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Military Thought And The Essence of War
Seminar H

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ON TRANSFORMATION

INTRODUCTION

Over the past few years, the Department of Defense has devoted countless man-hours to develop new strategies, equipment, and procedures designed to “transform” the way America fights wars. In spite of these efforts, there seems to be a tremendous level of frustration and confusion throughout the armed services with respect to the concept of transformation. The Secretary of Defense shared his concerns in a recent memo to his senior staff:

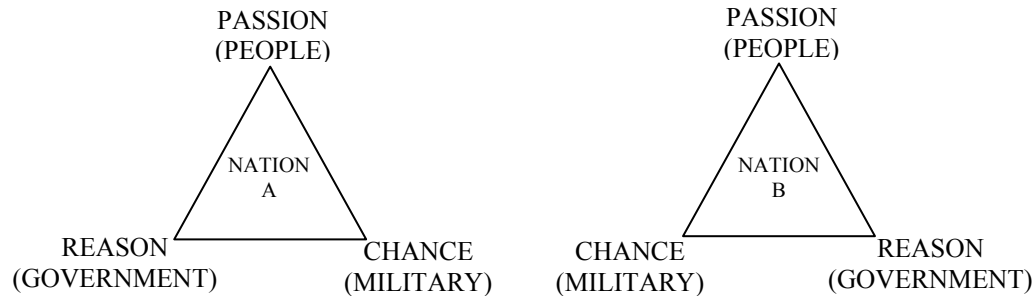
The questions I posed to combatant commanders this week were: Are you winning or losing the Global War on Terror? Is the DoD changing fast enough to deal with the new 21st century security environment? Can a big institution change fast enough? Is the United States Government changing fast enough?¹

In the writer’s view, part of the problem stems from the notion that the armed forces, as an institution, tends to focus on the ways and means of transformation, without a clear vision of the ends. The goal of this paper is to define transformation from an ends perspective, and provide a basis for prioritizing transformational ways and means for executing war.

TRANSFORMATION DEFINED

In his book “On War,” Carl Von Clausewitz describes war as “an act of force to compel the enemy to do our will.” His theory prescribes the nature of war as a continual interaction of the forces of (1) primordial violence, (2) chance and probability, and (3) reason, which are resident in the people, armed forces, and government, respectively. By ascribing to the idea that, taken separately, the relative magnitude of these forces can be used as a basis to prejudge the outcome of a conflict between belligerent nations, the

“Clausewitzian trinity” shown graphically below, serves as a useful tool for understanding transformation.



To illustrate, consider a hypothetical example of two belligerent countries, whose passion and reason are equal in magnitude. The outcome of the conflict would then depend solely on the effectiveness of the armies, which, for the sake of this discussion, will also be considered equivalent in all respects. The armies, however, operate in the realm of chance, which is governed by the phenomena of friction. Friction in war results from the myriad of omnipresent variables that, in Clausewitz’s words, “make the simplest things difficult.” Examples include weather, terrain, distance, intelligence, fear, confusion, hunger, and courage.

All things being equal, the contest is therefore subjugated to the forces of chance. It follows that the side that can mitigate the effects of friction on its operations, while maximizing the effects of friction on the opposition, controls the force of chance, and should therefore prevail in the conflict. Taken to the extreme, this logic suggests that if an army exerts total control over chance, it will prevail in the shortest possible time with the least expenditure of resources. This deduction forms the basis for the thesis of this paper, which is that *the objective of transformation is to control chance*.

TRANSFORMATION TARGETED

Warfighting can be broken down into three areas: planning, resource management, and execution. Ideally, one would identify all the sources of friction within these areas, and then design ways and means to mitigate their effects. The real world, however, is constrained by finite operating budgets; therefore, the effort must be prioritized. This, in turn, raises a series of questions: Which area(s) should be prioritized for transformation, and within the selected area(s), which of the innumerable elements that make up the phenomena of friction does one attempt to control? Additionally, because these elements are present on both sides, should the effort be aimed at mitigating their effects on our side, or exacerbating their effects on the enemy?

