

Knowledge Era Organizational Change and Leadership in the US Army

A Monograph

by

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Abstract

US Army Organizational Change and Leadership in the Knowledge Era by MAJ Marvin Morgan, US Army, 38 pages.

The Army relies on agile and innovative organizations to provide strategic advantage, but how to build, adapt, and lead such organizations is on the precipice of change. The extant industrial era leadership and organizational models used by the Army are rapidly becoming outdated, so the Army must continue to evolve by implementing change initiatives and solutions adapted to the knowledge era. Operations in the knowledge era require a networked adaptive structure that genuinely enables disciplined initiative and empowers agile, adaptive leaders.

One of the most significant challenges facing the Army is how to enable organizational adaptability in the increasingly complex operating environment. The Army seeks to evolve to meet the demands of the operating environment, but it still operates under a dated industrial age organizational model. To meet the needs of the information age, the US Army should integrate current change and leadership models to create a flexible organization that develops adaptive leaders and enables mission command.

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Acronyms

ADM	Army Design Methodology
ADP	Army Doctrine Publication
ADRP	Army Doctrine Reference Publication
AMC	Army Material Command
ASVAB	Armed Services Vocational Aptitude Battery
DOTMLPF-P	Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy
FM	Field Manual
GCC	Geographic Combatant Command
TRADOC	Training and Doctrine Command

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Introduction

Composed of agile and innovative institutions, Soldiers, and Civilians, the United States Army of 2025 and Beyond provides strategic advantage for the Nation with trusted professionals who strengthen the enduring bonds between the Army and the people it serves.

—*The Army Vision: Strategic Advantage in a Complex World*

The Army relies on agile and innovative institutions to gain a strategic advantage, but how to build, adapt, and lead those institutions is on the precipice of change. The extant industrial era leadership and organizational models used by the Army are rapidly becoming outdated, so the Army must continue to evolve by implementing change initiatives and solutions adapted to the knowledge era. Operations in the knowledge era require a networked adaptive structure that genuinely enables “disciplined initiative” and empowers “agile, adaptive leaders.”¹ Army leaders are thinking about how to spearhead organizational change and develop adaptive subordinates and processes to enable the mission command philosophy, but are they using outdated theories and models?

Army leaders recognize the need for adaptability in the knowledge era, and Army doctrine, training, and education address organizational change and leadership. However, the organizational change and leadership fields are a complex mix of sociology, psychology, anthropology, and political science, amongst others, and the complex, ever-changing, and often contradictory nature of these fields make it difficult to understand and implement best practices. The Army’s measured pace of training and doctrinal change further exacerbates the difficulty of comprehending and incorporating evolving theories and concepts. The acclaimed Harvard business professor, John Kotter, argues that for organizational leaders to learn more sophisticated approaches they must receive exposure to those approaches.² This monograph aims to provide

¹ US Department of the Army, Army Doctrine Publication (ADP) 6-0, Mission Command (Washington, DC: Government Printing Office, 2012), 1.

² John Kotter, *Power and Influence: Beyond Formal Authority* (New York: The Free Press, 1985), 10-11.

thought-provoking insights into theories, methods, and considerations that empower leaders with the knowledge needed to create an adaptive learning organization capable of achieving change that meets the requirements of the knowledge era.

One of the most significant challenges facing the Army is how to foster the organizational and individual adaptability required in the increasingly complex operating environment. The *Army Vision*, published in 2015, explained the problem: “emerging from fourteen years of war, facing significant budgetary pressures, and confronted with an increasingly complex security environment, we must determine what kind of Army the Nation will need for the future.”³

The need to determine the future Army is not new, and there is no shortage of doctrine, articles, and opinions on how to achieve this, but many of the solutions originate from an industrial era paradigm. The former Chief of Staff of the Army, General Raymond T. Odierno, recognized the need for a mindset shift in the 2015 *Army Vision*. It stated: “our exclusive use of previous paradigms is insufficient for the task ahead; neither the overwhelming armor formations of the Cold War nor units focused on counterinsurgency from our recent combat experience will be adequate. Instead, we must build on our long history of success, adaptation, and strong leadership to change and evolve.”⁴ The problem with a long history of success is that it makes an organization comfortable and leads to complacency, which stifles adaptability, creativity, and evolution.

The Army operates in a perpetual cycle of preparation, action, and transition, with some units in all three categories at the same time. This cycle of operations is especially apparent in the context of the last sixteen years, where sustained deployments in support of combat operations in multiple theaters represented the norm. Army units are participating in exercises to deter Russian

³ US Department of the Army, *The Army Vision: Strategic Advantage in a Complex World* (Washington, DC: Government Printing Office, 2015), 1.

⁴ *Ibid.*, 2.

aggression, dispense humanitarian aid, and develop partner nation capabilities while still conducting combat operations in the Middle East and Central Asia.

Although engaged across the globe, the Army must continue to build leaders and train units capable of operating in an increasingly complex environment. It must plan and train for future threats while meeting the challenges of today. The *Army Operating Concept* provides “the start point for developing the future force” and drives a modernization strategy by “identifying first order capabilities that the Army must possess to accomplish missions in support of policy and goals.”⁵ However, implementing the approach outlined in the concept while simultaneously conducting operations constitutes a challenge.

The US Army seeks to evolve to meet the increasingly complex demands of the contemporary operating environment, but it still operates under a dated, industrial age organizational model. To meet the needs of the information age, the US Army should utilize current organizational change and leadership models to cultivate a flexible organization that develops adaptive leaders and enables the mission command philosophy.

The terminology used in this monograph includes: adaptability, adaptive space, organizational change, complexity, knowledge era and industrial age, leader, manager, and follower. Regarding their meaning and usage, adapt is essentially a synonym for change: “To undergo modification so as to fit for a new use.”⁶ Adapt means to make or become different, and the ability to adjust to new conditions is “adaptability.”⁷ Professor Mary Uhl-Bien and Dr. Michael Arena define their concept of “adaptive space” as the “conditions for ideas advanced by entrepreneurial leaders to develop and scale into the operational system in the form of new order

⁵ US Department of the Army, Training and Doctrine Command Pamphlet 525-3-1, *The U.S. Army Operating Concept: Win in a Complex World* (Washington, DC: Government Printing Office, 2014).

⁶ *Oxford English Dictionary*, 3rd ed., accessed December 15, 2017, <http://www.oed.com>.

⁷ Mary Jo Hatch, *Organization Theory: Modern, Symbolic, and Postmodern Perspectives*, 1st ed. (Oxford: University Press, 2006), 78.

in cadence with the adaptive needs of the organization and its environment.”⁸ This monograph will illustrate how adaptive space applies to organizational change, which is the introduction or refinement of processes, structures, culture, or technologies in an organization.⁹ There are two categories of organizational change. The first category is episodic, discontinuous, and intermittent while the second is continuous, evolving, and incremental in nature.

Complexity theory originates from the natural sciences, and definitions of complexity vary.¹⁰ For the purpose of this monograph, complexity is a theory of interconnected interaction or behavior of a dynamic system or model characterized by uncertainty and non-linearity.¹¹ In complex systems, many parts interact in a multitude of ways that result “in a higher order of emergence greater than the sum of its parts.”¹² Complexity theory emphasizes interactions and feedback loops, and it applies to organizational science.

The industrial age or era refers to the time since the industrial revolution where the economy and social organization revolved around the concentration of industry. In structural terms, it is characterized by linear organizations that function under a top-down leadership model that values organization, productivity, and obedience.¹³ While much of the developing world is still in the industrial age, the developed world is transitioning into the knowledge, digital, or information age. The knowledge era is characterized by a knowledge based society and high

⁸ Mary Uhl-Bien and Michael Arena, "Leadership for Organizational Adaptability: A Theoretical Synthesis and Integrative Framework," *The Leadership Quarterly* 29, no. 1 (2018): 2.

⁹ Hatch, *Organization Theory*, 295-308.

¹⁰ Gary M. Grobman, "Complexity Theory: A New Way to Look at Organizational Change," *Public Administration Quarterly* 29, no. 3 (2005): 351, accessed December 11, 2017, <http://www.complexityforum.com/members/Grobman%202005%20Complexity%20theory.pdf>.

¹¹ Bernard Burnes, "Complexity Theories and Organizational Change," *International Journal of Management Reviews* 7, no. 2 (2005): 73-90.

¹² Ricardo Antunes and Vicente Gonzalez, "A Production Model for Construction: A Theoretical Framework," *Buildings* 5, no. 1 (2015): 209-228, accessed April 5, 2018, <http://www.mdpi.com/2075-5309/5/1/209>.

