

Structuring Cultural Analyses

Applying the Holistic Will-to-Fight Models

Ben Connable, PhD

Abstract: Will to fight is the most important factor in war. This article describes two models designed to help analysts understand, describe, and forecast the will to fight of military forces and national leaders. Both models are designed to be modified by the Joint Force for tailored uses around the world.

Keywords: cultural intelligence, will to fight, modeling and simulation, cultural analysis, military analysis, human behavior

This article describes two analytic models and tools to help structure the integration of cultural information into holistic, all-source analyses. It also addresses some of the challenges that must be overcome to help decision makers and military leaders accept and integrate culture into their impressionistic decision making.

Political and military decision makers broadly accept the importance of culture, encourage others to study it, and yet far too often ignore it in practice. As a result, their decisions are also, far too often, inadequate. In some major battles in the World Wars, in the Vietnam War, and in the Iraq War, failure

Dr. Ben Connable is the director of research at DT Institute, a nonprofit, nonpartisan peace and development implementer. Connable is also a former senior political scientist at the Rand Corporation and a retired Marine Corps intelligence officer and Middle East-North Africa foreign area officer. He served as a leader, a cultural advisor, an intelligence operations officer, and as an attaché. At Rand, Connable conducted extensive research on assessment methodology. He has worked with North Atlantic Treaty Organization (NATO) scientists to help advance the practice of operations assessment. Relevant works include: *How Insurgencies End* (2010); *Assessing Freedom of Movement in Counterinsurgency Campaigns* (2012); *Embracing the Fog of War: Assessment and Metrics in Counterinsurgency* (2012); *Modeling, Simulation, and Operations Analysis in Afghanistan and Iraq* (2014); and *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units* (2018). Connable received an MA in national security affairs from the Naval Postgraduate School and his PhD in war studies from King's College London, where he wrote about the cultural influences on adaptability in the U.S. Marine Corps.

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to successfully integrate cultural considerations into decision making has been disastrous.

Blame can and should be widely cast. Decision makers and military leaders deserve blame for paying lip service to something they openly describe as critically important. Analysts deserve blame for failing to put the necessary effort into understanding and describing culture, and in many cases falling into reductionist and mechanistic analytic traps. In some cases, analysts' interpretations of cultural factors are spot-on, but the lack of transparent structure behind their analyses renders their arguments unconvincing.

There is no perfect solution to the substantial challenges involved with integrating cultural considerations into analysis and policy. But it is incumbent on everyone involved in the policy process—from analyst to decision maker—to continually pursue the better in the absence of the perfect. Analysis of will to fight offers a pathway to improved integration of culture.

Will to Fight and Cultural Analysis

The U.S. military embraces human will as the most important factor in warfare.¹ War is, first and foremost, a contest of opposing, independent, and irreconcilable wills. But capstone Marine Corps doctrine cites British military analyst B. H. Liddell Hart, referring to the human will as the “chief incalculable” of war.² In other words, will to fight is critically important and also difficult to analyze.

In pursuit of the better, Rand developed two models of will to fight: one for military units and one for national leaders. Both models are empirically derived, structured analytic tools to help integrate cultural factors into holistic analyses of combat effectiveness.

Rand defines *military will to fight* as the disposition and decision to fight, act, or persevere when needed.³ *National will to fight* is the determination of a national government to conduct sustained military and other operations for some objective even when the expectation of success decreases or the need for significant political, economic, and military sacrifices increases.⁴ Culture is central to both of these structured analytic models.

Culture Matters (Most?) for Influence, Competition, and War

In the late 1980s, something astounding happened in the U.S. Marine Corps. A raw, radical series of doctrinal books were allowed to be written without being staffed and edited into a state of beige uselessness. The Marine Corps Doctrinal Publication (MCDP) series continues to offer terrific and often blunt insights into the nature of warfare. *Intelligence* (MCDP 2) arguably makes the best standing case for the importance of cultural intelligence. It ties together the U.S. military's long-standing Clausewitzian understanding of the nature of war with directions to analysts:

War is ultimately a human conflict. . . . Developing sound intelligence requires an understanding of the institutions, pref-

erences, and habits of a different culture. Commanders must appreciate the values, goals, and past experiences which motivate the enemy. We must gain insight into why he fights. To know what motivates an enemy to action requires an identification and appreciation of what the enemy holds dear.⁵

