

The Risk of Optimism in the Conduct of War

DONALD CHISHOLM

© 2003 Donald Chisholm

“Now, philanthropists may easily imagine there is a skillful method of disarming and overcoming an enemy without great bloodshed, and that this is the proper tendency of the Art of War.”

— Carl von Clausewitz, *On War*¹

“They will all be finished because there is no choice, there is just death.”

— General Mustafa Said Qadir,
March 2003.²

War is about power. Power is about getting another actor either to engage in behavior he would not otherwise have undertaken, to cease or modify behavior in which he is presently engaged, or to refrain from behavior in which he is intending to engage. In the words of Clausewitz, war is an “act of violence intended to compel our opponent to fulfill our will.”³

In the several millennia of organized armed conflict, the surest way to affect the behavior of one’s opponents has been to kill enough of them or so degrade their armaments that as a collectivity they are no longer able to resist. Now we are told that an ongoing Revolution in Military Affairs (RMA) is bidding fair to render that approach to the conduct of war obsolete. A loosely related family of visions of the future conduct of war has developed under the general rubric of the RMA. Although pitched as innovative, all of these visions owe their fundamental tenets to various strains of thought with long histories. Some of these visions have been given official sanction and have been exercised in various ways by joint commands and by the individual services.⁴

This article addresses one theory as emblematic of the larger universe of “new” ideas. Published in late 1996, the book *Shock and Awe*:

Achieving Rapid Dominance elaborates and proposes a comprehensive vision of America's conduct of war in the future—Rapid Dominance.⁵ It evidently has found a receptive audience among current senior US civilian and military leaders. Consistent with theories of air power dating to Hugh Trenchard, Giulio Douhet, and William Mitchell, the self-described goal of Rapid Dominance is to “destroy or so confound the will to resist that an adversary will have no alternative except to accept our strategic aims and military objectives.”⁶ Relying on deception, misinformation, and disinformation, Rapid Dominance requires the ability to: anticipate and counter all opposing moves; deny an opponent objectives of critical value; convey the unmistakable message that unconditional compliance is the only available recourse; and control the environment and master all levels of an opponent's activities to affect his will, perception, and understanding, including communications, transportation, food production, water supply, and other aspects of infrastructure, as well as the denial of military responses.

Rapid Dominance assumes that for the present and foreseeable future, with the Cold War over: US military forces are the most capable in the world; given domestic political dynamics, US military capability will shrink; the US commercial-industrial base provides a technological advantage the military can and must exploit; and US forces are and will continue to be deployed and engaged worldwide, with a relatively high operating tempo.

These factors are not surprising and fairly reflect the present operating environment for US forces. The advocates of Rapid Dominance believe that these factors, taken together, mean that “overwhelming or decisive force,” as advocated by former Defense Secretary Caspar Weinberger and then Chairman of the Joint Chiefs General Colin Powell, is going to be neither possible nor desirable, and a different approach is therefore required.⁷ The advocates therefore argue that the United States must develop a military force characterized by “near total or absolute knowledge and understanding of self, adversary, and environment”; “rapidity and timeliness in application”; “operational brilliance in execution”; and “(near) total control and signature management of the entire operational environment.”⁸

Absent a peer competitor (such as the former Soviet Union), and given US technological superiority and the military's high degree of profes-

Donald Chisholm is Professor of Operations in the Joint Military Operations Department of the US Naval War College, Newport, Rhode Island. He earned his A.B., M.A., and Ph.D. degrees in political science from the University of California, Berkeley. Before joining the faculty of the Naval War College he taught at several universities, including the University of Illinois at Chicago and the University of California, Los Angeles, where he was a founding member of the School of Public Policy and Social Research.

sionalism, the US military is presumed to enter any conflict with such a tremendous edge that its adversaries will have virtually no chance to respond. Taken together, these characteristics suppose, in essence, that the enemy will never present US forces with surprise sufficient to throw them off their operational plans. Put differently, it is alleged that Rapid Dominance will, for all intents and purposes, eliminate the fog of war.

Consequently, as advertised, Rapid Dominance offers powerful enticements, bound to appeal to high-level defense decisionmakers. It exploits the US technological advantage over potential opponents in information and precision weapons. It employs lighter forces, more readily deployed using less lift. It emphasizes air over ground forces. It promises to achieve military objectives at higher speed and lower cost than through the use of overwhelming force, with fewer casualties (ours and theirs, military and civilian), and with less damage to the adversary's physical infrastructure, lessening post-conflict expenses.

These promises appeal to commonly held American views on war: substitution of capital for personnel, economic efficiency, low casualty rates for friend and foe alike, and quick operations with clear-cut beginnings and ends.⁹ And it might work, given relatively weak, unsophisticated opponents whose decisionmaking calculus employs a cost-benefit approach with strategic objectives not dissimilar to those encountered in most Western cultures.

Nonetheless, the theory's assumptions about the US ability to instrumentally manipulate the will of its adversaries reflect a fundamentally optimistic approach to the conduct of warfare.¹⁰ The problem with optimism in any endeavor, but with especially profound consequences in war, is that it "restricts anticipation of error, minimizes its probability, and leads to the concealment of both its occurrence and the severity of its effects."¹¹ Under a regime of optimism, errors may accumulate without recognition to a level that ultimately negates our ability to respond effectively, or requires a cost we may be unwilling to pay. Given the long lead time in the development of weapon systems and force structures, compounded by the dual problems of sunk costs and opportunity costs, in the domain of armed conflict this may translate to an unnecessary loss of blood and treasure if not actually to losing the war. This article considers one of the several optimistic assumptions on which the theory of Rapid Dominance is founded: It is best to attack enemy will directly.

