Battle Command, Decisionmaking, and the Battlefield Panopticon

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I am I plus my circumstances.
—Spanish philosopher Jose' Ortega y Gasset

MANY ARGUE and most agree that the U.S. military is currently in the midst of the most significant revolution in military affairs (RMA) in its history. This technology RMA, like the infantry, Napoleonic, and nuclear RMAs before it, has captured the attention of military theorists around the globe. As the world's foremost military, economic, and technological power, the United States is the chief navigator through these uncharted RMA waters. As such, it is the cradle for many significant changes in doctrine, training, leadership, organization, materiel management, and warrior skills derived from the ongoing technological RMA and informed by recent military experiences like Operation Enduring Freedom.

By definition, RMAs are dramatic, with far-reaching results. They induce cultural and doctrinal changes within military organizations and directly impact the ways in which the Army deters, fights, and resolves conflicts. During a speech in January 2002, Secretary of Defense Donald Rumsfeld described what he saw as fundamental RMA components: "new ways of thinking," "an ability to adapt," and a "culture of creativity and intelligent risk taking."[1] In short, RMAs change the traditional "rules of the game."[2] The new game being played right now in Afghanistan and worldwide is best described as "networkcentric warfare" (NCW), a phrase then Chief of Naval Operations Admiral Jay Johnson first used publicly in 1997.[3]

Whether intentionally or not, Rumsfeld continues to raise, in his public remarks, the issue of battle command within an NCW environment. He is fond of calling the battle at Mazar-e Sharif, Afghanistan, where U.S. Special Forces, on horseback, rode into battle with laptop computers as well as with weapons, "the first cavalry attack of the 21st century." He describes the German blitzkrieg through France in 1940 as "transformational."[4] Most recently, he asked the U.S. Senate Armed Services Committee to consider this: "Imagine for a moment that you could go back in time and give a knight in King Arthur's court an M-16. If he takes the weapon, gets back on his horse, and uses the stock to knock his opponent's head, it's not transformational. Transformation occurs when he gets behind a tree and starts shooting."[5]

In 1996, beginning with the publication of *Joint Vision (JV) 2010* and continuing through the release of *JV 2020* in June 2000, the Chairman, Joint Chiefs of Staff, recognized and validated NCW as the way in which U.S. military forces should conduct all operations now and in the foreseeable future. *JV 2020* states: "The continued development and proliferation of information technologies will substantially change the conduct of military operations. [Furthermore, the pace of the present RMA places a high premium on] the ability of our joint military organizations to foster innovation in our people."[6]

The drive for a seamless NCW environment is a journey the U.S. military must navigate successfully if it is to maintain its superiority. However, its intended destination will become that much more illusive if it fails to examine the possible unintended consequences of each journey. This article will examine the most important component of combat leadership—battle command—in light of the ongoing technology RMA, Department of Defense transformation, and the NCW environment. Specifically, it will identify one potential unintended consequence that the NCW environment has on battle command, the central tenet of battlefield success.

Bentham's Panopticon

In the late 18th century, utilitarian philosopher Jeremy Bentham proposed a radical reformatory, or penitentiary, design to the British government.

Known as the panopticon, it was based on a complex star design with corridors radiating out from a central observatory or tower. The design of the original U.S. Disciplinary Barracks at Fort Leavenworth, Kansas, was based, in large part, on Bentham's design theory.[7] Bentham's Panopticon design enabled jailers to observe inmates constantly, 24 hours a day, with every aspect of their behavior controlled completely. In the panopticon, individuals act differently because they are being observed. It was, for Bentham, "a mill for grinding rogues honest."[8]

Information technology allows the creation of all sorts of panopticons. Modern theorists have used panopticonism to challenge workplace monitoring and privacy policies in many large corporations. The NCW creates a panopticon that gives the commander an unhindered, all-encompassing view of the contemporary operating environment. During U.S. Army National Training Center or Joint Readiness Training Center rotations or U.S. Air Force Red Flag deployments, commanders who were observed and evaluated by observer-controllers acted and led differently than they would have if they were not being evaluated. It is clear that an individual acts and leads differently when being observed.