The Marines go on to describe culture as a nonquantifiable value that, despite its seemingly ephemeral nature, must be analyzed. Language in *Intelligence* is straightforward. Analysts must “understand what factors shape an enemy’s behavior in order to describe or explain that behavior.”⁶ For many students of warfare and human behavior, these passages read with some forehead-slapping obviousness. But despite the commonsense nature of these instructions, they were generally ignored in practice.⁷

It is beyond the scope of this article to assess why the community of professional intelligence analysts failed so miserably to effectively incorporate culture into all-source analyses. The words of former vice chairman of the Joint Chiefs of Staff Paul J. Selva aptly summarize the state of cultural analysis in the 2016 *Joint Concept for Human Aspects of Military Operations*:

Recent failure to translate military gains into strategic success reflects, to some extent, the Joint Force’s tendency to focus primarily on affecting the material capabilities—including hardware and personnel—of adversaries and friends, rather than their will to develop and employ those capabilities.⁸

Human will to fight, and also to act and simply persevere in the face of hardship, is heavily influenced by culture. The Joint Staff recognized this fact, arguing that cultural analysis was essential to understanding not only conventional war but also influence operations and competition.⁹ But there is little evidence this advice was heeded.¹⁰

In 2020, the Marines revisited cultural analysis in *Competing*, a companion doctrinal book to *Intelligence*. While *Intelligence* focused solely on conventional warfighting, *Competing* argues that cultural analysis is central to conducting successful influence operations short of war.¹¹ It analogizes culture with a computer operating system for humans.¹² This is a clunky but basically effective way to explain the centrality of culture to *all* military operations, from training to exercises to irregular war to conventional war. Actualizing this collective advice requires working definitions and structured analytic techniques.

Analyzing Culture: Disposition, Agentic Choice, and Approaches

For the purposes of this article, *culture* refers to collective influence on the dispositions and agentic behavioral choices of people.¹³ For individuals, it translates less as a computer operating system and more as a dynamic menu for behavior. For analysts, dispositions should be equated with likelihoods: Is an individual

or group more or less likely to choose a certain behavior, and why? Thinking about culture in terms of dispositions helps align cultural analysis with the practicalities of intelligence analysis.¹⁴ Sherman Kent's language of estimative probability is well suited to cultural analysis and analyses of dispositions.¹⁵

Agentic choice is a term of recognition: culture influences behavior, but it does not dictate behavior. Individual interpretations and articulations of cultural influence are unique and dynamic. In practice, this means that cultural analysis is an excellent forecasting tool, but it is never predictive.¹⁶

There are many possible ways to analyze culture to forecast human behavior. Two general approaches have emerged in this limited field of intelligence practice: (1) reductionism; and (2) holism. Reductionist analyses seek to identify the most important, or dominant factors, in a culture to simplify analysis. Holistic analyses take the complexity of culture head-on, often breaking down culture into widely recognized factors like beliefs, norms, and values, and in some cases providing thick description.¹⁷

When it comes to cultural analysis, reductionism is absurd. Boiling down the complexity of human behavior into a handful of useful factors generates precision without accuracy. It may be easy to explain culture in a few words and by considering a few overall factors. But this approach assumes away the actual complexity of human behavior. It shifts the value proposition of the analysis from the evidence to the subjective interpretation of the analyst. Inaccurate but precise analyses can—and often do—influence decision makers toward bad decisions.¹⁸

Holism is an objectively more accurate approach to cultural analysis, but it is also more time-consuming and harder to translate for decision makers. In the era of two-page or one-slide reports, a 100-page cultural analysis has little chance of reaching a decision-maker's desk. Current tools for holistic analysis—including the widely used ASCOPE and PMESII guides—are inadequate, insufficiently grounded in historical and scientific literature, and often poorly understood.¹⁹

Reductionism is ineffective and misleading, and holism is time-consuming and difficult. Historically, the inability to find a practical approach to cultural analysis has led to a worse default. In the absence of good and useful cultural analysis, loosely informed personal impressions dominate policy choices. Poorly informed impressionistic decisions are often disastrous.²⁰

Examples: Failures and a (Near) Success of Cultural Analysis

Failure to apply structured analysis to adversary culture is commonplace. In the cases reviewed for the will-to-fight research effort, intelligence professionals and decision makers have struggled to understand culture and human will.²¹ Every case of human conflict offers lessons for cultural analysis. These three examples highlight key challenges: (1) German assessments of French will to fight at the Battle of Verdun in World War I; (2) assessments of the

18th Division of the Army of the Republic of Vietnam (ARVN) from the late 1960s through 1972; and (3) assessments of North Vietnamese will to fight from 1954 through 1974.

