

Tactical Intuition

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*Man is the fundamental instrument in war; other instruments may change, but he remains relatively constant. . . . In spite of the advances in technology, the worth of the individual man is still decisive. The open order of combat accentuates his importance.*¹

—US Army Field Manual 100-5

MANY CURRENT DISCUSSIONS about the Army's future lack a humanistic and historically based prediction of future warfare that addresses the ground tactical commander's role. This critical unknown requires intense study and accurate answers. Too much current speculation implies that technology, information superiority and automated command and control processes are the sole keys to battlefield supremacy in the 21st century. It is possible that future warfare will be "a gigantic artillery duel fought with exceptionally sophisticated munitions."² Warfare of this nature should completely change combat leadership, but reasoned analysis suggests an entirely different conclusion.³ These positions discount the historically vital role of the ground tactical commander, his abilities and the various moral elements indigenous to warfare. Quite simply, technological superiority alone has never won a war.⁴

Theories on war's future must incorporate a realistic human role. As war's instigators and promulgators, human beings must be considered in its final equation. In criticizing "military men of all countries," Ardant du Picq's comments in the 19th century are appropriate today: "They fail to consider as a factor in the problem, man confronted by danger. Facts are incredibly different from all theories. Perhaps in this time of military reorganization it would not be out of place to make a study of man in battle and of battle itself."⁵ Developing theories of future war without considering the human

participant's impact or role is a shallow and inaccurate endeavor.⁶

What about the future role and function of combat leaders? Will technology replace the combat leader's role in motivating soldiers to risk their lives for mission accomplishment?⁷ Have leader decisions been replaced by trunk circuits and microchips? Absolutely not. One aspect of the human element's role stands out prominently as critical to past, present and future combat operations—the tactical commander's intuition.

Historically, a commander's abilities to visualize the enemy, the battlefield environment and subsequent

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activities; make correct and timely decisions; mentally clarify the battlefield's uncertainty and forge a coherent whole out of conflicting parts have been fundamental to tactical combat success. The distinctly human skill paramount to each of these tactical competencies is the essence of intuition. Tactical intuition's immediate grasp of a situation and penetrating insight remain vital in today's Army. As historian Michael Handel wrote:

"Commanders are rarely in control over events on the battlefield. The successful general is not the one who carefully implements his original plans . . . but rather the one who intuitively 'reads' the chaos on the battlefield well enough to take advantage of passing opportunities. . . . Since it is impossible to weigh all of the relevant factors for even the

simplest decisions in war, it is the military leader's intuition (his *coup d'oeil*) that must ultimately guide him in effective decision making."⁸

The importance of a tactical commander's intuition is well established in the annals of war, including periods of profound evolutionary or revolutionary military change.⁹ Our own Army's history

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highlights the absolute importance of the commander's cognitive and intuitive abilities in battle command, including the skills of visualization and situational understanding in uncertain and ambiguous environments.¹⁰

Tactical intuition is critically necessary for combat commanders in the future force. It is the essence of battle command and is neither a mystical trait nor an unattainable faculty. Various described as *coup d'oeil*, a sixth sense, a vision, a hunch or a gut feeling, intuition enables combat leaders to perform critical command and control functions during intense periods of planning or operations. It affords leaders the capacity to make timely, rational decisions based upon extensive experience, memorized skills and concepts, and subconscious pattern recognition. Researcher and author Tony Bastick writes, "Intuition is a powerful human faculty, perhaps the most universal natural ability we possess."¹¹ Intuition's technical and mental processes are complex; its development and utilization are not. Regardless of the technological, doctrinal and organizational changes which lie ahead, a commander's intuition maintains its importance to the conduct of war.

Intuition Dynamics

*It is by the eyes of the mind, by reasoning over the whole, by a species of inspiration that the general sees, knows and judges.*¹²

—Napoleon Bonaparte

Intuition has long been perceived as a mysterious and mystical trait, common only to persons possessing great genius or premonitional skills. Although mentioned by some of the great philosophers and psychologists of the modern era, intuition was

the subject of very few studies and investigations prior to 1960. Bastick writes, "There seems to have been a spiritual mystique surrounding this invaluable faculty. To delve too deeply would dispel, it was thought, not only the spiritual mystery but also the power giving the intuition."¹³ Although intuition's definitions vary, recent research has been both more aggressive and comprehensive in determining what it is and how it works. Findings now portray intuition as a common mental capacity that can be developed and used in everyday life.

