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How militaries learn and adapt:

An interview with Major General H. R. McMaster

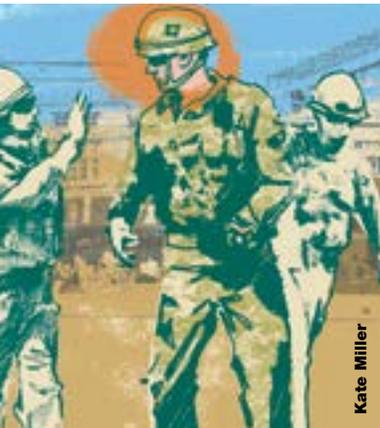
An experienced combat commander and leading expert on training and doctrine assesses recent military history and its implications for the future.

Andrew Erdmann

Major General Herbert Raymond (H. R.) McMaster is the commander of the US Army Maneuver Center of Excellence at Fort Benning, Georgia. A facility for military training, doctrine, and leadership development, the center works with forces that specialize in defeating enemies through a combination of fire, maneuver, and combat and then conducting security operations to consolidate those gains. In a December 2012 interview with McKinsey's Andrew Erdmann, General McMaster talks about how the US Army has evolved, how war itself has—or hasn't—changed, what we have learned from the wars in Afghanistan and Iraq, and what the Army must do to prepare the next generation of leaders and soldiers for warfare in the future.

McKinsey on Government: *Your experience in combat has ranged from the last great tank battle of the 20th century—the Battle of 73 Easting in February 1991—to counterinsurgency in Tal Afar, Iraq, to fighting corruption in Afghanistan with Combined Joint Interagency Task Force Shafafiyat from 2010 to 2012. Looking back on nearly 30 years in the military, what has changed, and how have you adapted?*

H. R. McMaster: I think the biggest surprise has been the broadening of the range of conflicts we've found ourselves in since I first entered the Army in the 1980s. Obviously, there was a lot of instability during the Cold War, but there was also a certain degree of predictability. The



primary mission of our armed forces at that time was to deter aggression by the Soviet Union and its allies. Today, that's no longer the case. We now need a much wider range of capabilities, including the ability to operate in complex conflicts that require the close integration of military, political, and economic-development efforts.

One great feature of the Army is that it gives us the opportunity not only to have very intense formative experiences but also, consistent with the adult-learning model, to reflect on those experiences and prepare for the next level of responsibility. This type of learning is what helps us gain the breadth and depth of knowledge that allows us to adapt to unforeseen challenges and circumstances.

McKinsey on Government: *You are a scholar of military history. How has your study of military history influenced your career?*

H. R. McMaster: I think the study of military history has been the most important preparation for every position I've had in the last 12 years or so. It's important to study and understand your responsibilities within any profession, but it's particularly important for military officers to read, think, discuss, and write about the problem of war and warfare so they can understand not just the changes in the character of warfare but also the continuities. That type of understanding is what helps you adapt.

I think the American tendency—and I'm sure this is often the case in business as well—is to emphasize change over continuity. We're so enamored of technological advancements that we fail to think about how to best apply those technologies to what we're trying to achieve. This can mask some very important continuities

in the nature of war and their implications for our responsibilities as officers.

The study of military history helps identify not only these continuities but also their application to the current and future problems of war and warfare. This type of study helps us make a grounded projection into the future based on an understanding of the past. It helps us reason by historical analogy while also understanding the complexity and uniqueness of historical events and circumstances. This is what Carl von Clausewitz believed: that military theory will serve its purpose when it allows us to take what seems fused and break it down into its constituent elements.

As one of my favorite military historians, Sir Michael Howard, suggested, you have to study history to get its analytic power in width, in depth, and in context: in width, to see change over time; in depth, by looking at specific campaigns and battles to understand the complex causality of events that created them; and then in the context of politics, policy, and diplomacy. Studying history is invaluable in preparing our officers for their future responsibilities.

McKinsey on Government: *You mentioned the continuities of war. What are some examples of things that remain unchanged?*

H. R. McMaster: First, war is still an extension of politics and policy. I think we saw that both in Iraq and Afghanistan; we initially failed to think through a sustainable political outcome that would be consistent with our vital interests, and it complicated both of those wars.