Verdun 1916

In 1916, Chief of the German General Staff Erich von Falkenhayn made an impressionistic assessment of the will to fight of the French 2d Army and of the French nation. Based on reports from his intelligence officers, he determined that a single, rapid tactical defeat would trigger a strategic French collapse.²² He targeted a 2d Army salient at Verdun along the Meuse River for a massive assault. But von Falkenhayn's intelligence analysts misunderstood the information their forces had collected on French will to fight. French troop rotations from the front lines looked to them like desertions. French prisoners in German hands were unsurprisingly demoralized. Based on his own writings, von Falkenhayn was personally dismissive of French will. The French did not break. The Battle of Verdun lasted 10 months, cost the Germans more than 300,000 dead, and contributed to their eventual defeat.

18th ARVN Division Late 1960s–1975

Throughout the Vietnam War, American assessments of South Vietnamese (Republic of Vietnam) will to fight were generally negative.²³ Some criticism was well deserved, some less so. Too often, senior U.S. military leaders extrapolated their personal observations and applied them to the whole partner force. Deluges of raw data combined with a lack of structured analyses forced general officers to make primarily intuitive assessments of ARVN performance and potential. In 1968, General Creighton W. Abrams, Army commander of all forces in Vietnam, described the performance of the 18th ARVN Division as “miserable.”²⁴ Two years later, his deputy, a three-star general, called the 18th Division mediocre and second rate. But in 1975, as the ARVN was collapsing in the face of an existential North Vietnamese attack, the 18th Division fought ferociously at a crossroads near Xuan Loc. With some support, the 18th Division held off a force three times its size, even as strategic defeat appeared imminent. American generals in charge of developing the ARVN might have changed their approaches and strategic estimates of partner potential with a more structured assessment.

CIA Assessments of North Vietnamese Will to Fight, 1954–1974

From 1954 through 1974, analysts at the Central Intelligence Agency (CIA) accurately assessed and described the national will to fight of the leaders of the Democratic Republic of Vietnam (DRV or North Vietnam).²⁵ In 1954, CIA analysts wrote, “the Communists will not give up their objective of securing control of all Indochina.” In 1964, they wrote, “We believe that the North Vietnamese leaders look at Communist prospects with considerable confidence.” In 1968, they wrote, “North Vietnam, with [Communist] Bloc aid, has the

will and the resources to continue fighting for a long time.” In 1974, one year before the final defeat of the Republic of Vietnam, CIA analysts wrote, “There has been no apparent curtailment in Hanoi’s support for the war.” Yet, these accurate assessments were subsumed by U.S. policy maker impressions that allowed them to believe they could break DRV national will to fight. Arguably, lack of empirical analytic structure behind the CIA’s analyses undermined their effectiveness.²⁶

Holism for Decision Making

In each of these cases, and in the many other cases examined for the will-to-fight research effort, lack of holism, lack of analytic structure, opaque analytic methods, and in many cases the almost total absence of cultural analysis contributed to both tactical and strategic failure. The Rand will-to-fight models are specifically designed to add empirically derived holism to culture-heavy analyses of both adversary and partner will. The military model applies a five-level factor-by-factor assessment model to describe the will to fight of any military unit or organization, from squad to Service level. The national model applies contexts, factors, and mechanisms to help analyze the will to fight of national leaders. Both models can be applied to understand the will to act in competition short of war.

Applying the Rand Military Will-to-Fight Model

Rand’s military will-to-fight model consists of 29 major factors and 61 subfactors at the individual, unit, organizational, state, and societal levels. Applying the model shows how factors at all levels influence the will to fight of a military unit or, alternatively, a military organization (e.g., the ARVN or the Russian Army). Factors and subfactors were derived from a seven-part multimethod research effort conducted for the U.S. Army from 2015 through 2018. The model is designed to be explanatory, exploratory, and portable.

