Alternative operations off U.S. East Coast.

 Antic Decan, September 18, 2019 (U.S. Navy).

Evaluating Strategies Six Criteria for National Security Professionals

By Gregory D. Miller

t is relatively easy to examine past strategies and evaluate whether they were successful; it is much more difficult to evaluate current and proposed strategies to determine whether they are likely to be effective. This article briefly discusses some of the proposals in business literature for evaluating corporate strategies and incorporates many of these ideas into six criteria for evaluating security strategies. The article discusses each criterion and suggests several questions for the strategist to consider during the evaluation process. It also offers one novel proposal among the six criteria—the use of counterfactual reasoning to develop alternative strategies based on modifying one's assumptions.

One of the most important skills for a strategist is the ability to gauge whether an approach is good or bad—prior to its implementation. There is a great deal of interdisciplinary scholarship on creating strategies, but few of those works address methods of evaluation.¹ Of the scholarship that does exist on evaluating strategies, much is historical or applicable primarily to the business world, and little thought is given to current national security professionals. Even in U.S. military doctrine, there is minimal discussion of strategy evaluation, other than assessing risk. What does exist is often limited in value.²

This focus on historical evaluation means that a common metric is whether a strategy "worked." This is a relatively simple approach—putting aside the vague, subjective nature of the term *worked*—but it is problematic because it means that we can evaluate strategies only *after the fact*. It also discounts the possibility that a good strategy can fail or

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never be implemented or that a bad strategy can succeed. Strategists need a set of criteria to help them evaluate an approach before its implementation. This article offers that a good strategy will be:

- balanced
- aware
- candid
- parsimonious
- elegant
- creative.

The framework discussed here is intended to help those who analyze and revise existing strategies, as well as those who must write new ones. Although this article is about evaluation, many of the criteria for a good strategy should also be part of the development process. In fact, if these evaluation criteria are incorporated into strategy development, then it is unnecessary to view development and evaluation as separate and discrete processes.³

The rest of this article is organized into four sections. First, it examines two of the challenges for evaluating strategies. Next, it explores some of the ways that the existing literature discusses strategy evaluation. It then addresses the six proposed criteria for evaluating strategies and offers several questions to help assess each criterion. The conclusion provides additional thoughts for advancing the development and evaluation of strategies.

Problems in Evaluating Strategy

Strategists face several challenges for evaluating a strategy, but this article focuses on the two that are potentially most confounding. One is the lack of a common definition of *strategy*; the other is the tendency to evaluate strategies only in terms of success or failure.

Defining Strategy. One problem for strategists is the lack of an agreed-upon definition of *strategy*. This issue pervades most discussions of strategy and complicates evaluation because analysts may not be evaluating the same things. Some see strategy as an idea.⁴ Many, especially within the Department of Defense (DOD), view it as the balancing of ends, ways, and means.⁵ Still others interpret it as a type of plan (or simply the *ways* part of the ends-ways-means model).⁶ Scholars and practitioners will never fully agree on definitions, but providing clear definitions allows others to replicate research. Similarly, it is important that strategists plainly identify what is being evaluated so that others can reproduce their analysis using the same definitions.

My definition of *strategy* is a blueprint, or a set of plans, to use one's resources to achieve desired outcomes, based on an appreciation for both the environment and the goals and strategies of other actors. Because this definition applies to any actor-be it an organization, a corporation, or a state facing some type of hurdle in achieving its goals-there is value to incorporating work on strategy evaluation from other disciplines, such as business. Beyond that, the criteria discussed here are useful for evaluation, whether applied to a process, idea, plan,7 or some other concept of strategy. The lack of a consistent, uniform definition is indeed a problem for the field, but it should not prevent an effective evaluation of a strategy, if one uses the criteria herein.

A related issue is the tendency to equate strategy with ends, ways, and means. Most strategists do not think of strategy as simply the balance of ends, ways, and means, but that model, despite being an overly simplistic one (as all models are), is often used as a shortcut for discussing the strategy.⁸ Balancing these factors is necessary for an approach to be practicable, but it is not enough for it to succeed because a good strategy does more, and Joint Doctrine Note 2-19, "Strategy," makes this exact point.⁹

Outcomes-Based Assessments. The more difficult problem for evaluation is the tendency to treat success as the best measure of a good strategy. That same Joint Doctrine Note nicely lays out the hierarchy of strategies, including national and military strategies, but still largely treats the concept of strategy as a military function. It also provides little guidance on how to identify a good strategy but alludes to success as the primary metric: "Strategy assessments evaluate the ability of the joint force to meet the challenges defined in a strategy, focused on attainment of its ends and ways." The note then admits that "most assessments of strategies [conducted before implementation] focus on risk."¹⁰ Although risk assessment is important—and is one of the six criteria listed herein—it is not the only important factor for success.

This emphasis on outcomes is not prevalent only in the business world, where profit drives firms, but it also applies to national security, especially when domestic populations have a voice and expect success on security matters. There are several issues with this emphasis. For one thing, failure does not mean a strategy was bad. A good strategy can be overtaken by fog and friction that its designer could not foresee; a weak state may have a good strategy that cannot succeed against a more powerful rival; or a good strategy may be beaten by a better one. Similarly, a bad strategy can be successful through sheer luck, because an actor overpowers its more strategic opponent, or by an adversary's adoption of a worse strategy.