The answer to this dilemma resides in the defining characteristic of war. As Clausewitz points out, the essence of war is “the duel,” where men meet on the field of mortal combat. Humans are prone to error and subject to emotion. These innate qualities are amplified in combat, and arguably represent the greatest source of friction in war. Therefore, the primary target of transformation should be *to control elements of chance that reside in the men and women who are responsible for “fighting the duel”- the individual soldiers, sailors, airmen, and marines who are engaged on the front lines of the battle – in direct contact with the enemy – whose success or failure is often measured by survival or death.*

Situational Awareness: The Power of Intellect

Clausewitz devotes an entire chapter in his book to the concept of “Military Genius,” in which he defines genius as “a very highly developed mental aptitude for a particular occupation.” For the soldier, he defines the attributes of genius as courage,

determination, indifference to physical suffering, and “the power of intellect.” All four of these attributes are sources of friction in war, but the first three are innate qualities that reside in the realm of emotion, and are therefore difficult, if not impossible, to control. Clausewitz describes the fourth aspect of Military Genius, the “powers of intellect,” in the following paragraph:

War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty. A sensitive and discriminating judgement is called for; a skilled intelligence to scent out the truth.²

The Clausewitzian “power of intellect,” is synonymous with the modern day concept of “situational awareness.” This “controllable” aspect of friction represents the key to success on the battlefield, and should therefore be the priority target for transformational ways and means.

To underscore the importance of situational awareness, consider today’s air combat environment. At long range, where the pilot can see the entire battle space on his radarscope, his situational awareness (power of intellect) is high. At thirty miles from the adversary formation, the pilot must initiate the process of target identification and weapons employment, requiring him to narrow his focus to a single target on his radar. While looking at the radar to lock the target, his task load becomes compounded because he can no longer visually track the position of his element mates. At ten miles from the adversary formation, his focus narrows to a one-inch piece of sky as he attempts to gain sight of the target. His power of intellect at this point in the engagement is constrained by a lack of current information about anything other than the one target he is attacking. His situational awareness resides in the “visual imprint” of the battle captured in his mind 20 miles earlier.

Once the pilot merges with the enemy formation, situational awareness can be almost non-existent, thus placing the follow on events squarely in the realm of chance.

This same phenomenon occurs in all forms of combat. Consider the tank battle or the infantry engagement. With current technology, once the combatant reaches a weapons engagement zone, and is forced to narrow his focus to individual target acquisition, identification, and destruction, his situational awareness begins to deteriorate. The closer he comes in proximity to the enemy, the further his situational awareness is degraded, thus placing the outcome closer to the realm of chance.

For the individual combatant, situational awareness, or lack thereof, is often the difference between victory and defeat in a given engagement. For the field commander (air, land, or sea), a loss of situational awareness degrades decision-making ability. Poor decisions lead to a further degradation of situational awareness, which more often than not, adversely affects the outcome of the battle. This effect can be cumulative, ultimately affecting decision making at the highest levels of command, and potentially influencing the outcome of the entire campaign. Thus, in a resource-limited environment, the ways and means for transformation should be prioritized to increase the situational awareness of the combatant. To further this idea, consider the following case study.

CASE STUDY: DESERT STORM AND OPERATION IRAQI FREEDOM

Some ascribe to the notion that because the character of a war is inextricably linked to its conduct, it is not possible to accurately gauge the true impact of transformational warfighting systems or methods within a given interwar period. If, however, national interests, political objectives, and military objectives were proximate for two wars, it should be possible to “disconnect” their effects, and thereby focus solely on changes in the

conduct of the wars. As the following paragraphs will show, the two gulf wars were so close with respect to character, that it is, in fact, possible to make an objective assessment of the characteristics and effects of transformation in the interwar period.

Congruent National Interests

U.S. involvement in the first Gulf War centered on three interests. First, the Iraqi occupation of Kuwait raised the specter of further aggression into Saudi Arabia, thus threatening the stability of the world oil market. Second, the unprovoked invasion of a small nation by an oppressive dictator, and the notion of allowing evil to triumph over good, represented an affront to the intrinsic values of American society. Third, fears that Iraq possessed weapons of mass destruction posed a security threat to Saudi Arabia and Israel.

