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## Domains of Conflict versus The Art of War

NCW<sup>1</sup> advocates view a conflict or war in terms of so-called domains, not in terms of the art of war. Quite a transparent attempt is under way on the part of the NCW advocates to completely replace the traditional view of warfare. The Military Transformation Strategic Approach issued by the DoD Office of Force Transformation (OFT) in December 2003 explained that the new Joint Operations Concept (JOpsC) to be developed by the U.S. Joint Forces Command (USJFCOM) and its subordinate Joint Operating Concepts (JOCs) will encapsulate a vision of transforming network-centric joint force and capabilities-based defense strategy and will be expressed in terms of physical, informational, and cognitive domains of warfare. If adopted, this change in our understanding of the nature of war is bound to complicate the task to apply military and nonmilitary sources of power.

Milan Vego\*

**The Origins:** In the late 1990s, the NCW proponents searched for ways to elevate information as an almost absolute factor for success in war. The solution was initially to resurrect and embrace an old and largely ignored concept of domains or spheres of war. Initially, the NCW advocates explained that war consists of three spheres: physical, reason, and belief. In the subsequent evolution of their thinking, they claimed that war encompasses moral, mental, and physical domains. Currently, they contend that conflict encompasses physical, information (or informational), and cognitive domains. In addition, a new domain – the “social domain” – will most likely be added to the list.

Perhaps it is not widely known that the concepts of “domains” or “spheres” of conflict or war are not new. They were first used by a well-known military historian and theoretician, General J. F. C. Fuller, in his book *The Foundations of the Science of War*, published in 1926. In this hard-to-read, controversial, and later largely ignored work (except for the part on the principles of war), Fuller laid out the new theory of war. He was obsessed with the concept of trinities. He understood nature as consisting of earth, water, and air, while mankind in Fuller’s scheme of things was composed of men, women, and children. Fuller elevated the threefold order to the heights of philosophic truth. In his view, the most economical military organization was the one that expressed the closest relationship to the organization of the human body. Therefore, he concluded that there were three modes of forces in war: mental, moral, and physical. Each type of force in turn consisted of three elements: mental force had reason, imagination, and will; moral force had fear, morale, and courage; and physical force had weapons, protection, and movement. For Fuller the physical sphere was the alphabet of war. Although Fuller

stressed that moral belief and the mental (reason) sphere were crucial, he also acknowledged that they were intangible and hence difficult to quantify.

Fuller’s ideas on domains or spheres of warfare were part of his effort to create a new theory of war based on a scientific approach. However, his concept of domains and spheres of warfare were never shared by his contemporaries or by succeeding generations of military theoreticians. Fuller in fact changed his views on the nature of war and came to regard warfare as both an art and a science.

**The Concept:** Like Fuller, NCW advocates describe the physical domain as the domain where “strike, protect, and maneuver take place across the environment of ground, sea, air, and space.” Most recently, they have asserted that it is in the physical domain that “military forces execute the range of operations and where physical platforms and communications networks that connect them reside.” Consequently, combat power has traditionally been measured primarily in this domain. Allegedly, the two important metrics for measuring combat power in this domain, lethality and survivability, have been and continue to be the cornerstone of military operations research. However, combat power or, more accurately, combat potential includes intangibles such as leadership, unit cohesion, and doctrine and training, not just purely physical elements, as NCW proponents contend.

The information domain is explained as the domain “where information lives, is created, manipulated, and shared.” Command and control (C2) is included as part of the information domain. This is not logical, because “information” is only one of many elements that are part of the C2 process. To be useful, information must be converted into accurate, reliable, and timely intelligence. In the process of the conducting commander’s estimate of the situation, intelligence is critical, but it is just one of the many elements that the commander must consider in making a sound decision.