Analyses derived from the model can explain but cannot quantitatively measure the culturally influenced will to fight of a military force. Explanation often takes the form of qualitative description in narrative format. While will-to-fight analysis incorporates quantitative data, will to fight is generally expressed in writing, not in numbers. Unfortunately, American decision makers tend to equate qualitative analyses with subjectivity.²⁷ Given this perspective, they often scorn even the most compelling, evidence-driven narratives, treating them as dismissible opinions.

Changing this perspective requires adding structure to the process behind narrative analytic explanations. Effective explanation of will to fight requires ingesting all types of information—quantitative and qualitative—and describing the resulting evidence-driven analysis in a way that is both compelling and credible. Starting from an empirically derived model like the will-to-fight model adds structure to explanation.

Exploratory, portable models are designed to be modified as needed. Both

Table 1. Military will-to-fight factors and subfactors

LEVEL	CATEGORY	FACTORS	SUBFACTORS
Individual	Individual motivations	Desperation Revenge Ideology Economics Individual identity	Personal, social, unit, state, organization, society
	Individual capabilities	Quality Individual competence	Fitness, resilience, education, adaptability, social skills, psychological traits Skills, relevance, sufficiency, sustainability
Unit	Unit culture	Unit Cohesion	Social vertical, social horizontal, and task
		Expectation Unit Control Unit esprit de corps	Coercion, persuasion, discipline
	Unit capabilities	Unit competence Unit support Unit leadership	Performance, skills, training Sufficiency and timeliness Competence and character
Organization	Organizational culture	Organizational control Organizational esprit de corps Organizational integrity	Coercion, persuasion, discipline Corruption and trust
		Organizational capabilities	Organizational training Organizational support Doctrine Organizational leadership
State	State culture	Civil-military relations State integrity	Appropriateness and functionality Corruption and trust
		State capabilities	State support State strategy State leadership
Society	Societal culture	Societal identity Societal integrity	Ideology, ethnicity, history Corruption and trust
	Societal capabilities	Societal support	Consistency and efficiency

Source: modified from Ben Connable et al., *Military Will to Fight, xvii-xviii, table S.1, Factors and Subfactors Constituting Will to Fight.*

the military and national models should be adjusted and added to in order to fit specific needs. For example, our team modified both models to analyze the will to fight of the Islamic State and Russian private military companies, two types of organizations not envisioned in the original process.

Table 1 lists the factors and subfactors of the Rand military will-to-fight

model. Each factor can have more or less influence on the unit's or organization's disposition to fight. The left-hand column shows the five levels of will-to-fight analysis from individual to societal. The center column shows the major factors. These are highlighted because they represent the core of the model. The next column shows the subfactors associated with each factor. Subfactors are used to help focus intelligence collection to provide evidence in support of factor-by-factor analysis.

Durability, listed on the far right, describes the likelihood that a factor might change during the course of a single battle. High durability ratings mean the factor is slow to change, while low durability ratings mean the factor is subject to more rapid change. Analysts can use durability ratings to pace their work. Higher durability factors like state culture can be analyzed periodically, while low durability factors like unit support to soldiers (e.g., availability of medical evacuation, sufficient food, ammunition, etc.) require more frequent data collection and analysis.