Second, war is an inherently human endeavor. In the 1990s, everyone was quoting Moore's law and

thought it would revolutionize war. We saw this in some of the language associated with the “revolution in military affairs” and “defense transformation.” We assumed that advances in information, surveillance technology, technical-intelligence collection, automated decision-making tools, and so on were going to make war fast, cheap, efficient, and relatively risk free—that technology would lift the fog of war and make warfare essentially a targeting exercise, in which we gain visibility on enemy organizations and strike those organizations from a safe distance. But that’s not true, of course.

This links closely to another continuity of war—war is not linear, and chance plays a large role.

One other continuity is that war is a contest of wills between determined enemies. We often operate effectively on the physical battleground but not on the psychological battleground. We fail to communicate our resolve. I think, for example, the reason the Taliban regime collapsed in 2001 is largely because every Afghan was convinced it was inevitable. But much of what we have done since then—at least, as perceived by Afghans—raises doubts about our long-term intentions. This is not a criticism of

policy. Rather, it highlights the need for us to be cognizant that war is a contest of wills.

Finally, we often start by determining the resources we want to commit or what is palatable from a political standpoint. We confuse activity with progress, and that’s always dangerous, especially in war. In reality, we should first define the objective, compare it with the current state, and then work backward: what is the nature of this conflict? What are the obstacles to progress, and how do we overcome them? What are the opportunities, and how do we exploit them? What resources do we need to accomplish our goals? The confusion of activity with progress is one final continuity in the nature of warfare that we must always remember.

McKinsey on Government: *What have been the Army’s greatest successes in organizational adaptation during the past 25 years? What are some of the enduring challenges, and how might those be overcome?*

H. R. McMaster: The wars in Iraq and Afghanistan were not at all what we had anticipated—they weren’t fast, cheap, or efficient. They were extremely complicated politically, and

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Major General H. R. McMaster



Vital statistics

Married, with 3 children
Lives in Fort Benning,
Georgia

Education

Graduated from US
Military Academy at West
Point and earned an MA
and a PhD in military
history from the University
of North Carolina at
Chapel Hill

Career highlights

**US Army Maneuver
Center of Excellence**
(June 2012–present)
Commanding general

**Combined Joint
Interagency
Task Force Shafafiyat
(Transparency)**
(2010–12)
Commander in Kabul,
Afghanistan

**US Army Training and
Doctrine Command**
(2008–10)
Director of concept
development and learning

Multinational Force–Iraq
(2007–08)
Special assistant to
commander in
Baghdad, Iraq

**3d Armored
Cavalry Regiment**
(2004–06)
Commander in Fort
Carson, Colorado, and Tal
Afar, Iraq

Fast facts

Decorations include the
Silver Star Medal,
the Legion of Merit, the
Bronze Star Medal
with Oak Leaf Cluster, and
the Purple Heart Medal

Author of the best-selling
*Dereliction of Duty:
Lyndon Johnson, Robert
McNamara, The
Joint Chiefs of Staff, and
the Lies that Led to
Vietnam* (1997)

they demanded sustained commitment, as well as the integration of multiple elements of national power. But I think once we confronted the realities of those wars and realized the kinds of mistakes we had made, we adapted very well from the bottom up. That goes against what has emerged as the conventional wisdom about the war, but I think it's true.

The challenge now is to get better at deep institutional learning. This is what you'll hear people in the US military call DOTMLPF, meaning changes in doctrine, organization, training, material, leadership and education, personnel, and facilities. We need the kinds of integrated solutions that acknowledge the complex nature of the environments in which we are working and that take into account the determined, adaptive, and often brutal nature of our enemies. In this context, our doctrine is

still catching up. We have the counterinsurgency manual, the stability-operations manual, and the security-force-assistance manual, but I don't think we have put the politics at the center of those manuals.¹ So, for example, we assume in our doctrine that the challenges associated with developing indigenous security forces are mainly about building capacity, when, in fact, they're about trying to develop institutions that can survive and that will operate in a way that is at least congruent with our interests.