In the words of the NCW enthusiasts, the cognitive domain encompasses the mind of the warfighter. It is the domain where battles, campaigns, and wars are won and lost. NCW advocates contend that the cognitive domain is the most critical of all three domains. At the same time, they acknowledge that the cognitive domain’s attributes are extremely difficult to measure. However, only by understanding military art and its three components can one hope to determine militarily achievable objectives and then determine the proper method of combat force employment to accomplish them. Hence, whether a tactical action such as a strike or a battle is to be fought, or a major operation or campaign is conducted, is a concern of military art, not the so-called cognitive domain. This is one of several major problems with the entire concept of domain of conflict as propounded by the NCW advocates.

The NCW advocates explain that cognitive domain also encompasses intangibles such as leadership, morale, and unit cohesion; level of training and experience; situational awareness; and public opinion. This is the domain where tactics, techniques, and procedures (TTP) reside. Yet TTPs are executors of a given doctrine. Hence, they are not necessarily cognitive in their essence. More recently, effect-based operations (EBOs) have also been considered part of the cognitive domain. One has to wonder why military operations are part of the physical domain but EBOs apparently are not.

**Science vs. Art of War:** The NCW proponents clearly consider warfare more as a science than an art. They are only the latest in a long list of those who have tried, but ultimately failed, to make war a science: the proponents of the so-called geometrical or mathematical school in the late eighteenth century, de Jomini, the advocates of the French “Young School,” General Giulio Douhet and other early advocates of air power, and some of the leading proponents of motorization and mechanization in the 1920s. All of them considered warfare in one form or another more a science than an art. The Marxist-Leninist theoreticians also considered war as essentially based on scientific principles. The main reason for such and similar beliefs was an unbounded faith in the extraordinary value and impact of technology on the conduct of war.

Fuller tried to establish the theory and practice of war on a scientific footing by applying the method of science to the study of war. Fuller asserted that war is as much a science as any other human activity because it is built on facts. Fuller’s greatest debt was to Colonel F. N. Maude. In July 1912, Colonel Maude had given a lecture titled “The Science of Organization and

<sup>1</sup> Network-Centric Warfare



the Art of War." He defined the science of organization as a synthesis of scientific principles that are involved in the applied sciences. Fuller then went on to claim that war was both a science and an art, connected by a common link or blood relationships to one another. Fuller wrote that military science consists of calculating all the chances accurately in the first place and then giving accident exactly – almost mathematically – its place in one's calculations. He also asserted that war must be reduced to science before it can be practiced correctly as an art.

Fuller's views on the nature of war were in contrast to those of Carl von Clausewitz, who believed that there is no human affair that stands so constantly and so generally in close connection with chance as war. According to Clausewitz, war belongs to the province of the social life. War is not a science because it is a master of action. It is not an art because it exerts itself not upon inanimate or passive human material but upon reacting, living force.

The NCW proponents consider war more like a science rather than both an art and a science. Among other things, there are attempts to invent so-called rule sets, metrics, and new mental models for quantifying essentially the unquantifiable. Yet the human and psychological aspects of warfare cannot be quantified. Hence, all the current efforts by the NCW advocates to quantify information or cognitive domains are doomed to fail.

The traditional view is based on the understanding of war as art rather than science. Hence, the terms art of war or military art have been used by many military theoreticians. In its narrowest definition, the art of war or military art consists traditionally of strategy and tactics. By the late nineteenth century, an intermediate level, "operations" or "operational art," was added as the third component.

In generic terms, military art in its purely military definition consists of three components: strategy, operational art, and tactics. In its broader definition, it includes a number of other fields of study and practice that directly deal with one's preparation for and conduct of war. Specifically, geopolitics, philosophy of conflict or war, military history, military psychology, military medicine, military transportation, military meteorology, and others belong among these areas of study or practice.