The Three Pillars of Behavior

The insistence by the advocates of Rapid Dominance on redirecting our principal focus from an enemy's capability to his will demands close, careful attention. Social psychologists have long understood that human behavior results from the complex interplay of three pillars: motivation, capa-

bility, and opportunity. All three must be present in order for behavior to occur: each is necessary, none sufficient unto itself to produce behavior.¹²

Motivation refers to the animus for behavior and includes the affective aspects of attitudes, desires, ends, aims, goals, objectives, desired end states, and the like. Intensity or strength of motivation is typically denoted as will—in the context of war, specifically, the will to resist or to continue fighting. These affective components are related to, affect, and are affected by but must be distinguished from cognitive aspects of the adversary's psychology, which include structures of knowledge and perceptions of the battlefield. (This article does not systematically address these cognitive aspects.¹³)

Capability refers to the wherewithal necessary to actually engage in behavior, including psychological factors such as intelligence and possession of relevant knowledge and factual information, along with physical factors such as personnel, equipment, supplies, technologies, etc. Opportunity refers to the occasion suitable for or conducive to the behavior, including such factors as geography and time.

Warfare historically has focused primarily on the opponent's capabilities. Read Clausewitz:

Violence, that is to say, physical force (for there is no moral force without the conception of States and Law), is therefore the MEANS; the compulsory submission of the enemy to our will is the ultimate object. In order to attain this object fully, the enemy must be disarmed, and disarmament becomes therefore the immediate OBJECT of hostilities in theory.¹⁴

There are good and sound reasons for this focus: once capability is degraded or destroyed, irrespective of motivation, an adversary simply cannot act as he may wish. Equally important, capabilities are more or less directly observable and—withstanding enemy efforts at concealment and deception—their degradation or destruction is largely knowable. At the same time, developing relevant, meaningful measures of effectiveness for degradation of enemy capabilities remains a complex and difficult task, and we do not always get it right. At a minimum, measures of effectiveness must address the effects of our actions on an accurately determined enemy center of gravity.¹⁵

Similarly, opportunity for an adversary to act may be manipulated by means of some combination of weapons of relatively greater reach (rifled guns, cruise missiles), choice of military objective, deception, surprise, and movement and maneuver—all of which we have historically employed and continually seek to exploit in ever more systematic and effective ways.

If its principal focus has historically been upon affecting capability and manipulating opportunity, warfare has not ignored the matter of will. Few can fail to be aware, for example, of Sun Tzu's admonishment that the "skillful

leader” attacks by stratagem and thereby “subdues the enemy’s troops without any fighting; he captures their cities without laying siege to them; he overthrows their kingdom without lengthy operations in the field.”¹⁶ And, indeed, the advocates of Rapid Dominance reference Sun Tzu in this regard. But the master’s recommendation can be properly understood only by recognizing its historical context. As two students of Sun Tzu recently have pointed out, such “misty-mythic references serve numerous purposes, but most critically they ally the author with a figure whose strategic wisdom is unquestionable, therefore impregnating the text with nearly scriptural authority.”¹⁷ This approach may pass in academic discourse—if even there—but it is a thin, cold gruel on which to base public policy which profoundly affects lives.

In the contemporary setting, military decisionmakers clearly recognize the value of psychological and information operations in prosecuting war. But Sun Tzu intended this stratagem not as a replacement for but as an adjunct complementary to the use of force, and in any event he surely never supposed that the work would be used as a “direct guide for thought and action in war.” Rather, it constituted an assault on what Sun Tzu believed to be the flawed strategic culture of his time.

The central problem is that enemy motivations in the form of intentions and will typically have proven more opaque and resistant to understanding than have capability and opportunity. Intentions and will are, like all psychological phenomena, latent variables. That is, they cannot be directly observed. Their existence, direction, and strength can only be inferred by their postulated association or correlation with other, directly observable variables.¹⁸ It is not impossible to develop relatively reliable indirect measures of latent variables, but such requires considerable investment of time and other scarce resources in design, testing, and validation. Developing measures of effectiveness that will allow us to know whether we are actually achieving our intended manipulation and degradation of enemy intention and will is likely to never be more than partially successful.

Compounding the problem is that in seeking to understand an adversary, whether state or non-state, our analysis must push beyond the individual level to address the complex interactions of the opponent’s leaders as a collective. Although as a matter of course we refer to the behavior of states, one cannot assume that our adversaries’ senior leadership will all be of like mind, especially on such matters as continuing the fight. Here we must be concerned with both formal and informal organizational processes and the dynamics of social groups.¹⁹ The former may be relatively visible, but the latter will be much less so and will require considerable human intelligence to assess. It is only now, nearly six decades after the end of World War II, that historians have at last pieced together a reasonably complete and accurate picture of the largely

“It is alleged that Rapid Dominance will, for all intents and purposes, eliminate the fog of war.”

invisible interactions of senior Japanese military and civilian leaders over the issues of whether and how to continue the war against the Allies.²⁰ This becomes especially important (and thorny) when armies engage adversaries that possess the trappings of modern institutions without the reality of them, run not on well-institutionalized rules and procedures but on personal relationships, if not Stalinesque cults of personality supported by shadowy coteries. Unfortunately, armed conflicts for the foreseeable future appear likely to occur increasingly in areas that largely lack such modern institutions, and, if recent events are any bellwether, against well-resourced and well-organized non-state actors who will prove to be even more opaque.²¹

States need to be very specific about what actors at what levels are appropriately targeted: whose will are they trying to collapse? Should the United States target the will of our adversary’s strategic leadership? Its operational commanders? Its tactical units? Odds are that the appropriate level of targeting will vary greatly across the range of potential adversaries. Planners cannot assume that even should the will of an adversary’s leadership be broken, then subordinate commanders and units will necessarily elect to surrender. That is, the degree and character of connectedness across the opponent’s hierarchy is an empirical matter that cannot be assumed *a priori*. Units may of their own volition elect to fight on, even after any real hope of altering the outcome has long passed. The stated unwillingness of the Japanese army commander in mainland China to surrender to what he saw as a defeated Chinese military greatly worried senior Japanese leadership at the end of World War II after they had formally sued for peace with the Allies. Worse, perhaps, are those cases in which subordinate units have been instructed to fight on, possibly to the death, even should the leadership be toppled.²²

It is a relatively simple matter to ascertain the enemy’s military capability—his forces, technologies, doctrine, deployments, combat effectiveness. It is exponentially more complex to assess accurately the cultural coding which conditions his choice of objectives and the decisionmaking in support of them—that is, his motivations. The American propensity to mirror-image, either explicitly or implicitly, is remarkably strong and has proven resilient even in the face of unequivocal evidence of the errors inherent in doing so.

