SECURITY CHALLENGES AND POSSIBLE RESPONSES TO THEM IN THE 21ST CENTURY

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Abstract: The crises of recent years have brought such threats and problems to the surface which can be managed by means of complex and system-level responses. Due to the tight interrelation of risks, which are often latent in their nature, the security policy system of our age is becoming increasingly vulnerable. The study identifies the resistance of the system as a prerequisite in the security context. It highlights the perception challenges that result from the soft nature of risk factors, and argues that the means of risk identification should be redefined.

Studying the challenges of the 21st century in the so-called Globalisation 4.0 context, the authors come to the conclusion that a new security narrative must be created which aims at identifying the fundamental aspects of the operation of the security net in the broadest possible interpretation of causal relationships, i.e. on a multidisciplinary platform.

Besides the conventional military aspect, the political, economic, environmental and social contexts tend to play an increasingly important role in the interpretation of security – while cyber and human security are expected to be manageable as segments in their own right.

Keywords: security narrative, human risk, Globalisation 4.0, globlocal defense, new conflicts

INTRODUCTION

"A discourse maintains a degree of regularity in social relations, it produces preconditions for action. It constrains how the stuff that the world consists of is ordered, and so how people categorize and think about the world. It constrains what is thought of at all, what is thought of as possible, and what is thought

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of as the 'natural thing' to do in a given situation. But discourse cannot determine action completely. There will always be more than one possible outcome. Discourse analysis aims at specifying the bandwidth of possible outcomes." (Neumann, 2008: 62)

Security policy theories increasingly emphasise that the term "security" should be given a broad interpretation, i.e. besides former, military type risks, social, ecological and economic factors must also be taken into consideration. Based on their characteristics, risks can further be distinguished and grouped, but – primarily due to their peculiar and mostly paradoxical interactions – their successful management is possible only if they are managed as elements of one single system.

The new risk management modules and the development activities targeted at a given factor are based on the assumption that the interrelations between social, economic and security policy processes are understood. The aim of this study is to present those new challenges which the relevant actors of security policy are facing in the context of this broad interpretation in specific security strategies.

"Advances in military capabilities, such as unmanned, automated weapon systems and high-speed, long-range strike systems, which reduce response times, are likely to create new, but uncertain, escalation dynamics in times of crisis. Furthermore, the rapid pace of technology developments - in areas such as cyber, genetics, information systems, computer processing, nanotechnologies, directed energy, and autonomous, robotic systems - increases the potential for surprise in future conflicts" (GT, 2017: 221).

The traditional, rationalist theory of security policy - due partly to its narrow interpretation of the term "security" and partly to its ontological, epistemological and methodological limitations - has no other choice than to create a new definition of "security" as it becomes inevitable to examine new elements, which, by broadening the horizon of analyses, require the inclusion of additional explanatory factors (culture, religion, language). At the end of the day, this means that the exploration of the context in itself generates a deeper and more complex interpretation of security. The increasingly controversial nature of globalisation par excellence is what makes it necessary to give preference to the security policy aspect in debates about the future of society.[3]

In our study, we would like to support the understanding of internationally relevant risks by presenting the interrelations that can be identified using constructivist methodological tools (workflow analysis and discourse analysis), thus pointing out the added values potentially offered by a constructivist approach.[4] The results of our examination are planned to be not only supportive of the efforts made

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3   We use the works of the representatives of the constructivist school as the foundation of our approach. In its interpretation of "security", this study prefers normative, conceptual structures to materialistic ones. Interests and acts are construed as the construction of the identity and the process of risk management is discussed in the interaction between structures and players. The responses given to the current challenges of globalisation give a higher priority to the importance of non-materialistic structures - i.e. the idea offered by constructivists is accepted that institutionalised norms and ideas have a fundamental influence on the concepts of actors about possibilities and necessities. In general, the normative and conceptual structures that have their impact through communication are handled as key factors.