¹³ Hatch, *Organization Theory*, 26-31.

technology global economy. In the knowledge era, networked and collaborative leadership models are more common, and innovation and initiative are valued.¹⁴

Leader and manager, often used interchangeably, are two distinct functions. Scholars differ on the definition of leader and manager and the overlap of skills and actions associated with each. There are also differing definitions of a follower. For the purpose of this monograph, managers have positional power and leaders have influential power, as proposed by Kotter, and everyone in the Army is a follower. Leaders “focus on a potential change by establishing direction, aligning people, and motivating and inspiring.”¹⁵ Managers “plan, build, and direct organizational systems to accomplish missions and goals.”¹⁶ Followers support the organization.

This monograph uses inferential analysis to highlight four hypotheses and determine a set of useful ideals or principles. The first hypothesis posits that leaders and organizations do not learn to change or focus on the necessity for change without disruption. The second hypothesis proposes that real adaptability does not stem from “leading change from the top-down, through vision and inspiration.”¹⁷ Real adaptability resides in the realm of *third-order* change, when organizations and their people adapt without reverting to the norm, which takes place in the *adaptive space* enabled by exceptional leaders.¹⁸ The third, but possibly most important, hypothesis suggests that adaptability and organizational change are not intuitive and require study, coaching, and support in practice. The fourth hypothesis asserts that the Army does not properly differentiate between leaders, managers, and followers. The Army may benefit from

¹⁴ Everett Dolman, *Pure Strategy: Power and Principle in the Space and Information Age* (New York: Routledge, 2005), 168-170.

¹⁵ Ali Algahtani, “Are Leadership and Management Different? A Review,” *Journal of Management Policies and Practices* 2, no. 3 (September 2014): 71.

¹⁶ *Ibid.*, 70-72.

¹⁷ Uhl-Bien and Arena, “Leadership for Organizational Adaptability,” 4.

¹⁸ Jean M. Bartunek and Michael K. Moch, “First -Order, Second-Order, and Third-Order Change and Organization Development Interventions: A Cognitive Approach,” *The Journal of Applied Behavioral Science* 23, no. 4 (December 1987): 483.

defining the roles of these three distinct categories, focusing on followership, and incorporating managerial principles into its doctrine.

This monograph thus emphasizes four research questions: What is the relevance of complexity theory, and how can the Army best use the theory to inform its operations and change processes? What is the relevance and importance of disruption, and how does the Army embrace disruption? What is adaptability theory's relevance to the Army and how is it best employed? What is leader development theory and how can the Army improve its leader development using the theory? The monograph will conclude with a set of recommendations for improving the Army's ability to achieve success in the information age.

There are some limitations associated with this type of research. First, it spans several theoretical, often contradictory, academic schools of thought. The continued evolution and vast quality and quantity of scholarly theories make it difficult to form definitive conclusions or synthesize all relevant data. There are no absolutes in social sciences. Second, methods that may suit the academic or business world do not always translate into unique military organizations. Last, a lack of quantitative data in the field of organizational change necessitates a heavier reliance on qualitative data. The following analysis will attempt to overcome the limitations above and compensate for the contradictions between the Army's way of creating "agile and innovative institutions" and contemporary leadership and organizational change theories.

Complexity

What did the Dakota and Lakota Sioux care about oil in Canada a hundred years ago? Nothing. In 2016, however, the construction of the Dakota Access oil pipeline, built to carry Canadian oil to refineries in the United States and then on to markets around the world, presented a tangible threat to the tribes' drinking water, fishing, hunting, and religious sites.¹⁹ The fight

¹⁹ Barbara Campbell, "Army Says It IS Expediting Review of Dakota Access Pipeline Route," *The Two-way: Breaking News from National Public Radio* (January 31, 2017), accessed February 18, 2018,

over the Dakota Access and Keystone XL pipelines became a contentious international issue. What did the United States care about the tribal politics of Afghanistan fifty years ago? Again, nothing, but by the late 1980s, tribal politics in Afghanistan emerged as an important pillar of American anti-Soviet policy.²⁰

The world today is full of complex, interrelated, and connected systems and subsystems. This increasing connectedness is making the linear models of the industrial age irrelevant.²¹ Information flows at an astounding rate, and societal changes occur more rapidly than ever before. Hybrid threats emerging across the world can project effects with the click of a mouse.²² This increasing complexity presents a host of problems for the Army, which remains mired in an industrial era leadership paradigm.

Increasingly, complexity theories are used to understand the dynamics of changing organizations. Because of the growing complexity of the contemporary operational environment, organizational structures must transform to match the complexity of the environment. In his book, *Making Things Work: Solving Complex Problems in a Complex World*, Professor Yaneer Bar-Yam, one of the founders of the field of complex systems science, contends that “the most basic issue for organizational success is matching a system’s complexity to its environment.”²³ According to Dr. Gary Grobman, who addresses complexity theory as it pertains to organizational change, “the classic model of the organization as a machine has long since been discredited.”²⁴ Organizations do not function in a linear, or step by step, predictable manner. Rather,

<https://www.npr.org/sections/thetwo-way/2017/01/31/512763500/administration-orders-easement-for-construction-of-dakota-access-pipeline>.

²⁰ Andrew Hartman, “The Red Template: US Policy in Soviet-occupied Afghanistan,” *Third World Quarterly* 23, no. 3 (June 2011): 478-479.

²¹ Everett Dolman, *Pure Strategy*, 94.

²² John Davis, “Defeating Future Hybrid Threats: The Greatest Challenge to the Army Profession of 2020 and Beyond,” *Military Review* 93, no. 5 (September- October 2013) 21.

²³ Yaneer Bar-Yam, *Making Things Work: Solving Complex Problems in a Complex World* (Cambridge, MA: Knowledge Press, 2004), 91.

²⁴ Grobman, “Complexity Theory: A New Way to Look at Organizational Change,” 350.

organizations are non-linear, dynamic systems that exist in a complex interrelated environment. As Grobman explains, “bureaucratic hierarchies, centralized control, discipline, division of labor, organizational charts, standardized tools and procedures, emphasis on planning rather than improvisation, and minimal relationships outside of the organization...are artifacts of this [industrial era] view of organization.”²⁵ Today’s environment requires networked organizations with decentralized control and collaborative feedback.

Michael Porter’s Value Chain model is the antithesis of Grobman’s theory and the archetype of most contemporary companies, especially in the manufacturing sector. The US Army also uses the Value Chain model, which aligns well with the industrial era organization that Grobman decries. Porter’s model flows linearly from raw materials, through production, into tracking inventory, marketing and sales, and finally service or customer support.²⁶ To illustrate how the analogy overlaps with the Army, think of recruits as the raw material and training as the production of soldiers, etc. The Value Chain model is in use around the world and has survived repeated management innovations. However, much of contemporary organizational theory asserts that the industrial era organizational models are outdated. Successful companies, like Gore Creative Technologies Worldwide, deviate entirely from Porter’s model, embracing a different strategy and operations model that better accommodates the knowledge era. Gore uses a democratic approach to business where no one has titles and everyone “works together in [a] lattice communications structure.”²⁷ They collaborate and build connections without the constraints of a traditional chain of command. Gore encourages “growth and development” through these connections. In Army terms, Gore’s approach enables mission command whereas systems like Porter’s Value Chain, in which inputs equal outputs, neither support bottom-up nor

²⁵ Grobman, “Complexity Theory: A New Way to Look at Organizational Change,” 350.

²⁶ Michael Porter, *Competitive Advantage* (New York: The Free Press, 1985), 11-15.

²⁷ “Our Culture: Innovation, Integrity, and Teamwork Drive Our Business Every Day,” Gore Creative Technologies Worldwide, accessed February 2, 2018, <https://www.gore.com/about/culture>.

lateral collaboration. The Value Chain Model does not address the complexity the present-day Army faces.

The suggestion is not a utopian one rank army, but a search for ways to assist the Army in dealing with complexity. A recent blog post by Professor Everett C. Dolman states that the Army should not use business models.²⁸ Dolman argues that the Army should not attempt to keep up with trends in the business world because the Army is not a business and historically does a poor job of implementing these models. However, the Army cannot discount best practices from the business sector or theories and models from academia. Statistician George Box asserted that “all models are wrong but some are useful.”²⁹ The Army should continue to search for the utility in business models and academic theories and leverage best practices to overcome complexity in the operating environment.

The preponderance of organizational theory points to the need to deal with complexity through change. The Army recognized this need in 2005 and began to incorporate design thinking, a concept derived from the civilian sector, into Field Manual 5-0, *Army Planning and Orders Production*.³⁰ The Army’s adaptation of civilian design concepts, christened the Army Design Methodology (ADM), helps commanders and staffs deal with the complexity of the operational environment “by applying critical and creative thinking to understand, visualize, and describe unfamiliar problems and approaches to solving them.”³¹ ADM is the process of framing the environment, problem, and solution and then reframing in response to changes.³² The fact that

²⁸ Everett C. Dolman, “On the Business Models of War,” *The Strategy Bridge*, November 22, 2017, accessed December 14, 2017, <https://thestrategybridge.org/the-bridge/2017/11/22/on-the-business-models-of-war>.