Thus, the intentions of both individuals and collective entities are notoriously difficult to fathom, a difficulty exacerbated to the extent that the culture of the adversary is distant from one's own. In warfare, a key aspect of motivation is the willingness to incur costs, particularly in the form of casualties. Non-Western foes, especially, have again and again demonstrated a willingness to absorb casualties that by any Western calculus bear little proportionality to what might be gained from them. Witness, for example: (1) Mao and the Long March; (2) the People's Republic of China's express willingness to accept possible US atomic attack in consequence of entering the Korean War in October 1950; (3) PRC human-wave tactics during the US Marines' fighting withdrawal from Chosen to Hamhung in December 1950; and (4) Japanese willingness to sustain 35 to 40 percent casualties merely in redeploying troops by water transport from mainland China to the Philippines during World War II. And has anyone forgotten the extraordinary loss of life accepted by the North Vietnamese during the 10,000-day war?²³

On this point, Fleet Admiral Nimitz observed that the only real surprises—at the operational level of war—presented by the Japanese during World War II were the *Kamikaze* (and other suicide tactics) and their nearly absolute unwillingness to surrender even in the face of clearly overwhelming odds.²⁴ The latter first presented itself during the initial US offensive against the Japanese at Guadalcanal and in conjunction with the August 1942 assaults on Tulagi, Gavutu, and Tanambogo. Of the estimated 1,500 defenders, only 23 prisoners were taken, while perhaps 70 Japanese escaped to Florida Island.²⁵ Although clearly noted in after-action reports, the lesson was neither quickly nor effectively integrated into the US understanding of its enemy. Again, at Tarawa in November 1943 the US Marines found themselves pitted against a foe that would not surrender—only 150 of 4,900 defenders were left alive at battle's end.

Later, when Japanese surface suicide boats attacked US amphibious shipping at the January 1945 Lingayen landings, the actuality of the suicide tactics was so far removed from US understanding that we believed the attacks were carried out by conventional motor torpedo boats. Four months later, while operation plans for Okinawa at least recognized the possibility of aerial *Kamikaze* attacks, they contained no provisions for defense against surface suicide boats.²⁶ By the end of the Okinawa operation, the Japanese had sunk three dozen US ships and damaged 368, mostly by *Kamikazes*. US Navy casualties included nearly 4,900 dead. It was a surprise that carried considerable weight. Winston Churchill later observed after his January 1945 Yalta meeting with Franklin Roosevelt that the President had displayed concern “at Japanese suicide attacks in the Pacific, which meant constantly losing forty or fifty Americans for one Japanese, and he was not very hopeful about an early

end of either war.”²⁷ And that was before Okinawa. No comparable surprise ever came from our Western foes, the Germans or the Italians.

These examples compel attention also to the interactions among motivation, capability, and opportunity. For example, an adversary willing to incur high casualties (motivation) might well launch a major land operation in the face of winter (opportunity) even lacking appropriate winter clothing and equipment (capability)—something we would be loath to do.²⁸

The Unknowability of Will

Let us assume for the moment that the adversary’s psyche is practically knowable. We then must still contrive a course of action that will effectively destroy his will. Rapid Dominance explicitly assumes that a message can be constructed and sent to an adversary which will cause him to inescapably conclude that resistance would be futile. But what if the adversary’s objective is simply to remain both alive and in power, even at the expense of all other things, a calculus almost incomprehensible to the American mind? Or, worse (perhaps) the enemy’s objective may lack concreteness in the Western sense. For example, al Qaeda surely has no aim to hold territory or maintain regime control; rather, one objective is simply to enact the process of violent opposition to the West, while its long-term objective is to foment widespread conflict between the Islamic world and the West. Given these objectives, what would “shock and awe” these foes into submission, short of their destruction?

There is historical precedent for this problem. In January 1943 President Roosevelt stunned virtually everyone, though perhaps not Churchill, by announcing that we would seek the unconditional surrender of Germany, Italy, and Japan. By mid-1943, some perspicacious Japanese leaders, not unreasonably, interpreted this to mean that though Japan could not realistically expect to win the war, it must end the war on negotiated terms it could bear. American popular support for the war was perceived as a critical weakness that could be exploited to get at the strategic center of gravity—the US civilian leadership. Japan decided to attack this weakness by causing as many American military casualties as possible, believing that an American unwillingness to sustain casualties would soon compel it to cease its otherwise inexorable drive on Japan. Thus, systematic attacks on American amphibious shipping at the beachhead became policy—not to defeat American landings (although orders and propaganda were couched in such terms), for the Japanese fully understood that American forces could ultimately take any objective they wished, but in order to inflict casualties on an available target. Because its conventional forces were unable to compete force-on-force with those of the United States, an asymmetrical stratagem of “special attack” forces was developed and executed (i.e., *Kamikaze* pilots were instructed to

target amphibious shipping and aircraft carriers; surface suicide boats aimed for transports). Defense of the Japanese Home Islands also included an elaborate system of “special attack” weapons.²⁹ From the US perspective this constituted a baffling continuation of the war by an adversary who surely knew he was beaten and could not hope to win.

