.

As can be seen, in Russian theory, the limit troff is the most commonly accepted and used concept, and is now interpreted to mean all spaces between

⁴⁰ Samuel Phillips Huntington (18.04.1927 - 24.12.2008) was an American political scientist. He was director of Harvard's Center for International Affairs and professor at Albert J. Weatherhead III University. During the presidency of Jimmy Carter, he served as Coordinator of Security Planning for the National Security Council. In 1993, he published his best-known theory, "The Clash of Civilizations". His assessment was that in the post-Cold War future wars would be fought not between countries but between cultures and civilisations.

CCs. However, the imperial approach is also evident from the fact that, as the dissertation has pointed out, it was originally understood to refer to the areas on the borders of the Russian Empire. During the Soviet Union until the 1930s, the terms 'limit trophies' and 'limit trophic states' were often used, (KVITSIANI et al., 2018) and the term gradually disappeared from Russian analyses as the Soviet Union reclaimed the former territories on the western and southern borders of the Russian Empire (with the exception of Finland, Poland and the Western and Southern Caucasus Kars regions) until World War II. After the defeat of Germany, the Central and Eastern European region became a Soviet zone of influence, so from a Russian point of view the term "limit troops" had no relevance. The collapse of the Soviet Union in 1991 led to the emergence of new states to which the term was reapplied, and in the post-Soviet world the definition of a limit troop now covers not only the former Soviet republics in the European part of the country, but also a number of countries in Central and Eastern Europe and the Asian regions of the Soviet Union, and in practice includes all 14 allied member republics of the former Soviet Union.

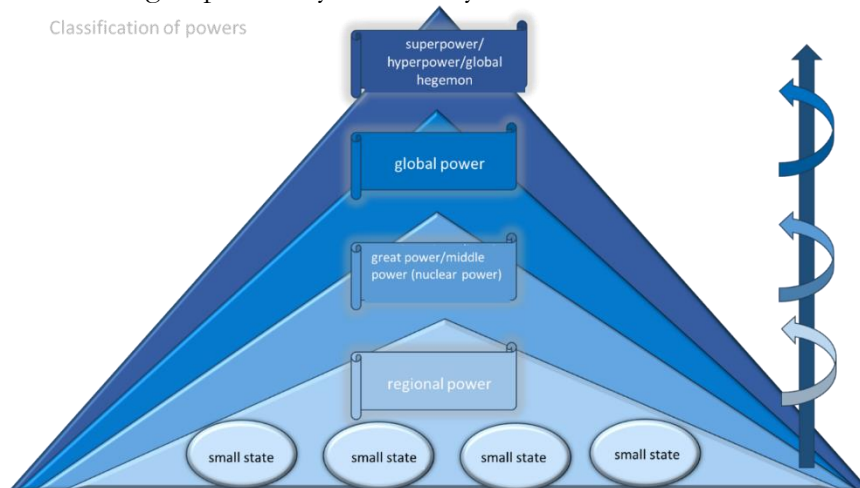
Since the second half of the last century, the traditional border between Eurasia and Europe has been the Great Limiter (T'SYMBURSKY, 1995), a zone of peoples not fully integrated into any one great civilization - European, Slavic (Russian), Chinese (Confucian), Hindu, Arab-Iranian (Muslim), i.e. linking states along the civilizational fault lines that cut across Eurasia. The Great Limit Route starts in Finland, crosses the Baltic States, Eastern Europe, the Caucasus, the new post-Soviet Central Asia, and ends in the Korean peninsula, including Mongolia. The vast region is also a prominent feature of Western geopolitical thinking, and it is virtually the same zone described by R. Hartshorne, who has called the area of Eastern Europe from the Baltic to the Adriatic a permanent geopolitical instability zone (shatterzone). (KVITSIANI et al., 2018). The dilemma of the Central and Eastern European region as a buffer and gateway region has been examined in Hungary by Ágnes Bernek (BERNEK, 2021).

3. Classification of powers in the world geopolitical space according to their capabilities

To understand the functioning of buffer and gateway states and to analyse the context in which they exist, it is necessary to clarify an important political-geopolitical concept. Indeed, the definition of power as a state is a fundamental element at every stage of the analysis. From the very beginning of the research, we are confronted with the statement that 'the buffer state is smaller and weaker than the powers acting on the zone'. In the international literature, several adjectives are used in association with the term power (such as small, medium, regional, large, super, nuclear...). In the following, the ranking of powers and their

main characteristics will be clarified, because the study will be built on these definitions (Figure 2)

Figure 2. Ranking of powers by their ability to influence



Source: self-made figure

- Superpower/hyperpower/global hegemon: A term commonly used to describe nations with overwhelming power and influence (SZILÁGYI, 2019), it was first coined by William T. R. Fox in 1944. In his assessment, three superpowers existed before World War II: Great Britain, the United States of America and the Soviet Union. The British colonial empire was dissolved at the end of the war and the previous system of relations underwent a major transformation, as a result of which Great Britain lost its superpower status. The break-up of the Soviet Union in 1991 led to the emergence of a unipolar world order, with the US as the only superpower capable of imposing its interests militarily in any part of the world. It is also present in all regions and is at least as powerful economically, financially, culturally, technically and militarily as the most influential state in that region. According to some views (MILLER, 2005), the influence of the global hegemon, or superpower, rests on four factors: economic, military, political and cultural (or 'soft') spheres, while other assessments (KISSINGER, 2002) add technological development.
- Global power: Brzezinski created the concept of geostrategic players (SZILÁGYI, 2019.b:65), which can be seen as a category of global power. "An active geostrategic player is a state that has the capabilities and national will to use its power or influence beyond its borders to change the geopolitical situation at the time, to an extent that also affects America's interests." (BRZEZINSKI, 1999, 64) The criterion of a global power is thus similar to that of a superpower, but with the difference that it is present in more than two

regions, but not in all of them, and is not able to assert its influence in all of them. The permanent members of the UN Security Council, the Russian Federation, the United States of America, China, France and the United Kingdom, which, although they are unanimous in their decisions, have influence on the world political and economic system and can therefore be considered as a subset of global powers.

- Great power/medium power: The term was originally used to refer to nations that exert a degree of global influence, but not enough to be decisive in international affairs. The criterion was that the great powers should have sufficient influence to participate in the discussion of contemporary political and diplomatic issues and influence the outcome and resolution. The status of Great Power was first formally recognised at the Congress of Vienna in 1815, which held Prussia, the British Empire, the Russian Empire, the Habsburg Empire and France responsible for enforcing the treaty. (JARRETT, 2013) In the twenty-first century, the concept of a great power is considered in this thesis to be narrower than superpower and global power, and includes primarily states whose influence extends beyond their own region but which do not have a significant influence over more than two areas. Cohen identifies seven great powers or centres of power (COHEN, 2009) - the United States, Brazil, the European Union, Russia, India, China, Japan - three of which also fall into higher categories. In the case where a state fits into more than one category, the geopolitical analysis is based on its higher power ranking. Accordingly, the US is the superpower and Russia and China are the embodiments of global power. A subset of the superpowers are the nuclear-weapon states (ICANW, 2023) (the nuclear powers under the NPT: the Soviet Union/Russia, the United States, China, France, the United Kingdom, and the nuclear-weapon states not recognised as nuclear powers under international law: Pakistan, India, Israel and North Korea) (N. RÓZSA, 2021), because the consequences of decisions taken in a given region must also take into account the expected reactions of nuclear powers with interests there.
- Regional power: Its influence is even less than that of a great or middle power because it is usually limited to its own region. Many states fit into this category (COHEN, 2009): e.g. South Korea, Indonesia, Iran, Japan, Germany, Turkey, Mexico, Argentina, etc.
- Small power: The division between small and great powers was formalised with the signing of the Treaty of Chaumont (CANNON, 2009) in 1814. The current international system is largely made up of small powers (THORHALLSSON-STEINSSON, 2017) or small states located in the shatterbelt, in limit trophies. Although a small power in the international system can never match or surpass the influence of larger powers, it can, together with others, influence the functioning of the international system. Because of their

relative weakness, they tend to favour multilateralism, successfully employ coalition-building and image-building strategies, because their ability to assert their interests through military means is limited (ROTHSTEIN, 1968):

- territory as neutral to resist rivalries between the great powers;
- seeks friendly and equidistant relations with all the major powers concerned
- allies itself with the potential winner in a conflict between great powers;
- seeks to ally itself with its adversary in the face of aggression from a great power;
- is willing to enter into alliances with other small powers to protect itself from great power pressure;
- seeks to resolve its bilateral relations with major powers through multilateral institutions with other small powers in the region (EFREMOVA, 2019, 117).