Research illuminates three common traits among the many descriptions of intuition: it is a phenomenon of subconscious thought; it relies heavily on experience-based knowledge that leads to expertise in a given field; and it is a comprehensive, unrestrained thought process.¹⁴

Specifically, the intuition process involves the active interrelation between psychological and biological functions. The cognitive processes of intuition are modified by various physiological functions, including the voluntary neuromuscular system, hormonal activity, digestions, intro-organic tensions, the autonomic nervous system and internal stimulation of glands.¹⁵ The link between the body and the mind is obviously quite complicated. Author Karl Albrecht calls it "an incredibly complex pattern of electrical-chemical signals flitting rapidly about through this blob of tissue, a biological computer of awesome capability."¹⁶

The intuitive process begins after information is received through sight, sound or other means and is organized and stored in the brain. As the brain's database of knowledge grows in a given subject area, the information base becomes both larger and more abstract. This facilitates its retrieval and interpretation for use by the right side of the brain.¹⁷ This organization of virtually limitless data enables intuitive thought by skilled thinkers.

Researcher Beryl Benderly notes that this does not mean experts necessarily possess great perceptual ability, but it does mean that they can see "deeply into a problem" through access and utilization of the information contained in the stored database.¹⁸ Napoleon Bonaparte had no formal psychological training or education, yet he perfectly summarized this process in describing his own thought patterns: "Different subjects and different affairs are arranged in my head as in a cupboard," Napoleon wrote. "When I wish to interrupt one train of thought, I shut that drawer and open another. Do

I wish to sleep? I simply close all the drawers and there I am—asleep.”¹⁹ The right side of the brain thus enables intuitive thought by providing previously stored choices pertinent to a current situation.

When confronted with a problematic situation, the brain retrieves abstract, organized data from subconscious memory; looks for and determines a rational pattern or similarity between that data and the problematic situation; determines and weighs the collective data’s relevance to the given problem or situation as a whole; and then transfers relevant possible solutions into the conscious realm from which the brain can logically decide and act. Remarkably, this is the essence of a gut feeling. Intuition, viewed collectively as a physiological and psychological activity, can best be described as a mental process whereby subconscious knowledge is automatically or summarily retrieved and utilized by the conscious mind, thus producing a range of possibilities available for instant analysis and used to make a decision or derive a logical conclusion based upon a problematic situation or environment.

The correlation between a commander’s intuition and tactical combat success is monumental. Quite simply, intuition enables leaders to overcome some of warfare’s uncertainties and to make decisions under horrific, constrained conditions. In nonmilitary endeavors, it is a trivial and unnoticed occurrence—in war it is the lifeblood of command decision and the precursor to victory.

The Concept of *Coup d’oeil*

*Yes, we need forward thinkers. . . . It is also essential that we do not believe that we possess such enormous wisdom that we can dismiss the past.*²⁰

—Napoleon Bonaparte

Frederick the Great, Marshal Maurice de Saxe, Ardant du Picq and Napoleon are some of the more prominent names in recent history who wrote about intuition. None did so to the extent of Prussian theorist Carl von Clausewitz. However, all recognized the importance of the human element and to some degree correlated battlefield success with commander’s intellect.

Common to most of them is a description of the intuitive thought process referred to as *coup d’oeil*. Clausewitz called this personal trait a commander’s “ability to see things simply, to identify the whole business of war completely with himself.”²¹ In 1938 the US Army Infantry School published a collective faculty effort pertaining exclusively to *coup d’oeil*. The faculty concluded that *coup d’oeil* con-



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sisted of two parts: an ability to comprehend a large tactical situation at a glance (including the terrain), and then an ability to decide quickly and act, based upon that understanding.²²

