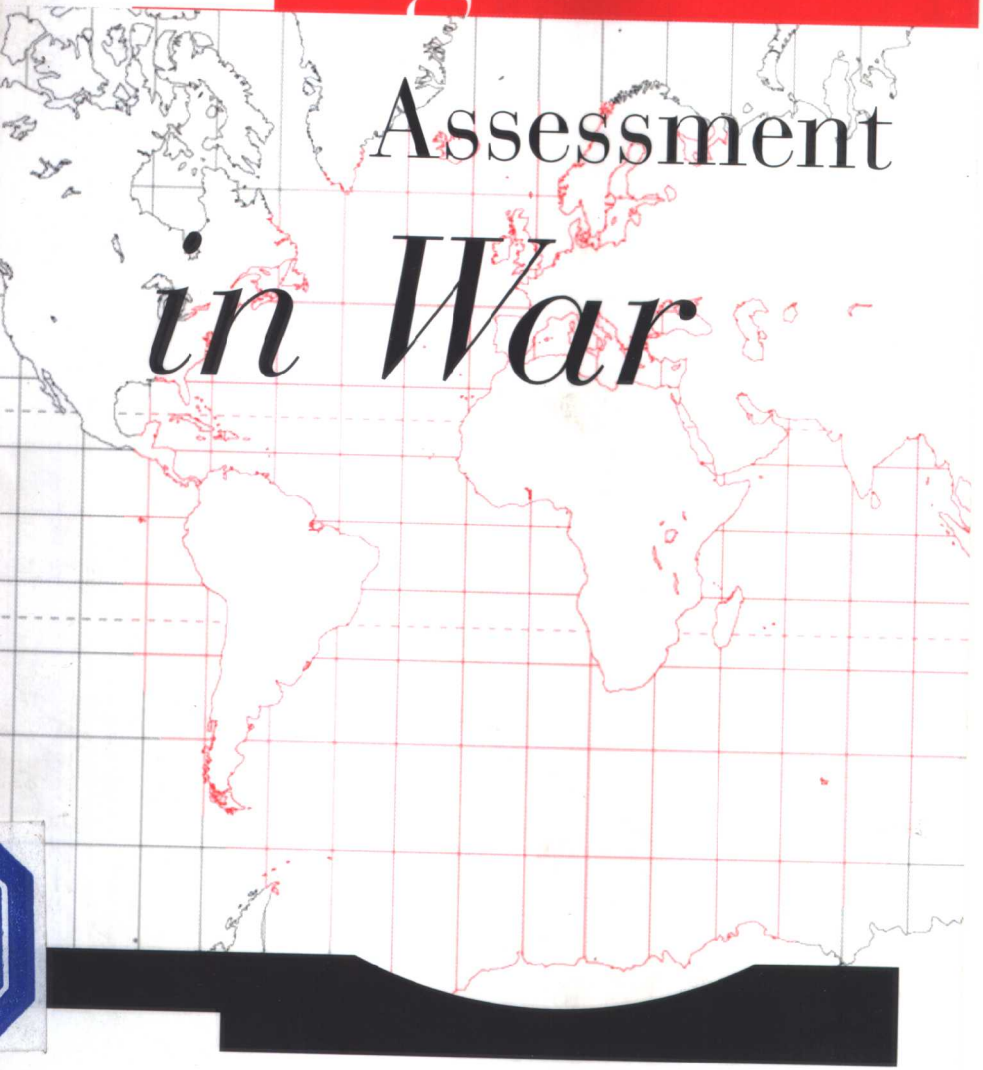
# Strategic Assessment *in War*



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# Contents

Chapter 1

# Strategy and Organization

Life is measured by the rapidity of change.

—George Eliot

During World War I, the careers of British infantry officers whose units suffered low casualties were ruined because they were seen as lacking the essential *esprit de corps*. The fewer of their men who died, the worse the unit was doing: "A low casualty rate was taken as evidence that a regiment was shirking, and also led to dismissals."[1] If this seems like a rare phenomenon that was brought about by the unusually brutal and inane fighting of World War I, consider the following discussion between Generals Orlando Ward and George S. Patton during World War II, as described by the historian Geoffrey Perret:

> "How many officers did you lose today?" asked Patton. "We were fortunate," Ward replied. "We didn't lose any officers." "Goddamit, Ward, that's not fortunate! That's bad for the morale of the enlisted men. I want you to get more officers killed." A brief pause followed before Ward said, "You're not serious, are you?" "Yes, goddamit, I'm serious. I want you to put some officers out as observers," said Patton. "Keep them well up front until a couple get killed. It's good for enlisted morale."[2]

Shortly after this discussion, General Ward was relieved.

Although the relation between an observable wartime indicator, such as casualties, and evaluations of success might sometimes be surprising, numerical indicators like these strongly influence how decision

makers assess performance in war. These evaluations affect such critical wartime issues as promotion, resource allocation, alliance formation, and whether to maintain or change current strategies.

This is a book about decision making in wartime and the role that battlefield indicators play in determining assessments of strategy. Leaders assess and, if necessary, alter their strategies based on information they gather from the battlefield through wartime indicators. These decisions can have enormous impact. Decisions on strategy play a significant role in determining a war's nature, as well as its duration, intensity, and ultimately who wins and who loses.

The maxim "to win the battle but lose the war" suggests the historic difficulty of assessing wartime performance accurately. Despite its importance and difficulty, strategic assessment in war has traditionally received little analysis, largely owing to the dominance of Cold War nuclear concerns.[3] Since World War II, "the study of war has almost exclusively been concerned with the subject of initial war outbreak."[4] The decreasing concern about nuclear conflict that has followed the end of the Cold War allows us to move beyond a narrow focus on the causes of war to a broader examination of wartime decision making.

How does the information generated by battle influence decision makers' assessments of the performance of their strategies? I argue that organizations form beliefs about their likelihood of success from what they observe during a war. We can capture these beliefs with what I call the dominant indicator approach: a general, organizational model that focuses on sudden and dramatic changes in the quantitative indicators on which decision makers rely to predict how organizations evaluate the performance of such implemented policies as strategy. The direction and rate of change with which these critical, "dominant" indicators move provides an estimate for an organization's likely policy assessments and behavior.

Some argue that organizations, and in particular military organizations, are insensitive to changes in their environment.[5] They believe that military organizations fail to learn from their wartime experience. My approach challenges these views. I think that experiential information, like that generated in the battle, affects all organizations' assess-

ments of policy performance, but each organization employs a different informational lens to interpret these data. This means that different organizations might have different views of the same situation; because they are relying on different information for understanding the situation, they may talk past each other when discussing the effectiveness of their nation's strategies.

The quantitative data employed by decision makers to evaluate policy performance represent a largely untapped primary source for studying wartime decision making. Using these data, I examine how decision makers reacted to three different wartime strategic changes: the British response to Germany's unrestricted submarine warfare in World War I, British assessments of the effects of German submarine Wolf Pack attacks in World War II, and American evaluation of its success in the Vietnam War after the Tet Offensive. In addition, to get a sense of how the proposed approach works in a non-war situation, I look at the Carter Administration's decision to launch the hostage rescue attempt in Iran. In each case, I analyze the period before and after the adversary's strategic change to help us better understand how leaders assess the likely success of their strategies. Each analysis thus includes many actors and observations.

In each historical case I examine three arguments to explain organizations' strategic assessments. First, I test the proposed approach, which looks at the rates of change of dominant indicators employed by decision makers to assess their wartime performance. In particular, I examine how we can use the acceleration and change in acceleration of these indicators to make predictions about leaders' strategic evaluations. Second, I examine an alternative absolute value model that does not consider acceleration and change in acceleration of indicators and that closely resembles the standard "bounded rationality" organization approach of Herbert Simon, James March, Richard Cyert, and Anthony Downs.[6] Finally, I explore the parsimonious notion that nations simply alter their strategies after their adversaries do; what I call the action-reaction model. My study finds that the dominant indicator approach is a better predictor of behavior than the two alternatives and has a number of other significant implications.

The most important contribution of this effort is the development and empirical analysis of a new view of organizational assessment and decision making. But this book contains a number of other theoretical and empirical implications beyond that. First, the analysis suggests that organizations hold onto their assessment criteria more tightly than they do their policy preferences, which, as I shall show, challenges a central tenet of the Cult of the Offensive—a recent popular argument found in the security studies literature. This helps to explain why the British navy began World War II employing a convoy strategy, when most organizational arguments suggest that it should have preferred alternative strategies.

Second, the analysis helps explain why changes in strategy are widely seen as successful—as was the British implementation of a convoy strategy in World War I. Third, it shows that organizations can experience dramatic fluctuations in their assessments, as occurred with British naval assessments during World War II. Fourth, it helps explain the conditions under which organizations become internally conflicted and torn, as in the Johnson Administration during the Vietnam War. Finally, it helps explain the timing of decisions, such as why Jimmy Carter waited until April 1980 to initiate the rescue of Americans held hostage in Tehran. To understand better the context in which these arguments operate, we need to examine the process of strategic assessment.

## STRATEGIC ASSESSMENT

Decision makers rely on critical numerical measures that strongly influence their policy assessments. These figures, or dominant indicators, represent systematic factors in the information relied on by decision makers. Sudden and dramatic movements of these indicators act as strong signals that decision makers' strategy is succeeding or failing. We can capture these sudden and dramatic movements by looking at record rates of changes in the decision makers' indicators. If an indicator moves in a record-setting rapid rate in the desired direction, it suggests that a policy is performing well and that we should observe deci-

sion makers formulating a positive policy assessment. Conversely, when an indicator moves rapidly in an undesired direction, decision makers are likely to see their implemented policy as leading to failure and prefer alternatives. Finally, if decision makers rely on indicators that move dramatically in directions that would lead to conflicting interpretations, an organization is likely to become "gridlocked" and unable to formulate a consensus policy assessment.

In Chapter 2 I present this argument for the dominant indicator approach in detail. My argument, however, rests on a specific view of the factors that influence organizations' strategic assessments. Before continuing, it would be helpful to identify six critical assumptions and propositions about strategic assessment that form the foundation of the dominant indicator approach. 1) Which strategy is best for a state depends on the other side's strategy. 2) An adversary's change of strategy needs to be detected. 3) In some cases, judging the success of a strategy is easy because there are obvious, easily observable indicators, but in many cases, judging its success is difficult, and there is no single, overriding indicator of success. 4) Random factors, such as weather and luck, influence performance on the battlefield. 5) Actors develop a feel for the level of noise in their indicators over time by examining earlier values. 6) Dramatic deterioration in performance provides the evidence that a strategy is failing and should be changed.

Warfare is, in part, an interaction of strategies. The interactive nature of war makes assessment difficult because it adds many players, and actors need to formulate expectations of how they expect their adversaries to react.[7] As a result, military strategy deals with "the actions of individuals who are conscious that their actions affect each other."[8] In the context of war, decision makers recognize that the behavior of one's adversary, ally, and allies' adversaries will fundamentally influence the outcome of the war and thus must be taken into consideration when making choices about how to fight it.[9] Rarely does a single wartime choice stand out as desirable, regardless of the anticipated actions of others. In game theoretic terms, there are rarely dominant strategies in war. That is, unlike a prisoner's dilemma game—where each player

has an incentive to act the same (defect) regardless of what the other player does (a dominant strategy)—military decisions are a function of both the anticipated and the observed actions of one's enemies.[10]

Dealing with the interactive nature of war is seen by some as the key to wartime assessment. "In wartime, the essential problem lies in judging the results (and their significance) of interacting capabilities."[11] For example, before World War I, neither the German nor the British navy anticipated the German's use of unrestricted U-boat attacks on shipping. The German navy's implementation of this strategy occurred because the British navy bottled up the German fleet, and activity on the Western front stalled. British decision makers were thus facing a type of conflict where, because of their success on one dimension, their expectations about another turned out to be wrong. It is one thing to state that actors take into account their adversary's actions, but in the real world, how do they observe strategic change?

