



On Defeat Mechanisms

Maneuverist Paper No. 10

by Marinus

MCDP 1, *Warfighting*, does not address the concept of defeat mechanisms directly, but we argue it should. This important concept has only come into use since the revision of *Warfighting* in 1997, although it was always implicit in the development of maneuver warfare theory. It has found its way into Army doctrine. The next revision of *Warfighting* should include a discussion of this very important concept. Such a discussion of the concept may also help shed some light on the maneuver-attrition controversy that has plagued *Warfighting* since it was first published.

A defeat mechanism is the process by which you impose defeat on the enemy, whatever defeat means in any particular case. Or more accurately, it is the process that *triggers defeat in the enemy* because defeat really is a process of change that occurs *within* the enemy. This point is fundamental. You can take actions intended to cause the enemy's defeat, but whether they do or not depends at least in part on the enemy (unless you intend to completely destroy that enemy). The construct applies at any level of war, from how to inflict defeat at the strategic level to how to defeat an enemy in a specific, small unit engagement.

Maneuver warfare prefers victory by systemic disruption *where it can be achieved* because it offers the possibility of results disproportionately greater than the effort expended.

Defeat mechanism falls into that category of fundamental decisions you make with regard to the enemy—or should—during operational design. It is related to the concept of vulnerability/criticality (which we discussed in Maneuverist No. 7, *MCG* Apr21) in that both deal with thinking about how best to bring about an enemy's defeat. The vulnerability/criticality concept deals with deciding where to strike at an enemy. The defeat mechanism concept considers what happens within the enemy when you strike at that point. The value of the concept of defeat mechanism is that it encourages commanders to think more deeply about *how* their concept of operations is meant to trigger defeat in the enemy.

Attrition and Systemic Disruption

We have argued that historically at least two basic defeat mechanisms have been employed in war. *Attrition* works by physically eroding an adversary's human and material resources until they are eliminated or, as usually is the case, the enemy retreats or gives up the fight. Attrition is simple and straightforward. It connects with the nature of war at an essential level: warfare is about killing and destroying. It operates in the physical dimension and is triggered by means of cumulative physical destruction—although the enemy usually is defeated psychologically before he is destroyed.

The Marine Corps application of maneuver warfare seeks to defeat an enemy through systemic disruption where it can be achieved. (Photo by Cpl Adam Dublinske.)

In contrast, *systemic disruption* attacks the enemy’s coherence or effective functioning so that even if elements of the enemy system remain undamaged, the enemy cannot operate as a coherent whole.¹ The concept of systemic disruption starts by conceiving the enemy not as a unitary mass but as a system of interacting components and then attacking the relationships of those components—whether that system is the enemy’s command structure, the geographical disposition of his forces, the reliance on a particular capability, the interaction of his different combat arms, the relationship of his forces with the population, or his belief in the cause. Where attrition works in the physical dimension, systemic disruption can operate in the physical, mental, and moral dimensions.

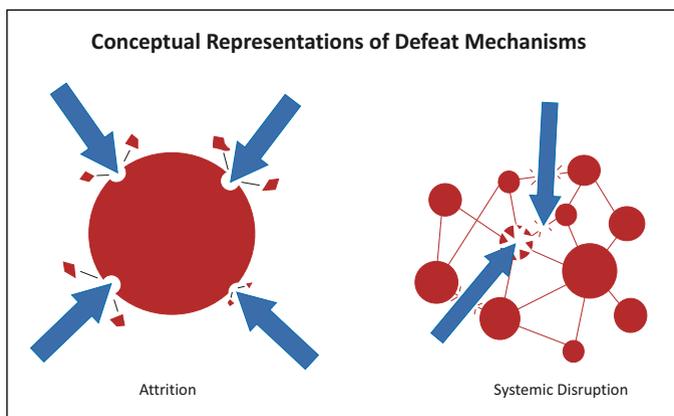


Figure 1. (Figure provided by author.)

It is important to dispel several misconceptions about systemic disruption. The first is that it somehow leads to bloodless victory—to a kinder, gentler form of warfare that aims to minimize destruction and somehow tricks or confuses the enemy into defeat. (One of the old criticisms of maneuver warfare was that it hoped to “confuse the enemy to death.”) Systemic disruption most often is triggered by destruction, just as attrition is. The difference is the purpose that the destruction serves—whether the grinding down of material might or the interruption of coherent functioning. For that matter, there is no reason that both mechanisms could not occur together: at some level of magnitude, even indiscriminate destruction starts to have a systemic effect. That said, while attrition is triggered by physical destruction alone, disruption can additionally be triggered by other means—as we will discuss.