Frederick the Great viewed *coup d’oeil* as a tool—a mental faculty—for visual terrain analysis and enemy situational analysis. Though still important today, terrain in Frederick’s day was arguably more critical to a battle’s outcome. In his own words, to a commander it was “the foremost oracle that one must consult, after which he can fathom the enemy dispositions by his own knowledge of the rules of war.”²³ He continued:

“The *coup d’oeil*, properly speaking, is reduced to two points. The first is to have the ability of judging how many troops a given position can contain, a trick that is acquired only through practice. . . . The other and by far the most superior talent is to know how to distinguish at first sight all the advantages that can be drawn from the terrain. One can

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acquire and perfect this talent if he is in the least endowed with a fortunate bent for war.”²⁴

Frederick also described the intuitive thought process in simple but clear terms. His first point identified *coup d’oeil* as an ability acquired through practice, which relates to intuition’s reliance on a broad base of knowledge—predominantly experience—from which to bring relationships and whole examples from the subconscious to the conscious realm.

His second point refers to the talent of instantly distinguishing the terrain’s advantages. Frederick’s perception here encapsulates the intuitive thought process in action: seeing the terrain, ingesting its whole picture, comparing it against the organized database of knowledge extracted from subconscious thought, then consciously interpreting, reasoning and choosing from the produced options.

Frederick also realized that these skills could be developed, primarily through the knowledge gained by experience. “Theoretical knowledge is of no use if it is not supplemented by positive practice. You must train yourself to select terrain and make dispositions; you must reflect on this subject; and then theory, reduced to practice, makes all of these operations skillful and easy.”²⁵

Another 18th century soldier and writer, de Saxe summarized his thoughts on what is required for success in combat in one sentence: “The important thing is to see the opportunity and to know how to use it.”²⁶ This generalization implies using innate comprehension skills, logical decision making and rational action.

To de Saxe, superb military leaders embodied inquisitive, rigidly determined thought and action: A great general should “possess a talent for sudden and appropriate improvisation. . . . He should be able to penetrate the minds of other men, while remaining impenetrable himself. He should be endowed with the capacity of being prepared for everything, with activity accompanied by judgment, with skill to make a proper decision on all occasions and with exactness of discernment.”²⁷

And like Clausewitz, de Saxe believed that tactical skill and the ability for skilled intuitive thought were at least partially attributable to birth traits. He asserted that “Unless a man is born with talent for war, he will never be other than a mediocre general . . . talent must be inherent for excellence.”²⁸

Another Frenchman, du Picq, conveys one clear theoretical message relevant to the study of intuition. He wrote that the dynamics of combat involve two forces—material and moral. He theorized that moral forces, those related to the psyche and motivation of the human soldier, are the most crucial for combat success. “Man is the fundamental instrument in battle,” he wrote. “Nothing can wisely be prescribed for an army . . . without exact knowledge of the fundamental instrument, man and his state of mind, his morale, at the instant of combat.”²⁹ Du Picq theorized that soldier’s actions and ever-changing mental state—the moral force of an army—are more important to the outcome of a battle than weapons or other factors.

Du Picq focused on the soldiers’ mental composition. His work implies the importance of the commander’s intuition and decision-making ability during the confusion of battle. “The human heart in the supreme moment of battle” he asserted, “is the basic factor.”³⁰ He believed in the importance of experience-based knowledge and conveyed its connection to battlefield competence by simply stating that “If you really want to learn to do your work, go to the line.”³¹ He also recognized that an army requires “leaders who have the firmness and decision of command proceeding from habit.”³² Du Picq’s message that moral and not physical factors dominate war corroborates the related theories on tactical intuition.

Napoleon believed that leaders were born with an intuitive thought process, an instinct for determining truth and achieving clarity in the midst of uncertainty, which enables them to understand the parts of a situation through an awareness of the

whole. “The general never knows the field of battle on which he may operate,” wrote Napoleon. “His understanding is that of inspiration; he has no positive information; data to reach a knowledge of localities are so contingent on events that almost nothing is learned by experience. It is a faculty to understand immediately the relations of the terrain according to the nature of different countries; it is, finally, a gift, called a *coup d’oeil* militaire . . . which great generals have received from nature.”³³

Napoleon’s writings and his amazing abilities in war reflect the importance of experience to the intuitive process. To Napoleon, intuition was instant, global understanding of a situation gained through the analysis of previously learned information. While he believed that this was in part genetically based, he also professed that intuitive abilities could be bred through experience, “Commanders in chief are to be guided by their own experience or genius . . . generalship is acquired only by experience and the study of the campaigns of all great captains.”³⁴ Napoleon’s recognition of intuition thus showed a parallel understanding to that which is common to today’s intuition researchers and writers—it is a learned skill requiring the retrieval of an organized database of knowledge previously gained through experience and other means of education.