Success is also a subjective term; one analyst might view a strategy as successful while another sees it as unsuccessful. A strategy could also achieve some success but still be less effective than an alternative strategy might have been. Analysts often cite U.S. Cold War containment as a good strategy because it helped defeat the Soviet Union. What if a different strategy would have ended the Cold War earlier, or with fewer casualties, or prevented it in the first place?¹¹ If we could prove that a different strategy would have led to a preferable outcome, then we would view containment's results differently.

Furthermore, success is not the same thing as victory. A strategy can fail to bring success but can still provide a better situation than what existed prior to the strategy. In other words, a successful strategy may not bring victory in war; it may simply create a preferable outcome or a better status quo. In some cases, even maintenance of the status quo may be a success, as was the case for the United States during much of the Cold War. Thus, success has to be measured according to the extent to which



Sergeant Jennifer Wilbur, USMC, chief instructor for College of Military Education Courses, 2nd Maintenance Battalion, was winner of second quarter's Commanding General Innovation Challenge for her introduction of Design Thinking into command-sponsored primary military education courses, Camp Lejeune, North Carolina, May 1, 2020 (U.S. Marine Corps/Scott Jenkins)

a strategy moves an actor toward its desired objectives, not just if that actor is victorious in battle.

Obviously, everyone wants his or her strategies to succeed, so outcome should be one part of an evaluation. But success or failure is useful only in retrospect-and even then may be difficult to assess without understanding the strategy's intended goals. So other criteria are necessary for evaluating a strategy before and during its implementation. Scientists evaluate hypotheses in many ways, only one of which is whether the evidence supports them. Other criteria include whether the hypothesis explains more than the theory it seeks to replace, whether it is testable, whether it is reproducible, and whether it is parsimonious (that is, simple, in that it relies on few assumptions).¹² Scientists value hypotheses that satisfy these requirements because even failed hypotheses advance knowledge. Similarly,

bad strategies can be useful for developing critical and creative thinking; the trick is to identify bad strategies before implementing them.

Scholarship on Strategy Evaluation

Strategists in the security and corporate worlds often borrow concepts from one another, and there are several similarities with respect to strategy development in the two arenas. Some might challenge the value of insights from the business literature, especially if one views corporate strategies as fundamentally different from security strategies (and if one defines *strategy* purely in military terms).¹³ But if one defines *strategy* as more than just the use of the military or the balancing of ends, ways, and means, then corporations are just as capable as states of engaging in strategy development and evaluation. Some might also

question the use of business concepts, considering the different levels of risk involved in the security domain. A company with poor strategies may lose market shares or even be forced to close; a bad security strategy can cost lives. That there is more at stake in the security realm should not detract from the utility of drawing on ideas about strategy from other disciplines.¹⁴

Just because some corporations are bad at developing strategies and many corporate leaders struggle to distinguish between strategies and goals does not mean we cannot derive important ideas from the business literature, which itself often expresses frustration at the lack of strategic thinking within corporate leadership. The business literature reflects some of the same challenges that plague security strategies, so we can draw on many of these texts to improve our evaluation of security strategies.

Because the business world is driven by profit, success is easier to define, and because many of the corporate assessment tools use statistics, corporations can perhaps more effectively evaluate strategies according to whether they were successful by their profitability. If a company's strategy produced an innovative product, increased market shares, boosted profits, improved employee retention rates, and so forth, then it was successful. But security strategies are less amenable to statistical analysis and have potentially more dire consequences, as a failed strategy can lead to the destruction of a state and the death of its citizens. While an assessment of outcomes must be part of determining a good strategy, it is helpful only after the fact and does not preclude the need to evaluate strategies before use. Even a good strategy may not be successful, but effective evaluations are more likely to produce a strategy that succeeds.

Given the nature of business, investors will view even a brilliant strategy as failing if the company does not profit in some way, and this thinking parallels the tendency to evaluate security strategies according to success or failure. Some business scholars do attempt to identify ways to evaluate strategies ahead of time, and this section discusses a sampling of the ideas from their work. Seymour Tilles suggests that successful corporate strategies involve six criteria:

- internal consistency (*balanced*)¹⁵
- consistency with the environment (*aware*)
- appropriateness in the light of available resources (*balanced*)
- satisfactory degree of risk (*candid*)
- appropriate time horizon
- workability.¹⁶

For our purposes, *workability* translates into both the willingness of leaders to support the strategy and the ability of those at the operational and tactical levels to implement the strategy (*elegant*).

Steven Wheelwright offers four questions for evaluating corporate strategy before implementation:

 How well does the strategy fit with corporate objectives and purposes?

- How well does the strategy fit with the company's resources?
- How well does the strategy fit with the company's environment?
- How committed is the corporate management to the strategy?¹⁷

As applied to security strategies, the first two questions relate to the need to balance between ends, ways, and means (*balanced*), while the third question relies on assumptions about the strategic environment and the interests of other actors (*aware*). The fourth question is more about policy, which the strategist cannot easily change but which should be kept in mind because it helps identify whether decisionmakers will support and approve an approach (*elegant*).

