

# COGNITIVE WARFARE – THE NEW FACTOR OF GEOPOLITICAL CONFRONTATION

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**Abstract:** A qualitatively new feature in geopolitical confrontation is the large-scale use of military and non-military forms and methods of influencing the enemy. The report examines the nature of cognitive warfare. It examines how cognitive warfare can undermine trust in institutions, destabilize societies, and alter public opinion, ultimately affecting national security and global power dynamics. Its role in the geopolitical confrontation has been revealed. Conflicts in the 21st century cause a number of problems related both to confrontation in traditional spheres and to changes in the ways and means of influencing people's lives. It is concluded that the new battlefield is the brain.

*Keywords:* cognitive warfare; militarization; confrontation; neurosciences

## 1. Introduction

At present, more and more people spend their time in the virtual world and carry a number of characteristics into the real one. The changed geopolitical and geostrategic environment show a new trend in shaping the future picture of the world. Its condition and development are influenced by the philosophy of war, which is based on the innovative achievements of information, nano-, bio- and other technologies, as well as on traditional and radically new methods, forms and techniques to achieve the goals of conflicts of different intensity.

The aim of the present research is to present the new factor in the geopolitical confrontation. To fulfill the goal, basic research approaches and methods were used, such as official documents, strategies and published official data were analyzed. Due to the growing body of research related to cognitive warfare, the report only presents the understanding of NATO analysts.

## 2. The nature of the "cognitive warfare"

Throughout human history, confrontations between states have been resolved through wars. In the conditions of increasing global uncertainty and instability, the main problem in the confrontation between the leading powers is the competition for people's minds. The Covid-19 pandemic has become the new battlefield at the global level, where countries have blamed each other and opposed different strategies to deal with the crisis. As examples of the successful use of cognitive warfare technologies, accusations of Russia's interference in the 2016 US election, the use of the Covid-19 pandemic to undermine trust in democratic values, and others have appeared in the press.

Modern conflicts have a complex and multifaceted nature. According to various scientists and experts, "hybrid" conflicts are the dominant type in the 21st century (Nenovska, M., 2022). The famous military theorist Carl von Clausewitz described war as a "chameleon" that adapts to its environment (Carl von Clausewitz, 2007, 26 p.). This indicates that hybrid

conflicts and wars become a form of adaptation to the changes occurring in the world of society and technology (DANYK, Y., BRIGGS, CHAD M., 2023). With the help of these technologies, it becomes possible for actors to take control or even take over entire countries without the need for occupation and the visible use of armed forces.



Fig. 1. Cognitive warfare [Source: Internet].

The current revolution in brain science and technology requires a new understanding of modern warfare. In 2020, in the context of the conflict in Ukraine, NATO analysts launched the concept of "cognitive warfare". The concept of cognitive warfare began to be discussed at the Innovation for Defense Excellence and Security (IDEaS) center established in 2017 in Canada. After conducting a six-month study, Francois de Cluzel presents his research on the new kind of war (Du Cluzel F., 2020). According to Cluzel, cognitive war is not just another name for information war. It is a war with our "individual processor", our brain. The report's foreword states that cognitive warfare has a universal scope, from the individual to society, states and international organizations. The concept of cognitive warfare is based on the widespread use of information technology by moving the confrontation from the material to the virtual information and cognitive sphere.

The main idea of de Cluzel's report is the need for a changed nature of war in the context of new technological developments. Advances in technology and science, such as neuroscience and psychology, lead to new possibilities for influencing the human brain. In addition to the existing five officially recognized areas of combat - land, sea, air, space and cyberspace - a sixth - cognitive - is emerging. Cognitive warfare, according to this report, has, in contrast to more traditional types of war, a total character. Since it covers the entire world community (practically the entire population involved in the conflict), it uses other (non-kinetic, i.e. not related to physical impact), but more intense measures of influence on the enemy. This war is outwardly invisible, it blurs the usual ideas about the front and the rear (since the population of all opposing sides becomes the object of influence). In its course, other types of weapons are used (which are people themselves). The void that this new domain must fill is a battleground for people's minds. This type of warfare uses more intensive measures to affect the enemy. It is invisible and unlimited in time, in contrast to traditional types of confrontation, which end with the signing of a peace treaty or with the surrender of the enemy. The essence is the "war of the brain" as "from now on the human mind is the new battlefield". The goal of war remains

unchanged - to impose one's will on the enemy, but the methods of achieving it change radically. Instead of a direct attack by the armed forces, the enemy will have to disorganize the enemy's mind. In this case, cognitive warfare is universal, involving all spheres of human activity. (Du Cluzel F., 2020)

