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Culture, Conflict, Artificial Intelligence – an Interdisciplinary Approach for Conflict Prevention and Analysis

Translation by Johanna Schroeder

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Historical-critical perspectives on cultural lines of conflict

Long before the brutally fought wars on the territory of the former Yugoslavia erupted in 1991, one could already observe a remarkable phenomenon: as early as the 1970s, the frontlines of the soon-to-be opponents became visible in a kind of a "Kulturkampf" [war of cultures] the latter waged against each other.

Throughout the so-called "Croatian Spring", a protest movement of the late 1960s and the early 1970s in Croatia, which was directed against the central government in Belgrade, the protagonists – comprised of politicians and members of the cultural elites – argued on the basis of a shared cultural nationalism. One of their rather extremist demands back then was the integration of parts of Bosnia and Herzegovina into the territory of Croatia – a claim which was to be enforced just over two decades later during the Bosnian War.

In 1982, 21 Serbian priests and monks called out to the Yugoslav government in their "Appeal to the protection of the Serbian Life and its Sanctuaries in Kosovo". Their arguments were directed against the Albanian ethnicity in Kosovo and were, apart from the overall religious undertone, characterised particularly by a cultural nationalism: Kosovo was seen as historically Serbian territory, the Orthodox Church as the "living fabric" of the Serbian nation, whose "spiritual and biological existence" in Kosovo had to be protected. Four years later, Serbian intellectuals and cultural activists followed suit: 216 persons of public life – artists, scientists, publicists – signed a proclamation titled "Memorandum", initiated by the Serbian Academy of Sciences and Arts (SANU), which was comparable in its line of argument and its demands to the appeal by the priests four years earlier.

It was precisely these demands and cultural arguments by the social elites of Serbia, which Slobodan Milošević and the convicted war criminals Ratko Mladić as well as the leader of the Bosnian Serbs, Radovan Karadžić, adopted to fight and justify a war against their neighbours. Although culture in general played a prominent role in the rhetoric of the warmongers, it were cultural monuments in particular - mosques, churches, monasteries, but also secular objects - on which the hostilities first manifested themselves linguistically to finally culminate in a wave of physical violence and destruction unprecedented since the end of World War II.

Looking back, a number of interesting questions can be derived from these events: Would it have been possible to predict with relative confidence the course of events by intensively monitoring the increasingly radical discourse on culture and cultural objects in former Yugoslavia from the 1970s onwards? Could one have foreseen that cultural lines of conflict were on the verge of becoming actual frontlines? Was the correlation between the increasingly aggressive rhetoric on objects of culture, and the willingness to allow the situation to escalate, visible to the extent that it could have been shown in an analysis, well before the first shot had been fired? There is one thing we do know for certain today: culture sublimated the social and inter-ethnic conflicts in former Yugoslavia. The majority of the supposedly "noble" and "beautiful" aspects of culture were in fact poisoned and nothing more but conflict compensated by cultural objects. But would it have been possible already back then to capture, qualify, and analyse this potential for conflict to derive reliable forecasts?

At a first superficial glance the question can be affirmed: former Yugoslavia serves as an excellent case study for ideas and thoughts on culture and conflict – not least due to the number of ethnic groups,

both of some of the largest and some of the smaller religions which have been (and are still) coexisting next to each other on comparatively small geographic territory. But is former Yugoslavia, are the former Western Balkans so particular, that entirely disparate laws and regularities prevail there and not elsewhere? Are not cultural lines of conflict and politically fragile, in some cases even collapsing political superstructures very much general historic features – despite their individual characteristics? Is it not that aggressive discourses on culture and cultural objects have proven to be reliable indicators for emerging (armed) conflicts in other historical, political and geographical contexts as well?