**Relationships:** The NCW proponents present domains as mutually overlapping. In their view, overlaps or interfaces among domains result in some new qualities. This is quite unusual, because the so-called intersection between related components normally pertains to the components' mutual relationship, not their mutation into some qualitatively new entity. It is asserted

that so-called precision force, aimed at conducting successful joint operations, is created at the intersection of the information and physical domains. Likewise, NCW enthusiasts argue that shared awareness and tactical innovation supposedly occur at the intersection of the information and cognitive domains. NCW enthusiasts see the intersection between the physical and cognitive domains as the area where the compression and lockout phenomena occur, where tactics achieve operational and even strategic effects, and where a high rate of changes is developed.

While all these claims about the supposed advantages of NCW are suspect, it is sufficient to challenge the assertion about the effects of a tactical action. No one can deny that some tactical actions can have operational or strategic effects; it has happened in the past. However, it has always been an exception rather than a rule. Achieving an effect is not identical to accomplishing a given objective. This is why the proper method of combat force employment should be determined in order to achieve a given military objective quickly and most effectively. The NCW advocates also contend that network-centric warfare exists in the very center where all three domains intersect. One would expect a different interpretation that NCW exists as an overarching concept encompassing all three domains of conflict.

A proper understanding of war in all its aspects is possible only by having a thorough knowledge and understanding of policy and military art and their mutual relationships. Policy should invariably dominate strategy. Yet policy and strategy should not be in conflict. Policy' dominance over strategy has its limits and should not be carried to the extreme. If the primacy of policy over the military is well established, the military essentially can act only within the framework determined by national security strategy. A serious mismatch or disconnect between means and ends at the policy and strategy levels is invariably fatal, as the examples of Germany in both world conflicts and Japan in World War II show.

The gap between tactics and strategy is too large to be bridged by tactics; hence the need to have an intermediate field of study and action – operational art – to orchestrate the accomplishment of strategic objectives through series of tactical actions. Operational art is a vital link between strategy and tactics. Without the link, tactics would not lead to favorable strategic results. The grammar of operational art is dictated by strategy. In general, strategy guides operational art by determining objectives, allocating one's forces and assets, and imposing conditions on tactical combat. Operational art provides the framework for tactical combat.

The accomplishment of operational and strategic objectives depends upon the results gained by tactics. Strategy must ensure that tactical combat is conducted under conditions favorable to accomplishing strategic objectives while considering the limitations imposed by tactics. Because bad tactics can invalidate a good strategy, a sufficient level of tactical competence is invariably required to accomplish strategic or operational objectives.

Tactics must ensure that the results are in harmony with operational objectives. Normally, a tactical action, such as a battle or engagement, should not be fought unless it is part of the operational design and directly contributes to the accomplishment of operational or strategic objectives. Poor application of operational art can lead to tactical defeats, which, in turn, might have not only operational but also strategic consequences. No number of tactical victories can save one's forces from ultimate defeat in the absence of sound and coherent strategy and a lack of operational thinking. Tactics should never significantly influence, much less dominate, strategy, either by design or by default. If this occurs, as it is already the case in the U.S. military today, strategy will be defined or even applied as an afterthought by tactical considerations.

**Conclusion:** The concept of domains or spheres of conflict in war is highly problematic, and if widely accepted it is bound to do much harm. The traditional view of war as the art of war or military art provides a much more solid and better foundation for successfully using one's military and nonmilitary sources of power to achieve the objectives of policy.

Domains of conflict are an artificial concept based on the failed theories of the past. It is also ahistorical and hence, like the early airpower theories, doomed to fail. Domains cannot be used as either a theoretical or practical framework for a true understanding of warfare. Such an understanding is possible only by relying on the experience and wisdom of those who lived before us. Thirty-five hundred years of military history cannot be simply ignored or somehow made irrelevant. While new technologies and empirical evidence should lead to changes, perhaps even some radical changes, in the way we think about warfare, this is not the same as trying to radically change everything. There is nothing magical about the information age or the twenty-first century that allows us to suddenly abandon wisdom, experience, and, in some cases, even logic and common sense.

Footnotes may be obtained by the author.

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