It is possible that emerging NCW technologies could have the same impact throughout the U.S. military, particularly when cultivating battle command skills. Using NCW technologies, senior commanders become de facto observers, allowing them not only to monitor the battle but also to second-guess a subordinate commander's decisions. Within an NCW environment, two important questions arise. First, how does this virtual panopticon affect a commander's ability to exercise battle command in the traditional sense? Second, what lessons about battle command might junior leaders learn in such an environment?[9]

There is no question that rapidly emerging technologies in the U.S. military influence a commander's leadership abilities. That is not necessarily negative. RMAs are based on these types of radical changes. The fear is that when a military organization finds itself operating in an ongoing RMA transformation, key cultural questions with long-term, possibly catastrophic, consequences might be easily overlooked. Neglecting such questions could limit the benefits that should accompany the RMA. Military theorists feel that the NCW RMA is especially vulnerable to this type of neglect. The first line of defense against such misguided abuse is moral decisionmaking.

NCW Defined

Today's NCW information age demands equally dramatic changes in military organization and doctrine, particularly in how the military views battle command. These changes could largely impact individuals who operate within this new NCW environment. If the U.S. military does not adapt, its leaders might find themselves at a disadvantage when waging modern war. Success in waging war now and in the future will depend on commanders' abilities to exercise battle command and lead subordinates while operating within an NCW environment. What, then, are the essential characteristics of such an environment?

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NCW takes place in a wireless, digital environment. Information transfer and processing rates have increased so dramatically over the past decade that extremely high bandwidth on demand is practically a reality. This capability allows unlimited amounts of information to be exchanged in real time between any two or more points on the globe.[10] A former Vice Chairman, Joint Chiefs of Staff, described the NCW environment for military operations as a "system of systems" creating a "knowledge umbrella."[11] Within this system of systems, sensors, shooters, and decisionmakers connect seamlessly and, in effect, function as a single fighting entity.

NCW emphasizes viewing leaders and their soldiers as independent actors united by task and purpose rather than viewing them as part of a continuously adapting system united by technology and deriving its power from "the strong networking of a well-informed but geographically dispersed force."[12] An NCW concept of operations seeks to achieve shared awareness, increased speed of command, a high tempo of operations, greater lethality, increased survivability, and a degree of self-synchronization. Speed of command is the process by which a superior information position is turned into a decisive advantage, and self-synchronization is the ability of a force to "organize and synchronize complex warfare activities from the bottom up."[13] The single center of gravity for U.S. military operations, then, becomes the digital network linking all knowledgeable players worldwide from the battlefield to any reachback location.

NCW Command and Control

The immediate effects of an NCW environment on military organizations are readily apparent to military thinkers. First among these is the potential for an unprecedented level of command and control (C2). Like the telegraph, transistor radio, and long-range satellite communications before it, NCW provides an enhanced ability to communicate up and down the chain of command. However, unlike older technologies, NCW includes unparalleled amounts of data, imagery, video, color graphics, digital maps with overlays, and voice communications with unlimited bandwidth. The prospect for enhanced, unchallenged combat power derived from improved C2 in an NCW environment appears to be extremely bright.

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NCW information superiority is anticipated to be the key enabler of future joint C2 and, ultimately, victory. The competitive advantage that results from enhanced C2 enables a condition called decision superiority. Decision superiority is the ability to make better decisions faster and to implement them more quickly than any opponent can react. It allows U.S. forces to shape the situation, react to changes, and accomplish the mission. NCW C2 is the prerequisite for decision superiority.[14] Agility is the Army operations tenet that is founded on gaining and maintaining decision superiority.[15]

However, the question left unanswered is at what C2 level are agility and decision superiority best exercised? The dangerous inclination of subordinate commanders in an NCW environment may be to defer decisionmaking to higher-level decision-makers at the expense of battle command at the lower levels because, in an NCW environment, subordinate commanders can defer. U.S. Army Field Manual (FM) 3-0, *Operations* makes a critical point that directly addresses battle command in an NCW environment. A force whose commanders make good decisions at the lowest level will operate faster than a force that centrally makes its decisions. This type of NCW C2 environment assures an agile force that can exploit all opportunities for success on the battlefield.[16]

Recall Rumsfeld's German blitzkrieg analogy. During World War II, the concept of Auftragstaktik was central to Germany's warfighting philosophy. Drill manuals at the time stipulated that commanders should give their subordinates general directions on what to do while allowing them total freedom to determine how to do it. This approach developed thinking leaders who improvised, adapted, and overcame to exercise sound tactical judgments.[17] It is clear that FM 3-0 codifies this approach in U.S. Army doctrine. Decentralized decisionmaking through a system of mission-type orders detailing task and purpose is the foundation of two other Army operations tenets—initiative and agility. Through these tenets, commanders give their subordinates the "greatest possible freedom to act" and place the decisionmaking authority at the lowest practical level. Agile commanders exercise battle command by making timely decisions.[18]