Let us run a test and consider alternative events: since the targeted detonation of the Buddha Statues in Bamiyan, Afghanistan and the attacks on the twin towers of the World Trade Center in New York in September 2001, we have witnessed an increasing number of acts of terror either explicitly directed against cultural objects or instrumentalising them as a stage or projection screen to generate further media attention, even on European territory. Whether these have been the devastating attacks and massacres against crowds of people in theatres and bars in Paris (2015), the assassination of a priest in French Saint-Étienne-du-Rouvray, or the act of terror on Breitscheidplatz in Berlin (2016) – a Christmas Market in front of a church – the attacks on policemen on the Champs-Élysées, in front of the Louvre, or in the courtyard of Notre Dame de Paris (2017), or finally, the increasingly frequent attacks on Jews and Jewish culture: the obvious references to particular symbols of Western culture and icons of European lifestyle cannot be neglected.

However, we come across statements about an alleged "decadent Western culture", a claimed immoral way of life of people in Europe and North America, as well as a strong anti-Semitism long before the terrorist acts of the 21st century. Such anti-Western polemics are rooted in the Islamist discourses of the anti-colonial movements in North Africa in the late 19th and early 20th centuries. From there, they spread globally, also with the help of Islamic groups – in the 21st century, they have become a central component even in the parallel societies of the so-called West. However, anti-modernist, anti-Western discourses are by far not a distinctive feature of extremist Islam. Even though they do not seem to have much else in common: there are striking parallels to discourses among the Far Right in Europe and abroad. Here, too, the focus is on an alleged decadence of the "West"; the "demise of the occident" is both feared and desired; and the Rule of Law and Democratic Order are rejected per se – and here, too, words are increasingly followed by acts (of terror).

A final example: the destabilising operations and disinformation campaigns by the Putin administration, which have been the subject of scientific research since 2014, are directed against former countries of the Soviet Union seeking greater independence from the Kremlin, but increasingly target Europe and other democracies abroad as well. With the creation of the *EastStratCom Task Force* in 2015, the European Union even established an entire department solely focused on the analysis and mapping of these operations, relying on information campaigns to neutralise them (euvsdisinfo.eu). Whether this involves the Kremlin's support to the European Far Right, the interference in the US election campaigns, and finally, the war against Ukraine: Russian disinformation campaigns and destabilising operations repeatedly target cultural lines of conflict. Long before Russia attacked Ukraine in an act of aggression in February this year, assertions by Russian social elites have been circulating in military circles on the alleged unity of the Russian and Ukrainian cultures; an independent Ukrainian culture has been denied; and the annexation of the "sister people" to Russia has been demanded. This type of aggressive cultural nationalism even found its way into the national security doctrine of the Kremlin in July last year.

In addition to the examples discussed here, there are numerous other cases which call for the development of an innovative research design, widely focused and aimed at a cooperation among both university, military, civilian, and industry partners. It would be the task and long-term goal of such an endeavour to describe the conflict topographies of social groups based on open-source intelligence and supported by critical discourse analysis.

Relevance of cultural conflict topographies of social groups from a security-policy and operational perspective

The conflicts of the 21st century cannot be analysed solely from a regional perspective. This inevitably would mean a gross oversimplification of complex matters. The progress of globalisation across all areas of life as well as the complex perspective aimed for both point towards the necessity of a comprehensive approach in foreign and domestic political affairs. In doing so, the striking relevance of the cultural topographies of social groups becomes evident.

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The success of physically and psychologically sophisticated missions of authorities and organisations with security tasks (BOS) as well as armed forces at home and abroad relies particularly on foresight and planning, which in turn depends on reliable data and information. Because of this, a particular significance falls upon the conflict topographies of all the social groups relevant for an operation. Armed forces and other organizations with security tasks often carry out their missions in potentially dangerous, culturally and linguistically adverse environments. Not exclusively, yet predominantly, do armed forces risk their lives in extreme cases: combat missions. Furthermore, they are responsible for the completion of their mission and for the safety of any involved personnel. Often, they encounter extreme terrain and climate conditions, as well as diverging cultural and social norms. They are expected to act correctly and make decisions according to the normative rules of engagement, even in the most complex and demanding situations. Therefore, operational forces are dependent on knowledge in the form of analyses and assessments, which are strongly rooted in knowledge about the context of the area of operation – in a best-case scenario, they have had this knowledge already long in advance of the actual mission.