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Understanding the Path to Extremism: An Overview of Radicalization Models

Gábor BOGNÁR

Ludovika University of Public Service, Budapest, Hungary
Doctoral School of Military Sciences, PhD student

e-mail: gbrbgnr@gmail.com

<https://orcid.org/0009-0000-5494-1306>

Johanna FARKAS

Ludovika University of Public Service, Faculty of Law Enforcement,
Budapest, Hungary

e-mail: farkas.johanna@uni-nke.hu

<https://orcid.org/0000-0001-6376-4209>

1. Introduction

The path to extremism is a complex and multifaceted journey that has captured the attention of scholars, policymakers, and the public alike (BORUM, 2011). This article provides an overview of various radicalization models, aiming to shed light on the intricate processes that lead individuals to adopt extreme beliefs and engage in violent behavior. By examining the psychological, social, and environmental factors contributing to radicalization, this study seeks to enhance our understanding of how extremist ideologies take root and spread (FARKAS, 2022). Through a comprehensive analysis of existing models, the article highlights the importance of early intervention and the development of effective counter-radicalization strategies. Ultimately, this exploration underscores the need for a nuanced approach that addresses the root causes of extremism and promotes resilience within communities. Terrorism remained a very serious global threat, considering that the geographic reach of terrorism is constantly spreading (Farkas, 2024). Policy makers and security agencies are at constant alert, as terrorism has an impact in most of the regions. To counter this issue we must understand the path to extremism, which means that we know all the psychological, economical and environmental factors to be able to effectively work on these issues (IEP, 2025).

2. Radicalization models

In the following section, I am going to explain the most important models that provide valuable insights into understanding the path to extremism. This research focuses on the three most well-known frameworks. The study of radicalization has become increasingly crucial in understanding the pathways that lead individuals to adopt extremist ideologies and engage in violent behavior. Three prominent models—Kruglanski's 3N model, Moghaddam's Staircase Model, and McCauley & Moskaleiko's Two-Pyramids Model—offer distinct yet complementary frameworks for analyzing this complex process. Their focus on the interplay between individual psychological needs, persuasive narratives, social networks, and environmental factors in shaping radicalization trajectories is what unites these models. Exploring these models is relevant because they provide a comprehensive lens through which to examine the multifaceted nature of radicalization. By understanding the commonalities and differences among these frameworks, policymakers, security agencies, and researchers can develop more effective strategies for prevention and intervention. The detailed examination of these models is forward-looking as it underscores the importance of addressing individual vulnerabilities and broader societal conditions. This holistic approach is essential for disrupting radicalization pathways and promoting community resilience, ultimately contributing to a safer and more secure society. Given the widespread prevalence of violent extremism globally, understanding its psychological underpinnings is crucial in combating this phenomenon.

3N model of radicalisation

Based mainly on suicide terrorist suicide videos and interviews with relatives, Kruglanski and colleagues (2021) proposed a motivational analysis of suicide terrorism. They also suggested a grouping of negative aspects, such as the presentability of mortality, humiliation, ostracism, and personal circumstances other than normative instructions (e.g., divorce). Such negative experiences may trigger a sense that one's life is meaningless, leading to frustration or a path that may diminish this experience. However, this is a complex mechanism with many factors at play. According to the Significance Quest Theory (SQT), the motivation to "become a hero" can trigger the search for meaning, even for those who have never experienced meaningfulness (KRUGLANSKI et al., 2017). Furthermore, the need to restore lost meaning and/or to gain meaning as a motivation can become an important need that can push other needs to the background. Further refined the theory of motivational imbalance, according to which frustration of any need leads to motivational imbalance, which, when prioritized, can lead to extremism (CHIRICO et al., 2021).

The 3N model examines the process of radicalization through the factors of Need, Narrative, and Network (WEBBER & KRUGLANSKI, 2018).

- ‘Need’ refers to the individual's quest for significance, which can be driven by personal grievances, social marginalization, or a desire for identity and belonging.
- ‘Narrative’ involves the ideological framework that justifies and legitimizes violent actions. The narrative provides a coherent story that resonates with the individual's needs and motivations.
- ‘Network’ encompasses the social connections and support systems that reinforce the narrative and facilitate the individual's engagement in extremist activities.

A fundamental question is to investigate what motivates individuals to carry out violent acts. One such motivation is the ‘inner need’ to ‘be someone’, that is, the pursuit of significance and respect from others. We find the answer to the “why” question when examining the failures, rejections, and potential humiliations experienced by the individual. Social alienation is also crucial, a psychological state where the individual feels ostracized from mainstream society or lacks any sense of connection. This state can also be actively chosen, meaning the person rejects societal values themselves.

The result is that the individual becomes detached from the values of society and other citizens. When social significance is lost, the individual becomes motivated to restore it quickly. This restoration can occur through retaliation against the source of the threat or by seeking out like-minded groups. A good example is the situation of widowed women in the Chechen war, who wanted to avenge the deaths of their husbands or families against Russian occupying forces. 92% (24/26) of women who carried out suicide attacks experienced social alienation, and 73% sought contact with jihadist groups as an immediate reaction after experiencing trauma.

As the previous example shows, a common reaction to experiencing the loss of a family member can be the desire to punish those responsible for one's suffering. However, since the use of violence is mostly prohibited and severely punishable, it is important that the narrative encouraging violence be packaged in an ideological framework that can provide moral justification for the use of violence against a group of people. The ideological narrative thus has two important roles. First, ideology, as such, is a shared belief system that clearly defines the necessary actions to achieve goals (which typically involve extreme violence against perceived enemies of the individual's group). Second, the ideological narrative provides moral justification that makes violence against members of the enemy group acceptable, even desirable.

It is also important that ‘moral disengagement’ occurs. This means that unethical behavior is permissible if we dehumanize the victims or if we portray violence as morally justified, depicting it as a noble and necessary cause. When we connect this to the previously described phenomenon of ‘social alienation’, it becomes clear that if the alienated person does not meaningfully connect to the community, they may be prone to emotionally detach from it, thus reducing empathy, which can increase aggression against society. Once the person begins to deeply adhere to the ideological narrative that morally justifies the use of violence, they become motivated to seek out individuals with similar convictions. In the group of like-minded people, there is mutual understanding and a shared perception of reality. If these conditions are met, the individual enters an environment that is predictable and controllable for them. It can be stated, therefore, that those who support violence seek the company of individuals with similar convictions (KRUGLANSKI et al., 2019).

David Webber and Arie W. Kruglanski's ‘3N’ model has received several critiques (DASILVA et al., 2024). The model is criticized for oversimplifying the process of radicalization and not accounting for the complex social, economic, and political factors that play a role in an individual's radicalization. Systematic literature analysis results show that the predictions of the theory are confirmed ($n = 747$), while other results contradict the predictions ($n = 29$). This is strongly reflected in the empirical evidence on the relationship between meaningfulness or lack thereof and extremism, as well as between meaninglessness and narrative, and between the network and extremism (DASILVA et al., 2023). The “3N” model has been criticized for not adequately addressing the cultural and social contexts that significantly influence an individual's needs, narratives, and networks. Additionally, the model is seen as static, failing to consider the dynamic and ongoing nature of radicalization, where an individual's needs, narratives, and networks can evolve over time. Some critics also argue that the model lacks sufficient empirical evidence to support its claims, necessitating further research to validate its applicability and effectiveness. Moreover, the model does not account for individual differences, such as personality traits, past life experiences, and personal motivations, which can significantly impact the radicalization process.

According to the Significance Quest Theory and its 3N model, violent extremism is a function of three key elements (3N). A meta-analysis aims to test this theory and its model by establishing the strength of the association between these three elements, as well as the quest for significance itself, and violent extremism (DASILVA et al., 2023). A comprehensive literature search was conducted using electronic platforms, a call for unpublished or in-press data, and backward snowballing. Seventeen reports, comprising 42 studies, met the full inclusion criteria: quantitative studies based on primary data that assessed the association of at least one of the 3N elements or the quest for significance with

violent extremism, and provided sufficient data for effect size extraction. Random-effects meta-analyses revealed statistically significant pooled effect sizes for all investigated associations. The association was strong for the quest for significance, moderate for narrative and network, and low for the need for significance. Subgroup analyses indicated that the detection of these associations was influenced by methodological decisions concerning measurements and manipulations but not by those concerning sampling. The implications of these findings are discussed, and future research directions are suggested to enhance the predictive power of the theory and its model.

Moghaddam's Staircase Model

The study of radicalization and violent extremism necessitates a comprehensive understanding of the psychological and social factors that drive individuals towards such behaviors. Moghaddam's Staircase Model (2005) provides a valuable framework for conceptualizing the progressive stages through which individuals may become radicalized, highlighting the escalation from perceived injustice to violent action. By examining the Staircase Model, researchers can gain insights into the critical junctures at which interventions might be most effective in preventing the escalation of extremist behaviors.