In fact, if earlier, in classical warfare, it was mandatory to defeat the enemy's armed forces and capture his territory, now this is not necessary. Because the state can be destroyed by changing the self-awareness, the worldview, the goals, values and priorities of the society. It is also irreversible because if the armed forces and infrastructure can be restored, the evolution of the worldview cannot be reversed. An example of this is the ongoing war in Ukraine.

A qualitatively new feature of the modern stage of interstate confrontation is the large-scale integrated use of military and non-military forms and methods of influencing the enemy. In the ratio of violent and non-violent actions during military conflicts, there is a marked shift towards the latter, which is due to their high efficiency, comparable in effectiveness to the use of military force.

These cognitive wars are fought in the sphere of cultural, informational and psychological opposition and involve the destruction and/or distortion of the worldview, moral and value systems of society. Their goals and objectives are long-term in nature, with results expected to last for decades. The methods and forms of struggle used include impact on the decision-making procedures of the governing bodies by establishing control over the ideological, cultural and social processes in society.

Cognitive warfare has been defined in various ways. Cognitive warfare has emerged as the new paradigm in military strategy. The primary goal is not new, as advocates of military theorists Clausewitz on willpower and Sun Tzu have pointed out to achieve victory without direct conflict (Karl von Clausewitz, 2007; Sun Tzu, 2003). Their theories are considered early signs of the concept of cognitive warfare. It can be considered like any other type of war. As the famous military theorist Carl von Clausewitz stated, "War is an act of force to force the enemy to do our will." (Karl von Clausewitz, 2007). If in traditional wars the goal is achieved with the use of physical force, then in cognitive wars - it is through coercion to achieve the self-destruction of the enemy from within. Cognitive warfare has two separate but complementary goals – destabilization and influence. (DANYK, Y., BRIGGS, CHAD M., 2023).

According to G. Pocheptsov, cognitive warfare operates at a strategic level, trying to destroy and divide society in peacetime by non-kinetic means. At the operational level, cognitive warfare relies on information operations, the collection and distribution of disinformation, propaganda and fake news. (Pocheptsov, G., 2018)

The modern cognitive warfare is not a war in the literal sense of the word (conquest of a geographical territory), but a competition for the human mind and the ability to transform the worldview of the individual and the whole society. In cognitive warfare, the perception of reality can be changed or constructed.

The modern understanding of the concept of cognitive warfare focuses on letting the enemy "destroy itself from within." (Bernal, A. and col., 2020) According to their understanding, "cognitive warfare is a strategy that focuses on changing the way society thinks and through how it acts". A. Bernal's report also offers a broader definition, according to which

"cognitive warfare is the weaponization of public opinion by an external entity in order to influence public and government policy or destabilize public institutions" (Bernal, A. and col., 2020, p. 10). Cognitive warfare can be considered the conceptual successor of psychological and informational warfare. Informational warfare, in the broadest sense, is a struggle for the information and communication process, a struggle that began with the advent of human communication and conflict. This method of warfare has a successful track record in combat operations, but it also belies a consistent failure to ruthlessly exploit the information environment at the strategic, operational, and tactical levels. Psychological warfare is a coordinated set of large-scale actions and operations aimed at "occupying" the enemy's consciousness in order to paralyze his will, change the individual and mass consciousness of the population. Cognitive warfare is sometimes defined as a type of information warfare; countering it is defined as ensuring information and psychological security associated with digitalization processes. Cognitive warfare is not informational, but a war for information, which is transformed into knowledge through its comprehension, and with the practical goal of changing the very context of the use of weapons. The main focus of cognitive warfare is influence on the whole society, not on specific military targets, and the use of propaganda above all. (Bernal, A. and col., 2020, p. 32).