What's going to be really important for the Army, and for our military in general, is what we've learned from the past 12 years of war. We need to use what we've learned to make a grounded projection into the near future and to inform our understanding of the problem of future armed conflict. Once we understand that problem, we then need to reshape our doctrine, educate

our leaders, conduct the necessary training, develop combat capabilities, and design the right evolutions within our organization. To do so, we need to put aside narrow, parochial interests and avoid slipping back into our enamoredness with exclusively technological solutions to the problem of future war.

McKinsey on Government: *How do you think our land forces will evolve, and what do you see as the greatest challenges to the US Army's future success?*

H. R. McMaster: There's no single greatest challenge to the Army's future success. We are facing a broad range of challenges and emerging enemy capabilities, which will increasingly involve technological countermeasures. Our enemies will try to disrupt our ability to communicate by going after our networks, for example. We have to be prepared to counter those types of attacks, and we have to build redundancy into our forces so that we can operate if our capabilities are degraded.



Ultimately, all the threats to our national security are land based. We therefore have to be prepared to operate in a broad range of physical environments and terrains. To do that, we need to retain combined-arms capabilities and indirect-fire capabilities, as well as access to our Air Force, Navy, and our engineers—together, they give us freedom of movement and action.

One challenge we are seeing more frequently is state support for proxy forces, or nonstate organizations that have many of the capabilities that were once associated only with nation-states. For example, Hezbollah has antitank capabilities, mines, and roadside bombs. It has missiles and rockets, and it has weaponized unmanned aerial vehicles. We will need to continue to defeat nations that threaten our interests, but more and more, we also have to deal with proxy forces or networked enemy organizations that have the kinds of advanced capabilities once held only by nation-states.

But rather than picking certain countries or certain areas, we have to look more broadly at our enemies' emerging capabilities. We know that our enemies are going to employ traditional countermeasures: dispersion, concealment, intermingling with civilian populations, deception. We know that the application of nanotechnologies is going to reduce the signature of these forces, which means we're going to have to fight for information in close contact with enemy organizations and with civilian populations. The enemy can't beat us on the open battleground, so they're going to operate in restrictive terrain or urban areas. How we fight in cities is going to be important. We're going to need to maintain our mobility, our engineer capability, and our ability to defeat shoulder-fired anti-aircraft weapon

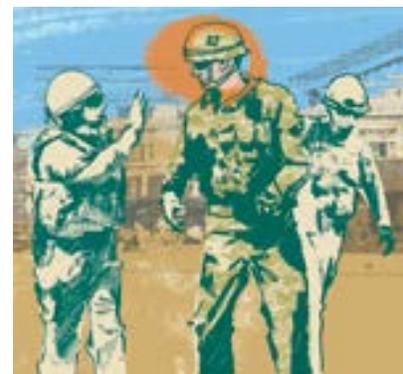
systems. We also see emerging longer-range rocket and missile capabilities, as well as chemical weapons and other weapons of mass destruction.

McKinsey on Government: *The US Army today has a deeply experienced, battle-tested corps of officers and noncommissioned officers. What are the essential qualities of Army leaders in the next 10 to 20 years?*

H. R. McMaster: At the Maneuver Center, we're working on a strategy that identifies what competencies our leaders need and then looks at how, where, and at what point in their careers we train and educate them. The "how" increasingly involves cutting-edge technologies that allow us to offer more effective distance learning and collaboration between leaders. We also want to cultivate within our leaders a desire for lifelong learning and to provide them with the tools necessary for informal self-study and collaborative study across their careers. (For more, see sidebar, "A reading list for military professionals.")

First and foremost, we need leaders who can adapt and innovate. As Sir Michael Howard has said—and I'm paraphrasing—we're never going to get the problem of future war precisely right. The key is to not be so far off the mark that you can't adapt once the real demands of combat reveal themselves, and you need leaders who can adapt rapidly to unforeseen circumstances. They need to be able to retain the initiative as well as sustain the types of campaigns that require a broad range of capabilities—rule of law, development of indigenous forces, and military support for governance, for example.

