Analogical Thinking: The Sine Qua Non for Using History Well

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ABSTRACT: This article discusses the use of historical analogies as one of humanity’s most important adaptive techniques. Recognizable patterns enable us to clarify context and provide guides for our actions when facing unfamiliar intellectual terrain. Thoughtful strategists should, however, be mindful of the substantial drawbacks associated with using analogies as sources for prescribed action amidst a constellation of contingent circumstances.

The use of historical analogies is one of humanity’s most important adaptive techniques. Our ability to learn from our own and others’ experiences to guide our judgment for future action is central to progress. To reason by analogy is to draw insights from two or more similar situations to speculate about other potentially corresponding respects. Historical analogies infer similar events may agree in some respects despite occurring in different periods. Confronting the unknown, people grasp for recognizable patterns from past experiences to clarify context and provide hypotheses for subsequent choices and behaviors. Reasoning by analogy helps us make sense of the world. Analogies are inviting because they offer great promise for cutting paths through unfamiliar intellectual terrain.

As comprehensive guides to action, however, analogies are severely limited. Thoughtful strategists must be mindful of the natural appeal and value of analogies. Especially during the early stages of confronting new or mysterious challenges, strategists must recognize the substantial drawbacks of using analogies to prescribe action amidst constellations of contingent circumstances that rarely, if ever, replicate perfectly.

History and Experience

Personal history and experience are valuable components of individual theories of how the world works. In that regard, Sir Michael Howard provides an evocative metaphor for some key challenges soldiers face.

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A soldier . . . in peacetime is like a sailor navigating by dead reckoning. You have left the terra firma of the last war and are extrapolating from the experiences of that war. The greater the distance from the last war, the greater become the chances of error in this extrapolation. Occasionally there is a break in the clouds: a small-scale conflict occurs somewhere and gives you a “fix” by showing whether certain weapons and techniques are effective or not; but it is always a doubtful fix. . . . For the most part you have to sail on in a fog of peace until at the last moment. Then, probably when it is too late, the clouds lift and there is land immediately ahead; breakers, probably, and rocks. Then you find out rather late in the day whether your calculations have been right or not.2

Mindfulness of the “fog of peace” should extend to our understanding of how cloudy our view remains even as we seek clarity in historical experiences.

How and why individuals and groups choose analogies for national security applications are important questions that draw upon history and psychology. For national security professionals, using history well, particularly when it intersects with professional experiences, is a constant challenge. Meeting this challenge is especially important in professional military education (PME) where interwoven study of history and psychology should foster national security professionals’ ability to understand war and to develop sound discretionary judgment.

Historical cases provide natural foundations for analogical thinking that powerfully enhance security studies. According to Eliot Cohen, “To study military and strategic history in depth is to acquire vicarious experience of the variability of warfare, to acquire a certain kind of flexibility that neither military doctrine nor any individual’s military experience can supply.”3 The natural commingling of individuals’ personal, idiosyncratic analogies with the theories, models, and frameworks that PME programs seek to impart requires close attention from educators and students alike. Broad, rich, and diverse student and faculty experiences of professional practice and previous education offer tremendous benefits in the classroom. But there are also significant disadvantages—such as students, and sometimes faculty, anchoring on more readily available personal experiences (especially emotionally searing ones)—that may inhibit the consideration of less familiar but more useful possibilities.

As our students mature and gain real world experience, the interplay between direct (personal) and indirect (educational) experiences of history increases in scope. The typical career progression from tactical to operational to strategic assignments has parallel educational opportunities from junior to intermediate to senior to general/flag officer PME. Moreover, on each step up the PME ladder, individual students bring an accumulating portfolio of personal historical

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experiences ripe for analogies. The propensity for reasoning by analogy and the recognition of likely analogy sources deserves close attention from students and faculty. In the present era, for example, servicemembers bring personal experiences and assessments of the conflicts in Afghanistan and Iraq into the classrooms in ways that cannot be ignored.

