**A brief analysis of the basic essence of cognitive domain warfare**

**Source:** [**China Military Network**](http://www.81.cn/)[**Ministry of National Defense Network**](http://www.mod.gov.cn/)

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As a new form of combat, cognitive domain combat has become another new confrontation field after physical confrontation, firepower confrontation, and information confrontation. Different from physical domain and information domain combat, cognitive domain combat targets thinking and concepts, and has inherent requirements that are obviously different from other forms of combat.

The central task is to attack and defend values. It is generally believed that values ​​are the principles and standards used by people to distinguish good from bad, right from wrong, and importance. They are the most stable content among all cognitive elements and dominate people's motivations and behavior patterns. Therefore, seizing the commanding heights of values ​​is a prerequisite for winning cognitive warfare. Foreign militaries have always attached great importance to the dissemination of values. They often use their advantages in cyberspace to adopt technical means and cultural infiltration to forcibly export values, gradually erode values ​​through the interaction between virtual space and real space, and distort values ​​through the combination of coaxing and corruption, so as to achieve infiltration and erosion of the thinking, cognition, and value orientation of personnel in hostile countries. To seize the dominant position in cognitive warfare, it is necessary to thoroughly study the opponent's value pursuit, get close to the opponent's cultural language system, and determine the opponent's political beliefs and interests, so that the effectiveness of cognitive warfare can directly reach the foundation of the opponent's beliefs and the anchor of the soul. At the same time, it is necessary to scientifically explain and disseminate the connotation and essence of one's own excellent values, and guide their transformation with excellent values ​​and excellent achievements of human civilization.

Taking brain cognition as the main battlefield. The understanding and recognition of the war form, especially the focus issue, is an important part of the design of tactics. Compared with the "war of attrition" centered on annihilating the enemy's main force and the "mobile war" centered on destroying the enemy's system, cognitive domain warfare takes the human brain as the main combat space, focuses on attacking, weakening, and disintegrating the enemy's will to fight, and takes human psychological weaknesses such as fear, anxiety, and suspicion as breakthroughs. It focuses on soft kill means to create an atmosphere of insecurity, uncertainty, and distrust within the enemy, increase its internal struggles and internal consumption, and decision-making doubts, so as to achieve the goal of "winning without fighting". In recent years, with the development of emerging technologies, NATO has expanded the combat field to the sixth level, the "human field", to compete for brain control, weaponize brain science, and launch offensive and defensive operations on cognitive elements such as beliefs, thinking methods, spiritual will, attitudes, and behavioral tendencies of the target object. According to reports, with the help of brain and cognitive science research results, the United States is attempting to achieve the goal of psychological control over the enemy by collecting, deciphering, and interfering with the brain waves of combat targets.

The key goal is to seize the control of intelligence. With the rapid advancement of military intelligence, intelligence will become a new type of battlefield control that is growing rapidly and has a greater strategic influence on the overall combat situation. In intelligent warfare, intelligence advantage is the dominant factor in winning, and intelligent weapon systems have become the main combat force. Seizing "intelligence control" will become a new commanding height for war control. Intelligent weapon systems rely on advanced artificial intelligence systems and will have some human intelligence characteristics, which will expand the scope of intellectual power competition to some weapons and equipment. With cognitive loops as the goal, relying on cognitive equipment to limit the enemy's acquisition of effective information, force the enemy to use wrong information, delay cognitive speed, induce cognitive patterns, and block cognitive output, it can disrupt the enemy's command decision-making, disintegrate its military morale, and achieve the effect of "attacking the heart first". In intelligent warfare, if the cognitive advantage is lost, even if there is information advantage and energy advantage, the overall combat effectiveness will be greatly reduced due to the disharmony between man and machine and the failure of autonomous decision-making.

Taking public opinion attack and defense as an important way. Cognitive domain warfare is essentially a struggle to win people's hearts and minds. Public opinion attack and defense in cognitive confrontation is mainly manifested in controlling, manipulating, and using various public opinion tools to suppress opponents and win the public's cognitive field competition. Public opinion warfare focuses on changing concepts, winning people's hearts, and paying more attention to the conquest of spirit and will. With the help of the ever-evolving social networks and integrated media technologies, public opinion warfare can break through the blockade and restrictions of opponents and reach the inside of the target group. In recent years, the status of public opinion attack and defense has become increasingly prominent in the fields of ideology, cyberspace, high-tech, etc., and has attracted widespread attention. Public opinion warfare can portray a positive image of oneself, while demonizing the target country, etc., to win international moral advantages and public support. From "color revolutions" to local conflicts, Western countries, under the manipulation of "American rhetoric", have fabricated absurd scripts, woven absurd narratives, and absurd conclusions, and pressed hard all the time, and invaded the cognitive field, bringing severe challenges to the political security of many countries.

Use new quality technology as a powerful means. Cognitive science is an emerging research category and a cutting-edge discipline that explores the working mechanism of the human brain or mind. It is developing in the direction of computational intelligence, perceptual intelligence, and cognitive intelligence. Artificial intelligence technology has unique advantages in perceptual recognition, machine learning, etc., and has natural penetration and profound influence on the thinking and cognition of combat targets. Artificial intelligence is used in cognitive warfare. Through pervasive and highly automated precise push, it uses tendency information to build efficient and flexible cognitive scenarios, make tendency interventions, and then unconsciously influence and shape the opponent's thinking and cognition. Brain-computer interface technology realizes the combination of man and machine in the cognitive dimension. It can realize mind control, i.e. brain control, externally, and autonomy enhancement, i.e. strong brain, internally, and can realize the direct control of complex weapon systems with consciousness and thinking. At present, there have been major breakthroughs in related technical means such as multimodal emotion recognition, activation, and protection based on big data. By collecting people's expressions, movements, semantics and intonation, EEG, various physiological indicators, etc., emotional associations are established to identify people's emotions and intentions, providing new means for conducting cognitive control warfare. Therefore, the new cognitive technology means and traditional cognitive technology means form a combination of above-threshold indoctrination and below-threshold penetration, which will further enhance the concealment and effectiveness of cognitive influence.