Despite current doctrine and the practicality of Auftragstaktik, many believe the art of command and its associated decisionmaking authority have migrated upward throughout the 20th century as communications capabilities have expanded, leading to a greater C2 potential.[19] The NCW environment adds to this state of affairs. Despite attempts to migrate command upward, the tactical-level commander essentially has been immune to these forces because of technical limitations of bandwidth capabilities. Therefore, battle command has remained at the tactical level. However, when creating a concept of operations within an NCW environment, these bandwidth limitations are easily overcome. This questions the conventional wisdom of the past that ensured immunity from "centralized command and execution" for tactical-level leaders.

Here lies the critical fork in the road where the path chosen will greatly impact successful U.S. military operations in future NCW environments. NCW promises "decentralized empowerment." Decentralized empowerment frees organizations from centralized authority altogether, thus allowing them to exercise initiative and agility and to apply unlimited firepower.[20] Is this a likely outcome? Perhaps so. Continued emphasis on battle command skills at the tactical level holds the answer to which path the U.S. military will choose. Decision dominance and decen-tralized empowerment represent one path. Just as likely an outcome is a "very rapid movement toward even greater command centralization on the battlefield, accompanied by an unprecedented reduction in both individual and command authority."[21] Battle

command flourishes under the previous environment or is extinguished under the latter.

The challenge of the current RMA is not technological but cultural. Elting Morison, in his classic study on innovation in the U.S. military, concludes that the primary impediment to exploiting new technologies in the military is the cultural impact of organizational change. Such a state questions the deeply rooted mores of military society. Auf-tragstaktik and centralized command, decentralized execution represent two such historical military norms. The NCW environment represents the technological challenges ahead. NCW demands a level of organizational change that is in the U.S. military's best interest. However, as one theorist explains, "It would be wise to institutionalize processes that allow the commensurate cultural change to proceed at a rate that keeps pace with advancing technology."[22] To be ultimately successful, the U.S. military must examine how it cultivates battle command skills in junior leaders today who will someday become senior leaders upon whom future successful military operations will depend.

Battle Command as a Moral Choice

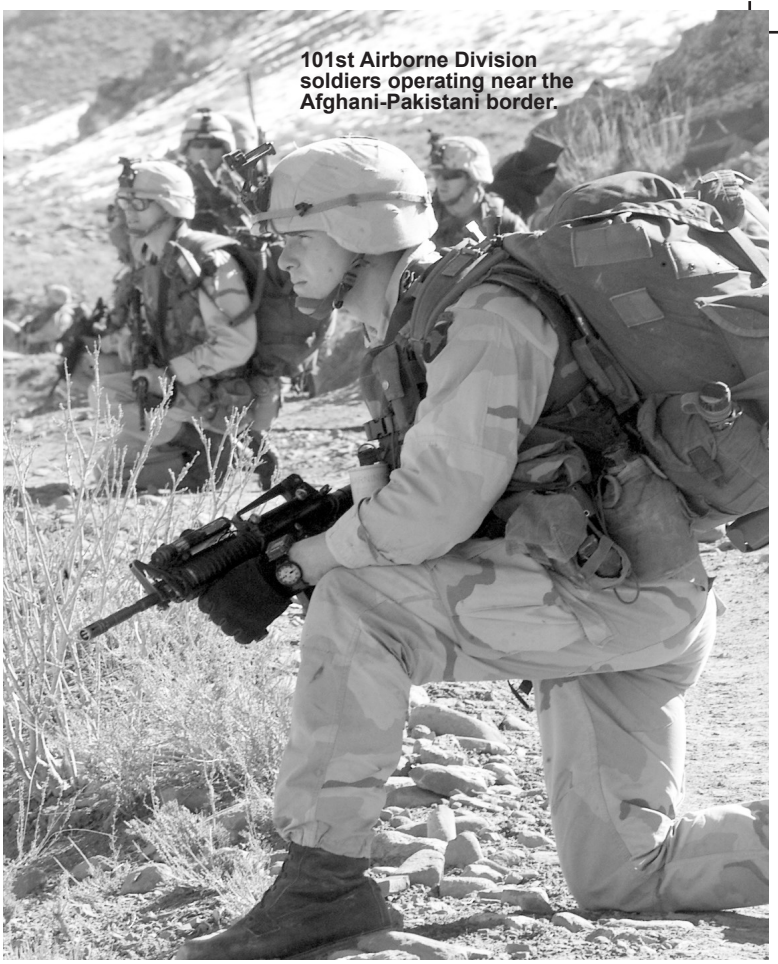
According to FM 3-0, leadership is the most dynamic element of combat power. Leadership focuses all the other elements of combat power and is the primary catalyst that creates conditions for military success. Competent and audacious leaders make the difference between success and failure.[23] Leadership has been and will continue to be the cornerstone of all military operations.

Battle command is combat leadership, the "exercise of command in operations against a hostile, thinking enemy."[24] It is the basis of U.S. military success, and it is the essential element of combat action that successful military operations depend on. There can be no changes to U.S. military doctrine, training, organization, materiel management, or warrior skills without examining the effects these changes might have on commanders as they exercise battle command.

FM 22-100, *Army Leadership*, defines leadership as "influencing people—by providing purpose, direction, and motivation—while operating to accomplish the mission and improving the organization."[25] This is a straightforward textbook definition. As previously stated, battle command implies exercising leadership during combat; namely, exercising command in operations against a hostile, thinking enemy.

There are many different descriptions for the inner workings and processes that create battle command and develop battle command skills. Military theorist John Boyd postulated his now famous OODA Loop—observation, orientation, decision, and action—to describe combat decisionmaking. Some senior Army generals describe battle command as a process of seeing, deciding, and acting. Retired General Frederick M. Franks simply states, "Battle command means action."[26] U.S. Air Force Chief of Staff General John P. Jumper recently credited Operation Enduring Freedom successes to the rapid execution of the "kill loop."[27]

What emerges from these theories is that battle command begins with one's ability to see, visualize, observe, or find, depending on the theory to which one subscribes. FM 3-0 describes this process as "visualize, describe, direct, and assess." The first building block of leadership is how one sees, and one's character influences how one sees.



101st Airborne Division soldiers operating near the Afghani-Pakistani border.

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In *Nicomachean Ethics*, Aristotle addressed the question, "Why do I choose to do x?" His answer is "I do x because of sense perception, desire, and intellectual intuition."[28] Sense perception, of which sight or seeing is one, is not guided by reason. According to Aristotle, as examined by Nancy Sherman in *The Fabric of Character: Aristotle's Theory of Virtue*, character affects the enduring traits, attitudes, sensibilities, and beliefs that affect how one sees, acts, and lives. Desire and intellectual intuition are rational, and their relationship is key to exercising battle command in an NCW environment. Practical wisdom and character are also rational.

Stephen L. Carter describes good character as the "courage of our convictions" or the "willingness to act."[29] More specifically, a person of sound character exhibits a high degree of moral reflectiveness. According to Carter, possessing good character means living with and embracing an ongoing struggle. A person must discern what is right and wrong, act on what he discerns, and say openly that he will act according to his understanding of right and wrong.[30] Carter, Aristotle, Sherman, and others feel the moral struggle itself is at least as important as the resultant decision or act. The ability to discern and deliberate is essential in exercising battle command. If strong, innovative, and agile battle command begins with the act of seeing, then practical wisdom and character are the primary building blocks for battle command in a military environment.

Leaders who exercise good moral character can discern the particulars of a given situation and deliberate them before making a moral decision. Both actions combined form the act of seeing for a leader. The presence of good or bad character in individuals explains not only why they act or do not act a certain way but also why they can or cannot be relied on to act in a particular way in the future. Character gives leaders a "special sort of accountability and pattern to action."[31]

Independent thought, self-esteem, and confidence are the prerequisites a combat leader needs to be able to see in the theoretical sense. Leaders must be able to think for themselves; that is, they must exhibit a notion of autonomy characterized by independent thought. Self-esteem and confidence are required to produce independent thought.[32] Realizing that a decision is required, then, is the first step of battle command. One's moral character and practical wisdom are the foundations for these abilities. What is it that allows one individual to characterize another as possessing or not possessing good moral character? Most important, why is character the foundation of battle command?