A strategic leader may apply a compelling personal historical analogy to diagnose and treat a national security issue like a doctor identifies symptoms, diagnoses conditions, and recommends treatments for health issues. In 1965, for example, decisions on escalation in Vietnam were significantly influenced by President Lyndon B. Johnson’s and other senior leaders’ analogical thinking about momentous events they had lived through—such as the implications of the Munich Agreement to the beginning of World War II in Europe (inappropriate appeasement) and the nature of the American and Chinese clash during the Korean War (policy overreach and conflict expansion after the Inchon landing).4

The use of the past, however, is limited by contingency and context. Projecting past experience to the future will likely be complicated by major variations in technology, social organization, geopolitics, or other elements that may have slight or no analog to the past. The relevance or irrelevance of history to new challenges is an important element for framing the context of expert judgment.

The past furnishes no precise formulas for solving present problems or predicting the future. History does, however, provide the best possible backdrop for putting strategic concepts in perspective before theoreticians frame recommendations and decisionmakers fit them into plans.5

History, Psychology, and War

There is extensive literature on the historical value of case studies and the psychological relevance of analogical reasoning. Observations from several influential authors provide a firm foundation for understanding the important interdisciplinary connections between history and psychology.

Among Carl von Clausewitz’s keenest insights are the ones regarding human psychology and emotion in war. As Clausewitz pointed out, “The human mind . . . has a universal thirst for clarity, and longs to feel itself part of an orderly scheme of things.”6 Clausewitz rightly placed moral and intellectual factors at the center of war and its remarkable trinity of “primordial violence, hatred, and enmity . . . the play of chance and probability . . . and of its element of subordination, as an instrument of policy, which makes it subject to reason alone.”7

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4 Khong, Analogies at War, 174–205, 97–147.
7 Clausewitz, On War, 89.
For Clausewitz, there was no way to understand war in the absence of politics and genius. As Peter Paret notes, given the rudimentary nature of psychology in Clausewitz’s time, he had a limited vocabulary for it. Nonetheless, Clausewitz’s concept of genius captures much of his analysis of the human mind: “Any complex activity, if it is to be carried on with any degree of virtuosity, calls for appropriate gifts of intellect and temperament. If they are outstanding and reveal themselves in exceptional achievements, their possessor is called a ‘genius.’”

As Paret explains, “Genius served as [Clausewitz’s] favorite analytic device to conceptualize the various abilities and feelings that affected the behavior of more ordinary as well as of exceptional men.” Among the appropriate gifts of intellect, Clausewitz put great store in military history as a means for understanding war. To him, any theory of war must meet practical standards of applicability in the real world. Clausewitz’s chapters “Critical Analysis” and “On Historical Examples” are excellent models for considering the appropriate use of history. Clausewitz summarized four ways historical examples could be used: “as an explanation of an idea,” “to show the application of an idea,” “to support a statement,” and “the detailed presentation of a historical event, and the combination of several events . . . to deduce a doctrine.”

If, however, some historical event is being presented in order to demonstrate a general truth, care must be taken that every aspect bearing on the truth at issue is fully and circumstantially developed—carefully assembled, so to speak, before the reader’s eyes. To the extent that this cannot be done, the proof is weakened, and the more necessary it will be to use a number of cases to supply the evidence missing in that one. It is fair to assume that where we cannot cite more precise details, the average effect will be decided by a greater number of examples.

In short, Clausewitz suggests the manner in which causes and effects can be attributed to multiple cases strengthens the general theories of war that can be deduced from historical examples. Furthermore, Clausewitz cautions about the applicability of historical examples with respect to the time that has elapsed since the particular event: “The further one progresses from broad generalities to details, the less one is able to select examples and experiences from remote times.”