The second misconception is that systemic disruption always takes the form of command paralysis. We admit that the critical passage from *Warfighting* could be interpreted that way (more later). Moreover, command paralysis has been the default defeat mechanism for U.S. joint operations at least since Operation DESERT STORM in 1991. (Army doctrine identifies this defeat mechanism specifically as *disintegration*—more about which later.) We suggest this is a narrow interpretation of systemic disruption, which could have much broader applications in the physical, mental, and moral dimensions. As a simple example: defeating an enemy defense-in-depth by attacking it from a flank where its weapons are not

oriented, or by bypassing it altogether, disrupts the logic of the defense. (Sunzi said, “The highest realization of warfare is to attack the enemy’s plans.”²) This is disruption in the mental dimension, the system in question being the logic of the enemy’s defensive concept.

As we have discussed previously, maneuver warfare favors systemic disruption as the defeat mechanism of choice. Whereas attrition tends to generate proportional effects—that is, the greater the effort, the greater the resulting attrition—disruption holds out the potential for disproportionately greater effect for the amount of effort expended. Whereas attrition succeeds by damaging the components of the enemy system, disruption succeeds by interrupting the interactions among those components—whether those components are enemy units, the logical elements of the enemy’s plan, or some other concept of the enemy as a system. Both defeat mechanisms can also psychologically affect the enemy’s will to fight.

While the construct of defeat mechanism can apply to any level of war, consistency from one level to the next is not necessary; in other words, it is not necessary that tactics, operations, and strategy employ the same defeat mechanism. In fact, disruption and attrition can function together in a hierarchical relationship. For example, the overall concept of operations can call for the destruction of a critical function, the loss of which is expected to decisively disrupt the enemy’s operations. The accomplishment of that particular task could be achieved by the attrition mechanism.

Maneuver warfare doctrine favors disruption where it can be achieved because disruption can save time, succeed more decisively, and reduce material costs. But the vulnerability of an enemy force to defeat by disruption is sensitive to both its intrinsic character and the conditions of battle. Generally, the more rigidly structured an enemy, the greater his adherence to decipherable doctrinal patterns, and the greater his reliance on continuous command and control, the greater his vulnerability to disruption. Conversely, because they tend to operate dispersed on familiar terrain, avoid regular patterns, and employ episodic and often redundant command chains, irregular forces tend to be more difficult to disrupt than regular forces. More difficult does not mean impossible, however, and given sufficient time and intelligence resources to unravel an irregular enemy’s tendencies and structure, even an irregular adversary can be disrupted. Developing the knowledge and doctrine for disrupting irregular enemies comparable to that which exists for regular enemies should remain a priority.

A historical example of employing a systemic disruption mechanism in irregular warfare is the Combined Action Program from 1965 to 1971 during the Vietnam War, in which a Marine rifle squad and a Vietnamese Popular Forces platoon would take up position in or near a rural Vietnamese hamlet, thereby attempting to disrupt the Viet Cong practice of gaining sanctuary in or support from the hamlet.³

That Problematic Passage in *Warfighting*

According to *Warfighting*, systemic disruption is definitional to maneuver warfare:

Maneuver warfare is a warfighting philosophy that seeks to shatter the enemy's cohesion through a variety of rapid, focused, and unexpected actions which create a turbulent and rapidly deteriorating situation with which the enemy cannot cope.⁴

In fact, *Warfighting* defines maneuver warfare not merely in terms of systemic disruption but in terms of comprehensive system *collapse*. This passage understandably has caused problems for Marinus Era Novum (*MCG*, Dec20 and Apr21), LtCol Thaddeus Drake (*MCG*, Oct20), and others, who see that complete collapse as a *sine qua non* of maneuver warfare—and who argue that such collapse may not even be a desirable end state. The language also suggests to some a state of command paralysis, which has led others to conclude that that alone is what is meant by systemic disruption.