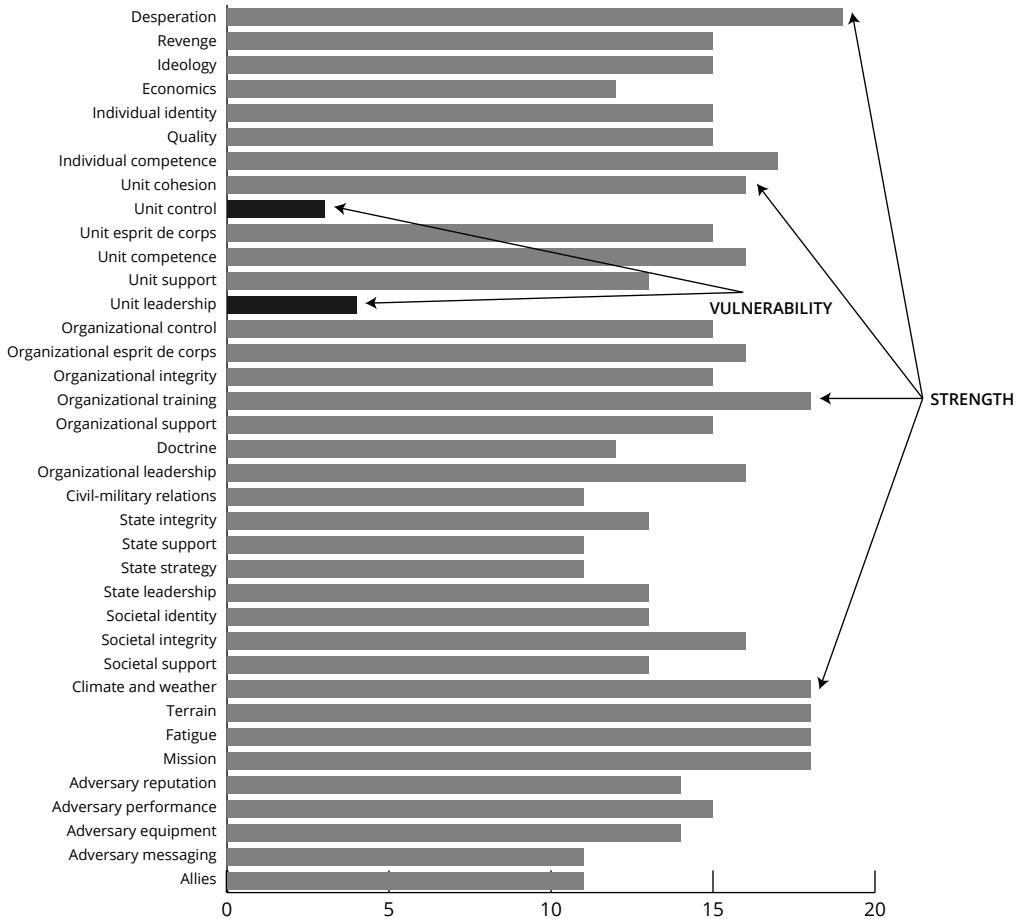
Culture either influences or is central to every major factor in this model. Culture influences individual beliefs and motivations and even the ways in which individuals develop qualities like physical fitness or mental resilience.

There are two ways analysts can apply the model. A general analysis presents military disposition to fight—or act, see below—in a range of circumstances. Contextual analysis focuses on a specific circumstance, like a pending military campaign or battle. For contextual analyses, an additional nine factors can be added:

1. Climate and weather
2. Terrain
3. Fatigue
4. Mission
5. Adversary reputation
6. Adversary performance
7. Adversary equipment
8. Adversary messaging
9. Allies

Applying the model is a process of factor-by-factor data gathering, analysis, and explanation. No individual factor is necessarily more important than another. The best approach to assess will to fight, or act in competition, is to assess all factors to identify those that are more or less relevant, vulnerable to influence, and likely to affect disposition to fight in differing circumstances.

Rand developed assessment tools in both Adobe PDF and Microsoft Excel. These restricted forms are available to U.S. government personnel. But there is no magic formula needed to assess will to fight using the model. Analytic teams can create their own forms in Microsoft Word or Excel, Adobe PDF, or any other form or text program, with the following basic components:

Figure 1. Notional example of factor-by-factor assessment

Source: courtesy of the author, modified by MCUP.

- Factor-by-factor ratio-scale ratings (helpful for visualization of findings)
- Text entry for evidence and citation
- Text entry for an explanation of the factor-level analysis
- Text entry for recommendations to influence the factor, if any
- Text entry to identify data or knowledge gaps for future collection

In this notional example in figure 1, each factor is presented on a ratio scale of 1–20.²⁸ Lower scores indicate more negative influence on disposition to fight, and perhaps more vulnerability to influence, and higher scores indicate more positive influence on disposition to fight, and perhaps less vulnerability to influence. The chart would accompany a narrative analytic report.

This chart helps to visualize the complex will-to-fight analysis in a way that makes high and low factors jump out. In turn, this kind of visualization can help decision makers understand and find ways to actualize the analysis. In this notional example, the factors of unit control (cultural and practiced approach to discipline) and unit leadership are both very low. A military staff or decision maker might use this analysis to divert efforts away from trying to influence high-strength factors like organizational training and toward these two weaker, more vulnerable factors. This approach can be applied for influence operations and kinetic attacks that might shape adversary disposition.