Robert Jervis gives great attention to the sources of biases, particularly those related to direct personal experience, and their pitfalls, which can influence individual behaviors as well as international politics. Discussing how decisionmakers learn from history, Jervis notes,

People pay most attention to what happens to them and to those they identify with. . . . A person learns most from events that are experienced firsthand, that influence his career, or that have major consequences for his nation. This sample is idiosyncratically biased because of the accidental

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8 Clausewitz, *On War*, 100.
nature of what the person happens to experience firsthand or the fact that one dramatic event rather than another occurs in his lifetime.\textsuperscript{12}

Decisionmakers tend to focus on superficial aspects of historical examples, particularly those that accord with preexisting biases and are reinforced by society. The most powerful collective events that shape individual perceptions are revolutions that establish or reshape a society and the most recent major war.\textsuperscript{13}

Richard Neustadt and Ernest May provide a superb analysis of the uses and misuses of history.\textsuperscript{14} After highlighting major events shaped by policymakers’ uses of history, such as success in the Cuban missile crisis and problems while defending South Korea, Neustadt and May focus on how decisionmakers can better use historical examples and vignettes. Explicit in their work is the understanding that individual experience is very influential. Their analysis captures the tension between using history and the limitations imposed by reliance on individual experience.

Neustadt and May suggest several methods policymakers can incorporate to use history more effectively. The methods are a good starting point for establishing the relevance of historical analogies to specific problems and understanding the circumstances for a decision, to include known, unclear, and presumed elements. When individuals apply principles of good journalism, they can figure out what the story is rather than what the problem is. With this approach, analysts explore the degree to which an historical example is similar to or different from the contemporary circumstance to which it might be applied. The methods help analysts avoid group biases or groupthink, give decisionmakers pause to analyze responses, challenge prevailing assumptions, and avoid the trap of superficial similarities, biases, and other common pitfalls that can lead to premature or incomplete decisions.\textsuperscript{15}

Yuen Foong Khong provides an even more constructive approach with his analogical explanation framework that applies cognitive social psychology to improve decision-making.\textsuperscript{16} Khong’s framework explains the routine and predictable manner in which people use analogies to address new phenomena or gaps in experience. He compellingly applies this information to analyze major US escalation decisions early in the Vietnam War to show how an intelligent group of decisionmakers framed options using historical analogies related to the Munich Agreement and the US intervention against communists during the Korean War. Senior leaders arrived at problematic, at best, escalation decisions that flowed from their flawed analogical diagnoses.

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  \item[16] Khong, \textit{Analogies at War}, 19–46.
\end{itemize}
Khong’s framework clarifies how analogies provide shortcuts to help deal with complex situations and identifies six diagnostic tasks analogies help perform for decision-making.

- **Diagnosis and Prescription**
  - Define the nature of the problem
  - Give policymakers a sense of the political stakes
  - Imply or suggest possible policy prescriptions

- **Evaluation**
  - Predicting chances of success
  - Assessing moral rightness
  - Warning of dangers

Khong further explains the complex relationship between applying history and psychology to decision-making: “The problem lies less with a failure of intellect than with the psychological processes associated with the way humans pick analogies and use them to process information.”

Humans have limited cognitive capacity and tend to take the easiest paths to make judgments in conditions of uncertainty. Key elements of this laziness or satisficing include an overreliance on the availability of and the tendency to focus on superficial similarities between a current situation and the historical experience in the decisionmaker’s repertoire. Once chosen, the analogy tends to persist as a tool for top-down analysis. This perspective can also reinforce confirmation bias that causes discrepant information to be discounted and for ambiguous information to be more likely perceived as confirming existing beliefs and preferences.

Daniel Kahneman, often drawing on his collaboration with Amos Tversky, provides an insightful corrective to the concept of rationality that carries important implications for analogical analysis. Kahneman provides a useful underlying context for understanding the human impulse to find quick answers to new challenges among the repertoire of experiences and analogies readily at hand. In *Thinking Fast and Slow*, Kahneman lays out many biases and tendencies of fast thinking—often conceived as intuitive, quick, and instinctual—and identifies how they can often lead us astray.

Drawing insights from the field of behavioral economics, Kahneman provides a persuasive approach to understand the manner in which individuals make decisions. He distills his analysis to System 1 (fast, intuitive thinking) and System 2 (slow, deliberate thinking) and highlights how readily individuals rely on fast thinking for most tasks. The overwhelming propensity for fast thinking, which draws heavily on biases and heuristics, challenges assumptions of rational decision-making.