Practical wisdom and character have always been considered rational abilities. The ability to reason properly informed one's character. Recently, however, a study has revealed that when one faces intense moral judgments, the brain's neurological processes place additional emphasis on the individual's emotional state. This study directly applies here because battle command involves moral choices. While not disputing the important role reason plays in making moral judgments, this scientific study argues that "moral dilemmas vary systematically in the extent to which they engage emotional processing and that these variations in emotional engagement influence moral judgment."[33] Apparently, good moral character has both rational and emotional components. Accordingly, as leaders consider their circumstances before they act, they engage both rational and emotional mechanisms before making decisions.

One's character determines his ability to lead. Scottish philosopher David Hume grounded his theories of knowledge and character in examining the passions that move someone to act and his personal and historical experiences. Passion and experience both influence and burden one's ability to exercise battle command. In an NCW environment of rapidly advancing technologies, exercising battle command could become more difficult because of the potential military panopticon.

Battle Command in the 21st Century

Recently, a senior Army general told of a great technological success story from Operation Enduring Freedom. When U.S. Special Forces operators in Afghanistan engaged their blue force tracker, the general could closely monitor their location from his command post in Washington, D.C. This may not be a good practice because it tempts senior commanders to make combat decisions for subordinate leaders. Junior leaders learn battle command through experience, not by waiting for senior commanders to tell them what to do in real time based on a common operating picture. Likewise, senior commanders might dictate mission orders in real time simply because, in an NCW environment, they can. The military panopticon is but one possible unintended consequence of the technology RMA.

There is an explosion of military literature warning of the dangers of micromanagement, information saturation, and command compression, most of which are well-founded and close to the mark. At the same time, most lack a sense of urgency when the development of battle command is being threatened. Because leaders make moral choices, they must learn battle command skills through experience and by exercising their practical wisdom. No level of NCW can enhance or replace these critical learning opportunities for junior leaders.

Retired Brigadier General Huba Wass de Czege

has written extensively on battle command in an NCW environment, specifically about experience gained from training and the moral component of command. According to Wass de Czege, experience enables leaders to produce creative solutions under difficult circumstances. Commanders at all levels must make difficult judgments and transmit moral force in an NCW environment that will not lack information.[34]

Rumsfeld's transformation initiatives reinforce that the U.S. military has embraced the current NCW RMA. However, the services should proceed cautiously because of NCW's potential to adversely affect battle command. NCW could encourage a military panopticon; it could complicate rather than enhance decisionmaking and C2. NCW could also limit combat leaders' autonomy and discourage their independent thought that has proven crucial to military success in the past.

NCW's potential adverse effects are rooted in examining combat leaders' practical wisdom and character because battle command depends on their moral choices. Sound character, reinforced by practical wisdom, is a prerequisite in being able to exercise battle command because seeing, deciding, and acting begin there. The U.S. military, as it organizes, trains, and equips its soldiers, sailors, airmen, and marines, must cultivate and promote conditions that encourage individuals to make good moral choices to ensure successful battle command in the future.

Retired Lieutenant General Walter F. Ulmer, Jr., first addressed these kinds of issues 15 years ago. Among current discussions of structural and doctrinal changes in the U.S. military, he wrote, "there are few references to the challenges to leadership and leadership development that will attend [the ongoing] RMA . . . fascination with technology, finances, and geopolitics continue to relegate human issues to the back bench."[35] Battle command is one human issue that cannot be relegated to the back bench as the U.S. military marches forward to develop into an NCW force.

This article began with Gasset's timeless observation, "I am I plus my circumstances."[36] Where will we be if tomorrow's senior leaders—today's junior leaders—do not bring battle command experience with them as they progress? Although a difficult question to answer now, the future will reveal the answer because leadership has and always will revolve around the human dimension. ***MR***