At the same time, the scope and the complexity of these analyses is continuously increasing and their spectrum broadens: aspects on gender, protection of civilians, trust-building measures, and protection of culture and awareness of propaganda have to be considered just as much as diverse international rulings (UN resolutions 1261, 1325, etc.) – whether it is the domestic deployment of BOS or the deployment of military forces to a conflict area in a third country. Deployments within this broad spectrum therefore require not only "cold start capabilities" regarding material, personnel, and logistics, but also an immediate data-, information-, and knowledge-based willingness to deploy to mission areas which are unknown, new, or of renewed topicality. We certainly may ask ourselves which current and therefore mission-relevant knowledge regarding the conflict topographies of social groups on cultural objects or, more generally, intellectual characteristics in German authorities with security tasks including the Bundeswehr, is remaining, for instance, on Bosnia and Herzegovina more than ten years after the withdrawal of the German contingent from this region. As we can observe in the most recent political debates, the deployment of a **p 92** German contingent to the politically fragile Western Balkan state to secure general elections in October this year is becoming increasingly likely. As we currently also have to realise, our information on the post-Soviet territory, its analysis and interpretation, have been largely imprecise.

We cannot deny realising: an efficient and operations-based system for the knowledge management of conflict topographies of social groups, which supports analysts and decision makers in the completion of their mandates, is a largely unsolved challenge for BOS and armed forces. Relevant information is missing or can be accessed only in the form of isolated individual or institutional knowledge. As a general rule, such specific knowledge does not exist in an electronic and readily retrievable format. Seemingly paradoxically, we can observe an "information overload" – a result of digitalisation, individuals and institutions have an increasing amount of data and information at their disposal during deployment, which, however, oftentimes cannot be analysed adequately enough due to lacking technical equipment for both quantitative and qualitative processing (Big-/Deep-Data-Analytics). This profound shortage is increasingly proving to be a serious security hazard.

Further obstacles along the way from data to information, to knowledge and, finally, to intelligence for deployment missions are high fluctuations in personnel among deployment forces, technological restrictions and restrictions in time, diverse, contradictory, hermetic and redundant structures in multinational deployments as well as operational structures and, in some cases, highly different organisational cultures and knowledge systems.

These and other challenges can be mitigated, at least partially, by the collaborative deployment of a conflict topographies software based on artificial intelligence (AI), which relies on data and information from publicly accessible sources (Open-Source-Intelligence, OSINT). With the help of these AI-based solutions, even foreign-language data and information on the conflict topography for different areas of deployment, be that social conflicts in European cities or armed conflicts in other parts of the world, including for different deployment scenarios, be that humanitarian, combat, or stabilising missions, can be gathered in advance of the actual deployment as well as analysed and interpreted using comparatively few human resources.

Technical realisation
A range of examples show that the earliest indicators for the escalation of conflicts manifest along cultural fault lines, within the cultural topographies of social groups. Here, they are easy to capture and analyse because their manifestations are, as described, first of verbal nature and can be located in a number of different discourses. This circumstance is both a curse and a blessing. For if one looks to past and current conflicts, it quickly becomes clear that creation of a global and reliable conflict topography is hardly realisable with the human resources currently at hand, given the large number and variety of conflicts.

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Therefore, the question arises to which extent contemporary AI-based solutions for the collection and processing of open-source information (OSINT) could support practitioners in the creation of current and forward-looking conflict topographies. To assess the technical realisation, we divide this rather complex task into the following sub-tasks:
- Automatic identification of cultural objects (material and immaterial) with potential for conflict.
- Automatic multilingual observation of discourses and identification of different narratives.
- Identification of the main protagonists and their intentions.
- Identification of statements and their significance.
- Long-term analysis and measurement of quantitative and qualitative aspects of discourses supported by KPIs such as virality, range, factors for radicalisation, and others.
- Deduction of predictions.
- Creation of a conflict topography which can be used both for the cold start phase and ongoing missions.

The core of this task lies in the protection of culture in its widest sense, aimed at the stabilisation of social groups affected by conflict. The sub-tasks formulated for this purpose can only be realised if an overwhelming amount of the available data can be reduced to only the most relevant information. For this reason, we take a step back and sketch how contemporary OSINT-systems, for instance the Prometheus-AI-System, use the most advanced AI to realise this inevitable reduction of data. In the following paragraphs, we describe the two most important processing phases based on a simplified version of the Intelligence Cycle (Tasking, Collection Processing/Analysis, Dissemination):

- Collection: During the Collection Phase, various data resources, such as news, blogs, and social media, are accessed according to GDPR- and TC-conform standards. In the case of continuous collection of data for the conflict topography of social groups, this occurs entirely automatically. Searches within the data are optimised by the modern technique of Natural-Language-Processing (NLP). Through this, the Collection Phase enables an initial basis of information for the mapping of the conflict topography. However, experience shows that during this stage, there are still numerous mishits across the information landscape which must be eliminated in the following phase.

- Processing/Analysis: During the Processing/Analysis stage the collected information is processed, sorted, and condensed. Machine translation transfers foreign language texts into a

pre-defined output language. This enables understanding by non-native speakers on the one hand, and easier processing by using further AI-modules, such as topic recognition or sentiment analysis (in the case of less common, colloquial, or "rare" languages), on the other hand. An AI-based recognition of events, for instance unrests, demonstrations, political violence, and so forth, as well as geo-coding such events, supports the later creation of a conflict topography. Currently, there are also tests for the multimodal recognition of sarcasm and irony.

The processing steps outlined here allow for a multiple-stage reduction of data and thereby, lay the foundation for the previously mentioned subtasks. To this end, the authors already started to collect and implement the first ideas. This is carried out by using the already existing OSINT platform of the *Traversals* applications (image 4).

It has to be pointed out that additional and intensive research is required – empirical and case-study-oriented as well as culture-theoretical, and in the area of processing individual data by use of artificial intelligence. Research in these fields is promising regarding its synergetic potential with other areas – such as propaganda awareness and crisis early-warning.

Synergies from civil scientific research and military operationalisation
As described, the intelligence and analysis process plays a fundamental role in the mapping and assessment of crises and conflicts. In a military environment, these procedures are highly structured, standardised, and formalised, in order to support the decision-making process effectively. Evidence for this can be found in comprehensive concepts and guidelines.

The field of analysis of culture is explicitly mentioned in these essential documents, yet predominantly under the pretext of analysing intercultural recommendations (for operations) or interests, such as Social (PMESII/ASCOPE), human terrain, or historical background information. Here, the regulation U.S. Army *ATP 2-01.3 – Intelligence Preparation of the Battlefield* can be cited. The document explains the basic understanding of cultural concepts and parameters as part of military intelligence and its resulting situational awareness. Three key messages of this document should be highlighted: the understanding of culture facilitates insights on the motives and intentions of almost any person or group in the area of operation; the investigation of culture as an object of military intelligence is not an academic exercise and therefore requires clear directions for analysis; the analyst must set aside personal judgement and assessment and dispassionately examine the cultural background based on facts (pp. 4-92).

The regulation describes the expectation that the analysis of culture leads to insights on the thought-process, the causal-explanations, and the perception of human beings, from which assumptions on behaviour in certain situations can be derived. However, because culture is subject to constant change, its analysis is a continuous process which has to include not only a historical perspective but also current developments which influence motives and intentions (pp. 4-93).

From an epistemological and methodological perspective, it stands out that culture is viewed as a causal and operationalisable factor; its influence on human behaviour can be examined both from a strategic perspective (macro-level correlations of culture) as well as from an operational perspective (micro-level correlations of recent events on the individual level). This method has the purpose of preventing wrong conclusions and biases originating from analytic errors.