The human dimension of war is immensely important for the Army as well; we need



leaders who are morally, ethically, and psychologically prepared for combat and who understand why breakdowns in morals and ethics occur. In *The Face of Battle*, John Keegan said that "it is towards the disintegration of human groups that battle is directed."² So how do you protect organizations against that kind of disintegration? I think there are usually four causes of breakdowns in moral character—ignorance, uncertainty, fear, or combat trauma. It is important to understand the effects of those four factors on an organization and then educate soldiers about what we expect of them. We need leaders who have physical and mental courage on the battlefield, of course, but also the courage to speak their minds and offer respectful and candid feedback to their superiors. Our leaders can't feel compelled to tell their bosses what they want to hear.

McKinsey on Government: *What about our soldiers? How are we helping them learn?*

H. R. McMaster: What's great about soldiers who join the Army is that they expect it to be hard, and they're disappointed if it's not. They want to be challenged. This is a self-selecting, highly

A reading list for military professionals

H. R. McMaster shares his recommendations, including books on innovation, selected histories of military campaigns, and memoirs.

General grounding

There are several essential reads for professionals involved in military affairs:

Carl von Clausewitz, *On War*. The author uses a dialectical approach to understanding war without being prescriptive.

Michael Howard, *War in European History*. This book is excellent, as is anything by this author.

Elting Morison, *Men, Machines, and Modern Times*. The author discusses the limitations of emerging technologies—specifically, he argues that instead of taming our environment, technology has further complicated it.

Williamson Murray, *The Making of Strategy: Rulers, States, and War*. This book helps connect military action to strategy.

Thucydides, *The History of the Peloponnesian War*. The Greek historian shows that the drivers of war—fear, honor, self-interest—haven't changed over time.

Innovation and the world wars

Much has been written about World War I, World War II, and the interwar period—and about how these events changed the nature of war. The following are favorites:

Marc Bloch, *Strange Defeat*

Robert A. Doughty, *The Breaking Point: Sedan and the Fall of France, 1940*, and *Pyrrhic Victory: French Strategy and Operations in the Great War*

Timothy T. Lupton, *Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War*

Williamson Murray, *Military Innovation in the Interwar Period*

Memoirs and biographies

It is important to understand how leaders have adapted and thought about war and warfare across their careers. *The Autobiography of General Ulysses S. Grant: Memoirs of the Civil War* is perhaps the best war memoir ever written. The following are some other significant titles:

Carlo D'Este, *Patton: A Genius for War*

David Fraser, *Knight's Cross: A Life of Field Marshal Erwin Rommel*

Matthew B. Ridgway, *The Korean War*

Selected histories of military campaigns

For selected histories of wars and military campaigns, the following are some of my favorites; I've also included recommendations on contemporary threats:

Ancient warfare

Donald Kagan, *The Peloponnesian War*

Seven Years' War

Fred Anderson, *Crucible of War: The Seven Years' War and the Fate of Empire in British North America, 1754–1766*

The American military profession and the American Revolution

David Hackett Fischer, *Washington's Crossing*

Don Higginbotham, *George Washington and the American Military Tradition* and *The War of American Independence*

Civil War

James McPherson, *Battle Cry of Freedom: The Civil War Era*

Franco–Prussian War

Michael Howard, *The Franco–Prussian War: The German Invasion of France 1870–1871*

World War II

Rick Atkinson, *An Army at Dawn: The War in North Africa, 1942–1943*; *The Day of Battle: The War in Sicily and Italy, 1943–1944*; and the forthcoming *The Guns at Last Light: The War in Western Europe, 1944–1945*

Gerhard Weinberg, *A World at Arms: A Global History of World War II*

Korean War

T. R. Fehrenbach, *This Kind of War*

David Halberstam, *The Coldest Winter: America and the Korean War*

Vietnam War

Eric Bergerud, *Red Thunder, Tropic Lightning: The World of a Combat Division in Vietnam*

Harold G. Moore and Joseph L. Galloway, *We Were Soldiers Once . . . And Young: Ia Drang—The Battle That Changed the War in Vietnam*

Iraq

Michael R. Gordon and Bernard E. Trainor, *Cobra II: The Inside Story of the Invasion and Occupation of Iraq* and *The Endgame: The Inside Story of the Struggle for Iraq, from George W. Bush to Barack Obama*