NOTES

1. Donald Rumsfeld, "21st Century Transformation of U.S. Armed Forces," (Washington, DC: National Defense University [NDU], 31 January 2002), at <http://www.defenselink.mil/speeches/2002/s20020131-secdef.html>, accessed 4 February 2002.
2. Andrew F. Krepinevich, "Cavalry to Computer," *The National Interest* (Fall 1994), 30.
3. Arthur K. Cebrowski and John H. Garstka, "Network-Centric Warfare—Its Origins and Future," *Proceedings* (January 1998), 29. This is the earliest reference I found where high-ranking U.S. military or civilian leaders used the phrase "network-centric warfare" publicly. However, retired Vice Admiral Cebrowski is often credited with fathering the phrase. See "Transformation Boss Sees 'Sensor-Based Warfare' Era," *Defense Week Daily Update* (5 February 2002) and U.S. Department of Defense News Release No. 599, 26 November 2001.
4. Rumsfeld, and interview with Jim Lehrer, Public Broadcasting System, 4 February 2002 at <http://www.defenselink.mil/news/Feb2002/t02052002_t0204pbs.html>, accessed 5 February 2002.
5. Donald Rumsfeld, "Prepared Testimony on the 2003 Defense Budget to the House and Senate Armed Services Committees," Washington, DC, 5 and 6 February 2002 at <http://www.defenselink.mil/speeches/2002/s20020206-secdef.html>, accessed 6 February 2002.
6. *Joint Vision 2020* (Washington, DC: Office of the Chairman, Joint Chiefs of Staff [OCJCS], 30 May 2000), 3-4.
7. John Stuart Mill and Jeremy Bentham, *Utilitarianism and Other Essays*, Alan Ryan, ed. (London: Penguin Books, 1987), 9.
8. Ibid., 33.
9. I owe a large debt of gratitude to Lieutenant Colonel Tim Challans, Center for Army Leadership, U.S. Army Command and General Staff College (USACGSC), Fort Leavenworth, Kansas, for initially introducing me to the concept of Bentham's Panopticon as I struggled with the implications of the technology RMA on military operations.
10. James R. FitzSimmons, "The Cultural Challenge of Information Technology," *Naval War College Review* (Summer 1998), 9.
11. William A. Owens, "The Emerging System of Systems," *Proceedings* (May 1995), 35 and "Retired Admiral Advocates Smarter Forces, Restructure," *San Diego Union-Tribune* (30 January 2002) at <http://ebird.dtic.mil/Jan2002/s20020131retired.htm>, accessed 31 January 2002.
12. Cebrowski and Garstka, 29, 35.
13. David S. Alberts, *The Unintended Consequences of Information Age Technologies* (Washington, DC: NDU, 1996), 2 and Cebrowski and Garstka, 35.
14. *Joint Vision 2020*, 4-12.
15. U.S. Army Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. Government Printing Office [GPO], 14 June 2001), 4-16.
16. Ibid., 11-23.
17. John T. Nelson, "*Auftragstaktik*: A Case for Decentralized Combat Leadership," in *The Challenges of Military Leadership*, Lloyd Matthews and Dale E. Brown, eds. (McLean, VA: Pergamon-Brassey's International Defense Publishers, Inc., 1989), 27.
18. FM 3-0, 4-14 through 4-17.
19. FitzSimmons, 12.
20. Ibid., 13.
21. Ibid.
22. Ibid., 27.
23. FM 3-0, 4-7.
24. Ibid., 5-1.
25. FM 22-100, *Army Leadership: Be, Know, Do* (Washington, DC: GPO, 31 August 1999), 1-4.
26. General Frederick M. Franks, Jr., "Battle Command: A Commander's Perspective," *Military Review* (May-June 1996), 14.
27. See *Inside the Air Force*, 1 February 2002. The "kill loop" is defined as finding, fixing, tracking, engaging, and assessing targets during offensive air operations.
28. Aristotle, *Nicomachean Ethics*, Terence Irwin, trans. (Indianapolis, IN: Hackett Publishing Co., 1985), 1098b3.
29. Stephen L. Carter, *Integrity* (New York: Basic Books, 1996), 7.
30. Ibid.
31. Nancy Sherman, *Fabric of Character: Aristotle's Theory of Virtue* (Oxford: Clarendon Press, 1989), 1.
32. Tim Challans, "Autonomy and Leadership," *Military Review* (January-February 1996), 34.
33. Joshua D. Green, et al., "An fMRI Investigation of Emotional Engagement in Moral Judgment," *Science* (14 September 2001), 2,105-2,108.
34. Huba Wass de Czege and Jacob Biever, "Optimizing Future Battle Command Technologies," *Military Review* (March-April 1998) at <http://www-cgsc.army.mil/milrev/english/MarApr98/czege.htm>, accessed 2 November 2001.
35. Walter F. Ulmer, Jr., "Leaders, Managers, and Command Climate," *Leadership Advance Book* (Fort Leavenworth, KS: USACGSC, 2001), L3-37.
36. *Simpson's Contemporary Quotations*, James B. Simpson, comp., at <http://www.bartleby.com/63/65/5265.html>, accessed 29 January 2002.

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