

# The Dynamics of Adaptation

reviewed by LtCol F.G. Hoffman, USMCR(Ret)

“Over the course of the past century and a half,” Dr. Williamson Murray notes early in his latest book, “adaptation in one form or another has been a characteristic of successful military institutions and human societies under the pressures of war.” Despite this conclusion, the history of warfare is fairly thin when it comes to both theory and formal studies on how military organizations actually confront change during the learning dialectic we commonly call war. Much of what we do know about military innovation is derived from the study of interwar periods when innovation is risky and speculative due to unknown technological developments and potential adversaries.

Dr. Murray focuses on exploring how military institutions and commanders have handled the chaotic cauldron of human conflict by learning while in contact. This often requires military organizations to junk their prewar innovations and develop entirely new competencies that they had not anticipated. Veterans of Iraq will not be surprised with this astute conclusion, inherent to the violent clash of human wills in warfare. Thus it is a wonder that the study of military adaptation has been so limited.

Dr. Murray, presently on the faculty of the U.S. Naval War College and a former holder of the Horner Chair at Marine Corps University, has taken up this gap in his latest historical analysis, *Military Adaptation: With Fear of Change*. This effort builds off his highly regarded *Military Innovation in the Interwar Period* (Cambridge University Press, 1998). His thesis is laid bare in Professor Murray’s

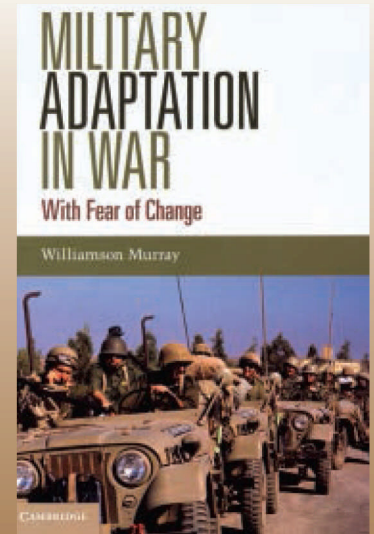
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opening chapter, which reveals his characteristically blunt style:

The evidence presented in this book suggests a consistent pattern of behavior on the part of military organizations. Inevitably, senior leaders, even the most effective, build a picture of what they think future war will look like and then confront combat realities that differ substantially from their assumptions. Most military organizations and leaders attempt to impose prewar conceptions on the war they are fighting, rather than adapt their assumptions to reality.

This latest effort contributes to a growing awareness and body of research on the importance of military learning in the midst of war. *Military Adaptation* is actually part of a “surge” in studies of the phenomena. An Israeli armor officer, COL Meir Finkel, recently authored *On Flexibility: Recovery From Technological and Doctrinal Surprise on the Battlefield* (Stanford Security Studies, 2011). The latter shares numerous case studies with Dr. Murray’s latest effort, including the Israeli recovery during the Yom Kippur War of 1973.

Readers intimately familiar with the Marine Corps’ doctrine of maneuver warfare, MAGTF structure, and embrace of mission command will readily discern the foundation for adaptability inherent to the Marines and their unique military culture.



MILITARY ADAPTATION IN WAR: With Fear of Change. By Williamson Murray. Cambridge University Press, New York, 2011

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\$35.00. (Member \$31.50)

Murray employs deeply documented case studies to explore the dynamics of adaptation at each of the three levels of war. He also examines a broader historical period, going all the way back to World War I. Dr. Murray’s suite of five extensive cases includes:

- Adaptation along the Western Front from 1914 to 1918 by all contenders.
- German adaptation at the opening of World War II.
- The British and German exchange during the battle of Britain.
- The Royal Air Force bombing campaign over Germany.
- Israeli flexibility in the Yom Kippur War in 1973.

The two most striking case studies include the last two chapters—Bomber Command’s interaction with the Luftwaffe over Germany and the Israeli Defense Forces’ (IDF’s) near-run fight against the Syrian and Egyptian combined attacks in 1973.