Conversely, the so-called terror bombing by Allied air forces of urban populations in Germany and Japan did not yield the results sought: the fundamental collapse of civilian support for their regimes. The Japanese endured staggering casualties—on the night of 9-10 March 1945, more than 300 B-29 Superfortresses bombed Tokyo with incendiaries, destroying nearly 16 square miles, killing 80,000 to 100,000 people, almost all civilians, and leaving one million homeless. By war’s end, including the effects of the Hiroshima and Nagasaki atomic bombs, the United States had destroyed 178 square miles in 66 of Japan’s major cities, forcing 8.5 million people from their homes.³⁰

Non-Western foes historically have not placed the same value on the individual as have Western cultures, instead placing the collectivity in primacy. In combination with values embedded in those cultures which rationalize or celebrate the death of individuals in support of the collectivity’s welfare, these values render Western calculations of measured force almost wholly irrelevant. Reinforce these values with an authoritarian regime which does not meaningfully depend upon the consent of its governed, and one has a ready recipe for considerable mischief.³¹

This is no more than to recognize that one’s adversaries have an innate, probably infinite, capacity for what appears to us to be the essence of irrationality and the height of folly, but which makes sense within their own collective psychology. If war between and among Western states seems increasingly remote in the foreseeable future, and if analysts are correct that the focus of our attentions is ineluctably migrating toward Asian areas, the problems of effectively understanding the mindsets of potential and actual foes will only be exacerbated.³² Although convenient, it is at our peril that we suppose there exists only one way to interpret the world; the long history of two distinct philosophies may well have produced profound differences in the thought processes of Occident and Oriental.³³ While the means for destruction of capability remains relatively consistent across a wide range of potential adversaries—a SAM is a SAM is a SAM—efforts to manipulate an adversary’s will must be differentiated and nuanced to resonate with the specific culture of each foe.

At the same time, degrading or destroying enemy capability need not translate to simple force-on-force operations. For example, the US submarine campaign against Japanese shipping in World War II effectively degraded Japan’s ability to continue the war by destroying its merchant bottoms, especially

tankers and fleet oilers. This wreaked havoc with Japan's industrial capability to generate military power, and it starved the Imperial Japanese Navy of fuel for warships, compelling it to base its dwindling fleet near sources of oil, thereby reducing mobility and operational tempo, while greatly complicating battle plans. Leyte in October 1944 is but one example.³⁴ It also reduced to nearly zero Japan's ability to train new pilots, given the scarcity of aviation fuel. Simultaneously, the submarine campaign sharply reduced Japan's ability to import critical war-related mineral resources. The need to construct new merchant ships to replace those lost imposed a harsh opportunity cost on an already sorely tested industrial base. Finally, the manifest presence and effectiveness of American submarines compelled the Japanese to resort to inefficient routings and schedules for their shipping. The submarine warfare worked because it constituted an attack on a critical enemy vulnerability—its island status, inadequate indigenous war-related resources, and lengthy, poorly protected sea lines of communication (the Japanese never possessed adequate numbers of escort vessels). In turn, the submarine campaign was founded on American critical strengths—the tremendous capabilities of its fleet submarines, communications intercepts and decryptions, and centralized command and control capacities.

Additionally, let us remember that while any given action may achieve the objectives sought, it is always subject to unanticipated consequences, some of which may prove negative or counterproductive.³⁵ The potential for negative unintended consequences is inversely related to the extent of cause-and-effect knowledge underlying any given decision. Planners can therefore expect such consequences when addressing an adversary's psyche. A World War II example illustrates the point. The August 1942 hit-and-run assault on Makin by Marine Raiders was intended to divert the Japanese from reinforcing Guadalcanal. Even though the Japanese recognized it for that, it still accomplished its objective, perhaps too well. The raid so jolted the Japanese as to the vulnerability of their Gilbert Islands bases that the next month they embarked on an extensive program of reinforcement and fortification which rendered the November 1943 US assault on Betio—the key to Tarawa Atoll, which was in turn the key to the Gilberts, and the opening gambit in the Central Pacific drive—vastly more costly in blood and treasure.³⁶

Perception and Deception

The other half of Rapid Dominance's focus on the adversary's psychology—manipulating the perceptions of our adversaries—may be equally elusive. Our enemies have historically proven wise enough to analyze our previous actions and current doctrine, with an eye toward their relevance in planning and executing their own operations against us. Well-planned, well-

“If we fail to demand that new approaches to warfighting be empirically testable, it will be only at our peril.”

mounted, sophisticated deception plans may suffer unexpected setbacks. In the run-up to the planned amphibious assault on the Japanese Home Islands (overall named Operation Downfall, with Operation Olympic focused on Kyushu, and Operation Coronet as the follow-on for Honshu) scheduled for autumn 1945, the United States devised and executed an elaborate strategic deception plan called Pastel. It was intended to persuade the Japanese to not redeploy their army forces in Mainland China to the Home Islands by making them think we would continue our blockade of Japan and land on Formosa. American planners believed that even if Pastel worked as intended, the Japanese would, by 30 days before the actual landings, have discerned the general assault areas. Consequently, a second deception component was developed to persuade the Japanese that Shikoku, not Kyushu, was the site of the initial landings.

The Japanese were not at all misled by Pastel. They had discerned the intended American targets even before the landings at Okinawa. Without very much hard intelligence, the Japanese had planned based on what they believed was consistent with past American operations and US interests: the Americans were unlikely to attack anywhere that could not be supported by land-based air, and Kyushu's topography would provide both anchorages and airfields required for an assault on Honshu. No other potential targets offered the same advantages.³⁷

So it was that in early 1945, even before the Americans had fixed plans for concluding the war, the Japanese predicted a “two-pronged advance from the Marianas toward the Iwo Jima island group and from the Philippines toward either Taiwan, Shanghai, or Okinawa.”³⁸ In April 1945 Imperial General Headquarters outlined the planned defense of the Home Islands, including plans to funnel reserves from other areas to Kyushu in case it was attacked or to Tokyo if it were attacked prior to the Kyushu landings.³⁹ Comparison of the order of battle for Japanese defenses of Kyushu (derived from signals intercepts) with the American operation plan shows that the Japanese had clearly divined the precise beaches on which US forces intended to land. They may have lacked hard intelligence, but they thoroughly understood our way of doing business.⁴⁰

Just as cultural differences make it difficult to discern an adversary's intentions, the probability of effectively manipulating his perceptions also decreases as his cultural distance from our own increases—quite apart from the historic American habit of telegraphing our moves. If Thomas Barnett is correct in his assertion that the focus of American foreign policy and military action for the foreseeable future will be along the so-called “arc of instability” from the Caribbean Basin through Africa to South and Central Asia and across to North Korea—and I am persuaded that he is—then the United States will be addressing an extraordinarily heterogeneous array of state and non-state threats across a vast and varied geographic area, with the only common threads being unstable social, economic, and political systems, and the near complete absence of democracy and modern institutions.⁴¹ Thus, we will be almost exclusively confronting non-Western foes about whom we know relatively little. Although the detailed, in-depth cultural knowledge necessary for a basic understanding of enemy will and perception across the “arc of instability” is, at least in principle, susceptible of acquisition, gaining such knowledge will require considerable capital investment, systematic effort, and time.