Theoretical and historical writings record the prominent notions concerning intuition among some of warfare’s preeminent thinkers. Theory, history and a reasoned hypothesis of future war highly suggest that intuitive abilities are important for combat leaders’ battlefield success.

Tactical Intuition and the US Army

*Victory in war does not depend entirely upon numbers or mere courage; only skill and discipline will insure it.*³⁵

—Napoleon Bonaparte

Combat success is the US Army’s legacy of the many contributing variables and coincidences, and surely among the most prominent, have been the soldiers. Among the numerous intangible human qualities, such as courage, boldness, determination and loyalty, sound decisiveness in the roar of battle can be considered the linchpin for victory.

This critical intangible quality—this masterful skill—is based on combat leaders’ sound intuition. Its demonstrated cycle in most successful tactical combat operations is simple: during battle, the environment stimulates intuition, intuition forms the



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Competent decision makers are therefore key to battlefield success. Current doctrine stresses intuition’s importance but its role in future conflict is less emphatically presented. Intuition is a vital necessity for the prosecution of successful command and control functions, and its past prominence and present influence will help to advance its criticality to future combat operations.

Tactical Intuition: The Core of Battle Command

Tactical command of ground forces remains a complicated endeavor.³⁶ There is some science involved in this process, but command mainly applies human talents through developed faculties—all habitually artistic. The tactical command of forces in the US Army is known today as battle command.

Members of the 82d Airborne Division take cover behind a gravel embankment during operations on Grenada, 26 October 1983.

US Army



Intuition's crucial contribution to combat success is recognized by the Army through the concept of battle command. Although the terms we use to identify its functions may change in future doctrinal generations, its prominence will not. The Army relies on skilled tactical leaders who can quickly observe, think and act during intense combat operations. The Army will continue to assess and develop such leaders, for one "who cannot think clearly and act rationally in the bullet zone is more suited for a monastery than the battlefield."

Intuition plays a vital role in the concept of battle command and serves as the basis of most critical leader skills which battle command encompasses.³⁷

The battle command concept was developed by General Frederick Franks Jr. to account for the human dimension of battle. According to Franks, battle command means "seeing what is now, visualizing the future state or what needs to be done to accomplish the mission and then knowing how to get your organization from one state to the other at least cost against a given enemy on a given piece of terrain."³⁸ The primary components of battle command that depend directly on the commander's intuition are decision making, visualizing, concept formulation and battlefield awareness—"selecting the critical time and place to act, and knowing how and when to make adjustments during the fight."³⁹

Sound decision making is the essence of combat command.⁴⁰ To be effective and successful, tactical

leaders must first realize that a decision has to be made, determine the timeliness required of the decision, quickly and efficiently weigh the relative merits of possible courses of action, and finally decide and act. The rapid process of intuition permits this decision cycle to evolve fluidly. Visualization and concept formulation rely upon intuition, as they are the art of conceptualizing and understanding a future state or condition based upon current tangible and intangible factors, and then developing a plan by which that future state can be achieved.⁴¹ They are the cornerstone of battle command, reliant upon creativity, clear thought, judgment, experience and the intuitive sense to maximize them coherently into conscious thought and action.⁴²

The final battle command component, battlefield awareness, relies most heavily upon the intuitive process. It is derived through education and experience and results in a "quick access to a whole bank



VII Corps commander General Joseph Collins and his aide observe artillery fire, 10 December 1944.