Afghanistan

Peter Tomsen, *The Wars of Afghanistan: Messianic Terrorism, Tribal Conflicts, and the Failures of Great Powers*

Contemporary threats to international security

Peter Bergen, *The Longest War: The Enduring Conflict between America and Al-Qaeda*

Victor Cha, *The Impossible State: North Korea, Past and Future*

David Crist, *The Twilight War: The Secret History of America's Thirty-Year Conflict with Iran*

Bruce Riedel, *Deadly Embrace: Pakistan, America, and the Future of the Global Jihad*

Our multinational partners are invaluable for their perspectives, but we also need strong partnerships with indigenous leaders. As in business, we need negotiation competencies and the ability to map stakeholder interests.

motivated group of people. Soldiers tend to define themselves based on other people's expectations of them, and we have to keep those expectations high.

As with our leaders, we need our soldiers to be able to adapt. At the Maneuver Center, we immerse our soldiers in complex environments, and as we train them on fundamentals, we also test their ability to observe changes in the environment and to adjust as necessary so they can accomplish their mission. We call this "outcome-based training and evaluation." Rather than using a checklist of individual capabilities, we are evaluating them on their ability to innovate and adapt to unforeseen conditions. We're trying to build into our training the kinds of things soldiers encounter in combat—uncertainty, bad information, and casualties, for example. Before we would say, "Go to point A and wait for instructions." Now we'll say, "You have to get to five or six points in the amount of time you have available—you pick which order you want to do it in." This means they have to analyze the terrain, the routes between the points, and the sequencing of the points themselves.

In addition to the fundamentals of combat, our soldiers really have to live the Army's professional ethics and values. They must be committed to selfless service, to their fellow soldiers, to their mission, and to our nation. That also involves, obviously, respect for and protection of our Constitution and understanding their role in that context. They also need to understand the environments they're operating in. For example, we're dealing with a wartime narcotics economy, essentially, in Afghanistan; that's a big driver of the conflict there. We need to educate our soldiers about the nature of the microconflicts they are a part of and ensure that they understand the social, cultural, and political dynamics at work within the populations where these wars are fought.

Our soldiers also have to recognize how being in persistent danger can affect organizations and be able to identify warning signs. They have to be good at grief work and be able to support one another when they lose a fellow soldier. This can't be achieved through standard training alone—this has to be done through reading, thinking, and discussing as well.

McKinsey on Government: *When you think about future conflict, how does the ability to work well with allies and partners fit into the equation?*

H. R. McMaster: I think it's immensely important that we're adept at working as part of multinational teams. Transnational terrorist organizations use mass murder of innocent people as their principal tactic, and so they are a threat to all civilized people; we have to work together to defeat those threats. Terrorist organizations use the complex cultural-political dynamics of microlocal conflicts to their benefit. They use ignorance to foment hatred, and then they use that hatred to justify violence against innocent people. They pit communities against one another, and then they portray themselves as patrons and protectors of one of the parties in the conflict. You can see it in Mali, in northern Nigeria, and in Yemen. And you certainly see it in Syria, in what is becoming a humanitarian crisis of colossal scale. You can also see it along the border between the predominantly Kurdish and Arab regions in Iraq, in Afghanistan, and in portions of Pakistan.

I think we're always going to have to operate as part of a multinational force. To do so, we have to understand the history and the culture of each of these conflicts and of the microconflicts in each subregion. Obviously, our multinational partners are invaluable for their perspectives, but we also need strong partnerships with indigenous leaders. As in business, we need negotiation competencies and the ability to map stakeholder interests in particular. When we're partnering with somebody we need to understand several things: their interests, how they align with our interests, how to build relationships based on mutual trust and common purpose, and how to use those relationships to work together to accomplish the mission. ○

¹Headquarters, Department of the Army, *Counterinsurgency*, FM 3-24, December 2006; *Stability Operations*, FM 3-07, October 2008; *Security Force Assistance*, FM 3-07.1, May 2009 (armypubs.army.mil).

²John Keegan, *The Face of Battle: A Study of Agincourt, Waterloo, and the Somme*, New York: Viking, 1976.