Our interpretation of *Warfighting* has never been that literal, although we acknowledge the point. We see the passage in question, like much of *Warfighting*, as aspirational, describing maneuver warfare in its theoretically pure form, in much the same way that Clausewitz described “absolute” war in *On War*. This aspirational language describes systemic

... defeat ultimately is a function not directly of cumulative losses (that is, attrition), but of loss of adaptability through the loss of organizational cohesion.

disruption in the extreme. We argue there exist lesser forms of disruption, depending largely on how susceptible the enemy is to being disrupted and on the ability to understand the enemy in a way that enables you to attack him systemically. Any revision of *Warfighting* ought to address this point. For that matter, we acknowledge that, absent a systemic understanding of the enemy, you have little choice but to pursue defeat by attrition. In fact, we suspect that attrition is rarely the defeat mechanism of choice but is more often the fallback when the military leadership cannot think of a better idea—as happened notably on both sides on the Western Front during World War I and on the American side during the Vietnam War. Moreover, as we have attempted to describe, we argue there can be numerous ways of disrupting an enemy other than by inducing command paralysis.

Defeat as Failure to Adapt

One of the most insightful treatments of the subject is *Defeat Mechanisms: Military Organizations as Complex Adaptive, Nonlinear Systems* by Michael Brown, Andrew May, and Matthew Slater.⁵ As the title suggests, that study looks at military organizations as complex adaptive systems and concludes that defeat, ultimately, is a function not directly of cumulative losses (that is, attrition) but of loss of adapt-

ability through the loss of organizational cohesion. (See our discussion of complex, nonlinear systems in *Maneuverist No. 3*, *MCG*, Nov20.) The authors write:

Whenever a unit enters into combat, the “primary mechanisms” of disorder and disintegration begins ... At the same time, however, a countervailing “feedback” process begins. The feedback loop is the result of adaptation by which units—and their sub-units—adapt to the damage being inflicted and the resulting disintegration. The effect of this countervailing feedback loop is effectively to maintain the military force as an organization. Adaptation, in this view, can be a powerful process and overcome the process of disintegration and “de-organization.” *Only when the rate at which the pressure exerted by the enemy outpaces the adaptation process is a unit likely to be “defeated” in any meaningful sense of the word.*⁶

They conclude that

*mechanisms of defeat were those processes that led to the de-organization of the military unit—that reduced its adaptivity, that created a whole that was equal to or less than the sum of its parts, and that reduced the cohesion that is the defining element of small units. Once the process of de-organization have [sic] taken hold, the seeds for defeat are firmly in place.*⁷

Brown, May, and Slater argue that historically there have been three basic factors that catalyze this process of “de-organization.” First is loss of the ability to communicate within the unit. Without communication, there may be individual adaptation, but there is no coordinated adaptation. Second is the loss of the ability to achieve nonlinear effects through functional specialization (i.e., logistics, fire support, intelligence, etc.), which is a combat multiplier. Third is the breakdown of primary-group (i.e., small unit) cohesion.

This model of defeat mechanisms is highly compatible with our description of systemic disruption. Of note, Brown, May, and Slater do not identify attrition as a defeat mechanism at all. In fact, they argue that the common belief that attrition leads directly to defeat is not supported by historical evidence. They suggest that militaries historically have had a greater tolerance for attrition than often assumed and that the disruptive effects of combat losses will trigger before attritive effects ever do.⁸

Normal and Catastrophic Defeat

Defeat Mechanisms also makes an important distinction between *normal defeat* and *catastrophic defeat*.⁹ “Normal defeat is essentially the decision to change or abandon the mission—to cease an attempted advance, for example—which leaves the unit in condition to fight again.”¹⁰ Normal defeat happens routinely in warfare. It can be thought of as a form of adaptation. Knocked out of equilibrium by an enemy action, the unit recovers its equilibrium by accepting normal defeat: it halts its failing attack and transitions to the defensive or it falls back to a subsequent defensive position when its primary position has been turned, as examples.

In contrast, in a catastrophic defeat, “a force is effectively eliminated for the duration of the conflict; the internal structure of the military organization is so disrupted ... that the organization is permanently destroyed.”¹¹ In other words, in

Brown, May, and Slater's construct, the force has failed to adapt to the demands of its new situation.