To date, there is little indication such investment and effort has been made. Notwithstanding, for example, Vice Admiral Arthur Cebrowski's call for “regional expertise” as integral to the success of “network-centric operations,” the focus has been on technology and hardware. As Edward Smith has recently had to remind us,

Precise effects-based warfare will demand more than sensor-based awareness. It will require us to identify both the specific vulnerability we need to act against and the desired result. To do this, we need to *know* the enemy. The process of creating such knowledge of the enemy will draw on sensor information, to be sure, and will be subject to some time compression as a result, but is much more a matter of creating regional expertise and extensive regional and technical intelligence databases. In short, we will find ourselves reintroducing the human dimension into the loop and expanding our reliance on functions that must be carried out over months and years, and essentially, must be completed before the battle even begins.⁴²

Even should we materially advance our regional expertise, military commanders and civilian leaders will still have to accord such factors significant weight in their planning and decisionmaking.

Caveats and Falsifiability

John Dewey argued many years ago that we are well advised to craft our public policies in such a way that, like scientific hypotheses, they are subject to falsification. That is, we should construct them so that they are decid-

able: we can *know* whether they will work as intended.⁴³ This perspective is in fact integral to modern military decisionmaking: woe betide the staff officer who proposes a course of action without tying it to meaningful measures of effectiveness. If we fail to demand that new approaches to warfighting be empirically testable, it will be only at our peril, or, rather, at the peril of those who would go in harm's way.

Yet that is precisely what the proponents of Rapid Dominance would have us do. Its authors propose several tests of Rapid Dominance: against the major regional contingencies; across the entire spectrum of operations other than war; for its political consequences, particularly with respect to deterrence; and concerning its implications for waging alliance and coalition warfare. But none of these "tests" is defined sufficiently to allow us to know whether Rapid Dominance will work. What would be the evidence for its failure or success?

Moreover, *Shock and Awe* is so suffused with caveats and qualifications that it is rendered fundamentally incapable of refutation by experience. The apologia in the prologue is instructive:

We note for the record that should a Rapid Dominance force actually be fielded with the requisite operational capabilities, this force would be neither a silver bullet nor a panacea and certainly not an antidote or preventative for a major policy blunder, miscalculation, or mistake. It should also be fully appreciated that situations will exist in which Rapid Dominance (or any other doctrine) may not work or apply because of political, strategic, or other limiting factors.⁴⁴

Under what specific conditions would we expect to see it work? Is it appropriate only for a limited set of adversaries who possess certain characteristics? What are those characteristics? Is it appropriate only for conventional warfare, or is it supposed to work across the spectrum of military operations other than war?⁴⁵ Given such careful qualification, this means we may expect its advocates to interpret any unsatisfactory results to derive from failure to understand properly what Rapid Dominance really means or failure to execute it properly—and so we have already seen. Referring to the war against Iraq, the senior author of *Shock and Awe* recently complained, "The public misunderstood our concept of shock and awe—and so, perhaps, did the Pentagon."⁴⁶ The concomitant of this is the standard complaint that bureaucratic inertia or entrenched interest defeated it, that if only it had been implemented properly it would have proven effective. The remedy that will be proposed is predictable: do not call the fundamentals of Rapid Dominance into question; rather, ensure that more controls are applied to planners and executors so as to ensure conformity with its dictates.⁴⁷

When in the future the United States succeeds militarily against its adversaries, we may be confident that the proponents of Rapid Dominance

will claim credit. But if the explicit assumption of “non-peer competitors” is accurate, it remains difficult to imagine any scenario where the United States would not prevail. Were the German World War II conquests of Poland (1939); Denmark, Norway, the Netherlands, Belgium, France (1940); and Bulgaria and Greece (1941) purely consequent on the “new” *Blitzkrieg*? Or, excepting France, were they victories of a powerful state over much weaker ones and of professionally well-educated commanders against commanders of less stature and training?

Concluding Thoughts

This is not to advocate a return to force-on-force attrition warfare. It is not to argue for symmetrical force-on-force operations. Nor is it to press for predictable linear operations in which objectives are pursued in series. Certainly, it is not an attempt to ignore the many advantages the United States currently possesses relative to present or near-term foes, especially those derived from speed, agility, command and control, communications, intelligence, information, and precision weapons. Similarly, this is not to advocate a return to the relatively indiscriminate destruction of enemy forces, materiel, cities, infrastructure, and populations.

It is, however, to argue for focusing on *capabilities* and their degradation or destruction by whatever means—kinetic or otherwise—are deemed most effective. Certainly, use precision weapons, but attack communications nodes, for example, if planners and military leaders believe that enemy forces are not capable of coordinated action absent continuous central direction. If friendly forces believe the enemy’s ability to conduct joint or combined operations is weak and open to attack, go for the command and control nodes. By all means, use our speed to penetrate and remain inside our adversary’s decision cycle.⁴⁸ But do not waste limited-number, high-cost weapons on purely symbolic targets—after all, planning and execution of warfare has always been about the effective allocation of scarce resources, whether time, space, or force—until we are confident that the enemy’s capability to resist is nearly finished. Does anyone seriously believe that such attacks on Japanese symbols would have changed the outcome of a Home Islands invasion absent grave Japanese losses in capability from the submarine *guerre de course*, the strategic bombing campaign, and extensive air and sea defeats, capped by the atomic attacks?⁴⁹

Most important, perhaps, this is not an attempt to advocate the reflexive employment of overwhelming force, for the choice is not between that and Rapid Dominance, as the latter’s proponents might have it, but to exploit present and future US advantages to effectively remove the *capability* of our adversaries to act rather than to attempt to attack directly their *motivation* to act. The search for new methods of warfighting that still achieve our ends when re-

quired can surely address less expensive, less damaging, and less lethal methods, but such factors should not determine the application of force. Nor is it to suggest that we back away from improving our ability to integrate all elements of national power—military, diplomatic, economic, information—but to argue that when we do go to war, we need to ensure that planners and military leaders systematically address the destruction and degradation of enemy capability.