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of experiences and lessons that don’t have to be gone through individually or in detail, but [as] a result of a lot of reflection and conviction.”⁴³ This faculty is more than knowledge of physical forces on the battlefield. Rather, identifying patterns and relationships, understanding the critical points in time and space and recognizing opportunities for decisive action are all important aspects of this skill. Lieutenant General (Retired) L.D. Holder highlights the role of intuitive understanding: “Talented tacticians see possibilities that others do not because they understand the workings of the force.”⁴⁴ This instinctive and expert talent draws its actions or decisions into realization through the intuitive process, firmly grounded in experience.

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Intuition and the Future Force

Intuition’s role as a critical component of tactical command is secure as long as war remains a violent clash of wills, full of ambiguity and uncertainty, fought by imperfect soldiers. As technology changes warfare, leaders must change, but their human characteristics and psychogenic functions will remain

substantially the same. “Weapons technology is only the hardware of warfare,” wrote David Langford. “of equal importance is the software which governs its use and which takes many forms.”⁴⁶ The human participant is part of this software.

The world environment is complex and dynamic; thus, estimates of any future conflict’s scope and nature are at best speculative. Some predict that fu-

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ture war will be largely urban and characterized by bands of quasi-professional soldiers and thugs.⁴⁷ Others keep a less-radical view and foresee future conflict involving adversaries fighting technologically based battles of great destruction, confusion and fear.⁴⁸

Future land warfare will be influenced by five trends: the increased lethality and dispersion of weapon systems; increased volume and precision of fires; the integration of advanced technologies; increased mass and effects of munitions; and the improved invisibility and detectability of belligerents.⁴⁹ The Army is organizing to meet this probability, but one author team wrote, “the artistic side of war will remain: creativity, intuition, leadership, motivation and decision making under conditions of limited information. These will never lose their importance, for they describe war’s essence.”⁵⁰

Problems can and will occur during these future operations just as they have throughout the history of our battlefield successes. Units will become disoriented, leaders will be confused and killed, weather will foil plans, equipment will malfunction, and the enemy will not cooperate. Revolutionary changes in technology, doctrine and organization cannot erase such friction in war.

Competent leaders steady the keel in this type of tactical environment. Leadership presence is insufficient; leaders must be tactically smart and rationally calm under fire. They must understand the in-

tricacies of their combat systems and their soldiers’ endurance thresholds. They must be flexible in thought and action and capable of solving complex, ambiguous problems with little or insufficient data. Above all, they must lead from the front and command naturally without having to pause or stop to consider what should be done—thereby reflecting true expertise in the profession of arms. This is possible only through the conviction of will and the sharpness of their minds—by intuitive thought and instinctive behavior.⁵¹

Intuition is neither mystical, magical nor exclusive to a privileged few. It is a developed mental faculty which involves the automatic retrieval and translation of subconsciously stored information into the conscious realm to make decisions and perform actions. Organized databases of knowledge gained through education—experiences, memorization, sensations and relationships—are the building blocks for intuitive thought.

Tactically, intuition enables leaders to make and implement decisions faster than an enemy counterpart and actualizes the difference between “competence and incompetence, victory or defeat.”⁵² It affords the force as a whole, through the leader’s skill, to gain a decisive advantage through increased tempo, sustained initiative and bold action.⁵³ It provides the window for viewing future activities in light of current operations and thus minimizes some of the uncertainties in war. Intuition provides logical alternatives to complex problems, a sense of order to disorder, and similarities to previously unfamiliar circumstances. It is the essence of what we define as battle command, visualization and situational understanding—it is idealized tactical leadership.

Tactical intuition’s importance demands that it be cultivated and improved throughout our force. Not every officer has the capability to be truly proficient in tactical leadership and all of the difficult requirements of battle command, but for the officers that do, intuitive potential can and must be developed and refined.⁵⁴ The method is conceptually simple:

- Repetitive troop assignments beginning as a lieutenant, particularly from the field grade ranks on.
- Demanding and realistic collective training in non-virtual-reality environments to encourage original, audacious and creative solutions to tactical problems.
- Substantive, concentrated professional education, founded on military history and theory, tacti-

US Army



At the VII Corps JUMP TAC, General Frederick Franks Jr. explains his plan to destroy remaining Republican Guard units, 27 February 1991.