A further example is the note on the *Joint Doctrine 4/13 Culture and Human Terrain* by the British armed forces (here in a publicly accessible version from September 2013). This doctrine defines culture along the lines of generic characteristics: as jointly shared, socially learned, action-guiding customs, patterns in behaviour, dynamic changes, and diversity (paragraph 106). It is emphasised in this doctrine that is not sufficient to simply focus on obvious and culturally divergent features. Instead, it is decisive to know both the distinction and parallels of cultural practice and social structure. Cultural practice is empirically observable and relies on the social structures which form this practice. Another emphasis in this document falls upon the notion of *human terrain*, which joins all geographic, anthropological, and ethnographic objects of knowledge for analysis (paragraph 104-105). It is explicitly demanded that human terrain analysis be an original task and component of the *Intelligence Cycle* (paragraph 316). A special role falls upon the cultural experts (intercultural deployment advisors), who, according to the

understanding of this doctrine, are both users (requests by certain persons or groups) and providers (analyses of critical factors influencing culture) in the intelligence process (paragraph 317).

Even though one must bear in mind that these kinds of regulations are characterised by pragmatism and oriented on practical application, this example clearly demonstrates the challenges an analysis has to overcome. How can culture be empirically captured in its structure **p 95** and dynamic? Which causal relations and correlations between culture and disposition as well as human behaviour are assumed? Which methods prevent biases and other systematic errors of analysis?

The social sciences, which include the field of cultural sciences, have a comprehensive toolbox at their disposal to systematically address these essential questions in a structured manner: What characterises our tangible world? Which insights can we derive from it? And which methods support this process? For the analysis of culture and cultural objects discussed in this paper the following premises are valid: firstly, according to critical rationalism, culture and cultural assets are tangible and therefore observable objects, which exist in the world both in a material and immaterial manner. Secondly, culture and cultural assets impact the thinking and the actions of human beings, just as human actions and thinking creates culture and cultural assets in the first place. This systemic correlation is of high epistemological interest to understand and explain attitudes and conduct of human beings. Thirdly, the empirical social sciences possess the quantitative and qualitative methods and means to examine assumptions about this this systemic correlation in a structured and comprehensible manner.

Two specific approaches are particularly important for this analysis process: On the one hand, the *Foundations of Social Theory* (1990) by James Samuel Coleman, and on the other hand, the notion of constructivism in the social sciences. Coleman assumes that firstly, contextual factors such as culture influence an actor's the situation; secondly, that individual dispositions in combination with contextual factors motivate human actions; and thirdly, that the interactions of actors generate novel social and culture-shaping phenomena. These three steps are based on hypothetical assumptions which can be examined by empirical social sciences research. The challenge lies in the methodologically structured analysis of all stages of assumptions, for otherwise they risk common fallacies: single case studies do not explain collective general phenomena and a collective stereotype does not explain a single case.

The constructivist approach in social sciences displays its strength in intercultural psychology: cognition and thus, also emotion and motivation as well as the actions of human beings, are strongly shaped by cultural norms, artefacts, and stereotypes. Intercultural psychology has provided insights that are not only valuable for analyses, but also flag potential shortcomings and biases due to stereotypical thinking.

In sum, it can be said that the examination of cultural parameters and constraints for the analysis of human thoughts and actions as part of an applied cultural analysis, is, from a scientific theoretical perspective, not only sufficient but also necessary. This is ever so important, for the thinking and acting of human beings can itself create cultural artefacts and thought patterns. For a founded understanding of conflicts and crises, it is essential to include culture and cultural artefacts into the structured and methods-based analysis. In a best-case scenario, this would also be manifested also in the relevant concepts and regulations of intelligence analysis and processing. It can be argued, that within the German-speaking community on this topic, simplified and therefore error-prone methods are frequently preferred. An exchange among the scientific community of experts and an open discourse on methods is overdue.

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