Fathali M. Moghaddam, a psychologist and researcher at Georgetown University, conceptualized the process of radicalization as a staircase consisting of six steps (MOGHADDAM, 2005). On the ground floor, the majority of the population resides. People at this level value justice and fairness and strive to maintain these feelings in their lives. To understand why certain individuals turn to radicalization, it is essential to examine the sources of their internal frustration and feelings of shame. Those who move to the next step are individuals who perceive themselves as victims of unjust treatment, leading them to feel compelled to address their grievances through alternative, potentially radical means. This first step can be characterized as the perceived opportunities to fight against unfair treatment. At this stage, individuals seek solutions to what they perceive as injustices. Two psychological factors primarily shape behavior at this level: first, the opportunities available for improving one's situation; second, belief in procedural justice. The second step involves the "displacement of aggression." Here, individuals materialize their enemies (e.g., the European Union) and seek alliances that reinforce these emotions. This stage is more of a channel than a specific psychological state. For example, education can play a role in facilitating radicalization processes (e.g., armed Salafists). Individuals who reach this level aspire to move higher, as they seek physical confrontation with perceived enemies. The third step is the "level of moral commitment." Terrorist organizations justify their struggle for their ideal society through a parallel morality. They achieve this by portraying members within the organization as

morally committed while depicting mainstream society as detached from fundamental moral principles. A terrorist organization succeeds when it uses its resources effectively to persuade recruits to detach from the moral order of mainstream society. A notable example is martyrdom, which is promoted on two levels. On a macro level, terrorist organizations claim they are the only viable option for reforming society. On a micro level, they present themselves as a home for individuals experiencing isolation and frustration. Starting from the ground floor, potential terrorists at this stage find themselves engaging with extremist moral values within secretive and isolated organizations whose ultimate goal is to change the world by any means necessary. The fourth step involves the “solidification of categorical thinking and legitimization of the terrorist organization.” Individuals who reach this stage and join a terrorist group face little or no realistic chance of leaving alive. Most new recruits become long-term members (typically operating in cells of four to five people), while others fall into a second category: those who carry out violent acts - often suicide attacks - with minimal time between training and execution. Immersion in secretive small-group activities changes recruits’ perceptions in two key ways: first, they legitimize the goals of terrorist organizations; second, they adopt a “us versus them” worldview. This dichotomy - particularly strong in Saudi Wahhabism - also applies to far-right extremism characterized by xenophobia. Another defining feature is unwavering belief in the terrorist organization as an ideal tool for achieving personal goals. Commitment to the cause intensifies as recruits are socialized into the organization’s traditions, methods, and objectives.

At this stage, recruits face two forms of unyielding pressure: internal pressure from the terrorist organization to conform and carry out violent acts against civilians; and external pressure from governments (especially in North Africa or the Middle East) that offer no avenues for addressing perceived injustices. Individuals at this level often perceive their options as severely limited. The fifth step involves mental processes designed to bypass inhibitory mechanisms and culminates in carrying out actual terrorist acts. Two psychological processes drive this stage: social categorization, where civilians are treated as outsiders; and psychological distancing, where exaggerated distinctions are made between in-group and out-group members. Terrorists are trained to perceive everyone—including civilians—as enemies, driven by the “us versus them” mentality mentioned earlier.

Viewing civilians as enemies helps terrorists bypass inhibitory mechanisms designed to reduce aggression toward others. While modern long-range weapons make it relatively easy to avoid these mechanisms, suicide bombers often need close proximity to their victims. Two critical factors facilitate bypassing these mechanisms: first, psychological distancing allows terrorists to separate themselves emotionally from others; second, victims rarely recognize imminent danger, preventing behaviors that activate inhibitory mechanisms (e.g., eye

contact, pleading, crying). Based on these observations, it can be concluded that individuals who reach the fifth step are psychologically prepared and motivated to commit acts of terrorism (MOGHADDAM, 2005).

Moghaddam's Staircase Model of radicalization has been both influential and subject to various critiques within the academic community. While empirical evidence supports steps one, two, five, and six of the model, the empirical foundation for steps three and four is considerably weaker. Step four, however, is supported by empirical research on other processes proposed at this stage, namely inhibitory mechanisms, social categorization, and dehumanization. Despite extensive searches, no articles have been found that empirically support moral engagement in relation to groups (LYGRE, 2011). Critics argue that the Staircase Model oversimplifies the complex and multifaceted process of radicalization (MARTIN, 2023). Some researchers point out that the model is largely theoretical and lacks robust empirical evidence to support its stages. The Staircase Model does not adequately address individual differences, such as personality traits, past experiences, and personal motivations, which can play a crucial role in the radicalization process. These individual factors can influence how an individual progresses through the stages of radicalization.

The model is criticized for being static and not considering the dynamic and evolving nature of radicalization. Individuals may move back and forth between stages or skip stages entirely, which is not captured by the linear progression of the Staircase Model.

Two-Pyramids Model

McCauley and Moskalenko's Two-Pyramids Model (2008) offers a more nuanced and dynamic perspective on radicalization. The model consists of two interconnected pyramids:

- Pyramid of Radicalization represents the psychological and social factors that contribute to an individual's radicalization, including personal grievances, group dynamics, and ideological influences.
- Pyramid of Opportunity represents the external factors and opportunities that facilitate an individual's engagement in extremist activities, such as social networks, organizational structures, and political contexts.

The essence of the model lies in the observation that, as we ascend the pyramid, the level of commitment increases, while the number of individuals at each level decreases. At the lower levels of the pyramid are activists who do not directly engage in violent acts but provide implicit (or often explicit) support to those higher up. This support may take various forms, such as recruitment, political advocacy, or financial assistance. These lower-level individuals validate the goals for which terrorists fight, forming a reference community that terrorist

groups claim to represent. While this model leaves open the question of how an individual progresses from the base to the apex of the pyramid (a question addressed by the previously discussed Moghaddam model), it is nevertheless noteworthy because it shifts focus away from the individual and introduces an ideological framework that connects terrorists to society as a whole. The research observes that many mechanisms driving individual and group radicalization are reactive. Thus, the roots of radicalization are not found within individuals themselves but in their lived or inhabited environments. Radicalization emerges in contexts of intergroup competition and conflict, where both sides tend to radicalize (MURO, 2016).

After briefly introducing the model, I will delve into the details of the research, as it contains insights that enhance understanding of my topic. The study categorizes radicalization mechanisms into twelve distinct categories (MCCAULEY – MOSKALENKO, 2008):

1. **Personal Grievance:** A good example of this is the radicalization of Chechen women against Russian soldiers who committed atrocities. This pathway to radicalism is often associated with perpetrators of suicide attacks. However, it is challenging to collect data on how many terrorists or suicide attackers have personal grievances in their lives. From a social psychological perspective, personal grievances are less likely to explain group sacrifices unless the individual's grievances are used as a representative framework for the group.
2. **Political Grievance:** Sometimes, individuals are compelled to engage in radical actions or violence in response to political trends or events. However, cases where individuals act alone in political radicalization are relatively rare; most often, they are connected to a larger organization. If an individual becomes radicalized due to a political grievance, there is a high likelihood that they have some psychological issues. Interestingly, when political grievances lead to group radicalization—particularly among those who escalate to terrorism—it is unlikely that such groups would recruit or tolerate the level of unreliability caused by psychopathology. Thus, it can be said that individuals who radicalize alone are often battling their own demons.
3. **Individual Radicalization During Group Membership – 'Sliding Down the Slope':** It is rare for an individual to transition from being a mere sympathizer to an activist by taking significant risks or making sacrifices. Progression within the group is typically a slow and gradual process, requiring individuals to pass through many smaller tests before being entrusted with more serious missions. However, there are rare cases where an attacker makes a significant leap from sympathy to committing extreme violence. In such cases, cognitive

dissonance theory⁴¹ applies—finding reasons for one’s actions is easier than acting based on pre-existing reasons.

4. **Joining a Radical Group – ‘The Power of Love’:** In this case, individuals are recruited through pre-existing personal relationships with members of terrorist groups. The reason for this is straightforward: no one wants to recruit someone who might betray the group. In practice, recruitment often takes place among family members or close friends. While trust determines the pool of potential recruits, love plays a decisive role in determining who actually joins the group.
5. **Group Radicalization Within Like-Minded Groups:** When a group discusses an issue collectively, two fundamental changes occur. First, group cohesion increases through shared consensus. Second, average opinions shift—typically toward more extreme positions.
6. **Group Radicalization in Isolation:** In small combat units (cells), extremely strong group cohesion develops because members are cut off from the majority of the organization and can only rely on and trust each other.
7. **Competition for the Same Support Base:** These groups compete for sympathizers with similar interests. For some time, the tactic of becoming more radical can help a group gain a larger base of supporters. A good example is when multiple terrorist organizations claim responsibility for the same attack.
8. **Group Radicalization Against State Power:** Weak, fragmented groups with low levels of support aim to gain as much public visibility as possible (e.g., through rallies, protests, or marches). State police forces may use violence against these groups, but this can be counterproductive by increasing their support among those suffering from state oppression. Violence may escalate or de-escalate depending on interactions between law enforcement and the group.
9. **Group Radicalization Through Internal Competition – Schism:** Internal competition for higher status often leads to intense conflicts within groups. According to studies, joint action against either the state or another group may save group cohesion in such cases. Internal tensions often result in terrorist groups disbanding or splitting into factions.
10. **Mass Radicalization in Conflict with an External Group – ‘Judo Politics’:** Larger groups often find cohesion through patriotism or nationalism. In cases of external attacks, radicalism becomes predictable and can even be used as a

⁴¹ Dissonance Theory: The theory posits that when individuals perceive a contradiction, they experience a sense of tension. Cognitive dissonance arises in the perpetrator as a mechanism to reduce the inconsistency between their positive self-image and the commission of negative actions, thereby providing a sense of relief to the individual.