Richard Rumelt suggests a strategy must meet one or more of the following criteria (though a good strategy will exhibit all of these traits):

- it must present internally consistent goals and policies (*balanced*)
- it must represent a response to changes in both the market and the competition (*aware*)
- it must create or maintain a competitive advantage (*balanced*)
- it must not overtax available resources or create unsolvable subproblems (*balanced* and *candid*).¹⁸

Competitive advantage is more a goal of the strategy than a criterion for evaluating it; nonetheless, it relates to the need to continually assess and reassess an implemented strategy. Rumelt also points out the potential for a strategy to yield unintended consequences; this is important for strategists to keep in mind and relates to several evaluation criteria below.

Brian Huffman argues that there are no methods for producing brilliant strategies, and we cannot teach strategists to be brilliant.¹⁹ He hedges a bit by suggesting that one can still produce brilliant strategies and that strategists can still learn to recognize them, so he offers criteria for identifying brilliance from a variety of arenas. From the business world, he offers five questions:

• How well does the strategy fit the environment?

- How well does it fit the industry?
- Does it consider environmental trends?
- How well does it identify key success factors and deal with their ramifications?
- How well does it take advantage of the firm's current core competencies or call for acquiring core competencies necessary for the strategy to succeed?²⁰

His first three questions are about the strategic environment (*aware*) and remind us of the importance of understanding how changing trends can alter the system and the interests of other actors. Questions four and five are about having a clear objective and then balancing ways and means to achieve that goal (*balanced*).

Ultimately, many of the approaches in the business literature inform the criteria presented below, although the profit-driven nature of corporations means that, for them, success is the bottom line. So, business literature does not provide enough tools to evaluate a security strategy. Huffman also recommends using the Army's nine principles of war to evaluate strategies. According to him, a military plan is brilliant if it has a clear objective, has an offensive orientation, masses resources at one decisive place and time, uses an economy of force, calls for maneuvers that give forces the advantage, institutes unity of command, considers the security of forces, will surprise the enemy, and is comprehensible.²¹ The Joint Staff suggests using, during the mission-planning phase, these principles along with three others-restraint in the use of force, perseverance to achieve the objective, and legitimacy of legal and moral authority—now collectively referred to as the Principles of Joint Operations.²² While all of these principles can be helpful for evaluating operationallevel plans, only three are useful at the strategic level, especially when developing and evaluating strategies that do not rely exclusively on the military instrument of national power. Those three are a clear objective (balanced), simplicity (elegant), and surprise (creative).

Six Criteria for Evaluating Strategies

Drawing from the above literature as well as from personal experience teaching strategy for more than 5 years at the Joint Advanced Warfighting School, I suggest below six key criteria that strategists and analysts can use to assess a strategy's quality.23 None of these criteria by themselves makes a good strategy, nor does the presence of all six guarantee success. Nevertheless, the more criteria present in a strategy, the more likely that strategy will succeed. A good strategy should balance ends, ways, and means; account for the strategic environment; properly assess risk; minimize its reliance on assumptions; be clear and executable; and be creative and capable of change. Although critical and creative thinking are important for all six criteria, the first four rely more heavily on critical thinking and analytical abilities. Criteria five and six involve more creative thinking skills and the ability to be intellectually innovative. What follows is a discussion of these criteria. including questions the strategist should ask as part of the evaluation process. The subquestions can be thought of as additional criteria, but they are intended here more to help provide metrics for the six overarching criteria.

Balanced: Does the Strategy Balance Ends with Ways and Means? One way that DOD tries to assess a strategy is by asking whether it is suitable, feasible, and acceptable.24 Though these questions are intended as evaluation methods for a policymaker, analysts often apply them at the strategic level. Suitability asks whether the intended ways are adequate to achieve the desired endstate. Similarly, feasibility is about whether the existing means can accomplish the preferred endstate. Both suitability and feasibility are part of the ends-ways-means model or equation and are discussed below. Acceptability is about determining whether the benefits from implementing the strategy outweigh the costs, and it addresses the legal supportability of the strategy. Criteria three (candid) and five (elegant) discuss this further, but strategists need to incorporate acceptability into the development

and evaluation processes, even though it is not typically their responsibility. While these questions are important, they are also only part of the evaluation process.²⁵ To understand the balance of ends, ways, and means, the strategist must ask four subquestions to satisfy the first criterion.

Does the strategy clearly articulate ends? Before we know whether a strategy is suitable and feasible, it must convey precise objectives and a metric to identify when it achieves success. This too should be the provenance of policymakers, but stating a clear objective helps the strategist make the most efficient use of available resources. It is also useful when policymakers do not provide clear objectives, allowing strategists to offer their perception of the objective and to ensure that the strategist and policymaker are on the same page about the desired results.

Does the strategy propose appropriate ways for reaching the objective? In other words, is it suitable? A good strategy incorporates multiple ways to increase the likelihood of success, each of which is appropriate for attaining the desired objectives. This means the use of multiple instruments of national power and the involvement of multiple agencies or actors, depending on the type of strategy and the level at which it is written.