4   The strengthening of regional cooperation and the decentralisation of governance reshapes the roles of multilateral institutions and central governments. Besides applying traditional multilateral diplomatic practices, governments trying to resolve shared problems are experimenting with organising ad hoc coalitions, in which business organisations and civil society groups can also participate (Matus, 2019). "Since the beginning of the 1990s, there are a growing number of publications related to water as causal factors for armed conflicts in water scarce regions. After several publications criticizing this "water wars" literature, articles have focused on different intensity of water conflicts and on water cooperation with a very large number of articles published in the last few years. Academics and research centres […] use and develop these concepts but also international organizations and NGOs that try to implement water cooperation mechanisms in such conflicts" (Water

to prepare for expected challenges and identifying the possibilities for the successful management of risks, but also motivating further researches to explore how a particular risk management methodology can be modified to replace confrontation with cooperation as its core.[5]

In this sense, we would like to encourage the establishment of a scientific field in its own right which focuses on security policy and national security analyses that are capable of processing and assessing a broad spectrum of risks. In other words, we wish to inspire the launching of special courses in the region[6] which can be used for relevant strategic planning and guidance purposes - both comprehensively, as a part of governmental policies, and specifically, in foreign and security policies (for example, by assessing the security environment).

All these require a space of discourse in which the criterion of the sustainable operation of society and the economy is interpreted together with the aspects of security. This study uses the deductive method, i.e. relying on an overview of professional literature; a discourse analysis is made on the literature studies, thus reconstructing the socio-economic and political (geo-economic) context of the security discourses of recent years. Our research is based on the secondary analysis of the existing databases, political documents and declarations and international treaties - from these, conclusions are drawn, applying a multidisciplinary approach.

THE PARADOXICAL NATURE OF GLOBALISATION AS A SECURITY POLICY CHALLENGE

Security policy analyses from recent years have used the adjective "paradoxical" to describe the processes taking place in the global international system.[7] The reason is that it is becoming ever more obvious that technological development and the fast economic growth achieved as a result of the global playing field have radically changed global economic and power relations, which has led to the recurrence of the traditional competition between great powers and uncertainty at a global level. Consequently, as geopolitical (geo-economic) risks have become more apparent, the interest in the international security status quo is gradually getting ever keener.[8]

According to forecasts, the near future will bring more serious threats and, at the same time, greater opportunities than we have ever seen.[9]

Conflict and Cooperation, 2015: 2).

5   Communicating the need for a strategy of cooperation is especially important in efforts made to manage resources and climate change. The competition for accessing resources intensifies tension - however, globally, without the special communication act of securitisation, problems of this kind will remain unmanageable (See: Elhance, 1999).

6   Using the term "region" as an entity to be secured, a "reference object" (Buzan et al. 1998: 36).

7   See: (GT, 2017)

8   It was in 2016 that the World Economic Forum first analysed the impact of global risks on international security. The term "international security" was then defined as follows: "'International security' refers to the measures taken by state or non-state actors, individually or collectively, to ensure their survival and integrity against trans-boundary threats" (The Global Risk Report, 2016: 24).

9   It is becoming vital for countries to find out how they can make the advantages of globalisation available to society, while minimising its detrimental effects. "Another question is whether countries' different rates of growth will further increase the vulnerability of the global system, which will ultimately lead to the system's collapse, or, on the contrary, the formation of multipolar growth centres will strengthen the resistance of the global economic system against crises" (Matus, 2019). In summary: opportunities can be realised primarily through the elimination of contradictions - which, however, primarily depends on the outcome of the appropriate securitisation act.

"We are living a paradox: The achievements of the industrial and information ages are shaping a world to come that is both more dangerous and richer with opportunity than ever before. Whether promise or peril prevails will turn on the choices of humankind" (Global Trends, 2017: ix).

The prognoses for the megatrends predicted[10] for the period until 2030 will remain valid,[11] though a few additional elements are being added. The refining of these megatrend predictions have become necessary because, in contrast to former assumptions, the growth of the global economy has started to slow down and, as a result of the diffusion of power capabilities, an increasing number of actors are entering the game of geopolitical rivalry. As debates between states on values and interests are getting ever livelier, the topic of fundamentally reforming the international order, raised by new emerging powers, is becoming ever more legitimate (Matus, 2018).