Applying the Rand National Will-to-Fight Model

The military model describes the influence of national factors on units and organizations. The national will-to-fight model describes the influence of military, economic, political, and societal factors on the dispositions of state leaders. State leaders include individuals like presidents, prime ministers, and kings and also officials and informal power brokers who can influence policy.

Building from the robust literature on political decision making in conflict and on deterrence, as well as from historical case analysis, the national model helps analysts to apply factors, contexts, and mechanisms to forecast leaders' dispositions. Political, military, and economic considerations are applied to each. Table 2 shows the national model's factors, contexts, and mechanisms aligned with political, military, and economic considerations.

Factors are similar to those described in the military model. Factors like civil-military relations can have a mostly indirect effect on a military unit's will to fight but a more direct effect on national will to fight. Degraded trust between President Lyndon B. Johnson and his military leaders may have indirectly contributed to a soldier's general sense of unease in 1968, while that same degradation of trust had a direct influence on Johnson's decision making and also support for the Vietnam War in the U.S. Congress.²⁹

Contexts help to guide analysis of factors. For example, civil-military relations can often play an important role in the will to fight of a democratic government but have less impact on the will to fight of a dictatorial government. During the late stages of the Iran-Iraq War, Saddam Hussein took effective control of the whole Iraqi armed forces, merging civil-military relations in his person. Economic resilience can help governments weather extensive wartime expenditures, while conflict duration has varying effects on different government leaders.³⁰

Mechanisms are the tools that national leaders have at their disposal to shore up their own will to fight (or that of allies and partners) and to degrade the will to fight of adversaries.³¹ Messaging can be used to influence populations to support or reject a war. Economic pressures like embargoes and blockades can be used to disrupt an adversary's economy, thereby perhaps weakening its will to fight. Inflicting casualties in war is one of the most common ways to break adversary will to fight, but it is often one of the most poorly understood

Table 2. National will-to-fight factors, contexts, and mechanisms

	Political	Economic	Military
Factors shaping will-to-fight policy decisions	Stakes Cohesion Civil-military relation Popular support Allies	Leverage	Capabilities
Contexts for understanding factors	Government type National identity	Resilience	Conflict duration
Mechanisms for influencing national will	Engagement Indoctrination and messaging	Pressures	Casualties

Source: Michael J. McNerney et al., *National Will to Fight*, xii, table S.1 *Simplified National Will to Fight Explanatory Model*.

mechanisms. National resilience to casualties is difficult to forecast and even to understand in retrospect.

Rand developed both a PDF and Excel will-to-fight tool to help analyze national will to fight. These are also available to U.S. government personnel. However, analytic teams can use the same approach recommended to build military will-to-fight forms to build a national will-to-fight form.

Will to Act in Competition

In 2018, the U.S. Department of Defense (DOD) reoriented the entire Joint Force away from nearly two decades of counterinsurgency and counterterror missions toward great power competition.³² This was a more dramatic shift than it may have first appeared. It was not a reorientation toward traditional conventional warfare missions. Instead, it pushed the whole force into new strategic territory. While the U.S. military has been actively competing short of war since its inception, it has never embraced competition as its central purpose. As of mid-2021, the DOD and all military Services are still struggling to define and operationalize competition.

The Marine Corps' *Competing* publication provides a good starting point. It describes competition as having many of the same attributes as conventional war. For the Marines, competition—a spectrum of engagement that includes fighting—is a fundamentally human endeavor. Understanding culture is central to understanding and succeeding in competition.

Therefore, both of the will-to-fight models can be applied to understand adversary, partner, and ally will to act in competition. Will to act might be defined as the disposition and decision to conduct activities or apply hostile measures in competition against an adversary group or state.³³

While will-to-fight analysis helps to forecast combat-related behavior like attacking, persisting in combat, or surrendering, will-to-act analysis can help forecast positive risk taking, resilience, hesitation to act, risk aversion, avoidance, the effects of deterrence, and vulnerability to influence, distraction, and deception. Structured will-to-act forecasting is needed to help U.S. decision makers manage the tremendous complexity inherent in daily global great power competition.