Does the strategy have the means to support the ways and to reach the objective? Is it feasible? A strategy that is resourced is more likely to be effective than one that is not. But it is not enough to simply have a lot of resources; they must be appropriate for the specific ways that make up the strategy. Any imbalance between these elements creates risk, which is part of criterion three (candid).

Does the strategy have internal consistency? Internal consistency here refers to the strategy fitting within the organization's or state's strategic interests. Even if a strategy properly balances ends, ways, and means, if it is not consistent with higher strategic guidance or does not provide a bridge to lower levels, then it is less likely to achieve the desired results. For example, if one is designing the National Military Strategy, its ends should fit with the goals outlined in the National Security Strategy and the National Defense Strategy. Likewise, its means should provide objectives for theater-level strategies that the combatant commands write to operationalize the national-level guidance.

Aware: Does the Strategy Incorporate an Understanding of the Strategic Environment? Self-focused strategies, such as those that look only at a state's ends, ways, and means, lack awareness of the role that the environment and other actors play in supporting or opposing the strategy. This criterion involves three subquestions. At the national level, this type of analysis is done as part of the Joint Strategy Review, which is an assessment of the strategic environment and contributes to the National Military Strategy. This type of information may be useful for strategists at the national level but may be insufficient for evaluating the strategic environment at other levels.

Does the strategy properly evaluate the state's place in the international system? A good strategy is realistic about the state's capabilities and partnerships and does not set unattainable goals or create exaggerated expectations of success. It also incorporates how other actors may perceive the state, including its ability to achieve its goals. As such, this part of the evaluation includes views of the state's reputation, which can be important for deterring adversaries and reassuring allies.²⁶

Does the strategy incorporate other actors' interests and potential strategies? A good strategy will attempt to anticipate how other actors will respond to the strategy, based on their goals and capabilities. The literature on strategic culture may provide one useful approach for understanding the likely responses of other states.²⁷ Some of this will, by necessity, be assumptions (related to *parsimony*), but bringing in subject matter experts from academia and the Intelligence Community can reduce the number of necessary assumptions.

Does the strategy assess trends in the strategic environment? A good strategy accounts for changes under way, such as shifting balances of power or economic growth that could alter the status quo in ways that assist with or hinder a strategy's



Angels of the Battlefield award recipient Senior Airman Linda M. Wilson, who risked her own life to save lives of others during deadly mass shooting at Route 91 Harvest Festival in Las Vegas, Nevada, stands onstage during 2018 Armed Services YMCA Angels of the Battlefield Award Gala, in Arlington, Virginia, October 2, 2018 (DOD/James K. McCann)

implementation and success. These changes may even precipitate the need to revise the strategy, in which case it is important for the strategist to understand these trends. Perceptions of change may be more important for understanding other states' behaviors than real trends but will also be more difficult to identify. The key is to pay attention to trends and changes in the system, be cognizant of the power of perceptions, and reevaluate the strategy when trends appear to shift.

Candid: Does the Strategy Properly Assess Risk? There are several ways to assess risk.²⁸ One common DOD approach is to identify the imbalances between ends, ways, and means.²⁹ If the ways are appropriate for the ends but there are not enough resources, that imbalance creates risk—to the strategy itself and potentially to personnel. A different way to think about risk is that it is the likelihood of failure, and the potential cost of that failure, compared with the cost of doing nothing. This criterion can be tested using three subquestions, all of which suggest that good strategies will address extant risk in the environment, whether from internal factors, such as sudden budget reductions, or external issues, such as unanticipated military action by a rival.

Does the strategy identify risk and provide options for addressing it? It is not the job of the strategist to determine how to address that risk—to mitigate it, ignore it, alter the objectives, increase the resources, and so forth. It *is* the strategist's job to identify risk in the strategy, propose steps to lower the risk, and caution against the use of any strategy that does not address that risk. Some approaches to risk, such as changing the objectives, will necessitate revision of the strategy but should increase the likelihood of a strategy's success. Does the strategy identify the risk of doing nothing? Policymakers have a tendency to want to do something or to ask what can be done to solve a problem. Sometimes the best course of action is to do nothing—or at least to wait and allow better opportunities for action to arise. The best strategy, therefore, may sometimes be one that simply preserves the status quo. The strategist should always evaluate inaction as an option because doing nothing may pose less risk to the state or its personnel than doing something.

Does the strategy account for dramatic success? A good strategy incorporates options for dealing with greater than expected, or faster than expected, success. The speed with which the Soviet Union imploded after the fall of the Berlin Wall surprised most people, and no plan was in place for how to deal with the demise of a superpower.³⁰ A good strategy will



Marines with 2nd platoon, Combat Assault Company, 3rd Marine Regiment, plan their strategy before military operations in urban terrain training exercise, Marine Corps Training Area Bellows, June 19, 2019 (U.S. Marine Corps/Jose Angeles)

compel its authors to ask questions about what comes next if the strategy works. Thinking about risk in this way also helps strategists anticipate, or at least account for, some of the unintended consequences that arise even with a successful approach.