It is becoming more and more obvious that commitment to the rules behind the international order in place since the Second World War is gradually weakening,[12] and according to Matus (2018), the situation is further complicated by the fact that creating a new international regulation would be very difficult in the light of arguments about the impacts of technology: these arguments increase, rather than decrease, the distance between the values and interests preferred by different countries.[13] It is beyond dispute, however, that the so-called Globalisation 4.0[14] can only be construed as a new reality[15] and consequently, it is inevitable to create a fundamentally new regulatory system. We wish to emphasise that what is needed is not the fine-tuning of the existing system bur the creation of a new system of norms, which is compatible with the reality of Globalisation 4.0. This, however, becomes problematic in the light of our paradoxical reality, in which differences between the countries of an increasingly interconnected world have not decreased but increased (Matus, 2019). It thus stands to reason that the efforts made to define the rules of the game at an international level will face increasingly severe obstacles.[16] As the interaction between technology and culture strengthens, mutually exclusive identities will appear and, consequently – in contrast to many theoretical propositions and integration theories related to international relations –, norms and worldviews will move further and further away from each other. Hence, the impacts of the current technical revolution raise an increasing number of ques-

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10   See: GT 2025: A Transformed World, 2008; Mapping the Global Future, 2004
11   See: GT2030: Alternative World, 2012
12   "The strengthening of the multipolar nature of the global economy, together with the weakening of the West's influencing ability, may worsen the difficulties of governing the international system, provided that emerging powers like India and China show a diminishing interest in international cooperation and focus primarily on their internal affairs" (Matus, 2019).
13   Moreover, the new non-state actors that appear on the scene may be capable of preventing the establishment of a hegemonic power in the international system.
14   "Transformation best describes the geopolitical, economic and environmental outlook globally. We are shifting from a world order based on common values to a "multiconceptual" world shaped by competing narratives seeking to create a new global architecture. We live in a world with new planetary boundaries for its development. We are entering the Fourth Industrial Revolution shaped by advanced technologies from the physical, digital and biological worlds that combine to create innovations at a speed and scale unparalleled in human history. Collectively, these transformations are changing how individuals, governments and companies relate to each other and the world at large. In short, we are fast approaching a new phase of global cooperation: Globalization 4.0." (WEF, 2019: 1).
15   Analyses put the strongest emphasis on the impact of technology on the fate of individuals. It is dubious how the revolution of information technology will affect individuals' privacy and right to human dignity. Meanwhile, the practical application of genetic modification may even give rise to existential risks and cover fundamental ethical norms (Matus, 2019).
16   "Some governments may feel tempted to establish order in an era characterised by lively debates about governance and the role of governments both in countries' internal policies and on the international scene. However, the likelihood of the success of the attempts made to create order based on material assets and resources is lower than that of the success of policies that build on relations, networks and information capabilities"(Matus, 2018).

tions in the contexts of both the economy and society, while international security is becoming more and more dependent upon the impact mechanism of technological innovations.

One of the core topics of the 2020 Munich Security Conference was China's technological advancement. The report about the Conference emphasises that China's supremacy in new technologies - artificial intelligence, quantum computers, communication technologies - has astonished the west and the 5G technology gives rise to increasing security concerns (MSR, 2020: 21). Experts were mostly worried about the possible technology-based cleavage of the world in the future and the possible segregation of countries that use either the Chinese or the western technology from one another. Attention ought to be paid to the fact, however, that the report issued before the Forum was given the title "Westlessness"[17] (MSR, 2020), which may carry a far deeper geostrategic context than merely hallmarking the main theme of the conference.

THE GEO-ECONOMIC AND SECURITY CHALLENGES OF ARTIFICIAL INTELLIGENCE

In 2017, the New Generation Artificial Intelligence Plan was officially presented, in which China set the aim of becoming world leader in the field by 2030. Recognising that modern warfare is increasingly dependent on technology - artificial intelligence (AI), China is continuously investing the growing amounts in AI. Their global companies, Huawei, Hikvision and ZTE, tightly cooperate with other state-owned companies in order to develop the most advanced artificial intelligence interfaces (PAGEO, 2020). China's competitive advantage over the USA and Russia is in the control of the state over domestic development projects.[18] In recent times, they have exported unmanned aerial vehicles (Wing Loong 2 and CH-4) to the United Arab Emirates, Saudi Arabia, Egypt and Pakistan (PAGEO, 2020).