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grounded in slow thinking. Indeed, slow thinking frequently rationalizes the results of fast thinking rather than investigating alternatives.\textsuperscript{21} When we think of ourselves, we identify with System 2, the conscious, reasoning self that has beliefs, makes choices, and decides what to think about and what to do. Although System 2 believes itself to be where the action is, the automatic System 1 is the hero. . . . System 1 . . . effortlessly originate[s] impressions and feelings that are the main sources of the explicit beliefs and deliberate choices of System 2.\textsuperscript{22}

With respect to historical analogies, it is thus very likely that individuals use intuition heavily conditioned by past experience to make a decision before looking for analogies that support their decision, and then fall prey to confirmation bias that prevents them from searching for other perspectives or being open to other analogies. Conditioned to think fast first, individuals tend to pillage a grab bag of possible solutions from among which they often settle for the first and most easily accessible (the availability heuristic). It is important and natural for people to make these snap judgments in the blink of an eye as a basic coping mechanism for moving through life. Nevertheless, it is possible to induce slow thinking to work deliberately through possibilities and alternatives that the mind might not select in a rush for quick answers. The selection of specific historical analogies, which is often done poorly, is mainly a function of default, fast thinking approaches that help everyone cope with day-to-day living. Such psychological defaults or short cuts are even more attractive in stressful situations characterized by information overload and tight deadlines common for high-pressure decision-making. This element helps explain why individuals frequently fail to thoroughly weigh costs and benefits against valued ends when making major decisions.

Circling back to Clausewitz’s foundational analysis, we benefit from his placement of individual genius at the center of his theory of war. Even without a scientific understanding of the influence of psychology or genius on war, Clausewitz came close to the matter with the language and frameworks he had at hand. He captured the essence of slow thinking and the dangers of fast thinking in his numerous exhortations for commanders to ignore first reports and emotional stimuli that often come from the realm of battle and to stick with the convictions developed more rationally and coolly. This sense of the importance of psychology and history is one of the many reasons \textit{On War} continues to resonate. Jervis, Neustadt and May, Khong, and Kahneman offer useful complements for understanding how history and experience inform discretionary judgment.

To summarize, reasoning by analogy is natural and useful for understanding the dynamic between history, psychology, and war. But the misuses of history for which decisionmakers are faulted are more predictable and inevitable than most of us would like to

\textsuperscript{21} Kahneman, \textit{Thinking Fast and Slow}, 13, 415.
\textsuperscript{22} Kahneman, \textit{Thinking Fast and Slow}, 21.
Imagine. Humans are predisposed to time-saving and psychologically comfortable shortcuts to make sense of complexity and unfamiliarity as quickly as possible. Once chosen, analogies persistently tend to influence analysis and diagnosis of the circumstance to which they are applied. Understanding the psychological habits that make analogies attractive is fundamental to exploring their effective employment in PME.

**Educating for Judgment**

Individuals will use analogies to make professional judgments, and as the literature above suggests, they are prone to do so poorly. Thus, practitioners and scholars should remain attentive to the implications of misusing history, especially when making national security policy decisions. It is wise to be as self-aware as possible (individually and organizationally) to mitigate the poor use of analogies. As Khong notes, analyzing analogies, especially their similarities and differences, is more problematic in international affairs where the context is less familiar and generally less accessible. A major challenge is to figure out how to improve upon or at least to mitigate the negative aspects of reasoning by historical analogy.

Education can provide critical elements for understanding, prioritizing, and selecting analogies. Individuals can use this information to build a rich repertoire of professionally relevant history for nesting their experience and analogies. With a solid framework and a habit of exploring the elaborate texture of historical cases, individuals will be less likely to rely on simple or superficial analogies for important decisions.

Short of actual war, simulating or replicating the key dynamics of war is valuable to preparing leaders—civilian and military—for the situations they might face in war. Wargames, case studies, reading assignments, and other forms of study are among the useful techniques for exploring the thought processes, strategic choices, and interactive dynamics of war necessary for developing potentially useful analogies.