With respect to the second Gulf War, U.S. interests remained almost unchanged. The evil character of Saddam Hussein, the potential for aggression into neighboring states, and the prospect of Iraq resorting to weapons of mass destruction, all loomed as a direct threat to the national security of the United States.

Similar Political and Military Objectives

The political objectives of Desert Storm were to secure the immediate, unconditional, and complete withdrawal of Iraqi forces from Kuwait, restore the legitimate government of Kuwait, assure *the security and stability of the Persian Gulf region, and protect American Lives*.³ President George W. Bush, in his speech to the nation following the commencement of Operation Iraqi Freedom (OIF), articulated three objectives: To *disarm Iraq, free its people, and defend the world from grave danger*.⁴

The contiguity between the italicized political objectives are manifested in the even closer proximity of the military objectives for the two wars, shown in the following table:

Table 1. Military Objectives

DESERT STORM ⁵	IRAQI FREEDOM ⁶
Attack Iraq political/military leadership and command and control	End the regime of Saddam Hussein
Destroy chemical, biological, and nuclear capability	Identifying, isolating, and eliminating Iraq's weapons of mass destruction
Liberate Kuwait	Liberate the Iraqi people

The fundamental difference with respect to military objectives between Desert Storm and OIF resides in the first word in the top blocks of Table 1: Attack versus End. In effect, both conflicts can be thought of as two major campaigns within the same war, separated by 12 years. Because of their proximity in character, Operations Desert Storm and OIF, provide near perfect “bookends” by which to intersect transformational theory with reality.

Conduct

Desert Storm was fought using a sequential strategy comprised of four phases. Phases one through three encompassed a strategic air campaign to accomplish the following objectives: (1) destroy Iraqi command and control, erode confidence in the government, and degrade military capabilities, (2) gain air superiority over the Kuwait theater of operations, and (3) to destroy fielded forces.⁷ Although the three phases of the air campaign were planned sequentially, they quickly became congruent as the war unfolded. The final phase was a ground offensive to liberate Kuwait. The war ended after a period of 41 days, with 147 fatalities directly resulting from combat operations.

Because the plan for OIF has yet to be declassified, the following discussion assumes that the execution reflected the preplanned strategy. Instead of a sequential “set phase” approach, the OIF gameplan appears to have centered on simultaneity. The war started with an initial air attack to “decapitate” the leadership, followed by a massive ground thrust towards Baghdad. The air campaign started shortly thereafter, and supported the drive to Baghdad with a mixture of strategic attack and close air support missions. The military objective of removing the regime from power, culminating in the termination of “major combat operations” was achieved in 38 days at a cost of 136 U.S. combat fatalities.

A comparative analysis of the results based on duration and combat fatalities does not present an accurate picture of the magnitude of transformation that occurred between the wars. The following statistics paint a more accurate portrait of the tremendous improvements in U.S. warfighting capability during the interwar period: Desert Storm coalition ground forces numbered approximately 540,000⁸, versus 100,000 in OIF.⁹ With respect to airpower, Desert Storm utilized approximately 2500 aircraft and 126,645 sorties, versus 1900 aircraft and 41,000 sorties in OIF.¹⁰ Additionally, 25.6 percent of the combat deaths in Desert Storm were the result of fratricide, versus 6.5 percent during OIF¹¹.

Transformational Ways and Means

Air Dominance

For the first 10 days of Desert Storm, the battlespace was three-dimensional. Following the attainment of “air supremacy,” coalition forces were free to operate without fear of reprisal from Iraqi air attack, thereby limiting defensive concerns to only two dimensions. OIF, with respect to the air threat, was a two-dimensional war from the beginning. Air dominance from the outset was arguably the enabling factor for the entire

campaign strategy. The ability to constrain the threat to two dimensions, while forcing him to react to a highly coordinated three-dimensional battleplan, resulted in an overwhelming coalition advantage in the realm of situational awareness.