Parsimonious: Does the Strategy Minimize Its Reliance on Assumptions? A parsimonious theory is one that relies on a minimal number of assumptions. Analysts always have to make some assumptions concerning unknown or incomplete information. The challenge is not to rely on too many assumptions or on assumptions about critical information but to get the assumptions correct. One way to reduce the number of assumptions and improve their accuracy is by bringing in subject matter experts from both government and academia. Three subquestions can help the strategist determine whether an approach is parsimonious.

Does the strategy identify its assumptions? A good strategy clearly states the assumptions on which it relies. The clearer the strategy is about its assumptions, the more likely it is to be effective, as long as the strategist can revise the approach if new information invalidates these assumptions (this flexibility is part of criterion six). A clearer discussion of assumptions also allows for easier revision of the strategy as new information either confirms or disconfirms the assumptions.

Does the strategy have to make assumptions about these six evaluation criteria? It is important to minimize the types of assumptions that are most dangerous for a strategy. In particular, the more of these six criteria that one must assume, the less likely the strategy is to succeed. The strategy that must make assumptions about the desired objectives is likely to fail. The strategy that makes several assumptions about the strategic environment or an adversary's intentions is also problematic. Ideally, assumptions will be limited to anticipated reactions to the strategy. One cannot know how a leader or state will respond, but one can make assumptions about reactions, based on what the strategist knows of that state's intentions and goals. Again, subject matter experts can provide additional insight about other states or the strategic environment that reduces reliance on these types of assumptions and enhances the likelihood that a plan will succeed.

Does the strategy make accurate assumptions? The more accurate a strategy's assumptions, the more likely it is to be effective. Accuracy will be difficult to determine before implementing a strategy, but it need not wait until a strategy succeeds or fails. Flawed assumptions are not necessarily fatal to a strategy if the strategy is adjustable (*creative*) and if the strategist addresses them in a timely manner.

Elegant: Is the Strategy Clear and Executable? The previous four criteria require the strategist to be a critical thinker—to analyze the strategy and its component parts. The next two require the strategist to be more of a creative thinker. Any strategy should be clear enough for leaders to understand it and for operators to put it to work—but the plan need not be simple, so I prefer the term *elegant*.

Clarity is an important characteristic of scientific theories and corporate strategies and should be an important feature of a good security strategy. Strategy, as Colin Gray suggests, is "the bridge that relates military power to political purpose."³¹ Therefore, a good strategy will communicate with two audiences,³² providing us with two subquestions. The third subquestion relates to an assessment of the strategy's need for either publication or secrecy.

Does the strategy offer clear choices to decisionmakers? A good strategy is clear enough for decisionmakers to grasp the necessary assumptions, the proposed ways and means, the risks involved, and the available options to address that risk. The strategist must also consider the willingness of decisionmakers to commit to a strategy. Although a good strategy may not be implemented for a variety of reasons, it is up to the strategist to design a plan that is acceptable to those who ultimately make the decisions.

Does the strategy provide clear direction to those who will implement it? A good strategy is clear not only for decisionmakers but also enough those at the operational and tactical levels to know how to implement it and to understand the conditions under which they achieve success in their portion of the strategy. Just as communicating with subject matter experts can help increase awareness of the strategic environment and minimize assumptions about other actors, communicating with the planners who will be responsible for operationalizing a strategy can be valuable for helping to assess a strategy's elegance.

Does the strategy require secrecy? Secrecy is not always a requirement for success, and one could argue that a superior strategy is one that everyone knows but still cannot defeat; however, failing to properly identify whether a strategy must be kept secret or needs to be revealed can affect its success. Secrecy may be important for success, depending on the nature and purpose of the strategy, but it could also hinder success. Deterrence strategies and those that rely on the actions of other states require some level of publication for maximum success. The key for the strategist is to understand what the organization will gain and lose by publicizing the strategy or portions of it. Secret strategies allow a strategist to provide more details to those who implement them.33 Secrecy also removes the signaling and communication value of a strategy and reduces the number of outside analysts whose input could contribute to a more effective strategy.

Creative: Is the Strategy Innovative and Capable of Change? A successful strategy need not be creative, but greater levels of creativity will produce better strategies, all else being equal. Ideally, a strategy is surprising to others while still being internally clear to those who make the decisions and execute the steps. That is why none of these criteria should be used by themselves; rather, they should be treated as part of a holistic framework for evaluating a strategy. It is also possible to get too creative and design a strategy that is too complex and thus not executable.

Is the strategy creative? A creative strategy, defined as one that is unexpected, will have a greater chance of success than one that is uncreative. One challenge is that strategists may not be able to evaluate their own work as being surprising. Having other analysts examine a strategy will increase its chance of success, as they not only assess the degree to which the strategy is surprising but also evaluate the other elements of the strategy, such as its assumptions. Another challenge is achieving balance so that one does not sacrifice clarity, or practicability, for the sake of novelty or innovation.