Nations do not usually announce changes in strategy, and strategic changes might not be easily observed. As a result, in some cases, a nation must estimate an adversary's change in strategy when the war begins to turn in an undesired direction. For example, in July 1940, the German Luftwaffe began to bomb Royal Air Force bases and other air-defense targets in Britain. In early September, the Luftwaffe switched from attacking British air-defense capabilities to bombing civilian targets in London. Thus the Battle of Britain became the Blitz. The only way the British could recognize that German strategy had changed was by observing how their adversary's behavior changed (even the Ultra code-breaking system did not help in this case). In this situation, the change was obvious, but in other cases, particularly when the battlefield is complex, strategic changes might be less clear. Thus, before an organization can form a response to an adversary's new strategy, it must first detect it. Recognition that an adversary has changed its strategy is the result of the strategic assessment process.

Once a nation determines that an adversary's strategy has changed, how does it know whether that alteration requires a response? One might state that a change in an adversary's strategy is likely to lead to an assessment of the *adequacy* of one's own strategy.[12] But what does an

adequate strategy look like? And how can we, as analysts, determine when conditions are likely to lead decision makers to draw this conclusion? In order to determine whether a new strategy requires a response, nations and organizations need to use the information available to them to assess their strategic performance. This presents a number of serious problems.

In war, decision makers are suddenly deluged with information about a strategy's performance. "In a crisis, both data and policy outpace analysis."[13] The switch from peace to war leads to a dramatic change in the availability of information. "During wartime military organizations are 'in business.'"[14] The rapid pace of warfare places a premium on a nation's ability to decipher relevant information quickly and act upon it. A quick decision can lead to victory (Israel's attack on the Egyptian Air Force in the 1967 Six-Day War, for example), but it also can be disastrous (Egypt's decision to go beyond the Sinai passes in the 1973 Yom Kippur War). Like Centers for Disease Control officials evaluating a potential epidemic, if decision makers wait until the situation becomes clear, it is frequently too late for new actions to have any effect. Decision makers recognize this dilemma. In August 1990, when an adviser suggested that he wait to learn more about Iraqi intent before inviting American forces into his country, Saudi Arabian King Fahd replied, "The Kuwaitis did not rush into a decision, and today they are guests in our hotels!"[15]

It is not just change that depends upon assessment. Maintaining the status quo is also a decision that is driven by the assessment process. "Examining the decision to persevere in a policy involves some notions of the bases upon which the policy's continued desirability is to be evaluated."[16] In order to determine whether to persevere or alter policy, decision makers need to formulate assessments quickly with data that are far less complete than they would ideally prefer. As the former chairman of the Joint Chiefs of Staff, General Colin Powell, writes: "We do not have the luxury of collecting information indefinitely. At some point, before we can have every possible fact in hand, we have to decide."[17]

In a battle, when the front line moves, moving forward means that you are winning, backward, that you are losing. But although changes

in the front lines of a linear ground battle might be clear indicators of success or failure, how do you measure the success of a strategic bombing or an antiguerrilla campaign? While there are various measures in these cases, there is no single, overriding indicator of performance. War has no scoreboard. Modern combat involves many battles in many places at once. Summarizing the net result of all this combat to assess your strategy is difficult. There is simply too much going on for an individual or organization to understand everything about how a side's forces are performing.

Instead of a score, in war there are many measures of performance, all of which provide confusing and competing indications of strategic performance. After the fact, it might be clear what measures were the right ones to look at to assess performance, but at the time that decision makers have to make their choices, the value of particular indicators may still be unclear. As Aaron Friedberg writes about British assessments of Germany before World War I: "It must be said that 'the facts' were not always so obvious at the time as they have come to seem in retrospect. This was not a case of people willfully ignoring a readily apparent, if unpleasant, reality. . . . Data were sometimes hard to come by, and measuring tools were imprecise and sometimes downright deceptive."[18]

The assessment process is also hindered by the emotional impact of the data; in war people die, regardless of the effectiveness of a nation's strategies. Although leaders ideally would prefer to fight a war where they achieve their objectives, suffer no losses, and expend no resources, they realize that this is not possible. Unlike what happens in peacetime, the presence of death and destruction tells a leader little about a policy's performance.