²⁹ George E. Box and Norman P. Draper, *Empirical Model-Building and Response Surfaces* (New York: John Wiley & Sons, 1987), 424.

³⁰ US Department of the Army, Field Manual (FM) 5-0, *Army Planning and Orders Production* (Washington, DC: Government Printing Office, 2005), 6.

³¹ US Army, FM 5-0 (2005), 2.

³² *Ibid.*

the Army has trouble implementing the latest model or theory does not mean the model is not valid or that the Army should stop trying to improve; even ADM met resistance when it was first introduced.³³ The Army should continue to adapt, more readily embrace change, and continually reassess its processes. In ADM terminology, the Army should get better at reframing.

Despite Grobman's assertions and examples of successful transitions from industrial era models, large institutions like the Army evolve slowly, clinging on to the relics of an industrial era model of organization leadership. The first slide presented in almost any Army operations brief is the task organization slide, which depicts the hierarchy, control, and division of labor. The Army plans everything while, at least anecdotally, acknowledging Helmuth von Moltke's "Kein Operationsplan reicht mit einiger Sicherheit über das erste Zusammentreffen mit der feindlichen Hauptmacht hinaus," or paraphrased, no plan survives contact with the enemy's main body.³⁴ Moltke captured the essence of complexity as it applied to military organizations when he observed: "the material and moral consequences of every large engagement are so far reaching that they will usually create a completely changed situation."³⁵ Complexity theory posits that there are follow-on effects for all actions that are unknowable. In complex systems, an input of one and one does not always equal two, so prediction is impossible. Moltke rightfully said that "the principal point was to estimate the current situation and do what is right for right now because no human acumen is able to see beyond the first battle."³⁶ In other words, adaptability is more important than strategy and planning.

³³ Roger Martin, "Design Thinking Comes to the U.S. Army," *Design Observer*, March 5, 2010, accessed February 8, 2018, <https://designobserver.com/feature/design-thinking-comes-to-the-us-army/13478>.

³⁴ Helmuth von Moltke, *Moltke: On the Art of War*, ed. and trans. Daniel Hughes and Harry Bell (New York: Ballentine Books, 1993), 14.

³⁵ *Ibid.*, 92.

³⁶ Moltke, *Moltke: On the Art of War*, 92.

Moltke, like Carl von Clausewitz, had little faith in the rigid and detailed military systems of the eighteenth century. Moltke’s “system consisted of a pattern of thought rather than a series of procedures,” and he relied on “the ability of Prussian officers to use their education and judgment to adjust to situations.”³⁷ Moltke’s “pattern of thought” fits into the contemporary definition of a complex system, which the US Army is part of.

A ‘complex system’ is a group or organization made up of many interacting parts. Archetypal complex systems include the global climate, economies, ant colonies, and immune systems. In such systems the individual parts... and the interactions between them often lead to large-scale behaviors which are not easily predicted from a knowledge only of the behavior of the individual agents. Such collective effects are called ‘emergent’ behaviors. Examples of emergent behaviors include short and long-term climate changes, price fluctuations in markets, foraging and building by ants.³⁸

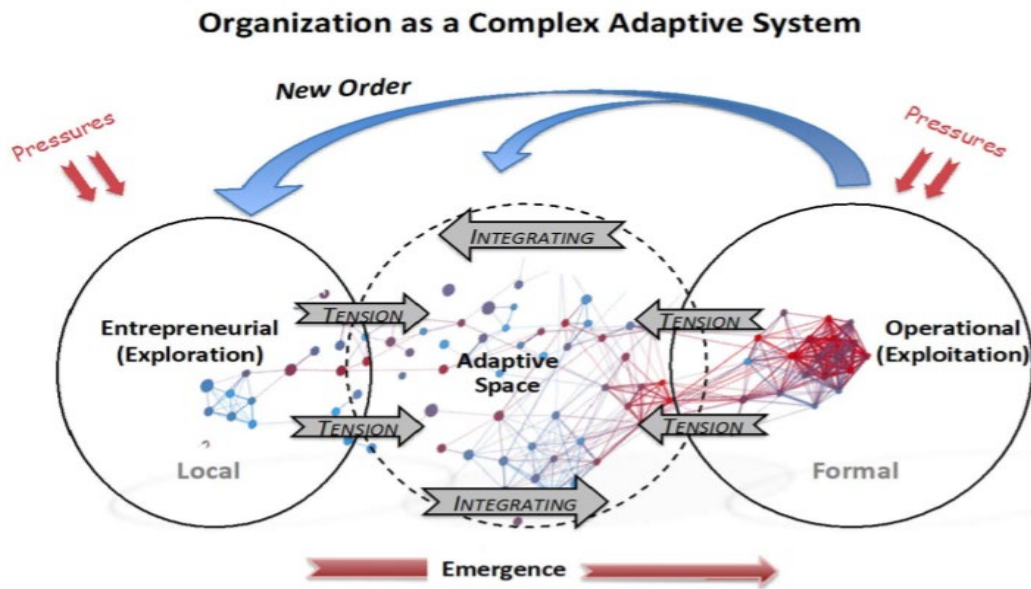


Figure 1. The Organization as a Complex Adaptive System. Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 2018, 10.

As depicted in Figure 1, Uhl-Bien and Arena contend that “in complexity, emergent order (i.e., adaptability) comes from the simultaneous presence of disturbing elements that push a

³⁷ Moltke, *Moltke: On the Art of War*, 14.

³⁸ Melanie Mitchell and Mark Newman, “Complex Systems Theory and Evolution,” in *Encyclopedia of Evolution*, ed. M. Pagel (New York: Oxford University Press, 2002), 1.

system toward chaos, and stabilizing elements that push toward order.”³⁹ Without disturbing elements or pressures the system remains largely intact. Without the stabilizing elements, the system can descend into chaos. Army leaders must embrace changes in the system without ignoring the possibility of chaos. They must focus on enabling the adaptive space where individuals can rely on their education and judgment to adjust to the situation. In mission command terms, the guidance provided by leaders staves off chaos while individuals apply disciplined initiative in the adaptive space to overcome complexity. Uhl-Bien and Arena represent complexity leadership structure in the graphic below.



Figure 2. The Complexity Leadership Framework. Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 11.

The adaptation of potential adversaries to US tactics is a disturbing element or pressure for the Army. The operational environment is changing to one where additional tanks, soldiers, or resources do not guarantee success. Russia demonstrated the complexity of the contemporary operational environment with the hybrid warfare employed during the annexation of the Crimean

³⁹ Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 7.

Peninsula.⁴⁰ This innovative employment of special operations forces, electronic warfare, and information operations portend an environment where the evolutionary cycle of weapons and tactics is not measured in weeks and months, but hours.⁴¹ According to William J. Cojocar, “Future threats will adapt specific mixes of cognitive and material capabilities assessment and reassessment of the other’s strengths and weaknesses, requiring constant adaptation, experimentation, and learning.”⁴²

In a world transitioning from the industrial age to the knowledge era, complexity continues to increase. Emergent threats, the simultaneity of information flow, and the rate of societal changes reflects this heightened interactive complexity. This complexity creates problems for the Army, not least of which is how to meet disrupting forces and enable the Army to adapt faster than adversaries. In this increasingly complex operational environment, the Army must use disruption and change to enable adaptability and develop leaders and followers to confront and deter modern threats.

Disruption

In today’s world, whether you’re a government leader or a business leader...if you don’t transform...if you don’t reinvent yourself, change your organization structure; if you don’t talk about the speed of innovation—you’re going to get disrupted. And it’ll be a brutal disruption, where the majority of companies will not exist in a meaningful way 10 to 15 years from now.

—John Chambers, Executive Chairman of Cisco, March 2016

In May 2017, during testimony to the Senate Armed Services Committee on the “Posture of the Department of the Army,” Chief of Staff of the Army General Mark A. Milley warned of

⁴⁰ Bettina Renz and Hanna Smith, “Russia and Hybrid Warfare: Going Beyond the Label,” *Papers Aleksanteri*, January 2016, accessed February 19, 2018, http://www.helsinki.fi/aleksanteri/english/publications/presentations/papers/ap_1_2016.pdf.

⁴¹ Bret Perry, “How NATO Can Disrupt Russia’s New Way of War,” *Defense One*, March 3, 2016, accessed August 27, 2017, <http://www.defenseone.com/ideas/2016/03/nato-russia-sof-ew-hybrid-war/126401/>.

⁴² William J. Cojocar, “Adaptive Leadership in the Military Decision Making Process,” *Military Review* 91, no. 6 November-December 2011, 24.