### **3. Cognitive warfare and propaganda**

In many ways, cognitive warfare can be compared to propaganda, defined as a set of methods used by a group that wants to achieve active or passive participation in the actions of people, united through psychological manipulations and included in an organization (Bernais, E. 2019). The purpose of propaganda is not to "program" minds, but to reflect on attitudes and behavior by getting people to adopt the right attitude. The various tools of information warfare, including psychological operations and propaganda, have never stopped being used. Propaganda is a social phenomenon that grows in and is intrinsically intertwined with society (Bernais, E., 2019). Although propaganda and influence strategies have been around since the dawn of the world, the advancement of new digital technologies and the growing use of social media have allowed people to reach a wide audience. Cognitive warfare takes the well-known and new approaches in information, cyber and psychological warfare to a new level, trying not only to change a person's thinking, but also the reaction to the received information. In addition, methods of cognitive warfare blur the lines between civilian and military targets and shift the use of force from physical to virtual reality.

"Cognitive warfare is a war of ideologies that seeks to undermine the trust at the foundation of any society", Kluzel wrote in his report. It differs from propaganda in that everyone participates, mostly unwittingly, in processing information and generating knowledge in an unprecedented way. This is a subtle but significant change. Whereas people passively obeyed propaganda, they now actively contribute to it. The exploitation of human knowledge has been turned into a mass industry. Even new artificial intelligence tools are expected to soon provide propagandists with radically expanded capabilities to manipulate the human mind and change human behavior.



Fig. 2. Cognitive warfare and information [Source: Internet].

Cognitive warfare can also be seen as a systematic informational and psychological impact on people's minds in order to change their thoughts, values and beliefs. Entire countries are affected, where the "rewiring" of the minds (brains) of the population allows them to manipulate their actions and preferences. A kind of reinstallation of the "operating system" takes place, and society begins to think and act "as it should." Cognitive warfare tries to change people's perceptions, which are a fundamental basis for action. Perception is the product of cognition that the "mechanism" that cognitive warfare is trying to relate to. To understand cognitive warfare, one should begin with the concept of cognition, defined as the mental process of acquiring and understanding knowledge that includes consuming (using, consuming), interpreting, and perceiving information. Therefore, one possible understanding is that the cognitive domain consists of perception and reasoning, in which the battle is achieved by using the information environment to influence the interrelated beliefs, values and culture of individuals or the whole society. Based on the interpretation of the cognitive domain presented above, researchers define cognitive warfare as a move in the cognitive domain to establish predetermined perceptions among a target group in order to gain an advantage over a competing party. Cognitive warfare is the manipulation of public discourse by outside elements that seek to undermine social cohesion or damage public confidence in the political system. Cognitive warfare is the weaponization of public opinion by an external entity in order to influence public and government policies and destabilize state institutions. Researchers also understand cognitive warfare as a strategy that focuses on changing the way people think and act through informational means. Together, these definitions highlight the essential elements of cognitive warfare. The aim is said to be to influence and/or destabilize by changing the way society thinks and acts (BJØRGUL, LEA KRISTINA, 2021). It is also emphasized that the ultimate goal is to gain an advantage over the opposing party. In general, the goal of cognitive warfare is to achieve, through the cognitive process, a change of policy in the community that benefits the attacking state. Information becomes both a resource and a weapon. Tomorrow's battlefield is offset in time and space. When enemy actors operate simultaneously in space, cyberspace, and the electromagnetic spectrum, real-time response will become a battlefield challenge.

#### 4. Conclusion

Cognitive warfare is becoming one of the most important elements of the debate between war and peace in modern society. The "war for the brain" has become a priority area of the war of the 21st century. The debate about the content of the concept of "cognitive warfare" presents components of the changed geopolitical confrontation. On the one hand, the cognitive domain is emphasized as a sphere of confrontation that continues traditional wars aimed at establishing dominance. On the other hand, attention is concentrated on a new object of confrontation (the human brain) and new mechanisms and tools for achieving dominance - a set of technologies.

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