(<https://www.apa.org/pubs/books/Cognitive-Dissonance-Intro-Sample.pdf>)

strategy. Some terrorist groups deliberately provoke state responses that extend beyond targeting terrorists and affect previously uninvolved individuals. The predictable outcome is that more people are recruited into terrorism than would have been otherwise possible. This strategy is referred to as “judo politics,” as it involves using the opponent’s strength against them.

11. Mass Radicalization in Conflict with an External Group – Hatred: It is often observed that prolonged conflicts lead participants to adopt increasingly extreme positions. This tendency can escalate until enemies are entirely dehumanized—that is, they are no longer perceived as human beings.
12. Mass Radicalization in Conflict with an External Group – Martyrdom: Radical groups have a vested interest in preserving the memory of martyrs because their voluntary sacrifice is seen as particularly powerful testimony. Martyrdom serves as a potent symbol of commitment and dedication within these groups.

4. Comparative analysis

In the study of radicalisation and violent extremism, a number of theoretical models have been developed to explain the processes and factors that drive individuals to engage in extremist behaviour. The models are primarily hypothetical and therefore offer unique insights and perspectives. The aim of the comparative analysis is to highlight their strengths, weaknesses and areas of overlap. The 3N Model emphasizes the interplay between these three elements, suggesting that the presence of all three is necessary for radicalization to occur. The model is praised for its simplicity and clarity but has been criticized for oversimplifying the complex and dynamic nature of radicalization processes. The Staircase Model is valuable for its structured approach but has been criticized for its linearity and lack of empirical support for some stages, particularly moral engagement and categorization. The Two-Pyramids Model emphasizes the interplay between internal and external factors, highlighting the dynamic and context-dependent nature of radicalization. It is praised for its comprehensiveness but can be complex to apply in practical settings.

The 3N Model, while commended for its simplicity and clarity, may oversimplify the intricate nature of radicalization, potentially limiting its effectiveness in capturing the nuanced processes involved. In contrast, the Staircase Model presents a structured approach but faces criticism for its linearity and the lack of empirical evidence supporting some of its stages, which could hinder its applicability in real-world scenarios. The Two-Pyramids Model offers a comprehensive and dynamic perspective on radicalization; however, its complexity may pose challenges when attempting to implement it in practical settings, requiring a deeper understanding and more resources for practical use.

The Staircase Model, while backed by empirical evidence for stages such as perceived injustice and displacement of aggression, lacks robust support for moral

engagement and categorization, highlighting areas for additional research. The Two-Pyramids Model benefits from a broad range of empirical research; however, it requires further validation across diverse contexts to ensure its applicability and effectiveness in varied settings.

The 3N and Staircase Model are relatively static, focusing on linear progressions and fixed stages, which may not fully capture radicalisation processes' fluid and evolving nature. In contrast, the Two-Pyramids Model emphasizes the dynamic and context-dependent nature of radicalization, offering a more nuanced perspective that acknowledges the complex interplay of factors influencing individuals over time. This dynamic approach allows for a deeper understanding of how radicalization can manifest differently across various contexts and situations.

The 3N Model's simplicity makes it particularly useful for developing targeted interventions and prevention strategies, allowing practitioners to design clear and actionable programs. The Staircase Model's structured approach can be effectively applied in educational and policy-making contexts; however, it may require adaptation to accommodate the dynamic nature of real-world scenarios, ensuring its relevance and applicability. While valuable for in-depth analysis and policy development due to its comprehensiveness, the Two-Pyramids Model may present challenges when implementing it in practical settings, necessitating a thorough understanding and significant resources for effective use.

Conclusion

In conclusion, this comparative analysis of the 3N Model, Staircase Model, and Two-Pyramids Model highlights the strengths and limitations of each framework in explaining the complex process of radicalization. The 3N Model offers a straightforward approach, focusing on individual needs, persuasive narratives, and social networks, making it accessible for practical interventions but potentially oversimplifying the dynamic nature of radicalization. The Staircase Model provides a structured view of the stages leading to extremism. However, its linearity and lack of empirical support for certain stages limit its applicability in real-world scenarios. The Two-Pyramids Model, while comprehensive and dynamic, may be challenging to implement due to its complexity.

Future research should validate these models across diverse contexts and integrate their insights to develop more nuanced and effective counter-radicalization strategies. By addressing individual vulnerabilities and societal conditions, policymakers and practitioners can create tailored interventions that disrupt radicalization pathways and promote community resilience. This holistic approach is essential for mitigating the global threat of violent extremism and fostering a safer society.

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Beyond Walls: Exploring the Realities of Home Detention

Gloria JÓLLUSKIN

Fernando Pessoa University, Behavioural and Social Sciences Research Center
Portugal

e-mail: gloria@ufp.edu.pt

<https://orcid.org/0000-0002-0798-1484>

Isabel SILVA

Fernando Pessoa University, Behavioural and Social Sciences Research Center
(FP-B2S), RISE-Health, Portugal

e-mail: isabels@ufp.edu.pt

<https://orcid.org/0000-0002-6259-2182>

Tomás Nico PEREIRA

Fernando Pessoa University, Psychometrics Laboratory; University of Porto,
Faculty of Law Enforcement, Portugal

e-mail: 41177@ufp.edu.pt, up202407805@up.pt

<https://orcid.org/0009-0009-0676-7986>

Johanna FARKAS

Ludovika University of Public Service, Faculty of Law Enforcement,
Budapest, Hungary

e-mail: farkas.johanna@uni-nke.hu

<https://orcid.org/0000-0001-6376-4209>

INTRODUCTION

The home detention regime is an alternative to conventional imprisonment and is articulated in Article 43 of the Portuguese Penal Code, with amendments introduced by Law No. 94/2017. This measure mandates the convicted to remain at their residence under surveillance through technical control mechanisms, such as electronic monitoring, for the duration of the sentence (Decree-Law No. 48/1995; Law No. 94/2017). The application of this regime is not without the convict's consent and is contingent upon judicial evaluation of whether the individual's personal and social circumstances are conducive to reducing the risk

of recidivism (Law No. 94/2017). It is applicable to effective prison sentences of up to two years, including situations involving the revocation of non-custodial measures or the non-payment of fines (Decree-Law No. 48/1995). Its primary aim is to balance both societal protection and crime prevention while simultaneously upholding the individual's right to social reintegration. To achieve this, it aspires to preserve familial, professional, and/or educational connections. Furthermore, authorized absences are permitted for work activities, educational pursuits, rehabilitation programs, or medical treatments (Law No. 94/2017).

This alternative to traditional imprisonment has ignited a debate within professionals in Criminology regarding its effectiveness in preventing criminal recidivism, particularly in cases of individuals with a criminal history (HENNEGUELLE, 2016). Although technical surveillance and the imposition of behavioral norms work together to balance freedom and supervision they require a robust institutional framework to ensure their efficacy (Equal Justice Project, 2023). As such, Criminology raises inquiries into potential deficiencies in the management of more complex scenarios, where this measure may fall short of achieving social reintegration (HENNEGUELLE, 2016). Nevertheless, discussions typically do not center on the potential impacts on the mental health of individuals enduring home detention (Quandt - Jones, 2021). In this context, the home detention regime may engender effects akin to those observed during the pandemic lockdown, as delineated in the literature. Throughout this period extensive restrictions on mobility, the closure of public venues, and a considerable diminishment in social interactions culminated in prolonged isolation (Brooks et al., 2020). Thus, it can be posited that both contexts share characteristics that may precipitate adverse mental health outcomes. Some studies have indicated that the pandemic lockdown was associated with high levels of anxiety, depression, and insomnia, often linked to the loss of autonomy and routine (SALADINO - ALGERI, & AURIEMMA, 2020). Moreover, the deterioration of mental health was exacerbated by a lack of privacy and limited emotional support (Ornell et. al., 2020; Prison Policy Initiative, 2021). Consequently, it is reasonable to infer that the home detention regime may yield similar psychological repercussions, as aforementioned.