Battlefield awareness, relies most heavily upon the intuitive process [and] is derived though education and experience. . . . This faculty is more than knowledge of physical forces on the battlefield. Rather, identifying patterns and relationships, understanding the critical points in time and space and recognizing opportunities for decisive action are important aspects of this skill.

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- Broad personal education that breeds creative thought, focusing on the moral and physical environments of war and other subjects pertaining to the military profession.

Holder notes that the current Army professional schooling method for field grade officers tries to “paint the whole corps lightly with tactical information” but does not develop intuitive commanders with advanced tactical understanding, firmly grounded in the art of war.⁵⁵ Competent instructors who understand fighting and maneuver should not be wasted on officers who will never serve in ground combat units in battle. As one author astutely wrote, “Combat leaders will have the same amount of battlefield vision as they have warfighting exper-

tise. Unfortunately, the Army’s current leader development program develops ‘competent and confident’ leaders, not warfighting experts.”⁵⁶

Advanced technology is not the final answer in the quest for future wartime success, particularly at the tactical level of war. The human element is often slighted in this search for certain victory, and quite possibly technology may cause paralysis by analysis, as intuitive skills are neglected.⁵⁷ This potential tragedy must never be realized.

The Army must affirm its foundation of strength—people.⁵⁸ Soldiers—commanders—who in combat rationally, competently and quickly make the proper tactical decisions have always been the hallmark of great successes. Time in combat is precious and unforgiving, and intuition enables commanders to

succeed despite its constraints. As the excitement of improved technologies proliferates and as society at large becomes increasingly indifferent to the profession of arms, the Army must develop and draw on its leadership resources.

The human mind's intuitive process is an irreplaceable determinant of combat success but it must be developed, improved and exercised. The Army's legacy and present charter obligate it to provide courageous and competent officers capable of negating fiction's perils. Technology is merely an ancillary

agent. The ultimate weapons are combat leaders who must not be shunned as irrelevant in a high-technology age. This is no light task in today's environment. "The future commander may eventually sit before a console," wrote Robert Doughty, "but he will never be a technician, and his profession will never be a trade."⁵⁹

Regardless of technology, intuition is essential and the Army is obliged to identify and develop military leaders with the experience and insight to see, decide, act and win. **MR**