Analysis for the Impressionistic Decision Maker

In 2005, then-Secretary of Defense Donald H. Rumsfeld described his approach to consuming and applying data, analyses, and operations assessment. When asked if there was a single quantifiable metric that helped him understand the course of the wars in Afghanistan and Iraq, he replied:

No one number is determinative, and the answer is no. We probably look at 50, 60, 70 different types of metrics and come away [with] an impression. It's impressionistic more than determinative.³⁴

The author's research on decision-maker consumption of conflict data and analyses suggests that this is a common approach.³⁵ Key leaders like Rumsfeld consume vast amounts of raw data and finished analyses, and then make decisions based on the impressions they come away with.

Credible sources of information are, generally, more likely to have a more powerful and positive impression than less credible sources of information.³⁶ Credibility derives in great part from the structure behind the analysis and the transparency of sources and methods.³⁷ Therefore, structured analytic techniques backed by empirical research are, generally, more likely to effectively influence decision makers than less structured techniques.

This general conclusion is particularly applicable to the analysis of culture. While it may be easier to distill its many complexities into a few key factors, or to filter cultural analysis through a generic military analysis filter like ASCOPE or PMESII, the easier approach is more likely to generate dismissible results. Worse, distillation can lead to the production of analytic reports that are precise but inaccurate, and therefore dangerously misleading.

Conclusion

Rand's will-to-fight analytic models are intended as a starting point for what should be a community-wide effort to add structure to cultural analysis. The models should be thoughtfully modified using the best available literature and lessons from emerging cases and applied in novel ways to support the Joint Force's understanding of competition. There is nothing sacrosanct about the two Rand models: both represent starting points for what should be more tailored analytic efforts. Joint Force analysts should add factors to the existing models, improve on existing definitions, change rating scales, and modify out-

puts to best meet the demands of their consumers. Analysts should also seek to generate new models, build new structured forms, and experiment with new types of analytic products that can help to close the present gap between the U.S. conceptualization of war and competition and the generally unrealistic and too-often indefensible analytic applications currently in use.

Endnotes

1. *Doctrine for the Armed Forces of the United States*, Joint Publication (JP) 1 (Washington, DC: Joint Chiefs of Staff, 2013).
2. *Warfighting*, Marine Corps Doctrinal Publication (MCDP) 1 (Washington, DC: Headquarters Marine Corps, 1997).
3. Ben Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units* (Santa Monica, CA: Rand, 2018), <https://doi.org/10.7249/RR2341>.
4. Michael J. McNerney et al., *National Will to Fight: Why Some States Keep Fighting and Others Don't* (Santa Monica, CA: Rand, 2018), <https://doi.org/10.7249/RR2477>.
5. *Intelligence*, MCDP 2 (Washington, DC: Headquarters Marine Corps, 1997), 34–35.
6. *Warfighting*, 35.
7. For more on these shortcomings, see Kerry B. Fosher and Lauren MacKenzie, eds., *The Rise and Decline of U.S. Military Culture Programs, 2004–2020* (Quantico, VA: Marine Corps University Press, 2021); and Connable et al., *Will to Fight*.
8. *Joint Concept for Human Aspects of Military Operations (JC-HAMO)* (Washington, DC: Joint Chiefs of Staff, 2016), hereafter *JC-HAMO*.
9. *JC-HAMO*. Section 7.4 addresses analyses of human will.
10. *JC-HAMO* was removed from circulation, replaced by the more anodyne *Joint Concept for Operating in the Information Environment (JCOIE)*, which also recognizes past failures to incorporate culture into all-source analyses. *Joint Concept for Operating in the Information Environment (JCOIE)* (Washington, DC: Joint Chiefs of Staff, 2018).
11. *Competing*, MCDP 2 (Washington, DC: Headquarters Marine Corps, 2020), chaps. 1 and 4.
12. *Competing*, 4–6.
13. There are many active definitions of culture. None are perfect or universally applicable, but the most widely cited definitions are informative. For example, see Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973); Pierre Bourdieu, *Outline of a Theory of Practice*, trans. Richard Nice (Cambridge, UK: Cambridge University Press, 1977); Melvin E. Spiro, Benjamin Kilborne, and L. L. Lagness, *Culture and Human Nature* (New Brunswick, NJ: Transaction, 1994); and, for a wider perspective, Thomas Hylland Eriksen, *What Is Anthropology?* 2d ed. (London: Pluto Press, 2017).
14. People influence each other by example, through speech and imagery, and through reward and punishment. Behavioral disposition and agentic choice are also influenced by geography; by the availability of food, water, shelter, and economic opportunity; and other factors.
15. Sherman Kent, *Words of Estimative Probability*, declassified intelligence document (Langley, VA: Central Intelligence Agency, 1993).
16. See Kent, *Words of Estimative Probability*, for more on the differences between forecasting and prediction. In short, forecasting is a practice of facts-based estimated projection while prediction is a statement of future certainty. Accepting the existence of human agency means accepting the impossibility of prediction of human behavior.
17. *Thick description* is a term used by anthropologists to describe detailed and often voluminous accounting and analysis of a given topic. Various military analysis tools take this approach. For example, see *Joint Intelligence Preparation of the Operational Environment*, JP 2-01.3 (Washington, DC: Joint Chiefs of Staff, 2014).
18. For example, see Connable et al., *Will to Fight*; and Ben Connable, *Embracing the Fog*