Once selected, the interpretation of these indicators is also problematic. Organizations know that such random factors as weather and luck influence their performance in the field. Indicators are noisy; they vary in ways that are unrelated to the performance of a strategy. The wartime environment makes the analysis of facts particularly difficult because of the inherent noise that accompanies all factual information. Carl von Clausewitz stated that a "great part of the information ob-

tained in War is contradictory, a still greater part is false, and by far the greatest part is of a doubtful character."[19] Fred Ikle described the problems in using information for analyzing war termination, a decision-making process similar to strategic innovation, as one in which leaders must "decide which data to ignore as trivial and which to interpret as important signals. They must reconcile conflicting evidence. They must amalgamate into a single answer the most diverse indicators: reports from the battlefield, statistics on potential military resources, and impressionistic predictions of how friend and foe will bear the costs and suffering of further fighting."[20] War outcomes result from complex calculations that depend on a variety of unknown and hard-to-determine factors (strategy, leadership, *esprit de corps*, capabilities) and thus contain inherent uncertainty, noise, and chance.[21] "Battles are not pre-ordained. If they were, no one would bother to fight them."[22] Thus, it is not surprising that Clausewitz believed that information and its interpretation represented a key element in a war. "This difficulty of seeing things correctly, which is one of the greatest sources of friction in War, makes things appear quite different from what was expected."[23]

Despite this noise and uncertainty, decision makers still need to assess their performance in order to determine whether they are implementing the best strategies or deploying resources appropriately, whether they should sue for peace or press harder for victory. "When fighting starts it must often seem to a commander that everything is going wrong. His enemy pulls surprises, messages get lost, missions are misunderstood, supplies disappear, and dozens of other problems arise to hamper the quest for victory. All the while he worries about the progress being made."[24] How do actors draw inferences about the performance of their strategy in the face of this noise?

Actors compare current indicator values to past measurements in order to develop a sense of how to interpret their information. In this way, they begin to understand what constitutes unusually bad performance. For example, did the speed with which the FBI captured a suspect in the Oklahoma City bombing of 1995 suggest that U.S. domestic antiterrorist efforts were adequate? Or did the eighteen years required before a suspect was arrested in the Unabomber case suggest

that these efforts were insufficient? Was the quick capture good luck or the long avoidance of capture bad luck for the FBI? In order to use this information to assess their efforts, FBI officials need to have some idea of the likelihood that "adequate" counterterrorist efforts will result in "speedy" arrests. In order to assess these situations, officials compare them with past situations.

Something must happen for a decision maker to determine that the implemented strategy is failing and needs to be replaced. It is not enough for the situation just to be "bad"; good strategies may also have negative results. For example, the surprise attack by the Germans in the Battle of the Bulge might have suggested to the Allies that they were pursuing a failing strategy and that they needed to implement a new way to fight Germany. Instead, the Allies waited for the outcome of the battle to become clear and saw it as a German "last gamble." In other words, although the surprise and losses of the battle were clearly undesirable for the Allies, the overall signal was that the Allied strategy was successful.

Strategic assessment is a complex and difficult enterprise. Given the enormous costs involved in defeat, leaders have a strong interest in implementing the best strategies available. As a result, strategic assessment is also a serious business. This book develops and improves our understanding of strategic assessment in war. But policy assessment is not limited to wartime.