In regard to China's tradable systems, we must point out, however, that "they include functions like mass monitoring and face recognition, as well as common operating platforms which use big data and artificial intelligence for predictive policing" (PAGEO, 2020).

The export of artificial intelligence enables China's leaders to perform mass monitoring in the countries participating in the New Silk Road Programme. An increasing number of countries are using only Chinese monitoring technologies - because of their easy access and fairly low prices. Further-

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17   Regarding westlessness, it should be mentioned that there is no consensus among Euro-Atlantic countries even about the nature of the issue of westlessness itself. This means not only the differences of opinion between the USA and the EU but there are different opinions about the role of China even within the EU. "Paradoxically, the strongest consensus is shown between China and Russia: these two countries were the two strongest supporters of multilateralism and global cooperation - which, not so long ago, were the priorities of western powers" (Borosnyay-Zoltai, 2020). Today, westlessness means the Present, our reality, far more than a space of discourse about the future.

18   The USA also used to follow a government-controlled strategy in AI research. However, the 2018 Export Control Reform Act (ECRA) curtailed the export of emerging technologies for national security considerations. By contrast, China lays the emphasis on the export of its domestically developed technologies, thus also creating an opportunity to potentially access foreign security systems. The One Belt, One Road initiative supports this aim and creates an opportunity to increase influence (PAGEO, 2020). In this regard, it may be noteworthy that the first Sci-Fi Academy will be established in China, with the participation of Sichuan University, where the focus will be on the research of science-fiction works. After the publication of Cixin Liu's bestseller book *The Three-Body Problem* – the first international sci-fi work from China – in 2017, the Communist Party declared that it would expressly support science-fiction (Növekedés Elemzés, 2020).

more, it is beyond doubt that foreign investments made owing to the BRI also support this trend in a fairly large number of African, Middle Eastern, South American and Asian countries.

New technologies offer the opportunity to eliminate infrastructural backwardness and the resulting disadvantages - yet, the new threat sources appear from a geopolitical point of view. Spheres of influence, both at the micro and macro level, get reshaped. New power centres appear not only within particular countries, as companies possessing large amounts of data and information and representing state-of-the-art information technology have the opportunity, owing to their information monopoly, to clearly understand and, thus, even shape social reality and the factors influencing human behaviour. Their power is built upon their ability for manipulation and, in this area, they cannot only become competitors of state actors but may even achieve dominance (GT 2030, 2012: 16-20).

As regards the transformation of power relations - especially if we look at the analyses presenting its dynamics - never in history have we ever seen so fast and such a transformation of the international power structure. In the light of new challenges and the ever more threatening complex risks, the need to reconsider global capitalism seems more urging than ever before.

The original assumption of the West, namely that globalisation will make the fundamental values of the western worldview - for example, scientific reasoning, individualism, secular governance, the rule of law and, in summary, democracy - accepted worldwide not only failed to occur but an expressly different type of "hybrid" worldview and system of values are evolving, which will become a risk factor exactly because of their incoherent nature (i.e. in the existing system of relations, norms and laws). The developing part of the world insists on their traditional social, political, cultural and religious norms - while modernising their economy with the above-mentioned technological innovations in an amazingly dynamic way. It is logical that conflicts are getting stronger, and countries are becoming polarised internally at an astonishing rate - because of the technological revolution itself, along economic, religious, ethnic, cultural and ideological aspects. The situation is further complicated by the fact that the nature of work – and, in general, lifestyle - is changing, and one must also take into account the consequences of demographic changes[19] and the impacts of much-talked-about climate change.

The process that started at the beginning of the 21st century, the so-called Industry 4.0, will bring about changes of a nature and dynamism which will impact all areas of existence.[20] Changes are characterised by the fusion of different technologies, which blurs the distinction between physical, digital and biological spheres (Schwab, 2016) – and this not only leads to the transformation of different scientific fields, the economy and the industry but also ultimately raises the question of what the true nature of the human being is. The "new world" is characterised by inventions and research trends like artificial intelligence, robotics, the Internet of Things (i.e. the internet-based connection of different assets and objects), autonomous cars, 3D printing, nanotechnology, biotechnology, materials science, energy storage research or quantum calculation (Schwab, 2016).