The home detention regime may heighten mental health risks due to continuous surveillance and restrictions on work or educational endeavors, thereby intensifying feelings of control and loss of autonomy (HOWARD, 2018; BELUR et. al., 2021). These factors mirror challenges encountered during pandemic lockdowns, such as fear of contamination, uncertainty regarding the future, and the disintegration of traditional support networks (e.g., diminished in-person visits), which amplified anxiety and hopelessness in the general population (Brooks et al., 2020). Both contexts illustrate how prolonged restrictions, despite differing objectives, can erode individual identity and emotional resilience (Prison Policy Initiative, 2021). However, the contextual differences between the two

phenomena are pronounced: while home detention is a penal punitive measure, with a maximum duration of two years (Law n.º 94/2017), pandemic lockdowns were preventive public health measures, imposed indiscriminately on entire populations, frequently without adequate psychosocial support (GLOSTER et al., 2020; AL-MUTAWA - AL-MUTAIRI, 2021). Notwithstanding this, the emergence of analogous mental health effects can be elucidated by social isolation and restricted freedom, which are central elements in both contexts. International studies demonstrate that prolonged isolation undermines emotional regulation, heightening the risk of anxiety and depressive disorders (Loades et al., 2020; Santini et al., 2020). The absence of privacy and autonomy, for instance, is associated with feelings of hopelessness and depersonalization (APA, 2024; Haney, 2018). Furthermore, factors such as constant surveillance in home detention or fear of contamination during lockdowns exacerbate chronic stress levels (GLOSTER ET AL., 2020; HWANG et al., 2020).

The main aim of this paper is, then, to analyze the experiences of individuals sentenced to home detention, focusing on how the restrictions imposed by such regime may impact the psychological well-being, examining the relationship between isolation and the identification of mental health indicators such as anxiety or depression. Beginning with the concept of home detention, we inquire whether it may produce similar effects to those observed during the pandemic lockdown. This study was conducted with the following primary objectives:

- 1) To analyze the experiences of men sentenced to home detention;
- 2) To assess the psychological impact of the restrictions imposed by home detention on their well-being;
- 3) To examine the presence and expression of mental health indicators, particularly symptoms of anxiety and depression.

METHOD

Participants

Our sample consisted of 10 Portuguese men serving a home detention sentence of a minimum of one month, who voluntarily agreed to participate in the study. The participants' characteristics are detailed in Table 1.

Sociodemographic data indicate that most participants are between 30 and 55 years old, are single or without conjugal ties, have a low level of education, and work as self-employed — although half are currently not engaged in any professional activity.

Table 1

Characteristics of the participants

Participant	Age	Academic qualifications	Marital status	Profession	Employed
P1	43	Middle school	Cohabiting	Confectioner	Unemployed
P2	42	High school	Divorced	Chofer	Unemployed
P3	37	Middle school	Divorced	Mason	Unemployed
P4	36	Middle school	Single	Construction worker	Unemployed
P5	45	Middle school	Single	Warehouse worker	Unemployed
P6	55	Middle school	Divorced	Builder	Employed
P7	30	Middle school	Cohabiting	Car painter	Employed
P8	54	Middle school	Single	Painter	Employed
P9	50	High school	Divorced	Mason	Employed
P10	48	University degree	Divorced	Construction worker	Employed

Measures

To conduct this study, an anonymous sociodemographic questionnaire and a semi-structured interview script were developed. The sociodemographic questionnaire included variables such as age, educational level, marital status, profession, and current employment status. The interview script included questions on participants' living conditions, their perceptions of those conditions, self-perceived health, interpersonal relationships, use of time, and perspectives on their reintegration process. Interviews were conducted via telephone, using contact information provided by the Portuguese General Directorate of Social Reintegration and Prison Services (DGRSP). Each interview lasted between 25 and 40 minutes and was audio-recorded with the participants' prior consent. The interaction between participants and the researcher was appropriate, and conversations were dynamic, yielding relevant data for the research.

Procedure

Following approval from the Ethics Committee of Fernando Pessoa University and DGRSP, participants were invited to take part in the study via telephone. This method was chosen due to logistical challenges, such as the geographical dispersion of the sample and the potential privacy concerns related to in-home interviews.

After obtaining informed consent and permission to record, the anonymous sociodemographic questionnaire was administered on a fully voluntary basis. It collected data on participants' age, gender, academic qualifications, marital status, profession, employment status, and nationality. Since all participants were Portuguese, the nationality variable was excluded from the analysis. All interviews were transcribed in Word format, and the audio recordings (authorized by participants) were subsequently deleted.

RESULTS

Following the analysis of the interviews, several key themes were identified within participants' discourse, reflecting shared experiences, perceptions, and concerns. These included: the negative impact of home detention on physical and mental health; anxiety related to compliance requirements and scheduling constraints; dissatisfaction with existing social reintegration programs; the significant role of family support and personal determination in the reintegration process; the experience of home detention as a period of personal growth and an increased appreciation for freedom.

Negative impacts on physical and mental health

A central theme emerging from the interviews is the significant toll that house arrest takes on both physical and mental health. Most of the individuals interviewed stated that house arrest also has negative effects on physical and mental health related to deprivation of liberty. Participants consistently described feelings of injustice, frustration, and psychological distress stemming from the deprivation of liberty. The abrupt transition from an active lifestyle to enforced inactivity was particularly detrimental, leading to a decrease in self-care and motivation. Many individuals reported persistent states of tension, worry, and restlessness, with some resorting to medication to manage anxiety and sleep disturbances.

This quote encapsulates the sense of stagnation and psychological burden experienced by those under house arrest, highlighting the need for targeted mental health support as part of any alternative sentencing program.

'(...) My mental health isn't good either, because I feel wronged... I'm taking less care of myself, because before I used to move around a lot, I was always working, and now I spend almost all my time at home and idle because I don't feel like doing anything... I feel tense, worried, restless.'
(P4, 36 years old, 14 months under house arrest)

Anxiety related to compliance and scheduling

permitted to work outside of home mentioned an increase in anxiety related to the need to keep to a strict schedule. For this participants house arrest introduced a new layer of anxiety: the pressure to adhere strictly to curfew schedules. The fear of being late, often due to factors beyond their control (such as public transport delays), created a constant state of vigilance and unease. This anxiety was not limited to the risk of legal consequences but extended to a pervasive sense of never being at ease or able to relax.

'I'm always worried about being home again on time, I'm always tense and never at ease. When the bus is late and the time. I'm supposed to be home is approaching, I feel like getting off the bus and running home. I get very worried...' (P8, 54 years old, 9 months under house arrest)

This persistent anxiety underscores the restrictive nature of house arrest, even when some degree of external activity is allowed, and suggests a need for more flexible and humane monitoring systems. The need for psychological counseling was frequently highlighted, as many individuals relied on medication to sleep and manage anxiety.

Dissatisfaction with Social Reintegration Programs

A striking finding is the near-universal dissatisfaction with existing social reintegration programs. When assessing the level of satisfaction with the social reintegration programs in place, we found that opinions among the interviewees were largely uniform. Participants overwhelmingly reported either a complete absence of such programs or a lack of meaningful engagement with reintegration professionals. Participants perceived these initiatives as largely theoretical, serving primarily statistical or bureaucratic purposes rather than offering meaningful support. Such testimonies reveal a profound disconnect between policy and practice, and highlight the urgent need to bridge this gap with accessible, individualized, and genuinely supportive reintegration services.

'I've never seen any of these programs in practice. None of them have ever been applied to me. Social reintegration has never been worked on with me and for me it doesn't exist.' (P10, 48 years old, 6 months under house arrest)

'My social reintegration doesn't work; I've never seen my social reintegration technicians (prison service technician). (...) No, no, zero. I've never been asked to take part in any reintegration programme (...).' (P9, 50 years old, 12 months under house arrest)

'Quite frankly, there is no reintegration in Portugal, it's all hypocrisy and theory, just for the sake of statistics. If we don't have the willpower ourselves, and we don't have family support, it makes us end our sentence angrier and we don't look for other opportunities outside of crime.' (P2, 42 years old, 10 months under house arrest)

Family role and personal willpower in successful social reintegration

Most participants identified family support or, more broadly, any form of support within the home environment as the single most important factor for successful social reintegration. There is a widespread distrust of the justice system and skepticism regarding the effectiveness of institutional programs. Instead, individuals place their faith in personal determination and the desire not to repeat past mistakes.

However, the majority strongly believe in the individual's own willpower not to return to a life of crime. They emphasize that the deprivation of liberty is, in itself, a severe consequence, and that this alone leads individuals to reflect and avoid repeating their mistakes. This can be observed in the following statements:

'(...) Social reintegration will not help me at all with my future; I am the one who will have to shape my future. My future will basically be about working, taking care of my family, and trying not to make the same mistake again, right?' (P3, 37 years old, 4 months under house arrest)

'I have already served many years in prison; I am tired of the system and of causing my family distress. It is easier to live a dignified life, work honestly, and watch my child grow up, to be present. And finally, most importantly, to enjoy my freedom—because there is no amount of money that can pay for freedom.' (P2, 42 years old, 10 months under house arrest)

'Any form of deprivation of liberty can never be a positive experience if no lessons are drawn from it, right? I believe I do not want to make the same mistake again, because having my freedom restricted affects me deeply. I know I committed a crime and that I have to pay for it. But I am also suffering personal losses, as it affects my daily life, and I must deal with that.' (P10, 48 years old, 6 months under house arrest)

'(...) Speaking for myself, I swear on the happiness of my children that I do not want to make mistakes again, so I will never have to lose my freedom again. I promise that I will never repeat this mistake, because I am going through great difficulty due to the error I made.' (P1, 43 years old, 12 months under house arrest)

This emphasis on self-reliance and family underscores the limitations of the current system and the importance of strengthening informal support networks.