“a fundamental change in the character of warfare.”⁴³ The Chairman of the Senate Armed Services Committee, Senator John McCain, commented that “for yet another year, just under two-thirds of the Army’s brigade combat teams are not ready for deployment and decisive operations,” with only three of fifty-eight brigade combat teams at the highest level of readiness and no expectation of full spectrum readiness before 2021.⁴⁴ McCain went on to state that “the Army is woefully behind on modernization, and our soldiers are increasingly unprepared to confront the harsh realities of twenty-first century warfare.”⁴⁵ The Army must adapt to meet these harsh realities. It must capitalize on the emergence taking place and ensure that it drives change while accepting that change is disruptive and difficult. It requires real commitment to change and an approach that accepts the rich interconnectedness of the operating environment. The Army drives change through a modernization strategy, but any strategy the Army develops should not merely fix the technological shortfalls addressed in the posture statement. It should also address the interconnected factors that enable adaptability and mission command. The Army must transform in a way that prepares the force for a complex long-term future while allowing continued dominance in current and near-term conflicts.

Change is disruptive, and disruptions drive change. Napoleon Bonaparte, “who never had a plan of operations,” defeated most of Europe with his *Grande Armée* until, faced with massive disruption, the armies of Europe adapted.⁴⁶ The societal changes in France allowed for innovative approaches to warfare that caught his enemies off guard. Napoleon’s sweeping victories in the

⁴³ General Mark Milley, speaking to the US Senate, Committee on Armed Services, Hearing to Receive Testimony on the Posture of the Department of the Army in Review of the Defense Authorization Request or Fiscal Year 2018 and the Future Years Defense Program (May 25, 2017): 75, accessed April 4, 2018, <https://www.armed-services.senate.gov/hearings/17-05-25-posture-of-thedepartment-of-the-army>.

⁴⁴ Senator John McCain, speaking to the US Senate, Committee on Armed Services, Hearing to Receive Testimony on the Posture of the Department of the Army in Review of the Defense Authorization Request or Fiscal Year 2018 and the Future Years Defense Program (May 25, 2017): 50, accessed April 4, 2018, <https://www.armed-services.senate.gov/hearings/17-05-25-posture-of-thedepartment-of-the-army>.

⁴⁵ *Ibid.*, 5.

⁴⁶ Moltke, *Moltke: On the Art of War*, 92.

Napoleonic Wars were an outside change driver for the armies of Europe. His overwhelming success, often with a numerically inferior army, illustrated the need for change among his adversaries. Those who did not change or changed too slowly suffered immensely on the battlefield. However, complacent in success, Napoleon's army was on the decline by 1812 and, after suffering defeat in Russia, never regained its previous dominance. Napoleon's disruption in Russia illustrates the need to go beyond an innovative organization to an adaptable one. Innovation alone represents industrial era thinking and, without adaptability, an innovative organization risks losing its advantage when others innovate faster.

As in the Napoleonic era, contemporary "armies are organizationally predisposed to resist change yet obliged to keep pace with the dynamic environment."⁴⁷ The frequency and scope of doctrinal changes that occurred in the twenty years after the Vietnam War illustrate the Army's attempt to deal with both external and internal disruption. The rapid pace of change, and a focus on the future, seemed to indicate the Army had escaped the paradoxical resistance to change and embraced the dynamic nature of the environment. Several factors prompted the change following the Vietnam War. The Army won nearly every tactical engagement in Vietnam, but the North Vietnamese won the war, which led the Army to search internally for the reason it failed. Additionally, lessons gleaned from the 1973 Arab-Israeli War, the Cold War, and the threat of nuclear war provided external pressure for change. Whatever the reason for the change, be it external factors, internal machinations, or some combination of the two, the Army identified areas for improvement and began the disruptive process of making changes in organizational structure, training, and doctrine. The byproduct of this refocus or reinvention is evident in the revisions of the Army's Field Manual (FM) 3-0, *Operations*, (formerly FM 100-5), which changed eight times in the years following Vietnam.⁴⁸

⁴⁷ Jeffrey Long, "The Evolution of U.S. Army Doctrine: From Active Defense to AirLand Battle and Beyond" (MMAS thesis, Command and General Staff College, 1991), 7.

⁴⁸ *Ibid.*, 7-44.

The Active Defense concept was the initial change in how the Army planned to fight, but the overwhelming size of the Warsaw Pact forces and other variables in Europe made this strategy untenable.⁴⁹ The Army developed the AirLand Battle operating concept in response to the structure of the Army at the time and the environment in Europe. The Army did not wait for a disruptive battle with Russia; it anticipated disruption. AirLand Battle was a sea change. It drove structural change and moved the Army from a firepower/attrition focused force to a maneuver force. After AirLand Battle, the doctrine evolved more gradually while remaining maneuver focused. While changes in doctrine capture actual or desired change in the organization, strict adherence to doctrine perpetuates the sort of structure and standardization that stifles creativity and innovation.⁵⁰ Moreover, doctrine is only useful when accepted and diffused and, even then, it is only one piece of the change process. Strategy, leadership, culture, climate, and structure all participate in the system's dynamism. Change driving disruption can originate externally, internally, or both and can take place across one or all areas of doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P).

Change

The transformation that John Chambers argues will stave off disruption requires a comprehensive approach to organizational change.⁵¹ Columbia professor W. Warner Burke and The Graduate Center's George H. Litwin published the Burke-Litwin's Organizational Performance and Change Model in 1992, which addresses the interrelatedness issue. The Burke-Litwin Model of Organizational Performance and Change is a causal model where organizational conditions, both internal and external, influence performance. The model establishes a cause and

⁴⁹ Long, "The Evolution of U.S. Army Doctrine," 44.

⁵⁰ Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 11.

⁵¹ John Chambers, "Cisco's John Chambers on the Digital Era," *McKinsey & Company High Tech Insights*, March 2016, accessed March 14, 2018, <https://www.mckinsey.com/industries/high-tech/our-insights/ciscos-john-chambers-on-the-digital-era>.

effect relationship between twelve organizational dimensions critical to change and helps drive it by forging linkages between the internal and external factors that underwrite performance.⁵²

The external environment triggers change in the Burke-Litwin model, but, as discussed above, change drivers can originate either externally or internally. The concept of a change driver is evident in psychologist Kurt Lewin's "changing as three steps" or *unfreeze-change-freezing* model.⁵³ Lewin, widely considered the founder of the change management field, envisions change as a push-pull relationship between the *driving force* and *restraining forces*. When the driver outweighs the resistance to change, the *mindset is unfrozen*, and change can occur.⁵⁴ This push-pull relationship eventually reaches equilibrium and refreezes. While Lewin's theory provides a foundation for the change management field, critics view it as overly simplistic for the complex contemporary environment. However, the Army still employs this very mechanistic model, developed in the 1940s. The resocialization of recruits during basic training is an example of outside pressure leading to changing ideals, ultimately resulting in the transformation from civilian to soldier. However, the freezing after the change is counter to adaptability, and remaining fluid allows for the faster transitions needed to avoid external disruption.

Chambers describes change drivers as disruption, which correlates with Lewin's ideas pertaining to the change process's disruptiveness.⁵⁵ The Army does not self-disrupt very well. The dire consequences of failure at war cultivate risk aversion and a preference for orderly change over time. As the US Army War College acknowledges, "The Army strives to implement orderly management of change through existing processes to minimize turbulence in

⁵² W. Warner Burke and George H. Litwin, "A Causal Model of Organizational Performance and Change," *Journal of Management* 18, no. 3 (September 1992): 520-523.

⁵³ There is evidence that, although often attributed to Lewin, this theory or at least the specific terminology, of unfreeze-change-freeze, evolved from his work after he died. The theory is attributed to Lewin here because it is widely accepted as his in the field of organizational theory.

⁵⁴ Kurt Lewin, *Resolving Social Conflicts: Selected Papers on Group Dynamics*, ed. Gertrud Lewin (New York: Harper & Row, 1967), 32.

⁵⁵ Chambers, "Cisco's John Chambers on the Digital Era."

organizations.”⁵⁶ In the Army, mindsets or paradigms become entrenched and the unfreezing process is slow. History is full of examples of armies, like the Prussian Army of the early 1800s, that failed to adapt until they faced catastrophic defeat in battle.

Still using antiquated tactics from the time of Frederick the Great, the Prussian Army suffered a humiliating defeat by Napoleon’s Army at the battles of Jena and Auerstedt in 1806. Following the war, reformers, like General Gerhard von Scharnhorst, transformed the Prussian Army from a defeated professional long-service army into a victorious national army based on universal service.⁵⁷ They streamlined military administration and changed the culture by introducing promotion for merit and many other reforms. Because of these reforms, the Prussians were able to avenge their defeat less than ten years later at the Battle of Waterloo.⁵⁸ The Prussians recognized the shifting military paradigm and successfully embraced change.