We suggest the normal-catastrophic construct is not binary but rather describes a spectrum of possible degrees of defeat—and therefore degrees of adaptation. The construct is useful because defeat can mean different things in different situations, and a key part of imposing defeat on an enemy is deciding what defeat means in any given situation. Moreover, as we have discussed repeatedly throughout this series, the nature of war as a *Zeikampf* or *Dreikampf* can lead to dynamics beyond the control of any belligerent. You may desire to impose catastrophic defeat, but the enemy may not give you that opportunity. Rapidly inflicting a series of normal



Rapid maneuver and making contact with an enemy in a location and time outside expectations and preparations can produce systemic disruption. (Photo by Sgt Courtney White.)

defeats on an enemy, however, may cumulatively stretch him beyond his ability to continue to adapt, thereby triggering catastrophic defeat. Similarly, knocking the enemy out of equilibrium through normal defeat and then keeping the pressure on to prevent him from reaching another equilibrium point—doctrinally known as a pursuit operation—could be another way of turning normal into catastrophic defeat. This is the “turbulent and rapidly deteriorating situation” described in *Warfighting*. (It is also related to John Boyd’s idea of *fast-transient* maneuvers.) Deciding what is a reasonable objective in any given situation has to be a primary consideration—while always looking for the opportunity to trigger catastrophic defeat when the enemy gives you an opening. This opportunistic mentality is key to maneuver warfare as described in *Warfighting*.

Styles of Warfare

While the term “defeat mechanism” does not appear in *Warfighting*, the manual does treat the topic, primarily in the section titled “Styles of Warfare,” often considered to be one of the most controversial sections of the book. The early Maneuverists chose to explain maneuver warfare in part by contrasting it with its opposite *attrition warfare* and later sometimes *methodical battle*. If maneuver warfare was good

and enlightened, then attrition warfare must be bad. Some Marines pushed back, arguing that attrition—understood as cumulative losses—was a *fact* of war regardless of the style of warfare. How could inflicting attrition on the enemy possibly be bad?

This is why we make a careful distinction between destruction and attrition, the former being a pervasive and essential result in war *that can trigger defeat* and the latter being a process of defeat itself. Inflicting destruction on the enemy is undeniably a good thing. It is fundamental. But we argue that there generally are better ways to trigger defeat than through the process of attrition—and generally smarter uses for destruction than to trigger the attrition mechanism.

Styles of warfare and choices of defeat mechanism are not unrelated by any means. Pursuit of victory through attrition encourages an emphasis on maximizing the efficient application of combat power—and therefore on internal efficiency. In the words of Edward N. Luttwak, in *Strategy: The Logic of War and Peace*, one of the most provocative and influential books from the formative years of maneuver warfare theory:

The enemy is treated as a mere array of targets, and success is to be obtained by the cumulative effect of superior firepower and material strength, eventually to destroy the full inventory of enemy targets, unless retreat or surrender terminates the process (as is usually the case). The greater the attrition content of a style of war, the more will routinized techniques or target acquisition, movement, and supply suffice, along with a repetitive tactical repertoire, and the smaller is the need for the application of operational method. ... There can be no victory in this style of war without an overall superiority in attritional capacity, and there can be no cheap victories, in either casualties or material loss, relative to the enemy’s strength.¹²

Pursuit of victory through systemic disruption of course encourages a view of the enemy as a system, which leads to an emphasis on understanding that system—and therefore externally on the enemy. Luttwak again:

Instead of seeking out the enemy’s concentration of strength, since that is where the targets are to be found in bulk, the starting point of relational maneuver is the avoidance of the enemy’s strengths, followed by the application of some selective superiority against presumed enemy weaknesses, physical or psychological, technical or organizational. While attrition is a quasi-physical process that guarantees results proportionate to the quantity and volume of the effort expended, and conversely cannot yield success without material superiority, the results of relational maneuver depend on the accuracy with which enemy weakness are identified, the surprise achieved, and the speed and precision of the action.¹³

In retrospect, that early decision to cast the issue as competing styles, one enlightened and the other benighted, was a mistake because it likely prolonged the argument over maneuver warfare by generating unnecessary antibodies.

Defeat Mechanisms in U.S. Army Doctrine

First of all, Army doctrine at least recognizes the concept of the defeat mechanism, which it defines as “a method through which friendly forces accomplish their mission against enemy

opposition.”¹⁴ Unfortunately, that definition is not especially helpful. More importantly, it does not recognize a defeat mechanism as something that happens internally to the enemy but instead defines it as friendly method—which we believe encourages a mistaken focus on your own processes rather than focusing on understanding the enemy’s.