Home detention as personal growth, and the value of freedom

Participants frequently described house arrest as a period of reflection, leading to a re-evaluation of priorities and a deeper appreciation for freedom. The deprivation of liberty itself is viewed as a powerful deterrent, prompting individuals to commit to lawful behavior in the future. Many expressed concrete plans for personal development, such as pursuing education or stable employment, as part of their resolve not to reoffend.

'I have been reflecting a lot, and once I finish serving my sentence, I intend to attend driving school and obtain my driver's license, so that I never again return to crime, suffer punishment, and lose my freedom.' (P7, 30 years old, 3 months under house arrest)

This introspective process appears to be more influential than formal interventions in shaping post-sentence behavior. In sum, house arrest is experienced as a psychologically demanding measure, with substantial impacts on individuals' mental health and overall well-being. While family support is perceived as crucial, institutional support is often perceived as absent or ineffective. Participants identified personal willpower and self-reflection during the sentence as the primary drivers of change, rather than formal reintegration programs. There is a strong perceived need for accessible psychological counseling and practical support, both during and after the period of house arrest.

DISCUSSION

The findings of this study highlight the profound psychological and social challenges faced by individuals under house arrest in Portugal. The deprivation of liberty, even within the familiar setting of one's home, emerges as a significant source of mental distress, echoing concerns raised in both critical criminology and social psychology literature. Participants reported heightened anxiety, restlessness, and a decline in both physical and mental well-being, often exacerbated by enforced inactivity and the constant pressure to comply with strict curfew schedules.

Interestingly, the psychological mechanisms underlying these experiences bear striking similarities to those observed during pandemic-related confinement. Although the purposes of these two forms of restriction differ—house arrest being punitive, pandemic confinement being preventive—both situations generate feelings of isolation, loss of autonomy, and uncertainty about the future. These shared mechanisms underline the importance of addressing the psychological impact of confinement, regardless of its context. As critical criminology and social psychology suggest, adapted strategies such as

psychosocial support, access to psychological counseling, and the use of remote contact technologies can play a vital role in mitigating these negative effects.

A particularly salient finding is the widespread dissatisfaction with formal social reintegration programs. Most participants reported little to no engagement with these initiatives, perceiving them as theoretical constructs rather than practical supports. This disconnect between policy and lived experience undermines trust in the justice system and raises questions about the effectiveness of current approaches to rehabilitation. The lack of meaningful institutional support leaves individuals feeling abandoned by the system, further compounding their sense of isolation.

In stark contrast, family support—or any form of stable support within the home environment—was consistently identified as the most crucial factor for successful social reintegration. Participants placed far greater faith in their own willpower and the support of loved ones than in any formal intervention. This finding aligns with broader research emphasizing the importance of informal social networks in promoting resilience and preventing recidivism. The experience of house arrest, while punitive, also prompted many individuals to reflect on their actions and prioritize personal growth, often motivated by a desire to avoid causing further distress to their families.

Taken together, these results suggest that current models of house arrest in Portugal fall short in providing the comprehensive support needed for effective rehabilitation. There is a pressing need to move beyond a purely punitive framework and invest in psychosocial interventions that address the mental health consequences of confinement. This includes not only professional counseling and practical assistance but also the facilitation of meaningful contact with family and community through remote technologies.

Participants reveal that the experience of house arrest is marked by emotional strain, social isolation, and a perceived lack of institutional support. While the measure is seen as less disruptive than imprisonment, it often shifts the burden of rehabilitation onto the individual and their immediate social circle, particularly the family. Formal reintegration programs are frequently described as ineffective, inaccessible, or merely symbolic. Instead, personal resilience and informal support networks emerge as the primary drivers of change. This gap between the intended rehabilitative function of house arrest and its actual implementation calls into question the efficacy of the measure as a standalone intervention.

In conclusion, although house arrest may offer certain advantages over traditional incarceration, its rehabilitative potential is significantly constrained by systemic shortcomings and an overreliance on individual and familial resources. These findings underscore the urgent need for public policies that prioritize the development of accessible, individualized reintegration programs and the establishment of robust psychological and social support networks. Therefore, recognizing the central role of family and community in the reintegration process

is essential to ensuring that house arrest becomes a truly supportive and transformative alternative to imprisonment.

FURTHER RESEARCH DIRECTIONS

The findings of this study underscore the necessity for a more comprehensive understanding of the psychological and social dynamics associated with home detention. To build upon these insights and further enhance the effectiveness of penal policies, it is crucial to explore additional research avenues. Conducting similar studies in diverse cultural contexts, such as Hungary, can provide valuable comparative data and inform the development of tailored support programs. In Hungary, regulations concerning home detention have been in place since 2003, and since 2008, the National Police have also regulated the conditions of monitoring, addressing practical challenges such as issues with legal security and detention conditions that impact the rights and dignity of detainees. However, practical challenges persist, including issues with legal security and detention conditions that impact the rights and dignity of detainees.

One significant avenue for further research is the examination of the cultural nuances that influence the experience of home detention. Different countries' unique social and cultural environments may reveal distinct psychological responses and coping mechanisms among detainees. By understanding these cultural factors, policymakers can design more tailored and effective support programs that address the specific needs of individuals under home detention in their respective regions. Moreover, evaluating the effectiveness of current home detention practices in various countries can identify gaps and areas for improvement in penal systems. This research can highlight the need for enhanced psychological support, flexible monitoring systems, and more robust social reintegration programs. By addressing these aspects, policymakers can develop evidence-based reforms that genuinely support rehabilitation and reduce recidivism.

Raising awareness about the mental health challenges faced by individuals under home detention is another critical research direction. Increased awareness can foster a more empathetic and supportive societal attitude, leading to better community support and reduced stigma for those reintegrating into society. This awareness can also encourage the development of community-based initiatives that complement formal reintegration programs. Comparing findings from different countries can provide a broader perspective on the effectiveness of home detention as an alternative to imprisonment. This international comparison can help identify best practices and innovative approaches that can be adapted to various cultural contexts. By learning from successful models in other countries, policymakers can implement more effective and humane penal policies tailored to their specific needs. The role of family and community support in the

reintegration process is another essential area for further research. Recognizing the importance of these informal networks can inform policies that strengthen family ties and community involvement in the rehabilitation process.

By fostering a supportive environment, individuals under home detention are more likely to successfully reintegrate into society and avoid recidivism. Assessing the long-term psychological and social impacts of home detention is crucial for informing strategies for sustained support beyond the detention period. This research can include the development of follow-up programs and resources that ensure lasting positive outcomes for individuals and their communities. By providing continuous support, individuals are more likely to maintain their mental health and successfully reintegrate into society. Evaluating the cost-effectiveness of home detention compared to traditional imprisonment can provide valuable economic insights. If home detention proves to be a cost-effective alternative with positive rehabilitative outcomes, it could lead to wider adoption and better resource allocation in penal systems. This economic analysis can inform policy decisions that prioritize the well-being of individuals under home detention while optimizing the use of public resources.

In conclusion, further research on home detention in other countries could provide a comprehensive picture of the psychological and social dynamics. This knowledge may pave the way for more humane and effective penal policies that focus on the well-being and successful reintegration of individuals into society. By exploring these research directions, stakeholders can develop evidence-based strategies that support the rehabilitation and reintegration of people in home detention.

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Legislations

- Decree-Law No. 48/1995 (Portugal)
- Law No. 94/2017 (Portugal)
- Law No. 94/2017 (Portugal)
- Decree-Law No. 48/1995 (Portugal)
- Law No. 94/2017/2008 (Portugal)
- Decree-Law No 6/2003 (IV. 4.) Joint Ministry of Justice-Ministry of the Interior - on the execution of home detention (Hungary)
- 6/2008 Instruction of the National Police Commissioner for the implementation of the tasks assigned to the Police in connection with home detention (Hungary)

The Hidden Code: Unraveling Prison Misconduct

Tomás Nico PEREIRA

Faculdade de Direito da Universidade do Porto; Laboratório de Psicometria,
Universidade Fernando Pessoa, Portugal
e-mail: 41177@ufp.edu.pt, up202407805@up.pt
<https://orcid.org/0009-0009-0676-7986>

Gloria JÓLLUSKIN

Universidade Fernando Pessoa; Centro de Investigação Interdisciplinar em
Justiça
(Universidade do Porto); Behavioural and Social Sciences Research
Center (FP-B2S); Associação Portuguesa de Educação nas Prisões, Portugal
e-mail: gloria@ufp.edu.pt
<https://orcid.org/0000-0002-0798-1484>

Isabel SILVA

Universidade Fernando Pessoa; Behavioural and Social Sciences Research
Center (FP-B2S); RISE-Health, Portugal
e-mail: isabels@ufp.edu.pt
<https://orcid.org/0000-0002-6259-2182>

Johanna FARKAS

Ludovika University of Public Service, Hungary
e-mail: Farkas.Johanna@uni-nke.hu
<https://orcid.org/0000-0001-6376-4209>

1. Introduction: Conceptualising prison misconduct

Misbehaviour refers to the violation of a norm of the environment in which the subject is. In prison this concept can be fulfilled by a behaviour that violates the rules of the establishment where the prisoner is confined (BUTLER - McNAMEE - KELLY, 2023; STEINER - BUTLER - ELLISON, 2014; STEINER - WOOLDREDGE, 2012) or violations of formal rules to which the prisoner must adhere and which are analogous to criminal behaviour in a prison context (ROCQUE, DUWE & CLARK, 2023).