Historian of science Thomas Kuhn, who introduced the term *paradigm shift*, suggests that the professionalization of an academic field leads to a limited vision and resistance to change.⁵⁹ The Army prides itself on its professionalism, doctrine, and values. It is a complex and insular organization with a culture steeped in tradition, and “changing complex organizations with well-developed cultures embedded in established bureaucracies can be incredibly difficult.”⁶⁰ Burke and Litwin refer to changing complex organizations as a kind of chaos with many variables changing simultaneously. Couple this chaos with the natural resistance of human systems to

⁵⁶ The US Army War College, *How the Army Runs: A Senior Leader Reference Handbook*, (Carlisle: US Army War College, 2015-2016), 1-2, accessed March 14, 2018, <http://www.dtic.mil/dtic/tr/fulltext/u2/1001713.pdf>.

⁵⁷ Peter Paret, *The Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton: Princeton University Press, 1986), 187-213.

⁵⁸ Robert M. Citino, *The German Way of War: From the Thirty Years’ War to the Third Reich* (Lawrence: University Press of Kansas, 2005), 238.

⁵⁹ Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1970), 64.

⁶⁰ The US Army War College, *How the Army Runs* (2015-2016), 1-2.

transform and the change process is nearly impossible to control.⁶¹ So, how does the Army manage a change process that is hard to predict and almost impossible to control?

The Army manages change through a complicated process called Army Force Management. As one publication puts it, “Army Force Management, as a continuum across DOTMLPF-P, is the capstone process that enables the Army to manage change, build opportunities, and reduce risk.”⁶² This process is meant to be both flexible and adaptable. It is meant to facilitate change while encouraging creativity, innovation, and the rapid integration of technological, cognitive, and organizational solutions. However, as Arizona Senator John McCain stated, “we cannot move quickly enough to modernize our Army and give our soldiers the advanced capabilities they need to prevail against a determined peer adversary.”⁶³ Acting Secretary of the Army Robert Speer and General Milley echoed this sentiment in the 2017 “Posture of the Department of the Army.” This document illustrated the difficulties inherent in change across the Army’s DOTMLPF-P and the inefficiency of the Army Force Management process. Milley pointed out that even though “the Army has excelled in providing trained and ready forces for combatant commanders across a wide array of missions for the past fifteen years of war,” creating an impression that the Army is ready for any conflict, only one-third of forces are at acceptable readiness levels.⁶⁴

Many of the problems discussed in the posture statement revolve around acquisitions and failed programs like the Crusader Howitzer, the Comanche Attack Helicopter, and the Future Combat System, to name a few. The emphasis on material solutions to real or perceived

⁶¹ Burke and Litwin, “A Causal Model of Organizational Change,” 523.

⁶² The US Army War College, *How the Army Runs* (2015-2016), vii.

⁶³ Senator McCain, US Senate, “The Posture of the Department of the Army,” 4.

⁶⁴ Mark Milley, “2017 Posture Statement of the U.S. Army” (February 24, 2016), accessed April 7, 2018, https://www.army.mil/article/163561/2017_posture_statement_of_the_us_army.

capability gaps highlights a potential shortcoming in the Army change process. The problem, in some cases, is a tendency to search for a material solution or a lack of focus on the right types of change, which results in the poor execution of change initiatives. General Milley's motivation is sound, but constraints within the DOTMLPF-P system make it difficult to synchronize the execution with contemporary theory. At an Association of the United States Army event, the Chief of Staff of the Army said that "we owe our soldiers the absolute best equipment, training, leader development that is humanly possible."⁶⁵

General Milley's focus on providing the best of everything led the Army to activate a "Futures and Modernization Command" to help overcome some of the challenges associated with change.⁶⁶ However, adding another stove-piped organization is an industrial era answer to the problem. Why create another organization, with its own bureaucracy, which must tell other organizations what to do to fix a problem? The Army already has the Training and Doctrine Command (TRADOC), whose four functions are to design, acquire, build, and improve. Under Secretary for the Army Ryan McCarthy argues that adding a new command will not add bureaucracy because existing program management offices, staffs, and other personnel can remain in their parent organizations and report to the new command as needed.⁶⁷ In the project management world, this is known as a "matrix organization," and it requires the sharing of resources and close cooperation between programmatic managers.⁶⁸ Part of the justification for this command was that Army Material Command (AMC) and TRADOC did not cooperate

⁶⁵ Meghann Myers, "Preparing for the Big War," *Army Times*, January 2017, 10.

⁶⁶ Sydney J. Freedberg Jr., "Army Shifts \$1B in S&T, Plans Modernization Command: UnderSec McCarthy," *Breaking Defense* (December 07, 2017), accessed January 15, 2018, <https://breakingdefense.com/2017/12/army-shifts-1b-in-st-plans-modernization-command-undersec-mccarthy/>.

⁶⁷ Ibid.

⁶⁸ Linn Stuckenbruck, "The Matrix Organization," *Project Management Quarterly* 10, no. 3 (September 1979): 21-33.

efficiently on projects. Even if the new command results in successful coordination, the changes it develops will come from an outside organization and implementation will follow a top-down model. This sort of model could encounter resistance as it tries to gain buy-in from the force. Focusing on fixing the issues with TRADOC and AMC, rather than activating a new command, might potentially enable better adaptability and performance.

The creation of the Futures and Modernization Command illustrates the need for change agents to focus on the right areas and use the right tools for the type of change they seek. Doctors Jean M. Bartunek and Michael K. Moch propose three orders of change. *First-order* change consists of incremental changes within a system or established framework. It involves a refinement or reinforcement of present understandings. *First-order* change is incremental and reversible; it does not alter the paradigm. *Second-order* change is the modification of the framework. *Second-order* change is revolutionary and irreversible. It includes changes in norms, perceptions, beliefs, and behaviors, resulting in a new paradigm. Where *first-order* change is a logical progression, *second-order* may seem irrational because of the radical shift in logic. *Third-order* change is “the training of organizational members to be aware of their present schemata [organizing frameworks for understanding events] and thereby more able to change these as they see fit.” *Third-order* change emerges where the adaptability needed in the knowledge era resides.⁶⁹

The Army often applies the language of *third-order* change to transformation initiatives, but are they truly *third-order*? Take, for example, former Chief of Staff of the Army General Eric Shinseki’s “transformation” of the Army in 1999, shifting from a force comprised of light and heavy divisions to one that includes medium weight forces. Was this *third-order* transformational

⁶⁹ Bartunek and Moch, “First -Order, Second-Order, and Third-Order Change,” 483-484.

change or just a *first-order* adaptation of the structure of the Army? Bartunek and Moch might argue that it was merely an effort to streamline the existing system and that disbanding the medium weight forces would easily reverse the change. General Shinseki's motivation was sound. In interviews, he stated that he wanted an agile, flexible, and versatile force that could thrive in the post Cold War environment.⁷⁰ However, his modular brigade initiatives focused more on agility than versatility. Bartunek and Moch contend that change agents need to understand the orders of change so that the intended outcomes are properly defined and the initiatives are focused on the right order of change. This focus increases the success rate of change initiatives. Had General Shinseki focused on the versatility/adaptability aspect of the transformation, the required agility might have been a natural outgrowth.

Focused change is difficult and requires leaders and managers with a broad understanding of organizational change and leadership theory. Understanding leadership and organizational change theories provide a starting point, but effective change requires charismatic leaders that diligently plan and managers that thoughtfully implement change initiatives. Change requires both leadership and management because, while leaders provide the direction, "ultimately managers are responsible for implementing leadership's vision and strategy—making it happen."⁷¹

In the US Army, leaders provide the purpose, direction, and motivation, which responds to the top-down industrial era model.⁷² However, this model ignores the informal leader and implies that the person with positional power is the only one who can provide purpose, direction, and motivation. In the knowledge era, the follower may provide the purpose and the manager

⁷⁰ Eric K. Shinseki, interview, PBS Frontline, accessed January 21, 2018, <https://www.pbs.org/wgbh/pages/frontline/shows/future/interviews/shinseki.html>.

⁷¹ Ann Gilley, *The Manager as Change Leader* (Westport: Praeger, 2005), 4.

⁷² US Department of the Army, Field Manual (FM) 6-22, *Leader Development* (Washington, DC: Government Printing Office, 2015), 7-29.

may provide the direction. Other armies, like the British Army, distinguish between commander, leader, manager, and follower, while recognizing that there is an interdependence among them. In Uhl-Bien and Arena's model, the entrepreneurial leadership provides the creativity and organizational leadership provides the structure and administration. British Army leadership doctrine makes a similar point about the need for the right combination of leadership and management:

Organizations where there is leadership but a lack of management tend to depend too much on a charismatic figure and have lots of ideas but are often too chaotic and lack the structures to implement them. Where management exists without leadership, the organization is generally dependable, but resistant to change and lacking vision and the ability to innovate.⁷³

The interrelatedness and distinctions between commanders, leaders, managers, and followers are important. A complex organization, like the army, must have the right ratio of leaders, managers, and followers. Further, the organization must foster a climate that empowers everyone at their level.