Army doctrine identifies four defeat mechanisms, which can be used in combination: *destroy*, *dislocate*, *disintegrate*, and *isolate*. These are not defeat mechanisms as we have defined them but rather are actions we can take to trigger a defeat mechanism in the enemy. Destruction, the application of “lethal combat power on an enemy capability so that it can no longer perform any function,”¹⁵ can trigger either attrition or disruption, as we have discussed. We suggest that dislocation, disintegration, and isolation are all specific, common ways of triggering systemic disruption. Dislocation, the employment of “forces to obtain significant positional advantage, rendering the enemy’s dispositions less valuable, perhaps even irrelevant,”¹⁶ undermines the enemy’s dispositions. Disintegration means “disrupt[ing] the enemy’s command and control.”¹⁷ No explanation necessary there. (Note, this is what many people think of when they think of systemic disruption.) Finally, isolation “is a tactical mission that requires a unit to seal off—both physically and psychologically—an enemy from sources of support, deny the enemy freedom of movement, and prevent the isolated enemy forces from having contact with other enemy forces.”¹⁸

These are all fine as far as they go, but we suggest that they are far from comprehensive; there are numerous other possible ways that an insightful mind might think of to trigger disruption in the enemy system. This is not to say, however, that identifying the trigger is necessarily some arcane skill requiring genius or deep reasoning—although some enemies may be more inscrutable than others. It may be intuitive and commonsensical. Turning the enemy’s flank, attacking the enemy’s command and control, or cutting the enemy off from reinforcements are all common “best practices.”

Of note, Army doctrine also identifies stability mechanisms, which are essentially the reverse of defeat mechanism.¹⁹ A stability mechanism is “the primary method through which friendly forces affect civilians to attain conditions that support establishing a lasting, stable peace.”²⁰ The four stability mechanisms, according to Army doctrine, are *compel*, *control*, *influence*, and *support*. Again, we suggest there are other ways of triggering growth and stability.

Delbrück and Strategies of Attrition and Annihilation

A related, and sometimes confusing, issue is the attrition-annihilation strategic construct. Based on his reading of Clausewitz, German historian Hans Delbrück (1848–1929) identified two basic historical strategies, *Ermattungsstrategie* and *Niederwerfungsstrategie*, which were unfortunately and mistakenly translated into English as *strategy of attrition* and *strategy of annihilation*.²¹ It is problematic that to most readers of English *attrition* and *annihilation* are practically synonymous. More problematic is that the two constructs are not actually strategies but are descriptions of strategic



The combined arms effects of maneuver and joint fires can disrupt an enemy’s cohesion beyond the physical destruction of his forces.
(Photo by Airman 1st Class Ridge Shan.)

defeat mechanisms. The point of confusion is the relationship between strategy of attrition and attrition warfare. *Ermattungsstrategie* is in fact based on an attrition defeat mechanism. Delbrück used *Ermattung* to describe the defeat mechanism of eighteenth-century cabinet wars, which were all about the possession of specific pieces of territory. Each side fought until it was convinced that the cost of fighting over a particular province had proved greater than the revenue it produced. In other words, *Ermattung* was a matter of forcing the enemy to spend money. Because money is so easy to count, calculation played a central role in the defeat mechanism of *Ermattung*. The central role played by calculation in strategies of exhaustion can be seen in Falkenhayn’s attempt to “bleed out” the French Army by forcing it to defend Verdun. Likewise, the French strategy of *usure* (“wearing out”) during the second half of World War I was closely tied to the efforts of French military intelligence to track both the supply of manpower to the German Army and the rate at which it was used up. It has since come to be recognized that, at the strategic level, attrition can be a plausible way for a weaker belligerent *with a greater willingness to suffer* to defeat a stronger enemy by raising that enemy’s costs higher than he is willing to bear, thereby convincing him to accept terms rather than continue to fight.

Niederwerfungsstrategie, translated as *strategy of annihilation*, involved the outright defeat of the enemy’s ability to resist, although it has nothing to do with reducing the enemy “to nothing” (the Latin root of the word). *Niederwerfung* literally means “throwing-down,” as in a take-down in wrestling that is achieved by first unbalancing the opponent. The image of a wrestler using leverage to upset his opponent’s center of gravity and then using the opponent’s own body weight to topple him strongly suggests systemic disruption as we have described it.