## POLICY ASSESSMENT

Although the empirical analysis focuses on decision making in war, the dominant indicator approach is general and can apply to non-war decision making. The need for decision makers to estimate, *ex ante facto,* before the fact (or decision), the effectiveness of their implemented policy is not unique to wartime situations. Herbert Simon argued that "in making administrative decisions it is continually necessary to choose factual premises whose truth or falsehood is not definitely known and cannot be determined with certainty with the information and time available for reaching the decision."[25]

For example, the Centers for Disease Control (CDC) try to estimate

the effectiveness of policies intended to contain the spread of diseases before they become epidemics. They have scarce resources and attempt to direct them against diseases that have the highest potential of reaching epidemic status if they are not dealt with. In order to stop epidemics, massive investments of resources need to be made quickly, before the disease spreads. Sometimes the CDC makes a bad investment, such as when it targeted Swine Flu, which failed to spread at epidemic rates, resulting in warehouses of expensive, unused serum. In other cases, such as AIDS, where a disease becomes an epidemic, it would have been better if the CDC had expended more resources against the disease earlier. Because they cannot employ sufficient resources against all potential disease threats, CDC officials need to make judgments about the effectiveness of their policies before it is clear that an epidemic will (AIDS) or will not (Swine Flu) occur, so that they can reallocate their scarce resources.[26] The assessment problem is particularly difficult in wars and epidemics, where, even if a policy is successful, some people will die. In these cases, the pressure to make the correct decision quickly is enormous.

This general problem also has normative implications. For example, Stuart Hill has argued that the need for policies to be evaluated before outcomes can be observed should influence how democratic institutions are created. He writes: "If governmental decisions are expected to be responsive to citizen wishes, we must devise political institutions that draw on the laypublic's appraisal *before* a decision is made."[27]

## EXAMPLES OF STRATEGIC DECISION MAKING IN WARTIME

On July 16, 1940, Adolph Hitler issued Führer Directive No. 16, which specified that the Luftwaffe should destroy all British military capabilities on land, sea, and air before the planned German invasion of Great Britain (Operation Sea Lion).[28] Hermann Göring translated these objectives into the strategy of using bombers to destroy all elements of the Royal Air Force. Göring stated: "As long as the enemy air force is not destroyed, it is the basic principle of the conduct of air war to attack the enemy air units at every possible favorable opportunity—

by day and night, in the air, and on the ground—without regard for other missions."[29] In July the Luftwaffe began the Battle of Britain. In order to bomb the RAF targets accurately, most of the Luftwaffe raids occurred in daylight, which facilitated bombing accuracy but which was also the most effective time for anti-aircraft efforts.

The German effort was enormous, employing a substantial portion of the Luftwaffe's planes. The effort was also extremely costly to both sides; in August alone the Luftwaffe lost 774 planes, or 18.5 percent of its total strength, while the RAF lost more than 25 percent of its fighter pilots.[30] Between August 24 and September 6, the Luftwaffe lost 380 aircraft and the RAF 290.[31] Losses were running too high for the Luftwaffe to sustain this effort, while at the same time the RAF's capabilities did not seem to be weakening fundamentally.

As a result, "the Germans changed their air strategy."[32] On September 7, the Luftwaffe instituted a strategic shift. "Attacks on Britain's air defense system through September 6 had given no indication that Fighter Command was weakening. Göring—at Kesselring's urging and with Hitler's support—turned to a massive assault on the British capital."[33] The Luftwaffe thus turned the Battle of Britain into the Blitz, as they altered their strategy from one of counter force to counter value and switched from attacking the RAF to bombing London. The Luftwaffe increasingly bombed London at night, which led to a much more sustainable loss rate than had their daylight raids against air-defense targets. Despite the improved loss rate, however, the Blitz was unsuccessful in destroying enough of London either to make the British sue for peace or to annihilate the RAF in its defense of London. As a result, the Nazis called off the Blitz and Operation Sea Lion and never tried to invade Britain again.[34]

Two aspects of the Battle of Britain and the Blitz deserve special attention. First, the Blitz represented a strategic change for the Luftwaffe because it switched its target category from air defense to London civilian and industrial targets. Second, the Luftwaffe performed two strategic assessments. First, they determined that the Battle of Britain was unsuccessful, and they switched to the Blitz. Second, they deter-