Change is a complex process, and Army leaders cannot rely solely on command discipline or positional power to implement change. Even in the military, subordinates can marginalize poorly executed top-down change initiatives resulting in poor performance and a loss of morale. Additionally, like most hierarchical organizations, the Army prefers stability, so it is not always open to paradigmatic change. However, change is necessary to remain viable in an increasingly complex environment.

The complex nature of organizational change makes it difficult to implement effective change initiatives. Ann Gilley, in her book *The Manager as Change Leader*, found that:

- One-half to two-thirds of major corporate change initiatives fail.
- More than 40 percent of change efforts make situations worse.
- Only 20-50 percent of re-engineering programs succeed.

⁷³ Commandant Royal Military Academy Sandhurst Director of Leadership, *Army Leadership Doctrine* (Camberley, United Kingdom: Ministry of Defense, 2016), 13.

- Many companies find that they must undertake moderate organizational change at least once a year, and major change every four to five years.⁷⁴

Gilley derives her statistics from the civilian sector, but a survey by McKinsey & Company found similar figures among government agencies, where 60 percent of leaders in thirty US government agencies judged their transformation programs a failure.⁷⁵ Even though many change initiatives fail, the Army does manage change through its current system. However, that system may not meet the demands of the knowledge era. The need for a futures command, the posture statement, and McKinsey & Company findings indicate a change process that does not work quickly or efficiently enough. The US Army's change process does not enable the sort of adaptability needed in the knowledge era.

Adaptability

One of the things that we don't want to leave behind as we move toward tomorrow is the ability to think, the ability to adapt, the ability to do things that the Soviet Union was not able to do and is no more.

—General Tommy Franks, Fort McNair, DC

The Army recognizes the inherent value of adaptability. The current Combined Arms Center Commander, Lieutenant General Michael Lundy, emphasizes the value of adaptability in future operations in his forward of Field Manual 3-0. He states, “The Army and joint force must adapt and prepare for large-scale combat operations in highly contested, lethal environments where enemies employ potent long range fires and other capabilities that rival or surpass our own.”⁷⁶ There is little question that adaptability is paramount in the context of an operational environment where “the proliferation of advanced technologies; adversary emphasis on force

⁷⁴ Gilley, *The Manager as Change Leader*, 4.

⁷⁵ David Chinn and John Dowdy, “Five Principles to Manage Change in the Military,” *McKinsey & Company Public Sector*, (December 2014): 40, accessed November 30, 2017, <https://www.mckinsey.com/industries/public-sector/our-insights/five-principles-to-manage-change-in-the-military>

⁷⁶ US Department of the Army, Field Manual (FM) 3-0, Operations (Washington, DC: Government Printing Office, 2017), Forward.

training, modernization, and professionalism; the rise of revisionist, revanchist, and extremist ideologies; and the ever increasing speed of human interaction makes large-scale ground combat more lethal, and more likely.”⁷⁷ However, for all the discussion of adaptability, agility, versatility, and so forth, there is little concrete methodology in doctrine for the development of these skills. Lieutenant General Lundy, echoing General Milley, insists that training and leader development is the key to building agile, adaptive leaders, but Field Manual 6-22, *Leader Development*, provides little in the way of how to develop this agility.

Uhl-Bien and Arena’s theories of complexity leadership and adaptive space provide a methodology for stimulating adaptability in an organization. Arena contends that organizations are “comprised of two primary systems: an operational system and an entrepreneurial system.”⁷⁸ Operational systems are the sort of formal bureaucratic structures that Grobman criticizes. They seek order and control, and “they are responsible for productivity, efficiency, and results. Entrepreneurial systems occur in the informal structures and systems that push for change, e.g., new opportunities, different operating procedures, new products, and services.”⁷⁹ The entrepreneurial side of the organization is responsible for innovation and evolution. These two sides often clash because the operational side suppresses creativity in favor of efficiencies.

Adaptive space occurs in the interface between the operational and entrepreneurial system by embracing, rather than stifling, the dynamic tension between the two systems. It does this by enabling network structures to spark the emergence of novel ideas and then leveraging the natural benefits of cohesion that occur in the local, entrepreneurial context to foster idea development and sharing. Ultimately, this leads to idea diffusion across the organization to gain formal endorsement from the operational system. In this way, novel ideas are more readily introduced, more openly shared and more effectively

⁷⁷ US Army, FM 3-0, Operations (2017), Forward.

⁷⁸ Michael Arena, “Enabling Adaptive Space” January 7, 2017, accessed February 14, 2018, https://www.linkedin.com/pulse/enabling-adaptive-space-michael-arena-phd/?lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base%3BV8U7kzfzQ%2BSR4c5LbJ9SOQ%3D%3D

⁷⁹ Ibid.

integrated into formal processes. All of this is essential to scaling and creating value in organizations.⁸⁰

To enable Army leaders to create the adaptive space, Army doctrine needs a concrete methodology for adaptability, versatility, and agility.

Leader Development

General Milley touts leader development as one of the top priorities in the Army, and doctrine states that Army leaders constitute a competitive advantage in a complex environment.⁸¹ However, the model of what makes a good leader has changed very little in the last 2,000 years. The Army still applies a high value to physical fitness while largely ignoring cognitive abilities. Is the high school football star still the ideal recruit in the knowledge era, or is it the person that was building computers in their garage during the football game? How does the Army develop the leadership skills needed in either candidate?

Before the Army can develop adaptive leaders, it must recruit them. The Army's search for suitable recruits still relies on the Armed Services Vocational Aptitude Battery (ASVAB) to screen and place prospective soldiers. This test, which the ASVAB website claims is on the "cutting edge of testing technology," still tests the aptitude for "assembling objects and vehicle knowledge" while ignoring things like computer literacy and adaptability.⁸² The test has not changed since 1990 and is very similar to the test used in the 1970s.⁸³ Officer entrance requirements are not much better. A degree in anything from almost any university will suffice. Once commissioned, even an advanced degree in data science and analytics does not ensure a branch assignment, like military intelligence, where one can employ their knowledge and skills. Like any organization, the Army needs the right people in the right jobs to meet the challenges of

⁸⁰ Arena, "Enabling Adaptive Space."

⁸¹ US Army, FM 6-22 (2015), vi.

⁸² "History of ASVAB Content: 1968-Current," accessed 25 January 2018, http://official-asvab.com/contentchanges_res.htm.

⁸³ Ibid.

the twenty-first century. The recruiting and retention policies must also adapt to the times. Entrance exams are not the only place the Army lags; it still studies leaders and theories developed in an industrial paradigm and employs a top-down, bureaucratic leadership model built for the last century which neglects the concept of followership.

The Army relies on leadership and continually seeks to develop leaders through education and training. It espouses the “every soldier is a leader” concept and expends much capital on leader development, yet it still suffers from shortcomings of leadership, especially in the realm of spearheading change. The recent spate of senior leader misconduct is evidence enough that leader development needs to improve.⁸⁴ Peter O’Toole, the author of *Leading Change*, asserts that leaders rarely fail because they do not know how to do something or they have poor managerial skills. Rather, they fail because of “inappropriate behavior, beliefs, attitudes, and assumptions.”⁸⁵ Poor assumptions may be chief among the reasons for failure because they factor into behavior, beliefs, and attitude. Even understanding the word “leadership” relies on assumptions. Authors, officers, and others bandy about the word leadership in articles, books, and studies often without an understanding of the science behind leadership. James McGregor Burns, a leadership studies scholar, quipped that “leadership is one of the most observed and least understood phenomena on earth.”⁸⁶ This lack of understanding reinforces incorrect assumptions and leads to the failures O’Toole references.

⁸⁴ Tom Vanden Brook, “Senior Military Officials Sanctioned for More than 500 Cases of Serious Misconduct,” *USA Today*, October 24, 2017, accessed March 15, 2018, <https://www.usatoday.com/story/news/politics/2017/10/24/generals-sex-misconduct-pentagon-army-sanctions-hagel-gillibrand/794770001/>. At least four US Army generals were censured or otherwise punished for misconduct in 2017, and across the Department of Defense there were over 500 incidences of senior leader misconduct.

⁸⁵ Peter O’Toole, *Leading Change: The Argument for Values Based Leadership* (New York: Ballantine, 1996), x.

⁸⁶ James McGregor Burns, *Leadership* (New York: Harper & Row Publishers, 1978), 2.