Historical case studies remain exceptionally valuable techniques for educating national security professionals for the same reasons business case studies are effective:

> The case method creates a large repertoire of secondhand experiences from which students can reason. . . . Students will seldom, if ever, encounter a situation exactly like one they discussed in the classroom. But having studied and debated hundreds of cases from diverse settings, [they] can draw upon a large set of vicarious experiences as they make choices.\(^{23}\)

Thucydides’ *History of the Peloponnesian War*, for example, is a widely used source for exploring strategic choices in war and develops potentially useful analogies regarding international power dynamics (the rise of Athenian power and the fear induced in Sparta), strategic overreach (the Sicilian Expedition), and other strategy and policy decisions.

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connections (domestic political will, treatment of allies, war termination, and morality).

Students, particularly broadly experienced and mature midcareer practitioners, arrive with a repertoire of analogies distilled from personal experiences and previous education. Professional military education can help students develop self-awareness about the power and pitfalls of analogies as well as introduce other perspectives that enrich existing sources of or create new sources for analogical thinking.

Three threads of advanced education converge in important ways. First, individuals are predisposed to draw upon their own experience as a basis for analogizing and implicitly theorizing about cause and effect with respect to new phenomenon. Second, members of groups are able to communicate with one another, often in abbreviated fashion, using analogies or other references to key events that are often freighted with supposedly, collectively agreed upon lessons. Third, education develops valuable individual and collective historical repertoires for future use.

In war, stakes are especially profound and personal experiences are particularly acute. Moreover, the infrequency of such experiences in a typical individual’s career heightens the importance of educational opportunities to analyze other historical experiences rationally. Education should also include endeavors that increase individuals’ self-awareness about the pitfalls of analogical thinking and to emphasize team thinking to get candid feedback on chosen analogies. Leaders need to learn to ask important questions about analogies, to include the first order question, Is this a good analogy?

In the development of an analogy to explain the past, organize disparate information, and inform future assessments, institutions like the armed forces have advantages in framing and promulgating understanding of particular historical analogies in ways that can have important bearing on civil-military relations—for example, in the wake of the Vietnam War, many members of the armed forces, particularly those in the Army, developed an explanation for the tragedy that blamed civilian leaders. As specious as the argument proves when subjected to rigorous examination, the result was a version of analogical thinking that connected civilian micromanagement to strategic failure. Hence, civilian micromanagement of military operations in contemporary or future conflicts could lead to Vietnam-like strategic failure. Education should play an important role in helping students to analyze such claims more thoroughly.

Conclusion

Field Marshal Viscount William Slim, one of the military giants of World War II, provides wise counsel regarding the pitfalls of using history as a predictor, rather than a foreshadowing, of events:

Generals have often been reproached with preparing for the last war instead of for the next—an easy gibe when their fellow-countrymen and their political leaders, too frequently, have prepared for no war at all. Preparation for war is an expensive, burdensome business, yet there is one important part of it that costs little—study. However changed and strange the new conditions of war may be, not only generals, but politicians and ordinary citizens, may find there is much to be learned from the past that can be applied to the future and, in their search for it, that some campaigns have more than others foreshadowed the coming pattern of modern war.  

Individuals will always employ history of one kind or another. The challenge is to ensure strategists and decisionmakers deploy history as well as possible.

In addition to using historical analogies well, professionals must be mindful of how the natural and routine oversimplification and adoption of preferred versions of historical logic can affect the development of strategy and policy—similar to the dysfunctional ways that preferred military analogies about excessive civilian micromanagement in the Vietnam War negatively affected subsequent US civil-military relations. After more than 17 years of combat in Afghanistan and Iraq, an important test for professional military education will be to conscientiously consider how students’ recent experiences may influence analyses, diagnoses, and prescriptions for other missions.

History provides an invaluable and inescapable foundation upon which to build future national security policy. The inevitable use of historical analogies demands continued attention from scholars and national security professionals. The professional challenge is to use analogies that are developed as fully as possible and to be mindful of the limitations of human habit and reasoning that make analogies an imperfect tool for diagnosis and prescription in security affairs.