The point is most fundamentally to recognize that the old rules of operational art still apply. Identify the enemy center of gravity based on our objectives and his capabilities. Identify enemy critical strengths and weaknesses and decide which are vulnerable to exploitation as direct or indirect pathways to that center of gravity. Identify the enemy's most likely and most dangerous courses of action. Develop our own courses of action so that they are specifically tailored to incapacitate the enemy. Recognize that the enemy will almost surely present surprise and some of it will likely be very serious, requiring substantial adjustment on our part—tactically, if not operationally or strategically. Understand that the planning and execution of systematic psychological and information operations should support operations focused on incapacitation.

If we confront small, weak adversaries, our resources may allow us to conduct more or less simultaneous, nonlinear operations of great speed and tempo (à la Boyd) that overwhelm their capability to respond effectively in a timely manner. But this is not a direct attack on will—it remains an attack on capability. It simply is an asymmetric application of force—our C4ISR capability⁵⁰ is more robust than theirs, and we exploit that difference.

Thus, the recommendations here are prosaic: continue to seek power over our foes by rendering ineffective their *capability* to resist; recognize that knowledge on the battlefield will never be complete; and leave optimistic philosophies of warfighting to disputation in the halls of academe.

Such common sense was recently exhibited by a former Naval War College colleague, US Army Colonel Joe Anderson, lately commander of 2d Brigade, 101st Airborne Division (Air Assault) in Iraq. Having cleared out Fedayeen fighters from Kifl, Hillah, Najaf, and Karbala, he was asked whether the paramilitaries would re-emerge after his unit moved on. He replied: “A lot of them are still there. But their weapon systems have been destroyed or removed; their communications have been destroyed or removed; their barracks—their headquarters—many have been destroyed. You have to wonder how credible a force [they] really can be now.”⁵¹

NOTES

I am indebted to Frank Uhlig, Milan Vego, and John Waghelstein for comments on earlier drafts of this essay.

1. Carl von Clausewitz, *On War, Vol. I*, trans Colonel J. J. Graham, new and revised ed. with introduction and notes by Colonel F. N. Maude (London: Kegan Paul, Trench, Trubner, and Co., 1918), p. 2.

2. General Mustafa Said Qadir, commander of military forces in the eastern Kurdish zone, referring to the Ansar al-Islam fighters, quoted in C. J. Chivers, "A Nation at War: In the Field; The Northern Front; Militants Gone, Caves in North Lie Abandoned," *The New York Times*, 30 March 2003, sec. A, p. 1.

3. Clausewitz, I, 2.

4. See, for example, US Joint Forces Command, J9 Joint Futures Lab, *A Concept for Rapid Decisive Operations*, RDO White Paper 2.0 (Norfolk, Va.: US Joint Forces Command, 2000).

5. Harlan K. Ullman and James P. Wade, with L. A. "Bud" Edney, Fred M. Franks, Charles A. Horner, Jonathan T. Howe, and Keith Brendley, *Shock and Awe: Achieving Rapid Dominance* (Washington: National Defense University, December 1996).

6. *Ibid.*, pp. xvi-xvii.

7. See Caspar W. Weinberger, "The Uses of Military Power," remarks prepared for delivery to the National Press Club, Washington, D.C., 28 November 1984; and Colin L. Powell, "U.S. Forces: Challenges Ahead," *Foreign Affairs*, 71 (Winter 1992-1993), 32-45.

8. Ullman et al., pp. 138-40.

9. See Russell Weigley, *The American Way of War* (Bloomington: Indiana Univ. Press, 1977).

10. "Optimism" is the name given to the doctrine propounded by Leibnitz (and later lampooned by Voltaire) that the "actual world is the best of all possible worlds, being chosen by the Creator out of all the possible worlds which were present in his thoughts as that in which the most good could be obtained at the cost of the least evil." *Oxford English Dictionary*.

11. Martin Landau and Donald Chisholm, "The Arrogance of Optimism," *Journal of Contingencies and Crisis Management*, 3 (June 1995), 69.

12. See, for example, Kerry Thomas, ed., *Attitudes and Behavior* (London: Penguin Books, 1971).

13. On cognitive structures, see Herbert A. Simon, "The Theory of Problem Solving," *Proceedings of the IFIP Congress* (Amsterdam: North-Holland, 1972); and Donald Chisholm, "Problem Solving and Institutional Design: The Decision as Iceberg," *Journal of Public Administration Research and Theory*, 5 (October 1995), 451-91.

14. Clausewitz, p. 2. While Clausewitz is also given the obligatory head nod by the advocates of Rapid Dominance, they apparently missed this fundamental point. Curiously, they contend that the "Clausewitzian principle of affecting the adversary's will to resist" is their first order of business.

15. Current debate over the center of gravity resembles nothing so much as the Medieval search for the Philosopher's Stone: if only we can locate the elusive center of gravity all our problems will be solved. This debate lies outside the scope of the present article. On the concept of center of gravity generally, and as taught at the Naval War College and elsewhere, see Milan N. Vego, *Operational Warfare* (Newport, R.I.: Naval War College, 2002), pp. 307-16. For an extended discussion of competing conceptualizations of center of gravity, see Antulio J. Echevarria II, "Clausewitz's Center of Gravity: Changing Our Warfighting Doctrine—Again!" (Carlisle, Pa.: US Army War College, Strategic Studies Institute, September 2002), in which the author offers his interpretation of Clausewitz's "original intent" for center of gravity.

16. Sun Tzu, *The Art of War*, trans. Lionel Giles, introduction and notes by Brigadier General Thomas R. Phillips (Harrisburg, Pa.: Military Service Publishing Co., 1944), p. 49.