Murray's examination of the technologically oriented contest between Bomber Harris' strategic air campaign against Germany's economy and the Third Reich's desperate efforts to counteract it underscores his main themes. The British made shallow efforts to understand its efforts in World War I and made an enormous number of assumptions and forecasts about the effectiveness of strategic bombing without ever considering the Luftwaffe's response. Faced with the prospect of facing Germany's air defenses and bringing the war directly

arrogance over the superiority of their technology was defeated despite the RAF's contempt for history and lack of experimentation with precise bombing.

Dr. Murray's chapter on the IDF in the 1973 conflict against Syria in the north and the Egyptians in the Sinai is rich with insights and chocked with scorching criticisms. The Israelis were victims of the proverbial "victory disease" after their stunning success in the Six Day War in 1967 and overlooked the need to consider what their adversaries could

What could not be overcome were the failures to prepare commanders and staffs for war at the operational level. Initiative and flexibility could not make up for the lack of education and conceptualization.

Nor did the brief war allow for dysfunctional command relationships and poor staff work to generate operational guidance or to pass on lessons learned as fresh units were pushed into combat.

Professor Murray's case studies evidence both extensive research, including primary and archival resources, and a mastery of the literature in these conflicts. While his case studies are deeper in scholarship by an order of magnitude, he lacks a framework to organize the material. A broader set of factors appears warranted, and further scholarship will need to test that assessment.

Too often in the past, as Murray notes, military institutions "have paid for adaptation with the blood of their maimed and dead rather than through the exercise of their minds and mental agility." *Military Adaptation in War* underscores the critical factors involved in promoting successful change, under the gun. Success depends on the vision and intellectual focus of senior leaders, educational and analytical agencies capable of studying the past with some rigor and empiricism, and military cultures that are honestly self-critical and curious about applying the past to future challenges.

*Military Adaptation in War* is exhaustively researched, extensively documented, and laced with stinging insights. A sure-fire addition to professional military education booklists, it is highly recommended for senior military leaders involved in force development and students of military innovation and culture, or simply anyone interested in enhancing the capacity to adapt on the fly, under fire, and win.




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against its civilian population and defense production capacity, "the RAF's [Royal Air Force's] leadership ignored all of the available evidence on the baseless assumption that accurate navigation and bombing would not be a problem."

The result was poor performance and a corresponding defensiveness that avoided any quantitative analysis, or any search for technological solutions or long-range escorts to beat down Germany's concentration of flak guns, night fighters, and rudimentary radar and acoustic detection means. Both sides struggled to deal with resolving performance gaps, and as soon as one solution could be found, the opponent was simultaneously introducing his own adaptation in the form of new tactics, new technologies, and new capabilities. Britain got the edge through its own technological developments, including radar, identification friend or foe, and in electronic countermeasures that jammed or degraded German fighters. For its part, as Murray convincingly demonstrates, the Luftwaffe over-invested in Flak defenses and never produced a proximity fuse that would have tripled the effectiveness of those anti-aircraft guns. German

learn from that debacle and how they might alter their methods in the future. The Israeli military culture embraced tactical proficiency and combat experience over professional intellectual development and rigorous inquiry at the operational or strategic levels of war. The IDF focused on its strengths—armoured thrusts across the desert and an Air Force capable of air dominance via preemptive strikes against a massing opponent. Combined arms warfare was ignored.

The resulting surprises were predictable in 1973. The IDF paid a heavy price for its lack of combined arms training and dispositions on both the Golan Heights and around the Suez Canal. Fortunately, many officers could fall back on their prior war experiences to reintroduce combined arms. But the IDF had to buy time for its mobilized Reserves to get to the front and to bring about a series of tactical improvisations and bold operational moves to stop the Egyptian incursion in the Sinai.

Improvisation, a valuable source of strength in the Israeli strategic culture, proved decisive but only at great cost. Strategic warning and surprise can be overcome. But, as Professor Murray brings home clearly: