**Grasping the pulse of cognitive domain operations**

**Source: China Military Network-People's Liberation Army Daily   
Author: Yang Cunshe   
Editor: Li Jiaqi**   
**Date: 2022-08-16**

**Editor's Note**   
Cognitive domain warfare is to directly target people's will, beliefs, thinking, psychology, etc., and influence their decisions and actions by changing the opponent's cognition. In the era of information-based and intelligent warfare, cognitive domain warfare has become an important form of game between major powers, and all parties are trying to achieve political goals in a relatively controllable way. Insight into and grasp of the characteristics and development trends of cognitive domain warfare is of urgent and important practical significance for winning future wars.   
  
At present, the cognitive domain has entered the war arena as an independent domain, and is increasingly becoming a constant battleground, a must-fight place, and a weight for victory in the game between major powers. Analysis of the characteristics and development trends of cognitive domain operations can be reflected in at least the following eight aspects.

**The cognitive domain is the key domain for converting military advantage into political advantage**   
  
On the surface, military confrontation is a confrontation of hard power between the two sides. In depth, no matter what the nature of the war is or what the purpose is, it is ultimately a contest of human will. The key to victory is the ability to impose one's own will on the audience. As long as the enemy's will to fight is deprived and defeated, it means winning the war. Cognitive domain warfare takes human will, spirit, psychology, etc. as the confrontation target, strengthens one's own will while weakening the enemy's will, and thus achieves the political goal of winning the hearts and minds. In this sense, the cognitive domain is the key domain for transforming military advantage into political advantage. As the war form accelerates its evolution towards intelligence, the cognitive quality advantage brings the decision-making and action advantage, which can not only occupy the commanding heights in morality and legality, and shape a favorable situation of justice and legality, but also achieve the goal of winning a small war or even without fighting through hybrid warfare and comprehensive game means. Especially in the context of great power competition, the cost of war is high. All parties hope to force the opponent to retreat in a "humane" and "economical" way by increasing the intensity of the competition for the cognitive domain.

**By changing the opponent's perception, their decisions and actions can be changed**

The purpose of cognitive attack is to manipulate the opponent's will with an "invisible hand", making the opponent feel "I can't" and "I dare not", and then achieve the effect of "I don't want to". Foreign military practices have shown that cognitive attacks on people's will, beliefs, thinking, and psychology can be long-term cultural implantation, information suppression of "information ocean + covering mouth and silencing", active shaping of preconceived and preemptive voice, or using historical grievances to provoke conflicts. At present, information technology, artificial intelligence technology, and media technology have strengthened their direct effects on the cognitive domain. Using intelligent generation software, a large number of cognitive "ammunition" can be manufactured, which can accurately act on the cognitive layer of combat targets, directly "impose will on the opponent", and quickly change the strategic situation. Looking forward to the informationized and intelligent battlefield, situational awareness forces and platforms are widely distributed in combat domains such as land, sea, air, space and network. Cognitive behaviors such as planning, decision-making, and control dominate the actions of various combat domains. In particular, the cognitive advantages of human-machine hybrids in future intelligent warfare will dominate the battlefield. Through cognitive interference, cognitive confusion, cognitive blocking and other means, a "fog" of war cognition can be created to induce the opponent to misjudge the situation and make wrong decisions and actions.

**Cognitive domain operations are all-time offense and defense, all-staff coverage, full-process use, full-domain shaping, and all-government action.**

Cognitive domain operations are characterized by being all-round, multi-layered, super-time and cross-domain, blurring the boundaries between wartime and peacetime, front and rear, crossing battlefields and national borders, and going beyond the simple military field. They are widely infiltrated into various social fields such as politics, economy, and diplomacy, and are characterized by the "five alls". All-time attack and defense, no distinction between peacetime and wartime, no distinction between front and rear, and are characterized by being online all the time and in combat all the time. Full coverage, anyone, even intelligent robots, may become the target of cognitive domain operations. Full use, running through the pre-war, mid-war, and post-war of joint operations, before joint military operations are launched, cognitive shaping operations have already begun, and they will accompany military operations and will not stop when military operations stop. Full domain shaping, cognitive shaping runs through the strategic, campaign, and tactical levels, and its scope of action covers the land, sea, air, and space network domains, cross-domain empowerment, and has an impact on all-domain operations. All-government actions, cognitive shaping is naturally strategic, and requires coordinated actions across departments, fields, military and local areas, and levels to achieve the best communication effect.

**The key is to seize the right to define the nature of the action or activity, the right to control the process, and the right to judge the outcome.**   
  
The cognitive game struggle involves multiple adversaries and seems complicated. The key is to fight over the "three powers" in the cognitive domain. First, fight for the right to define the nature of the event. That is, how should this event be viewed, whether it is just or unjust, legal or illegal. Usually, preemptive definition, group formation and alliance to force definition, information suppression unilateral definition, setting up topics and applying definitions are adopted to guide and shape the public to form qualitative cognition. Second, fight for the dominant power of the event process. That is, how this thing should be done, how it should not be done, who is right and who is wrong. Usually, it takes the form of setting traps and other methods to try to dominate the direction, speed, pause, continuation and end of the target event according to the state expected by one's own side. Third, fight for the right to judge the outcome of the event. That is, how to evaluate this thing, who is the winner, who is the loser, who is the loser in the short term, who is the loser in the long run, and so on. All parties try to control the right to judge the outcome of the incident in order to magnify their own advantages and the enemy's disadvantages. The purpose is to take advantage of the extended effect of the incident to continue to hurt the enemy and benefit themselves.