17. Andrew Meyer and Andrew R. Wilson, "Sunzi Bingfa as History and Theory," in *Strategic Logic and Political Rationality: Essays in Honor of Michael I. Handel*, ed. Bradford A. Lee and Karl F. Walling (London: Frank Cass, 2003), pp. 99-118. Meyer and Wilson provide an effective and much needed antidote to the widespread habit of ahistorically citing Sun Tzu to validate any favored but empirically untested opinion. They make clear that because of the constraints imposed by the time and place in which Sun Tzu was written, it "poses as non-historical, freeing it from the constraints of a particular reality, a particular realm of praxis," apparently giving it the "universal validity that is craved by contemporary strategists."

18. Boston College Lynch School of Education, Psychometric Theory – ED669 (Spring 2000), syllabus, <http://www2.bc.edu/~ludlow/ED669%20syllabus.htm>.

19. On informal aspects of organization, see Donald Chisholm, *Coordination Without Hierarchy: Informal Structures in Multiorganizational Systems* (Berkeley: University of California Press, 1989), ch. 2.

20. See, for example, Richard B. Frank, *Downfall: The End of the Imperial Japanese Empire* (New York: Random House: 1999), chs. 6, 7.

21. Establishment of the Joint Warfare Analysis Center (JWAC) at Dahlgren, Virginia, constitutes an important step forward in this regard. Among other analyses performed in support of operations in Kosovo, JWAC developed a detailed, empirically sound analysis of Slobodan Milosevic's "crony network." Operation Enduring Freedom also employed a leadership targeting cell.

22. Toward the close of the American Civil War, a Confederate option to fight on as guerillas was the most worrisome potential outcome of their defeat as conventional forces. That option was not exercised only because of Robert E. Lee's aversion to guerilla warfare and his strong desire to save the rest of the South.

23. Former Secretary of the Navy James Webb has not. See James Webb, "The War in Iraq Turns Ugly. That's What Wars Do," *The New York Times*, 30 March 2003, sec. 4, pp. 1, 5.

24. Certainly, the United States and its allies were also surprised by Pearl Harbor, the Philippines, Singapore, and, generally, the speed at which the Japanese took such vast amounts of territory in the early months of the war. We also were undoubtedly surprised by the great skill of the Japanese in night surface battle, the quality of their torpedoes, and the skill and daring of their aviators.

25. John L. Zimmerman, *The Guadalcanal Campaign* (Washington: Marine Corps Historical Division, 1949), p. 39.

26. Approximately 700 surface suicide boats were based in Kerama Retto and Okinawa proper when US forces went ashore. Donald Chisholm, "Industrial Scale Asymmetric Warfare: Japanese Surface Special Attack Weapons Against U.S. Forces in World War II and the American Response," prepared for delivery at the Annual Meeting of the Society for Military History, Calgary, Canada, April 2001.

27. Winston S. Churchill, *The Second World War*, Volume VI, *Triumph and Tragedy* (Boston: Houghton Mifflin, 1953), p. 339. As quoted by Nicolai Timenes, Jr., in *Defense Against Kamikaze Attacks in World War II and Its Relevance to Anti-Ship Missile Defense, Volume I: An Analytical History of Kamikaze Attacks Against Ships of the United States Navy During World War II* (Arlington, Va.: Center for Naval Analyses, 1970), p. 50.

28. During the Korean War, General Douglas MacArthur insisted on the 15 September 1950 date for the Inchon assault, even though mid-October would have presented comparable tides with the benefit of additional time for preparing forces and logistics, largely because he did not want to conduct operations during the Korean winter. In contrast, the People's Republic of China committed more than 350,000 ill-equipped (woefully deficient in clothing and food, especially) troops to the war, beginning in late October and through December, in the sure knowledge that weather-related casualties would be considerable. In the event, of the more than 37,000 Chinese casualties sustained in combat against the US 1st Marine Division and associated US Army units in the Chosen area, perhaps half were from exposure. On the Chinese decision, see Sergei N. Goncharov, John W. Lewis, and Xue Litai, *Uncertain Partners: Stalin, Mao, and the Korean War* (Stanford, Calif.: Stanford Univ. Press, 1993); Russell Spurr, *Enter the Dragon: China's Undeclared War Against the U.S. in Korea, 1950-51 (June-December 1950)* (Novato, Calif.: Presidio Press, 2000). On casualties, see Lynn Montross and Nicholas A. Canzona, *U.S. Marine Operations in Korea, 1950-1953: Vol. II, The Inchon-Seoul Operation (1955); Vol. III, The Chosin Reservoir Campaign (1957)*. Based on research by K. Jack Bauer (Washington: Historical Branch, G-3, Headquarters, US Marine Corps, 1967).

29. United States Strategic Bombing Survey, *Summary Report (Pacific War)*, Washington, D.C., 1 July 1946.

30. Resort to terror bombing resulted as much from the inability to lay bombs as it did from the belief that such bombing would compel surrender by breaking the enemy's will. The Allies destroyed 79 square miles of German cities. On the extent of destruction of Japanese cities and civilian casualties caused by aerial bombardment, see Kenneth P. Werrell, *Blankets of Fire: U.S. Bombers Over Japan During World War II* (Washington: Smithsonian Institution Press, 1996). Overall casualty estimates vary considerably. The Japanese put the totals at 241,000 dead and 313,000 seriously injured (Werrell, p. 227). The US Strategic Bombing Survey put the death toll at 330,000, with 476,000 injured. The Hiroshima and Nagasaki atomic bombs may have proven the final straw, but they were by no means sufficient unto themselves by virtue of their unique properties and scale.

31. These characteristics may also conduce to what is now popularly called "asymmetric warfare," which practically translates to actions that fall outside historically acceptable Western patterns of conflict. See Roger W. Barnett, *Asymmetrical Warfare: Today's Challenge to U.S. Military Power* (London: Brassey, 2003) for a useful appraisal of this problem.