Precision

OIF was the first war in which the majority of the U.S Air Forces operated with the knowledge that their weapons, if employed within parameters, would almost always kill the target.¹² Additionally, OIF saw the first large-scale use of precision artillery by army and marine units.¹³ This quantum leap in probability of kill allows the warfighter to free his mind for other tasks, and to contemplate future events – in short, to keep his situational awareness at a peak. Precision weapons are analogous to a football quarterback entering the game with the knowledge that his completion rate will exceed 95%, or a pitcher that knows all of his throws will be strikes.

Information Management

The fundamental change in information management between Desert Storm and OIF resided in the emerging capability to convey data in user-friendly “tactical situation” display formats versus heavy reliance on voice transmission. In addition to the “common air picture,” resident in the command and control nodes, new Blue Force tracking and display systems were used by some army units.¹⁴ These systems, in conjunction with unprecedented use of GPS-related technologies,¹⁵ significantly improved the situational awareness of warfighters in and around the battlespace.

SUMMARY

As the lessons learned from OIF are formulated, there is sure to be a debate over which, if any, aspects of the conflict were truly transformational. Some will argue that the primary

elements of transformation resided in the increased speed and flexibility by which OIF was executed relative to Desert Storm. Others may cite the ability to “get inside the decision cycle” of the enemy, or improvements in joint operations. The planners might argue that the strategy itself was transformational, pointing to the non-contiguous battle as the wave of the future. In the writer’s view, none of these are transformation in and of themselves—they are all byproducts of an overall increase in situational awareness on the battlefield. The enabling ways and means for the improving situational awareness were resident in three areas: Air Dominance, Precision Weapons, and Information Management. When the detailed analysis is completed, the writer believes that essence of transformation in OIF will manifest itself in the quantum leap in battlefield situational awareness, thus supporting the fundamental premise of this paper, which is that the objective of transformation is to control chance.

Today, wars continue to be fought by men and women on a battlefield of uncertainty. The goal of transformation must be to remove this uncertainty – to gain control of the force of chance. The power of intellect, or situational awareness, is an element of human friction, resident in the realm of chance, that is arguably the most decisive factor in combat – yesterday, today, and tomorrow. Prioritizing transformation on ways and means to increase the situational awareness of the soldiers engaged in the field of combat will ensure that the United States Military will continue its reign as the dominant armed force in the world.

NOTES

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2. Carl Von Clausewitz, On War, (New Jersey: Princeton University Press, 1984), p. 104.
3. Thomas A. Keaney and Elliot A. Cohen, Gulf Airpower Survey Summary Report, (Washington D.C.: 1993), p. 27.
4. "Operation Iraqi Freedom: A Compilation of Statements, March 19/23," The Acronym Institute, 2002, <http://www.acronym.org>, p. 1.
5. "USCINCCENT OPORD 91-001 For Operation Desert Storm," 16 January 1991, paragraph 1D, 3B, 3C.
6. Tim Ripley, "Planning for Iraqi Freedom," Janes Intelligence Review, 10 June 2003, <http://www.janes.com>; p. 1.
7. Thomas A. Keaney, pp. 41-49.
8. Thomas A. Keaney, p. 7.
9. Donald Rumsfeld, "Lessons Learned from Operation Iraqi Freedom Capitol Hill Hearing Testimony," 9 July 2003, Federal Document Clearing House, Inc., LexisNexis, p. 2.
10. Michael Knights, "Iraqi Freedom Displays Transformation of U.S. Air Power," Janes Intelligence Review, 1 May 2003, <http://www.janes.com>, p. 3.
11. Andrew Krepinevich, "Operation Iraqi Freedom Outside Perspectives Capitol Hill Hearing Testimony, 21 October 2003, LexisNexis, p. 3.
12. Richard Cheney, "Remarks to Heritage Foundation," 1 May 2003, Federal Document Clearing House, Inc., 1 May 2003, LexisNexis, p. 1.

13. Anthony Cordesman, "The Lessons of the Iraq War: Executive Summary," Center for Strategic and International Studies, 21 July 2003, p. 60.
14. Tommy Franks, "Operation Iraqi Freedom Capitol Hill Hearing Testimony," 10 July 2003, Federal Document Clearing House, 10 July 2003, p. 3.
15. Anthony Cordesman, p. 23.

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“USCINCCENT OPORD 91-001 For Operation Desert Storm,” 16 January 1991,
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