Is the strategy adaptable? The most adaptable strategies are those that include several alternative possibilities. One method for increasing adaptability is to perform counterfactual analysis on the assumptions. Counterfactual analysis is a critical part of intelligence analysis and has been suggested for use in strategy development.³⁴ Planners might think of these alternative possibilities as branches and sequels.³⁵ Political scientists sometimes use counterfactuals to test their hypotheses because they provide additional observations to cases with few decision points.³⁶

If we think of strategy as a hypothesis to be tested when it is implemented, then counterfactuals can be an effective tool for evaluating one's hypothesis about proper actions given an actor's desired outcome and within the current environment. This part of strategy development and assessment requires the greatest level of creative thinking for the strategist; because of that effort—and the time constraints often placed on strategists—this method is rarely used.

The simplest approach is to ask how changes to the assumptions would alter the strategy and then to use these six evaluation criteria to derive an alternative strategy. If the strategist has thought about how changes to assumptions will influence the strategy, then these contingencies can be written into the strategy, increasing its adaptability.

There is also a tradeoff here between elegance and adaptability. Greater numbers of assumptions, especially vague assumptions, create more potential counterfactuals and thus either a more complex strategy or one that is not adaptable. A strategy that has to make few assumptions will be simpler and more adaptable to changes in both the strategic environment and the actor's interests or resources. This factor should compel the strategist to minimize the number of assumptions on which the strategy relies, while also evaluating the extent to which different assumptions would alter the strategy.

Is the strategy flexible? Although we often treat these last two criteria—adaptability and flexibility—as synonyms, there is an important distinction between them. *Adaptability* refers to a strategy's inclusion of alternate possibilities, while *flexibility* means that a strategy can adjust when confronted with unexpected change.³⁷ In general, a flexible strategy will be more effective than one that cannot change once implemented. That does not mean an inflexible strategy cannot be effective; it just has a lower chance of success than a strategy with high levels of flexibility, especially if anything in the environment changes. The challenge is that one may not be able to assess the flexibility of a strategy until it is already implemented, and at that point it may be too late to alter the approach. That scenario illustrates the importance of consistent reevaluation of a strategy, but there are a few red flags that indicate a lack of flexibility.

A strategy is less likely to be effective if it creates dead ends, or points at which there are few opportunities to change direction. For example, beyond the balancing of ends, ways, and means, a strategy that commits too many resources to one area or effort loses potential flexibility. Likewise, a strategy that explicitly prohibits certain courses of action (that is, for political, legal, or ethical reasons) is less flexible than a strategy that is open to all courses of action. A less flexible strategy may be more acceptable to decisionmakers because they retain more control over its implementation. This highlights another tradeoff-this time between leadership control and strategic success.

Conclusion

The six criteria discussed in this article are intended to evaluate the likely success of a strategy prior to and during its implementation. It is meant to be a thorough list of critical criteria, but that does not mean other factors cannot also contribute to a strategy's success or failure. For instance, one element of a good strategy may be whether it is consistent with the values of the state or corporation that develops it. Every organization possesses certain values, and a strategy that is inconsistent with those values may not be acceptable to decisionmakers (either to their own values or to those they perceive to be held by the public); that important consideration should be part of the evaluation of a strategy in several places for understanding the influence of one's own values on a strategy (candid and elegant) and for understanding how

others' values might affect the strategy (*aware*). There is limited space here for an extensive discussion of the influence of values on strategy, and because values change over time and across borders, they are highly subjective. The broader point is that no single strategy is ideal for every actor in every time, so the strategist must understand the right and left limits of what leaders will allow and incorporate other evaluation criteria as required or when doing so is useful.

One question not yet addressed is when one should evaluate a strategy. A strategist should use these six evaluation criteria throughout the strategy development process. In addition, strategies should be reevaluated whenever some critical element changes. If the ends, means, or ways change; if the adversary alters its behavior, indicating a shift in its goals; if there is new leadership that views risk differently; if an assumption is disconfirmed; or if there are indications that the strategy is not understood at lower levels, then the strategy must be reevaluated and revised.

One common theme in several of the criteria is the need to communicate with outsiders, whether they are subject matter experts or planners. Designing a strategy in a vacuum will fail in several key criteria, so the best approaches will make use of the knowledge that exists outside the strategist's office.

This article is intended as a guide for strategists and analysts to help in the development and evaluation of strategies, by identifying the most important factors of success along with some key questions to ask as part of the evaluation process. Although the corporate literature identifies some important factors for evaluating strategy, many businesses have the same challenge as national security professionals: They devote more energy to thinking about how to make strategy and implement it than how to evaluate strategy. When they do conduct evaluations, they tend to focus on the outcome of a strategy. These are flawed approaches because the evaluation of a strategy is critical *before* and *during* implementation; otherwise, the strategist is simply hoping the ideas will work. And while hope can be a strategy, it is typically not a very good one. JFQ

Notes

¹Benjamin Friedman and Justin Logan argue, "Ambitious analysts avoid evaluating strategy and focus instead on operational analysis." See Benjamin Friedman and Justin Logan, "Why Washington Doesn't Debate Grand Strategy," *Strategic Studies Quarterly* 10, no. 4 (Winter 2016), 15. Likewise, Michael Porter suggests that businesses focus more on concrete ideas, such as operational effectiveness, and have less time for strategy. See Michael Porter, "What Is Strategy?" *Harvard Business Review* 74, no. 6 (November–December 1996), 61–78.