The study of misconduct and prison adjustment is not new and understanding this issue is relevant on several levels: as an indicator of poor adaptation to prison (STEINER - WOOLDREDGE, 2014); due to the effects on inmates' well-being (PINA - GOMES - QUINTAS, 2024); and because it compromises prison's organisation and order (BOSMA – GINNEKEN - SENTSE - PALMEN, 2020). Aside its association to recidivism (ROCQUE - DUWE - CLARK, 2023) there are also several components that affect the perpetration, frequency and severity of this offence, such as gender (STEINER - WOOLDREDGE, 2014), longer criminal careers, involvement in gangs and a longer history of violence (LOGAN – LONG - DELISI - HAZELWOOD, 2023).

To explain this reality various models have been used centred on the inmate's adjustment to prison. The best known are the deprivation and importation models, followed by the coping model (BLEVINS – LISTWAN - CULLEN - JONSON, 2010) and, more recently, the transfer model (KIGERL - HAMILTON, 2016), aiming to integrate these into Robert Agnew's (1992) General Strain Theory (GST), reconceptualising it and enriching our understanding of the sources for prison misconduct.

2. Explanatory models of adjustment to prison

2.1 Deprivation model

The deprivation model suggests that prison misbehaviour reflects the adaptive process and coping with the 'pain' of prison through participation in a social system or decisions that help satisfy certain needs (CLEMMER, 1940; GOODSTEIN – MACKENZIE - SHOTLAND, 1984; GOODSTEIN - WRIGHT, 1989; SYKES, 1958). With this idea as a basis three authors have come forth with their own spins.

Clemmer (1950) puts forward the idea that the individual goes through a process of 'prisonisation' taking on the customs, notions and practices of the inmate. The conclusion of this process depends on prison and the individual factors, as well as on 'universal factors of imprisonment'. These are: the prisoner's acceptance of the role imposed on them; the development prison-specific habits of eating, dressing, working and resting; the adoption of prison jargon; the desire to have a good occupation. The universal factors may be enough for the individual to become a 'man characteristic of the penal community' and probably disrupt his personality to where social reintegration is impossible. The process of imprisonment would then be a rejection of social norms culminating in an inability to adapt back to society (CLEMMER, 1950).

Sykes (1958) gives us another perspective where the deprivations would be the 'pains of prison', providing the impetus required to form the subcultures needed to alleviate the rigour of prison. Following a code of norms that govern and command this opposition, the "Inmate Code", inmates would attain some cohesion to mitigate the 'pain' and the better it is applied, the better it mitigates it. Since individuals take on different roles in prison these would be: the rat or

squealer, who violates the norm of not betraying his comrades; the toughs, who exhibits aggressive behaviour; the gorilla, who uses violence to achieve whatever his goal may be; and the square John, who is ridiculed for having ‘made the mistake’ of allying himself with the prison and its staff, assuming and expressing the values of conformity (PINA - GOMES - QUINTAS, 2024; SYKES - MESSINGER, 1960).

Erving Goffman (2001 [1961]) develops that the individual is welcomed into the institution with their own culture and organisation and such are not replaced (PINA - GOMES - QUINTAS, 2024) but rather the agent undergoes a process of deculturation where the self is ‘mortified’. This mortification occurs at various points: the barrier between the person and the outside world, the loss of their social role, possessions, autonomy, freedom and decision-making. In these moments the subject unconsciously alters the beliefs they hold about themselves and others. Moreover a system of privileges will reorganise and reconstruct the individual. The simultaneous occurrence of both systems leads to either a cooperation with the institution (primary adjustment) (GOFFMAN, 2001 [1961]), or an evasion of the norms (secondary adjustment) (PINA - GOMES - QUINTAS, 2024).

2.2 Importation model

The importation model, however, is centered in the manifestation of culture and experiences prior to prison (STEINER - BUTLER - ELLISON, 2014). Irwin and Cressey (1962) stated that the inmate typically participated in one of three subcultures: thief, convict, or legitimate. The thief holds lower class values such as toughness, intelligence and autonomy, making him somewhat trustworthy. The convict values the ideas of utilitarianism and resorts to manipulation to obtain status. The legitimate is made up of inmates who rejected other subcultures, achieve goals legitimately and are regularly isolated within prisons. Therein inmate’s behavioral pattern would be understood according to the subculture they were part of as it implies its own value system (PINA - GOMES - QUINTAS, 2024).

However Tewksbury, Connor and Denney (2014) view the imported values and culture as individual characteristics. They consider the aid of demographic characteristics in studying prison offences and state that imported values and socialisation experiences such as subculture ideologies, lifelong economic deprivation and racial discrimination can be generalised through demographic factors. In doing so they take into account some of the demographic characteristics inherent to the inmate such as age, ethnicity, education, marital status, employment, criminal history and gang affiliation (TEWKSBURY - CONNOR - DENNEY, 2014). Although some of these characteristics show mixed results in their influence on prison misconduct, most suggest a relationship with the latter.

2.3 Coping model

The coping model suggests that the inmate will cope with prison maturely or otherwise and that the failure of sufficient coping mechanisms is linked to prison misconduct (TOCH, 1977). TOCH (1977) recognises the variation in inter-individual needs within the same context, thus the same elements of prison can influence the inmate's needs differently (CULLEN - WILCOX, 2010).

In his first study Toch (1977) identified seven interests of prison environment for the inmate: privacy, activity, security, structure, support, emotional feedback and freedom. Through these seven characteristics different preferences, derived from personal experiences and motives, corresponded to different characteristics of origin, such as ethnicity or criminal history. These differences would influence the requirements needed to facilitate or hinder coping and ultimately adjust to prison (CULLEN - WILCOX, 2010). As so connecting the individual to the corresponding element could help manage and cope with prison.

In a second study, Toch (1977) observed that misconduct was more common at the start of their sentences and decreased after peaking between 6 and 9 months. Misbehaviour also decreased with age, and 10% of prisoners carried out most infractions, therefore the majority would not have acted disruptively, being successful in coping. Among the highly maladjusted inmates five were the motivations for coping that manifested in inappropriate behaviour: gratifying impulses, increasing self-esteem, obtaining autonomy, seeking refuge and maintaining sanity. Aggressive behaviour was an instrument for obtaining one of the five motivations mentioned. On the other hand factors such as support from prison staff, relaxation or maturation made it possible to improve their behaviour (CULLEN - WILCOX, 2010).

2.4 Transfer model

The last model is based on the adverse effect of administrative procedures on the prisoner and prison staff, such as prison transfers. The authors formulate that the characteristics of the PE can influence the prisoner's behaviour in the institution to which they are transferred. Additionally, they claim that behaviour is imported from one prison to another, not just from the community to prison (KIGERL - HAMILTON, 2016).

In their study they observed that the characteristics of the institution from which the inmate came influenced misconduct (KIGERL - HAMILTON, 2016). The change in security rating compared to that of the current one led to an increase in misbehaviour. An equal increase in misconduct was observed for offenders moved to prisons with fickle and unstable populations. Moreover, a higher status of the new institution reduced offences, while in the opposite situation it increased (KIGERL - HAMILTON, 2016). The status of a major institution and the

size of the population both appeared to be related to prison misbehaviour. The authors consider that inmates from higher security prisons end up having more freedom in the new institution, increasing misconduct, and inmates from lower security institutions would see a similar increase due to being scrutinised or provoked by inmates from the more rigid prison (KIGERL - HAMILTON, 2016).

More recently, Cochran's (2019) study supports the research of prison transfers as 'transfers can have various impacts on prison behaviour and misconduct'. Transfers can occur for multiple reasons and are a routine part of prison life (COCHRAN, 2019). This process can lead to changes in peer groups or visits, affecting the behaviour. The adaptation may also be restarted, undergo a 'reset', and resume the challenges the inmate faced at the beginning of their imprisonment (COCHRAN, 2019; LISTWAN et al., 2013). Also, the transfer can lead to a chain of 'prison pains' that may have been overlooked by the deprivation model (COCHRAN, 2019).

3. The General Strain Theory as a general framework in the prison context

3.1 Description of the General Strain Theory

Since there are several explanatory models of misconduct and prison adaptation, the search for their integration into some model of criminal behavior seems natural. Some authors (BLEVINS – LISTWAN - CULLEN - JONSON, 2010; JANG, 2020; ZWEIG et al., 2015) have therefore considered Robert Agnew's General Strain Theory (GST) (1992) as a possible model for misconduct and adaptation in prisons because it is sufficiently broad, while simultaneously verifying the integrative capacity of the various perspectives, especially the deprivation and importation models (BLEVINS – LISTWAN - CULLEN - JONSON, 2010).