Army Field Manual 6-22, *Leader Development*, claims to integrate “research on effective practices from the private and public sectors.”⁸⁷ However, the private and public sectors are not restrained by a lethargic DOTMLPF-P change process, so by the time the effective practices make it into Army doctrine and disseminate through the force, the civilian sector has moved on to the next best thing. One area where the civilian sector outpaces the Army is its focus on followership.

The failure to address followership adequately is a glaring shortfall in FM 6-22. The FM only uses the word “follower” a handful of times and never in meaningful discussion of the relationship between leader and follower. This critical oversight can lead to some false assumptions about the importance of leadership. According to Professor Stephen Fineman from the University of Bath, UK School of Management, there is an interdependence between leaders and followers.⁸⁸ Leaders must have followers by definition, but Army doctrine and training focuses on leadership, neglecting the importance of followership. Army educational curricula focus on teaching and developing leaders, but few of the military schools spend time developing effective follower skills and culture.⁸⁹ While only a select few will get to lead in the Army, everyone is a follower.

According to Harvard Professor Barbara Kellerman, “the concept of the leader becomes less relevant [in today’s complex world] and the concept of the follower more so as information is readily available to almost everyone, and the highly technical world creates environments where the leader is no longer the sole keeper of knowledge in an organization. What results is that followers simply ignore, discount, or circumvent the leader in many instances.”⁹⁰ If leadership is

⁸⁷ US Army, FM 6-22 (2015), vi.

⁸⁸ Stephen Fineman, *Emotion in Organizations*, 2nd ed. (London: Sage, 2002).

⁸⁹ Sharon M. Latour and Vicki J. Rast, “Dynamic Followership: The Prerequisite for Effective Leadership,” *Air and Space Power Journal* 18, no. 4, (Winter 2004): 102.

⁹⁰ Barbara Kellerman, *Followership: How Followers are Creating Change and Changing Leaders* (Boston: Harvard Business School Press, 2009): 23.

just as important in today's complex operating environment, then the Army must focus more on developing effective followers.

According to Fineman, the relationship between the leader and the follower requires mutual trust. Trust underpins the Army's mission command philosophy, and trust requires development and reinforcement over time by both the leader and the follower. The leader must be willing to underwrite risk and accept the possibility of failure.⁹¹ However, technological innovations like remotely piloted aircraft give the commander the ability to control operations at the lowest level. This top-down control erodes trust. A 2013 survey of the Army found that only 49 percent of officers believe that higher headquarters encourage disciplined initiative, while the 2014 Annual Survey of Army Leadership found that 41 percent of junior noncommissioned officers believe that they are not empowered to make decisions.⁹² When the followers do not feel empowered or do not trust their leaders, they may ignore, discount, or circumvent their leaders as Kellerman suggests. This lack of trust and power circumvention create a cycle that diminishes mission command from the top and bottom and promotes an environment that is not conducive to adaptability.

One of the most significant challenges facing corporate and military leaders today "is the need to position and enable organizations and people for adaptability in the face of increasingly dynamic and demanding environments."⁹³ Uhl-Bien and Arena have endeavored to expand the understanding of leadership for organizational adaptability, which is different from traditional leadership or leading change. One of their recent publications, entitled "Leadership for Organizational Adaptability: A Theoretical Synthesis and Integrative Framework," is "a theoretical synthesis and integrative review of research from strategy, organizational theory,

⁹¹ US Army, ADP 6-0, (2012), 1-5.

⁹² Leonard Wong, "Strategic Insights: Letting the Millennials Drive," *Strategic Studies Institute*, (May 2, 2016), accessed March 10, 2018. <http://ssi.armywarcollege.edu/index.cfm/articles/Letting-the-Millennials-Drive/2016/05/02>.

⁹³ Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 1-3.

innovation, networks, and complexity to provide a framework of leadership for organizational adaptability.”⁹⁴ In it, they posit that leaders must “recognize organizational adaptability as an important organizational outcome.”⁹⁵ Leaders must practice “enabling leadership (i.e., enabling the adaptive process through adaptive space),” which involves embracing the tension created between an organization’s entrepreneurial and operational sides.⁹⁶

In the US Army, this tension resides in many places at different levels, but the tension between the geographic combatant command (GCC) and the generating force provides a great example. The geographic combatant commander develops an innovative solution to a problem in theater, but the generating force must provide the capabilities. The generating force exists to “enable adaptation to the operational environment,” however, the process often results in tension when the GCC’s solution is not easy, costs too much, or requires resources that the generating force does not have.⁹⁷ The enabling leader embraces the tension and creates the conditions or adaptive space needed to reconfigure the GCC’s solution into a better idea, new capability, different approach, or new technology. The generating force then becomes the sponsor for the innovation, which the GCC then executes.⁹⁸

The adaptive space theory aligns with the Army’s stated goal of creating adaptive, agile leaders and soldiers. However, it differs from the industrial era paradigm of inaugurating change from the top-down by focusing on how to position the organization, and the people in it, to be adaptive in the face of complexity. Accordingly, Army leaders must do more than just provide purpose, direction, and motivation. They must take “a systems-level approach to designing adaptive organizational structures, enabling networked interactions, nurturing innovation, and

⁹⁴ Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 1-3.

⁹⁵ Ibid.

⁹⁶ Ibid.

⁹⁷ US Department of the Army, Field Manual (FM) 1-01, Generating Force Support for Operations (Washington, DC: Government Printing Office, 2008).

⁹⁸ Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 10.

providing leadership development that fosters collaboration along with individual performance.”⁹⁹

Adaptive leadership in the face of complexity requires development and, according to FM 6-22, *Leader Development*, “the Army depends upon itself to develop adaptable leaders able to achieve mission accomplishment in dynamic, unstable, and complex environments.”¹⁰⁰ When an organization relies on itself to develop leaders, it runs the risk of a poor leader perpetuating poor leadership skills. Leader development is a continuous, sequential, and progressive process, but, in the Army, the process “relies on commander interest.”¹⁰¹ Commanders are responsible for nurturing a learning culture, so when a commander does not understand how to create a learning organization or is too focused on short term goals, leader development suffers. Army leader development is directly linked to the organization by this doctrine. Therefore, if the organization is employing an industrial era operational model, it is likely that leadership development mirrors this model. As FM 6-22 puts it:

Supportive relationships and a culture of learning recognize that for development to occur a willingness to engage with others must exist. This tenet relates to two of the principles of leader development: creating a learning environment and knowing subordinates and their families (see ADRP 7-0). Leaders, organizations, and the entire Army must set the conditions for development to occur. Leader development is a mindset incorporated into all organizational requirements and mission accomplishment. Leaders must balance leader development against organizational requirements and mission performance.”¹⁰²

FM 6-22 mentions the need for activities that support leader development, but it does not provide any specific examples or methodology. It also calls for balancing leader development against organizational requirements in an environment where organizational requirements have outpaced the time available to accomplish them.

⁹⁹ Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 11-12.

¹⁰⁰ US Army, FM 6-22 (2015), 1-1.

¹⁰¹ *Ibid.*, 2-1-2.

¹⁰² US Army, FM 6-22 (2015), 1-6.

The development of the future force requires focus and planning by leaders and managers. In 2015, General David Perkins, the former TRADOC Commander, stated “that leaders must ensure the force [can] prevent, shape, and deter globally. The key to this end state is enhancing leader development, building a culture of innovation, and implementing a clear modernization strategy.”¹⁰³ He demanded that senior leaders focus on the ends or the capabilities the Army requires rather than the ways. However, even this view may be influenced by industrial era thinking. Emerging leadership and organizational theories, like those postulated by Uhl-Bien and Arena, contend that the need to innovate and focus on the ends is not enough.¹⁰⁴ The industrial era emphasis on innovating and producing results only ensures current success. For the Army to be successful in the future, it must focus more on leader adaptability.

Findings

This monograph aims to provide insight into organizational change and leadership theories, methods, and considerations. As such, the following paragraphs present the findings as they pertain to complexity, disruption, adaptability, and leader development. The evidence herein proves, and in some cases disproves, the original hypotheses. The findings and analysis subsequently provide the foundations for the recommendations to improve the Army’s operating procedures.

The examples provided articulate the increasing complexity of the operational environment in an information-based world that requires leaders who can forge adaptive space between operational and entrepreneurial realms.¹⁰⁵ This complex interconnected environment requires networked organizations with decentralized control and collaborative feedback

¹⁰³ David Perkins, “Leveraging the Army Operating Concept: Shaping the Strategy for Force 2025 and Beyond,” *TRADOC News Center* (October 13, 2015), accessed August 27, 2017, <http://tradocnews.org/leveraging-the-army-operating-concept-shaping-the-strategy-for-force-2025-and-beyond/>.

¹⁰⁴ Uhl-Bien and Arena, “Leadership for Organizational Adaptability,” 12.