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19 "In connection with demographic changes, we must highlight the fact that while China is expected to become the strongest economic power by 2030, outpacing the United States, according to demographic forecasts, the decrease of the working population will have begun in China by the same year, which will lead to a slowdown in economic growth. During the same period, India's demographic structure will contribute to the acceleration of its economic growth. The difference between the demographic trends of these two Asian major powers, which is to India's advantage, will diminish the currently existing differences between them in economic potential. As regards the other side of the shift indicated by the aggregate indices of power, the slow relative economic downturn of Europe, Japan and Russia will continue" (GT 2030, 2012: 78-80).

20 Consequently, we could start discussing existence itself, in the broadest sense, as a security issue. We can now rightfully raise the question of what impacts 4.0 has on the person and personality itself, and the sustainability of the concepts like rights and responsibility is also becoming questionable.

"If we succeed in creating a quantum computer, it will resolve problems which classic computers cannot manage, owing to parallelism… Through size reduction and quantum confinement, continuous states will be replaced with broken, discrete energy states, which offer new opportunities. The most recent scientific results have made it possible to implement logical gates with quantum points. With the help of drop epitaxy, these structures can even be created in a self-organising manner." (Innotéka, 2019)

QUANTUM IDENTITY?

Today, we live a difficult-to-understand and tense social, economic and technological model. Global issues and transformations raise the value of space and complexity in an unusual manner.[21] Development concepts that evolved in the classic, mechanic worldview almost entirely cease to be valid, and not only become a limitation to real dynamics but, along and due to their decreasingly relevant perception of reality, they become a threat themselves.

Using a term introduced by Khanna, the context of the contemporary security narrative could be connectography. Consequently, construing mutuality - the competition for the intertwining of elements - could be interpreted as a fundamental challenge, which, in essence, makes the notion of security *construable in the special ontology of coexistence.*

"Connectivity is one of the key moving forces of a transition to a far more complex global system. Economies are getting increasingly integrated, the mobility of the population is growing, the cyberspace is merging with physical reality, and climate change is shaking the foundations of our lives. The significant - and often suddenly occurring – feedback loops of this phenomenon remain almost entirely inextricable. And even if connectivity makes the world more complex and unpredictable, it carries fundamental opportunities which strengthen collective flexibility" (Khanna, 2017: 16).

It is in this context that we suggest that a new narrative for security be necessary, a key element of which is anthropology. In essence, the security concept of the new era can be defined in the context of a new concept of the human being. From a security perspective, it must be emphasised that this interpretation of man should not only provide the condition of maintaining the new balance between technology and existence but should consider it its top priority to ensure that man remains the subject of this relationship.

In general, the security policy challenge of the era is connected to the new model of balances.[22]

CONCLUSION

This study can be considered the starting point of a larger research process, which can open the door to several new research fields that can contribute to the optimisation of the responses to the new balance-related challenges in a number of ways. The impact mechanism of each of the trends examined can be significant: any of them alone can reshape the international system in the next decades. It is practical not only to search for further factors but also to understand the interrelations between the presented trends as deeply as possible, through the identification of the roles of interactions.

One of the most significant challenges at the dawn of a new technology era is to understand and accept that knowing parts of the problem no longer serves as a solid foundation for the management of contemporary challenges. A new, systemic approach is required. "It seems that nature also tries to achieve error tolerance through multiple interconnections. Wherever we look, we see the same network sector" (Barabási, 2003: 154).

A new, multipolar world is evolving, with actors that follow a cooperative-competitive strategy, with new playing fields and new myths. To ensure the stability of the international system, to manage global challenges and to prevent crises, it will be more and more important to apply a broad, more complex development policy, which is more than the ad hoc amalgamation of different development policy trends (with often biased preferences): it should be a security concept that is based on risk management which applies both quantitative and qualitative methodologies,[23] is security-aware, is made for the long term and stands on three pillars (sustainability, connectivity and complexity). What we would like to motivate is not the making of rhetorical promises but communication-dependent security awareness. This requires security research and education capable of supporting a multi-level interpretation of security.

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