GST is, in simple terms, the idea that a tension will increase the likelihood of negative emotions, such as anger or frustration (Agnew, 1992). This type of emotion will generate pressure for the next "corrective action" and crime is one of the hypotheses as a means of reducing tension, obtaining revenge or relieving negative emotions (AGNEW, 2001). Agnew (2001) considers that strain refers to "relationships in which others do not treat the individual as he or she would like to be treated" (AGNEW, 1992), also categorizing three types of strain: 1) denial of (or failure to achieve) positively valued goals; 2) loss/removal of a positive stimuli, and; 3) the presence or introduction of a negative/noxious stimuli (AGNEW, 1992, 2001). Agnew (2001) goes further mentioning that a tension would not be more likely to lead to crime by itself, but rather when the individual has a lack of skills and resources to deal with the stress in a legitimate way, receives poor conventional social support and social control, blames their stress on others and notes a disposition towards crime.

3.2 Applying GST in a prison context

Knowing the central ideas of GST and that prison is recognized as a stressful and strain-inducing place (BLEVINS – LISTWAN - CULLEN - JONSON, 2010), we sought to apply the three categories of stress to the prison context, as well as the cumulative effects of stress and the responses, coping mechanisms, used in the face of stress.

The first category focuses on the impossibility of achieving goals set by the individual. This would also be the case in prisons, where the inmate maintains goals and objectives centered on their personal experience, and these goals can take on a privileged character (e.g. work/job), being released early, obtaining items from the canteen/dining hall or visits. It can also include objectives such as maintaining status in prison, autonomy or personal safety (BLEVINS – LISTWAN - CULLEN - JONSON, 2010). If such things are denied to the prisoner, unequivocally affecting the idea of obtaining an occupation and acquiring money, feelings of anguish, anger or resentment can be generated.

The following category seems equally applicable to the context of imprisonment, focusing on the removal of a stimulus considered positive (Sykes, 1958). The individual is now “stripped” of their freedom and subject to the rules of the institution, implemented and enforced by the staff. Thus, the prisoner's virtually non-existent control over their daily activities is reflected in the cessation of their freedom, autonomy, personal identity, material access and services, among others (BLEVINS – LISTWAN - CULLEN - JONSON, 2010; SYKES, 1958; TOCH, 1977).

In many ways, the removal of stimuli considered to be positive creates a tension to which some inmates will adapt successfully and others will respond violently and inappropriately. Supported by the studies of some authors (GOODSTEIN ET AL., 1984; WRIGHT, 1991, 1993), a low perception of control and freedom (autonomy) are related to deviance in the prison context as well as stress, depression and anxiety. The idea of reduced control and autonomy, the removal of which would lead to the negative emotions mentioned so far, a search for a way to cope, resulting in prison misconduct.

Finally, the presence or introduction of a negative/noxious stimulus can lead to misconduct as a way of escaping or ending the tension and negative emotions generated (AGNEW 1992, 2001). In addition to the inmate being subject to the constant threat of victimization through forced daily contact with other inmates, prison provides an environment full of equally harmful stimuli due to noise, overcrowding, poor living conditions, and rigid and inflexible institutional rules and schedules (BLEVINS – LISTWAN - CULLEN - JONSON, 2010; JANG, 2020; PINA - GOMES - QUINTAS, 2024; ZWEIG et al., 2015). For victimization, for example, the consequences focus on the psychological, such as anxiety and depression (WOOLDREDGE, 1999), which can affect the inmate's reaction to the tension

generated by the victimization or perception of it. The influence of a psychological problem generated by victimization or vulnerability to it may allow the individual to resort to aggression in a form of defence and prevention (TOCH - ADAMS, 1986).

4. Discussion

Having verified the applicability of Agnew's (1992) theory to prison we must now consider the integration of the various models, also referring to the categorized types of strain observable in each.

In the deprivation model (CLEMMER, 1940; GOFFMAN, 1961; GOODSTEIN, MACKENZIE, - SHOTLAND, 1984; GOODSTEIN - WRIGHT, 1989; SYKES, 1958), and through the logic of the GST (AGNEW, 1992), the tension that the PE induces in the individual also implies their process of adaptation such that while some inmates adapt, others opt for an offending path. In terms of the various types of strain: 1) blocking the prisoner from achieving certain goals (e.g. getting a job in prison) can be seen as a “pain of incarceration”, to which the individual would resort to misconduct; 2) the strain generated by the removal of a positive stimuli (e.g. access to goods such as tobacco) could lead them, as a way of dealing with the negative emotion, to blame a certain person (e.g. prison staff) and seek revenge, and; 3) by introducing a harmful stimuli (e.g. living conditions, conditioned autonomy) the individual may resort to anti-normative behavior as a way of relieving the tension and deprivation now imposed.

The importation model, transposing Agnew's (1992) ideas, if the individual responds to a situation in a criminal way and, as such, is imprisoned, the importation of this type of response is indicative of a deficient and illegitimate coping mechanism. Specifically, if the individual is unable to achieve a goal or objective (e.g. maintaining their status in prison), their response may be one they imported (e.g. violence). On the other hand, seclusion requires a cessation of contact (except visits) with family and friends, and the removal of this positive stimuli may be dealt with poorly due to deficits in legitimate coping mechanisms (BLEVINS – LISTWAN - CULLEN - JONSON, 2010; LISTWAN et al., 2013; PINA - GOMES - QUINTAS, 2024). For the introduction of a negative stimuli (e.g. noise, strict and unvarying regime), as for previous situations, it may be illegitimately responded to due to characteristics inherent to the individual (e.g. age).

Identically to the previous models, in the coping model the inmate's response is directly dependent on the prison environment and the resources (e.g. prison programs) it offers them to meet their needs and deal with stress (BLEVINS – LISTWAN - CULLEN - JONSON, 2010). In this case, the environment in which the individual is inserted can prevent them from achieving a goal or objective (e.g. making it difficult to access programs that result in them getting a job), remove a positive stimuli (e.g. expelling the inmate from an anti-alcoholism program) or

introduce a harmful stimuli (e.g. victimization), so their ability to cope with the stresses of prison are weakened.

The last model is equally possible to apply to the various categories of strain of GST (AGNEW, 1992). If an individual is unable to access certain items in the canteen (e.g. a certain meal) they may adapt illegitimately and import a reactive and violent coping mechanism when a similar situation arises. If a positive stimuli is removed, such as permission to have visitors, something similar can happen where the “pain” can be responded to inappropriately. And finally, the introduction of a harmful stimuli, exposure to victimization or the victimization itself could lead to the inmate preventing the situation and managing this strain through aggressive conduct, again importing the response style when being transferred between prisons. The importation of the coping mechanism in either situation then implies possible illegitimate post-transfer responses, jeopardizing the inmate's good adaptation to the environment (COCHRAN, 2019; LISTWAN et al., 2013).

5. Conclusions

The aim of this work was to consider various explanatory models of misconduct and the individual's adjustment to the prison environment whilst also analyzing the applicability of GST to prison and the integrability of the models in this theory.

GST, due to its broad and general nature, has virtually unlimited potential to explain crime and delinquency in various environments (AGNEW, 1992, 2001), thus, it was possible to apply it to prison, considering its stressful and tension-filled nature (BLEVINS – LISTWAN - CULLEN - JONSON, 2010) to which the individual must adjust. When looking at the deprivation model (CLEMMER, 1940; GOFFMAN, 2001 [1961]; GOODSTEIN – MACKENZIE - SHOTLAND, 1984; GOODSTEIN - WRIGHT, 1989; SYKES, 1958) through the lens of GST, it is recognized that the environment to which the individual is exposed allows for behavioral responses such as misconduct to deal with the tension. The importation model (IRWIN - CRESSEY, 1962; TEWKSBURY - CONNOR - DENNEY, 2014) takes a different view, since the individual's conduct would be a reflection of the pre-prison culture or representative characteristics of that culture now imported into the environment. Toch's (1977) coping model focuses on the resources available that permit the individual to adapt and, consistent with GST, the reaction to strain is then dependent on the coping strategies and resources available (BLEVINS – LISTWAN - CULLEN - JONSON, 2010). In the transfer model (COCHRAN, 2019; LISTWAN ET AL., 2013; KIGERL - HAMILTON, 2016) both the effect of deprivation and their conduct as an adaptive response to it are combined are imported when transferred to another PE, which might restart their adjustment to prison and the stresses associated with it. Although the literature

fundamentally uses the deprivation and importation models to explain misconduct and prison adjustment, the integration of the coping and transfer models into the GST (AGNEW, 1992) highlights the need to carry out a greater number of empirical studies on these theories, with the aim of clarifying the adequacy of such explanations for disciplinary infractions in the prison context and the subsequent adaptation of the individual.

Moreover, it is, to our knowledge, the first time the transfer model has been successfully integrated into Agnew's (1992) theory of crime, hopefully leading to more research and empirical application with institutions to better understand and handle prison misconduct.

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