**Morality and legal principles are the focus of contention among all parties**   
  
Military actions have always been about "justifying the cause". Although the form of war is evolving rapidly, the essential attribute of war being subordinate to politics will not change; the nature of war and the support of the people are still the key factors affecting the outcome of war. On the battlefield of cognitive domain, occupying the commanding heights of politics, morality, and law can win the hearts and minds of the people and moral support, create an atmosphere of public opinion that the right will bring many supporters, and then seize the initiative to defeat the enemy. In every war or conflict, whether it is the strong or the weak, whether it is the attacker, the defender, or the third party, all parties will do their best to seize the cognitive dominance and the initiative of public opinion, try every means to package themselves with morality, focus on declaring a just position, try to characterize the war and justify the action, so as to eliminate resistance, increase support, and create a favorable situation of "righteousness" defeating "unrighteousness". The strength comparison between the two sides of the war is different, and the cognitive confrontation aimed at occupying the commanding heights of morality and law will also be different. Recent wars have shown that when one side has strong soft and hard power, that is, strong military strength, many allies and partners, and a large share of international discourse power, it often declares war in a high-profile manner; when military action may trigger a chain reaction, the term "war" is often blurred.

**Information is the basic "ammunition" for cognitive offense and defense** In the Internet information age, the way humans communicate continues to undergo complex and profound changes. On-site interactions have gradually given way to online connections. Some large social platforms have become the main battlefields for cognitive game struggles and the main channels for influencing people's cognition. Using information as ammunition to fight for international network blockade rights and discourse control has become one of the main actions of cognitive confrontation today. On these platforms, various short videos have become the "first scene" for the public to understand the battle situation, and information is faster than artillery shells. The use and blockade, dominance and regulation of platforms have become the focus of cognitive domain warfare. All parties strive to spread and amplify their own propaganda, denounce and suppress the propaganda of the other party by manipulating social platforms, forming a situation of "I say more, you say less", "I say right, you say wrong", and "I can only say, you are not allowed to say". As users of large social platforms, the public is influenced by others and also influences others in the process of "listening", "speaking" and even "doing", and unknowingly becomes the agent and attack prop of the behind-the-scenes promoter.

**Military operations play a key role in supporting cognitive shaping**

The history of human warfare shows that military warfare is always the basic support for political contests, and psychological warfare is the efficiency multiplier of military warfare. We cannot expect to get back what we cannot get back on the battlefield at the negotiation table, let alone in the field of public opinion. In modern warfare, cognitive communication actions are always inseparable from joint military operations. Psychological warfare and military warfare influence and support each other, and the trend of military warfare becoming psychological warfare and psychological warfare becoming military warfare is more obvious. From the perspective of war practice, it is absolutely impossible to have no military strength, but military operations alone are not omnipotent. Multiple victories on the battlefield are not a sufficient condition for winning a war. In the Vietnam War, the United States "won every battle but lost the entire war." In the early 21st century, the United States won battlefield victories in the Iraq War and the Afghanistan War in succession, but did not win political advantage. By the same token, military advantage does not mean winning a strong public opinion, and winning a battlefield victory does not mean winning a strategic victory. In modern warfare, the role of two types of personnel is becoming increasingly important. One type of personnel seeks victory by writing thousands of lines of code, and the other type of personnel seeks victory by writing thousands of messages. The side that has both the number and quality of these two types of personnel tends to have a greater chance of winning.

**Cognitive confrontation technology is increasingly used directly in warfare**   
  
In previous wars, the impact and effect on the cognitive domain was mainly transmitted to the cognitive domain step by step through a large number of destructive actions in the physical domain. With the development and breakthroughs of information communication, artificial intelligence, biological intersection, brain science and other technologies, new cognitive warfare tools and technologies are directly aimed at military personnel. Cognitive confrontation not only uses traditional information warfare weapons, but also uses a neural arsenal that targets the brain. By then, machines will be able to read the human brain, and the human brain will be able to directly control machines. Intelligent command and control systems can directly provide battlefield situation and decision-making assistance. Realistic cognitive ammunition and precise audience delivery will greatly enhance the social impact effect. Cognitive confrontation technology is increasingly directly used in wars. The indirect cognition implied by the original informatization is gradually transforming into direct influence and control of human cognition. It can be said that with the support of advanced technology, cognitive domain operations can achieve political goals more directly and efficiently by building a modern network architecture and developing a data visualization platform to quickly understand the information environment and effectively influence the target population.

*(Author’s unit: Academy of Military Science, Institute of War Studies)*