Conclusion

A defeat mechanism is an internal process by which defeat is triggered *within* an enemy. We can take actions intended

to trigger that mechanism, but whether it happens or not is not entirely up to us. There are two basic defeat mechanisms, attrition, and systemic disruption. Maneuver warfare pursues the latter, which can yield disproportionate results but that requires insight into the enemy as a system. While both attrition and disruption work in the physical dimension, disruption can work in the mental and moral dimensions as well. There are numerous ways to trigger systemic disruption, although we strongly suspect that many Marines do not appreciate the wide range of forms it can take. However, we argue that thinking through how we expect our actions to trigger defeat in the enemy is a crucial part of the art and science of war. (Although let us be clear: we are not advocating for the creation of a new planning routine called “Defeat Mechanism Analysis.”) It should be an integral part of all command decision making. *Warfighting* does not address the concept directly, but we suggest that any future edition probably should. Moreover, doing so holds the potential to resolve one of the most controversial parts of *Warfighting*.

Notes

1. Edward N. Luttwak, *Strategy: The Logic of War and Peace*, (Cambridge, MA: Harvard University Press, 1987).

2. Sun-Tzu, *The Art of War*, trans. by Ralph D. Sawyer, (New York: Barnes & Noble, 1994).

3. While there is no conclusive evidence as to the program’s unqualified success, and it was not employed widely enough to make a difference in the outcome of the war anyway, it generally has been considered effective where it was applied.

4. Headquarters Marine Corps, *MCDP 1, Warfighting*, (Washington, DC: 1997). It is significant that this definition does not specify a method of command and control best suited to achieve systemic disruption, although *Warfighting* later proceeds to advocate for decentralization. According to Robert R. Leonhard, there are “two distinct (though related) schools of maneuver-warfare thinking” that differ in how to accomplish systemic disruption. One is what he terms the German School, which prefers mission-type orders that allow a high degree of subordinate leader initiative and latitude in how to best accomplish the mission. The other is the Soviet School, which instead demands determined execution of specific orders exactly as given, with little tolerance for subordinate flexibility. The ramifications of this difference in practice are stark. The German school aims to find weaknesses and depends on local leaders to exploit them faster than the enemy can react—thus *Warfighting*’s emphasis on *critical vulnerabilities*. However, the Soviet school emphasizes scientifically “substantiated” centralized planning aiming to create and then exploit enemy weaknesses when and where required, so that all local leaders need do is ensure accomplishment of their assigned tasks. Robert R. Leonhard, *The Art of Maneuver: Maneuver-Warfare Theory and AirLand Battle*, (Novato, CA: Presidio Press, 1991).

5. Michael Brown, Andrew May, and Matthew Slater, *Defeat Mechanisms: Military Organizations as Complex Adaptive, Nonlinear Systems*, (McLean, VA: Science Applications International Corporation, 2000).

6. Ibid.

7. Ibid. Emphasis in the original.

8. Ibid.

9. Ibid.

10. Ibid.

11. Ibid.

12. *Strategy*.

13. Ibid.

14. Headquarters Department of the Army, *Army Doctrinal Reference Publication (ADRP) 3-0, Operations*, (Washington, DC: 2017).

15. Ibid.

16. Ibid.

17. Ibid.

18. Ibid.

19. The logic of attrition-disruption in reverse applies to situations in which the mission is rebuilding rather than or in addition to defeating, such as in disaster response or post-conflict stabilization. The analogue to attrition would be simply to apply resources to the situation to shore it up in its current state without attempting to implement any structural changes. The analogue to disruption would be to implement structural changes to improve the overall functioning and stability of the system in question.

20. *ADRP 3-0*.

21. Of the six English-speaking scholars who have systematically engaged the strategic dichotomy of Hans Delbrück, all translated *Niederwerfung* as “annihilation,” four translated *Ermattung* as “attrition,” and two translated *Ermattung* as “exhaustion.” The relevant discussions of these concepts can be found in Hans Delbrück (Walter J. Renfroe, Jr., translator), *History of the Art of War within the Framework of Political History*, (Westport, CT: Greenwood Press, 1980); Jehuda Wallach, *The Dogma of the Battle of Annihilation*, (Westport, CT: Greenwood Press, 1986); Robert Foley, *German Strategy and the Path to Verdun*, (Cambridge: Cambridge University Press, 2005); Arden Buchholz, *Hans Delbrück and the German Military Establishment*, (Iowa City, IA: University of Iowa Press, 2005); Antulio Echevarria, *After Clausewitz*, (Lawrence, KS: University Press of Kansas, 2000); and Gordon Craig, “Delbrück: The Military Historian” in Edward Mead Earle, editor, *Makers of Modern Strategy*, (Princeton, NJ: Princeton University Press, 1971).