² For example, the 1995 version of Joint Publication (JP) 3-12, *Doctrine for Joint Nuclear Operations*, includes a table that lists evaluation criteria for nuclear forces and strategy. Its four points (survivability, credibility, safety, and security) are important factors for deterrence and nuclear safety but have limited applicability beyond that domain. See JP 3-12, *Doctrine for Joint Nuclear Operations* (Washington, DC: The Joint Staff, December 15, 1995), I-3.

³See Derek Reveron and James Cook, "From National to Theater: Developing Strategy," *Joint Force Quarterly* 70 (3rd Quarter 2013), 113–120. The authors discuss the development of theater strategies but spend little time on evaluation, focusing in that section on the domestic fiscal and political constraints on the ability of any strategy to get implemented.

⁴ The Joint Chiefs of Staff define *strategy* as "a prudent idea or set of ideas for employing the instruments of national power in a synchronized and integrated fashion to achieve theater, national, and/or multinational objectives." See JP 3-0, *Joint Operations* (Washington, DC: The Joint Staff, January 17, 2017).

⁵Arthur Lykke, "Defining Military Strategy = E + W + M," *Military Review* 69, no. 5 (May 1989), 2–8. B.H. Liddell Hart refers to strategy as "the art of distributing and applying military means to fulfill the ends of policy." See B.H. Liddell Hart, *Strategy* (New York: Meridian, 1991). According to Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, *Organization, and Command*, "Strategy is the continuous process of matching ends, ways, and means to accomplish desired goals within acceptable levels of risk." See AFDD 1 (Washington, DC: Headquarters Department of the Air Force, October 14, 2011), 4.

^o Joseph Wylie defines *strategy* as "a plan of action designed in order to achieve some end; a purpose together with a system of measures for its accomplishment." See Joseph Wylie, *Military Strategy: A General Theory of Power Control* (Annapolis, MD: Naval Institute Press, 2014). Everett Dolman defines *strategy* as simply "a plan for continuing advantage." See Everett Dolman, *Pure Strategy: Power and Principle in the Space and Information Age* (London: Frank Cass, 2005). ⁷ This suggests the possibility that the criteria here might also be useful in assessing operational-level plans, though I do not want to overstate the purpose of this article, and there are likely to be additional important evaluation criteria when planning military action.

⁸ Jeffrey W. Meiser, "Ends + Ways + Means = (Bad) Strategy," *Parameters* 46, no. 4 (Winter 2016/2017), 81–91; Gregory D. Miller et al., "On Strategy as Ends, Ways, and Means," *Parameters* (Spring 2017), 125–126.

⁹ Joint Doctrine Note 2-19, "Strategy," The Joint Staff, December 10, 2019, I-1.

¹⁰ Ibid., VI-1.

¹¹ Despite George Kennan's opposition to the militarization of containment, the Harry S. Truman administration's version of containment contributed to the creation of the North Atlantic Treaty Organization and U.S. involvement in the Korean War. An alternate containment strategy authored by Kennan would have involved greater emphasis on economics and diplomacy and perhaps brought different results. See "X" (George Kennan), "The Sources of Soviet Conduct," *Foreign Affairs* 25, no. 4 (July 1947), 566–582.

¹² Karl Popper, *The Logic of Scientific Discovery* (New York: Routledge, 1992 [1959]); Arthur Bachrach, *Psychological Research: An Introduction* (New York: Random House, 1972); Gary King, Robert Koehane, and Sidney Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research* (Princeton: Princeton University Press, 1994).

¹³When military theorists such as Carl von Clausewitz and B.H. Liddell Hart wrote of strategy, they referred to what many today would define as *operations*. Clausewitz defined *strategy* as "the use of an engagement for the purpose of the war," while Liddell Hart defined it as "the art of distributing and applying military means to fulfill the ends of policy." See Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976); Liddell Hart, *Strategy*. These definitions focus only on the military instrument of national power and are thus narrower than many more contemporary definitions of strategy.

¹⁴ Several international relations scholars already draw parallels between corporations and states and between markets and the international system. Kenneth Waltz, *Theory of International Politics* (New York: McGraw-Hill, 1979), 89–99; Robert Gilpin, *War and Change in World Politics* (New York: Cambridge University Press, 1981); Robert Keohane, "The Demand for International Regimes," *International Organization* 36, no. 2 (Spring 1982), 325–355; Gregory Miller, "Hypotheses on Reputation: Alliance Choices and the Shadow of the Past," *Security Studies* 12, no. 3 (Spring 2003), 49.

¹⁵ Words in italics indicate a connection to one of the six evaluation criteria suggested in this article. ¹⁶ Seymour Tilles, "How to Evaluate Corporate Strategy," *Harvard Business Review* 41, no. 4 (July 1963), 111–121.

¹⁷ Steven Wheelwright, "Strategic Planning in the Small Business: The Procedure in Three Corporations," *Business Horizons* 14, no. 4 (August 1971), 51–58.

¹⁸ Richard Rumelt, "The Evaluation of Business Strategy," in *Business Policy and Strategic Management*, 3rd ed., ed. William Glueck (New York: McGraw-Hill, 1980).