32. Christopher J. Bowie, Robert P. Haffa, Jr., and Robert E. Mullins, *Future War: What Trends in America's Post-Cold War Military Conflicts Tell Us about Early 21st Century Warfare* (Washington: Northrop Analysis Center, January 2003), pp. 2, 11-12.

33. See, for example, Richard E. Nisbett, *The Geography of Thought: How Asians and Westerners Think Differently . . . and Why* (New York: The Free Press, 2003).

34. Michael Thomas Poirier, in "Results of the American Pacific Submarine Campaign of World War II (www.chinfo.navy.mil/navpalib/cno/n87/history/pac-campaign.html), writes:

Japanese oil imports fell from 1.75 million barrels per month in August 1943 to 360,000 barrels per month in July 1944. In October 1944, imports fell even more due to high losses around the Philippine battlefields. After September 1943, the ratio of petroleum successfully shipped from the southern regions that reached Japan never exceeded 28%, and during the last 15 months of the war the ratio only averaged 9%. These losses are especially impressive when one considers that the Japanese Navy alone required 1.6 million barrels monthly to operate.

35. See Robert K. Merton, "The Unanticipated Consequences of Social Action," *American Sociological Review*, 1 (December 1936), 894-904.

36. See Robert Leckie, *Strong Men Armed: The United States Marines Against Japan* (New York: Bonanza Books, 1962), p. 182.

37. Japanese planners later explained their belief that Kyushu would be the next American target:

Various strategic information for judging Allied intents were controlled by the Imperial Headquarters, and from this information, deductions were made and issued to armies under direct control. The Second General Army [responsible for defense of Kyushu] directed its efforts toward gaining intelligence of the military tactics involved in the minute details of the landing points, dates and strength of the Allied Forces based on the strategic deductions of the Imperial headquarters. The methods for gaining this intelligence were: movement of controlled planes (reconnaissance and photography); observation of frequency and direction of U.S. bombing and reconnaissance within army area in the form of statistics; and study of movement of task forces and of the development of international affairs, especially that of American public opinion (through radio reception). The main points of issue in the handling of information were: The problem whether the Allied Forces would conduct operations on the CHINA coast prior to their landings on the home islands, or whether SAISHU-TO and southern KOREA would be used as intermediary battle points when the home islands were attacked directly. However, mainly due to the progress of the PHILIPPINE and OKINAWA campaigns, the conclusion as mentioned before, that the southern part of KYUSHU would be the first landing area, was reached.

From "Information as prepared by members of the staff of the Japanese Second General Army," no date, Operational Archives, Naval Historical Center, Washington, D.C.

38. See John Ray Skates, *The Invasion of Japan: Alternative to the Bomb* (Columbia: Univ. of South Carolina Press, 1994); and Thomas M. Swain, *Pastel: Deception in the Invasion of Japan* (Fort Leavenworth, Kans.: US Army Command and General Staff College, 1988), pp. 35-36.

39. Swain, p. 36.

40. The extreme scarcity of Japanese forces, equipment, and munitions mandated that they choose very carefully what they would defend. See General Douglas MacArthur, *Historical Report on Allied Operations in Southwest Pacific Area. Volume II, "Japanese Operations in the Southwest Pacific Area, 8 December 1941 to 2 September 1945"*; and Commander, Amphibious Forces, US Pacific Fleet, Operation Plan No. A11-45 (Advance Draft), CAF/A16-3(1), 10 August 1945, Naval War College microfilm. For analysis comparing the Japanese defenses with US plans, see Chisholm, "Industrial Scale Asymmetric Warfare."

41. Thomas P. M. Barnett, "The Pentagon's New Map," *Esquire*, March 2003, pp. 174-79. See also Jim Lobe, "Pentagon Moving Swiftly to Become 'Globocop'" (Silver City, N.M., and Washington, D.C.: Foreign Policy in Focus, 12 June 2003); Thomas Donnelly and Vance Serchuk "Toward a Global Cavalry," 12 July 2003, http://www.aei.org/publications/pubID.17783/pub_detail.asp; and "Pentagon Seeking New Access Pacts for Africa Bases," *The New York Times*, 5 July 2003, pp. A-1, 7.

42. Edward A. Smith, Jr., "Network Centric Warfare: Where's the Beef?" <http://www.iwar.org.uk/rma/resources/ncw/smith.htm>.

43. John Dewey, *The Public and Its Problems* (London: Allan Swallow, 1927).

44. Ullman et al., p. xix.

45. Apart from the secular changes in the US strategic environment enumerated above, the proximate cause for the development of Rapid Dominance was a variety of perceived US failings during Desert Storm, a limited, highly conventional conflict carried out against a fumbling foe. It is not at all clear that the scenarios for future conflicts will be analogous to those conditions. Ironically, the type of problem in which will be most appropriately addressed—counterinsurgency—is probably least amenable to attack as proposed by Rapid Dominance.

46. Harlan K. Ullman, "'Shock and Awe' Misunderstood," *USA Today*, 8 April 2003, p. 15.

47. This would constitute a Type II error—accepting a false hypothesis as true. On this common phenomenon and its consequences for organizations, see Martin Landau and Russell Stout, "To Manage Is Not to Control, or the Folly of Type II Errors," *Public Administration Review*, 39 (March-April 1979), 148-56.

48. See Grant Tedrick Hammond, *The Mind of War: John Boyd and American Security* (Washington: Smithsonian Institution Press, 2001).

49. However, my Naval War College colleague, Bradford Lee, has pointed out to me that certain key icons of the Emperor's regalia were then kept at a coastal shrine on Honshu. Had we known they were there and had we understood their extraordinary significance for the Japanese Emperor and society, their capture or destruction *might* have had a significant effect on the psyche of the Emperor and Japanese leadership. That it would have led to capitulation absent destruction of capability is doubtful, especially given an ethos of suicide before surrender.

50. C4ISR is an acronym for command, control, communications, computers, intelligence, surveillance, and reconnaissance.

51. *U.S. News & World Report*, usnews.com, "Conflict with Iraq: A Commander's Viewpoint," 9 April 2003, <http://www.usnews.com/usnews/news/iraq/articles/anderson030409.htm>.