NOTES

1. US Army Field Manual (FM) 100-5, *Operations* (Washington, D.C.: US Government Printing Office, 15 June 1944), 27.
2. Eliot Cohen, "A Revolution in Warfare," *Foreign Affairs* (March/April 1996).
3. Cohen states that, "future warfare may be more a gigantic artillery duel fought with exceptionally sophisticated munitions than a chess-like game of maneuver and positioning."
4. Sean Naylor, "Forget High Tech, the Human Voice will Still be Heard" *Army Times* (23 October 1995), 32.
5. Michael I. Handel, *Masters of War: Sun Tzu, Clausewitz and Jomini* (Portland, OR: Frank Cass, 1992), 9-10; and Stephen Blank, "Preparing for the Next War: Reflections on the Revolution in Military Affairs," *Strategic Review* (Spring 1996), 18.
6. Ardant du Picq, *Battle Studies*, trans. John N. Greely and Robert C. Cotton, *Roots of Strategy, Book II* (Harrisburg, PA: Stackpole Books, 1987), 135.
7. Historian Williamson Murray, in "War, Theory, Clausewitz, and Thucydides: The Game May Change but the Rules Remain," *Marine Corps Gazette* (January 1997), 63 and 68.
8. Martin Van Creveld's discussion of technology's impact on war in *Technology and War* (New York: Macmillan/The Free Press, 1989), 314 and 320.
9. Michael I. Handel, *Masters of War: Sun Tzu, Clausewitz and Jomini*, 120-121.
10. "Evolutionary" change is narrow in scope, and usually involves the advancement of one component of the military environment: technology, tactics or doctrine, for example. "Revolutionary" change is a comprehensive transformation of the conduct of war.
11. Department of the Army Training and Doctrine Command (TRADOC) Pamphlet 525-70, *Battlefield Visualization Concept* (Fort Monroe, VA: 1995), 3-1. Battle command is defined as "the art of battle decision making, leading and motivating soldiers and their organizations into action to accomplish missions . . . [it] consists of visualizing the current state and desired future end state for an operation and includes deciding how to get from one to the other at least cost to the soldier."
12. Tony Bastick, *Intuition: How We Think and Act* (New York: John Wiley and Sons, Inc., 1982), xxiii.
13. Napoleon Bonaparte's maxim #115, as quoted in *The Military Maxims of Napoleon*, ed. Thomas R. Philips, in *Roots of Strategy* (Harrisburg, PA: Stackpole Books, 1985), 440.
14. Tony Bastick, *Intuition: How We Think and Act*, 1.
15. Tony Bastick, *Intuition: How We Think and Act*, Hubert L. and Stuart E. Dreyfus, *Mind Over Machine: The Power of Human Intuition and Expertise in the Era of the Computer* (New York: Macmillan, 1986); Beryl Benderly, "Everyday Intuition," *Psychology Today* (September 1989); Karl G. Albrecht, *Brain Power* (Englewood Cliffs, NJ: Prentice Hall, 1980); and Frances E. Vaughan, *Awakening Intuition* (Garden City, NY: Anchor Books, 1979).
16. Tony Bastick, *Intuition: How We Think and Act*, 84.
17. Karl G. Albrecht, *Brain Power*, 18.
18. *Ibid.*
19. Beryl Benderly, "Everyday Intuition," *Psychology Today*, 36.
20. *Ibid.*, 38.
21. David G. Chandler, *The Campaigns of Napoleon* (New York: Macmillan Publishing Co., 1966), xxxv.
22. Historian Williamson Murray, in "War, Theory, Clausewitz, and Thucydides: The Game May Change but the Rules Remain," 68.
23. Carl Von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret, 1984 edition (Princeton, NJ: Princeton University Press), 578. From chapter 1 of book 8, "War Plans-Introduction."
24. Department of the Army, The US Army Infantry School, "Coup d'oeil," *The Infantry School Mailing List 16*, (1938), 108-109. This study primarily uses historical vignettes, many from the American Civil War, as a basis of analysis.
25. Jay Luvaas, ed. and trans., *Frederick the Great on the Art of War*, reprint, originally published in 1966, The Great Commanders Series (Pennington, NJ: Collectors Reprints, 1995), 141.
26. *Ibid.*, 142.
27. Marshal Maurice de Saxe, *My Reveries Upon the Art of War*, trans. by Thomas R. Philips, in *Roots of Strategy* (Harrisburg, PA: Stackpole Books, 1985), 296.
28. *Ibid.*, 294.
29. *Ibid.*, 296-297.
30. Ardant du Picq, *Battle Studies*, trans. John N. Greely and Robert C. Cotton, *Roots of Strategy, Book II*, 65.
31. *Ibid.*, 135.
32. *Ibid.*, 238.
33. *Ibid.*, 121.
34. *The Military Maxims of Napoleon*, ed. Thomas R. Philips, 441.
35. *Ibid.*, 431.
36. *Ibid.*
37. Vegetius, *De Re Militari*, Book 1, 378; as quoted in *Leadership: Quotations from the Military Tradition*, Robert A. Fitton, ed., (Boulder, CO: Westview Press, 1990), 309.
38. Martin Van Creveld in *Command in War*, (Cambridge, MA: Harvard University Press, 1985), 9.
39. Frederick M. Franks, Jr., "Battle Command: A Commander's Perspective," *Military Review* (May/June 1996), 11.
40. FM 100-5, *Operations*, final draft to revised edition, (Washington, D.C.: GPO, 5 August 1997), 8-2 and 8-6.
41. *Ibid.*, Glossary-1.
42. Henry E. Eccles, *Military Concepts and Philosophy* (New Brunswick, NJ: Rutgers University Press, 1965), 119.
43. TRADOC Pamphlet 525-70, *Battlefield Visualization Concept*, para. 1-3.
44. *Ibid.*, para. 4-3.
45. Lieutenant General (Retired) L. D. Holder, USA. Interview with author, 31 July 1997, Fort Leavenworth, KS. Notes in possession of author.
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