¹⁹ Brian Huffman, "What Makes a Strategy Brilliant?" *Business Horizons* 44, no. 4 (July– August 2001), 13–20.

²⁰ Ibid., 17.

²¹ Ibid., 18, referenced most recently in Field Manual (FM) 3-0, *Operations* (Washington, DC: Headquarters Department of the Army, February 2008), appendix A, "Principles of War and Operation." The Army removed discussion of these principles in later versions of FM 3-0.

²² JP 3-0, appendix A.

²³ These ideas were not presented as part of the formal Joint Advanced Warfighting School curriculum but were developed during my time as a professor and strategy department chair.

²⁴ Gerry Johnson, Kevan Scholes, and Richard Whittington, *Exploring Corporate Strategy*, 7th ed. (London: Prentice Hall, 2005); Lykke, "Defining Military Strategy = E + W + M,"
3–8; JP 5-0, *Joint Planning* (Washington, DC: The Joint Staff, June 16, 2017).

²⁵ Alan Stolberg, "Making National Security Policy in the 21st Century," in U.S. Army War College Guide to National Security Issues, vol. 2, National Security Policy and Strategy, 5th ed., ed. J. Boone Bartholomees, Jr. (Carlisle Barracks, PA: Strategic Studies Institute, 2012), 41–62.

26 Not all scholars are convinced that a reputation is worth fighting for, but many argue for the benefits of having positive reputations: Paul Huth, "Reputations and Deterrence: A Theoretical and Empirical Assessment," Security Studies 7, no. 1 (Autumn 1997), 72-99; Michael Tomz, Reputation and International Cooperation: Sovereign Debt Across Three Centuries (Princeton: Princeton University Press, 2007); Doug Gibler, "The Costs of Reneging: Reputation and Alliance Formation," Journal of Conflict Resolution 52, no. 3 (June 2008), 426-454; Gregory Miller, The Shadow of the Past: Reputation and Military Alliances Before the First World War (Ithaca, NY: Cornell University Press, 2012).

²⁷ Alastair Iain Johnston, "Thinking About Strategic Culture," *International Security* 19, no. 4 (Spring 1995), 32–64; Yitzhak Klein, "A Theory of Strategic Culture," *Comparative Strategy* 10, no. 1 (1991), 3–23; Colin Gray, "Comparative Strategic Culture," *Parameters* 14, no. 4 (Winter 1984), 26–33.

²⁸ James Holcomb, "Managing Strategic Risk," in U.S. Army War College Guide to National Security Policy and Strategy, vol. 1, *Theory of War and Strategy*, 1st ed., ed. J. Boone Bartholomees, Jr. (Carlisle Barracks, PA: Strategic Studies Institute, 2004), 119–131; Michael Mazarr, *Rethinking Risk in National Security* (New York: Palgrave Macmillan, 2016); Chairman of the Joint Chiefs of Staff Manual 3105.01, *Joint Risk Analysis* (Washington, DC: The Joint Staff, October 14, 2016).

²⁹ Lykke, "Defining Military Strategy = E + W + M"; Harry Yarger, "Toward a Theory of Strategy: Art Lykke and the U.S. Army War College Strategy Model," in U.S. Army War College Guide to National Security Issues, vol. I, Theory of War and Strategy, 4th ed., ed. J. Boone Bartholomees, Jr. (Carlisle Barracks, PA: Strategic Studies Institute, 2010), 45–51. One problem with Lykke's approach to risk is the logical step that even too many resources will lead to risk (using his three-legged stool illustration, when the one resource leg is longer than the other two). While this might be true in the sense that an abundance of resources will increase the laziness of the strategist or increase the risk of wasted resources, it is not necessarily a risk to the success of the strategy.

³⁰ Other examples of being unprepared for victory include the North American colonies gaining their independence and the rapid fall of Baghdad during the U.S. invasion.

³¹ Colin Gray, *Modern Strategy* (Oxford: Oxford University Press, 1999).

³² A strategy may also communicate to other audiences, such as the domestic population or other states, but that is not a necessary condition for effective strategies because it requires the strategy to be public, and some strategies may require secrecy.

³³ This was one reason Secretary of Defense James Mattis chose to classify the 2018 National Defense Strategy.

³⁴ Noel Hendrickson, "Counterfactual Reasoning: A Basic Guide for Analysis, Strategists, and Decision Makers," *Proteus Monograph Series* 2, no. 5 (October 2008).

³⁵ JP 5-0, especially IV-38, V-33–V-49.

³⁶ James D. Fearon, "Counterfactuals and Hypothesis Testing in Political Science," *World Politics* 43, no. 2 (January 1991), 169–195; Jack Levy, "Counterfactuals, Causal Inference, and Historical Analysis," *Security Studies* 24, no. 3 (July 2015), 378–402. One application of this is Barry R. Posen, "U.S. Security Policy in a Nuclear-Armed World or: What If Iraq Had Had Nuclear Weapons?" *Security Studies* 6, no. 3 (Spring 1997), 1–31.

³⁷ William Craig, "8 Skills Leaders Will Need in Tomorrow's Workplace," *Forbes*, March 26, 2019.