¹⁰⁵ *Ibid.*, 6.

mechanisms. The Army's doctrine and senior leaders support this finding, although they do not specify a method for improvement. To aid in meeting this condition, the Army must apply more focus to followership within doctrine and education at all levels of command. In addition to followership, the Army should make better use of ADM to help deal with complexity in conceptual planning. Indeed, the Army should consider teaching ADM before officers attend the Command and General Staff College and the School of Advanced Military Studies. Finally, to improve its ability to deal with complexity, the Army needs to become more adept at fostering change across the spectrum of DOTMLPF-P. An organization that embraces transformative change will deal more readily with complexity. To ensure the Army implements the right kind of change, it should focus on initiatives that meet Bartunek and Moch's definition of *third-order* change while addressing the interconnectedness found in the Burke-Litwin model.¹⁰⁶ The summation of the first research question suggests that the Army should seek to include followership, teach ADM before the intermediate level of officer education, and implement *third-order* change initiatives across DOTMLPF-P to mitigate complexity and operate in Uhl-Bien and Arena's adaptive space.

The Vietnam War and the doctrinal changes that followed established the importance and potential benefit of disruption.¹⁰⁷ Without disrupting elements or pressures, organizations become complacent and do not adapt to change.¹⁰⁸ However, the stabilizing elements, found in the operational side of the organization, remain equal in importance and ensure that the organization does not descend into chaos. Army leaders must embrace changes in the system without allowing chaos. The Army is not immune to disruption by outside pressures and, therefore, should choose to disrupt internally. Disruption takes place across the different dimensions of an organization, so

¹⁰⁶ Bartunek and Moch, "First -Order, Second-Order, and Third-Order Change," 483-484.

¹⁰⁷ Long, "The Evolution of U.S. Army Doctrine," 44.

¹⁰⁸ Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 7.

change agents must understand the cause and effect relationship between the organizational dimensions critical to change. The Army should continue to nurture change through a modernization strategy that does not just fix the technological shortfalls, but also addresses the interconnected factors that forge adaptability and drive change.¹⁰⁹ The summation of the second research question suggests that the Army needs to focus on future solutions and adaptability in the information age, namely real disruption rather than fixating on extending or creating slight improvements to existing technologies and operating models.

Adaptability takes precedence over strategy and planning and resides in the realm of *third-order* change. There is little to no methodology in doctrine for the development of the skills needed for adaptability. Unlike the industrial era where the competitive advantage was a new process or technology, in the knowledge era the competitive advantage is the organization's human resources.¹¹⁰ However, the competitive advantage originates in getting the right people to engineer the adaptive space.¹¹¹ The Army needs to adapt at a faster pace, embrace change, and continually reassess. A lack of proficiency with ADM does not enable the Army to rapidly reframe. The historical examples, presented above, illustrate what happens when armies fail to adapt until after they face defeat in battle. The modernization and futures command is an attempt to adapt; however, without additional dedicated resources, it represents an industrial era solution. Fixing the relationship with TRADOC and AMC provides an opportunity to enable better adaptability and performance via training, coordination, and resourcing. In summation, the third research question suggests that the Army's competitive advantage lies in its leaders' ability to position people in the adaptive space. To do this, the Army needs to include adaptability training and develop its ability to reframe, bringing it out of an industrial era paradigm.

¹⁰⁹ Grobman, "Complexity Theory: A New Way to Look at Organizational Change."

¹¹⁰ Christopher Bartlett and Sumantra Ghoshal, "Building Competitive Advantage Through People," *MIT Sloan Management Review*, (January 2002).

¹¹¹ Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 7.

The contemporary leader development theories examined in this monograph suggest that leaders in the information age need dedicated and technically competent followers to enable success.¹¹² The more complex the problem or operating environment, the more important the role of followership. As information is readily available to almost everyone, the highly technical world creates environments where the leader is no longer the sole keeper of organizational knowledge.¹¹³ For the US Army to be more successful, it must enable effective followership. The Army must study contemporary leadership theories and rely less on a top-down, bureaucratic leadership model. The Army must take “a systems-level approach to designing adaptive organizational structures, enabling networked interactions, nurturing innovation, and providing leadership development that fosters collaboration along with individual performance.”¹¹⁴ In summation, the fourth research question suggests that followership theory is critical for the Army to succeed in the information era. Consequently, the Army should incorporate followership into its doctrine and training.

Analysis of the evidence, in response to the research questions, identified the need to include followership in Army doctrine and training. The Army should teach ADM at all levels, and it should dedicate more focus, additional tools, and time to the understanding of unfamiliar problem reframing. Furthermore, the inclusion of adaptability theory will assist in mitigating complexity and improve the ability of the Army to operate in the adaptive space. If the Army can adjust its operating model to include these achievable solutions and embrace beneficial disruption, its prospects of adapting to the requirements of the informational age will be magnified.

¹¹² Rob Asghar, “Why Followership Is Now More Important Than Leadership,” *Forbes* (January 17, 2016), accessed March 20, 2018, <https://www.forbes.com/sites/robasghar/2016/01/17/why-followership-is-now-more-important-than-leadership/#cf9b0d95d640>.

¹¹³ Kellerman, *Followership*, 26-41.

¹¹⁴ Uhl-Bien and Arena, “Leadership for Organizational Adaptability,” 1.

Analysis

The first hypothesis asserts that the Army does not adequately differentiate between leaders, managers, and followers. The Army may benefit from defining the roles of these three distinct categories, focusing on followership, and incorporating managerial principles into its doctrine. This hypothesis is partially proven. The Army does not properly differentiate between leaders, followers, and managers, and there is a clear need to focus on building a culture of followership. The need for managerial positions is questionable. Following the advent of nuclear war, some scholars and intellectuals postulated that major land warfare was over and, by 1976, the “Active Defense doctrine reduced leaders to managers and warriors to technicians.”¹¹⁵ This reduction hurt the morale of Army leaders and caused a disruption that the publication of AirLand Battle redressed. The Active Defense disruption supports thesis four in that the negative reactions to the Active Defense doctrine drove a change to AirLand Battle.

The second hypothesis proposes that real adaptability does not stem from “leading change from the top-down, through vision and inspiration.”¹¹⁶ Real adaptability resides in the realm of *third-order* change when organizations and their people do not revert to the norm.¹¹⁷ The second hypothesis is proven. The role of followers assisting leaders is critical to operating in the information age.¹¹⁸ Furthermore, the use of adaptability theory and enabling *third-order* change is critical to operating in the adaptive space.

The third hypothesis suggests that adaptability and organizational change are not intuitive and require study, coaching, mentoring, and support in practice. The instances of failure to

¹¹⁵ Long, “The Evolution of U.S. Army Doctrine,” 308.

¹¹⁶ Uhl-Bien and Arena, “Leadership for Organizational Adaptability,” 4.

¹¹⁷ Bartunek and Moch, “First -Order, Second-Order, and Third-Order Change,” 483-484.

¹¹⁸ Asghar, “Why Followership Is Now More Important Than Leadership.”

successfully change organizations demonstrate that the process is not intuitive, thus proving the hypothesis. The Army's inability to transition into the information age demonstrates this point.

The fourth hypothesis posits that one does not learn to change or focus on the requirement or importance of change without failure. The fourth hypothesis is partially proven. Examples, like that of the 1806 Prussian Army, prove that the armies tends to innovate only when met with failure. However, exceptional leaders can force an internal disruption to drive innovation before failure. Uhl-Bein's adaptive space theory further supports the hypothesis by identifying a tendency to continue acting in accordance with the known operating model and miss opportunities to innovate.¹¹⁹ Thus, the natural tendency is to resist change until failure forces it, but leaders can and should strive to overcome this trend, especially given the high cost of failure in military operations.

Conclusion

As the Army continues to evolve to meet the increasingly complex demands of the knowledge era operating environment, it must update its leadership and organizational change models and doctrine. It is possible to integrate current change and leadership theories and models incrementally, but it will require training and education as they are not intuitive. In conclusion, the author makes four recommendations. First, integrate followership theory into Army doctrine and training. Specifically, Army TRADOC Regulation 350-10, *Institutional Leader Training and Education*, Section 8, adding to the qualities of a leader and to ADRP 6-22, *Army Leadership*, Chapter 10. Second, teach ADM before the Command and General Staff Officer College level and apply additional focus, tools, and time to understanding reframing. Third, include adaptability theory in doctrine and education to assist in mitigating complexity and improve the ability of the Army to operate in the adaptive space. Finally, the Army must seek and embrace change driving internal disruption. These recommendations are the first steps toward meeting the requirements of

¹¹⁹ Uhl-Bien and Arena, "Leadership for Organizational Adaptability," 11-13.

the information age, succeeding in large-scale combat operations, and maintaining the strategic advantage.

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