- of War: *Assessment and Metrics in Counterinsurgency* (Santa Monica, CA: Rand, 2012).
19. ASCOPE and PMESII are acronyms describing a list of factors for holistic analysis. ASCOPE: areas, structures, capabilities, organizations, people, events; PMESII: political, military, economic, social, information, infrastructure. These are simply lists of things that might be assessed. They are derived from a number of sources including civil affairs assessment manuals, general intelligence requirements handbooks (GIRHs), and influence assessment targeting charts. ASCOPE and PMESII intersect in table guides for analysts. The author observed both applied in many training, exercise, and operational situations. The author applied a GIRH to a city-level intelligence preparation of the environment (IPE) in ar-Ramadi, Iraq, in 2006. Running through a list of potentially relevant information does not provide analysts with any insight into the nature of the information, how it might be understood, how to prioritize data collection, etc. The author observed mostly pro forma applications of these types of tools and found them time-consuming, distracting, and ultimately unhelpful.
 20. Impressionistic decisions are discussed further below. For more information on impressionistic decisions, see chapter 1 of Connable, *Embracing the Fog of War*.
 21. These cases include, but are not limited to: France, Italy, and Germany in World War I and World War II; both sides of the Vietnam War; Russia in Afghanistan; Russia in Chechnya; Russia in Syria; the North Atlantic Treaty Organization (NATO) against a prospective Russian attack; the Iraqi Army; the Islamic State; Syrian militia forces; both sides of the Korean War; both sides of the India-Pakistan War; India in the Kargil War; and the Yemeni government in the Yemeni civil war post-2011. See Connable et al., *Will to Fight*; and McNerney et al., *National Will to Fight*.
 22. For analysis of this case and full citation, see Connable et al., *Will to Fight*, 15–18.
 23. For example, U.S. Department of State, *ARVN Morale Study* (Saigon, RVN: U.S. Embassy, 1974); and Lewis Sorley, ed., *Vietnam Chronicles: The Abrams Tapes, 1968–1972* (Lubbock: Texas Tech University Press, 2004). The 18th Division commander's comments are cited in George J. Veith and Merle L. Pribbenow II, " 'Fighting Is an Art': The Army of the Republic of Vietnam's Defense of Xuan Loc, 9–21 April, 1975," *Journal of Military History* 68, no. 1 (January 2004): 213. Also see James H. Wilbanks, "Xuan Loc: The Final Battle Vietnam, 1975" (conference paper, Popular Culture Association, New Orleans, LA, 2000); *The Thieu Regime Put to the Test: 1973–1975* (Hanoi, DRV: Foreign Language Publishing House, 1975); and Anthony James Joes, *The War for South Vietnam: 1954–1975*, rev. ed. (Westport, CT: Praeger Publishers, 2001).
 24. Sorley, *The Abrams Tapes*. Abrams and his staff question the fighting spirit of the ARVN throughout these transcripts.
 25. For full citation and further explanation, see Connable et al., *Will to Fight*, 20–21.
 26. This argument is made in chapter 1 of Connable et al., *Will to Fight*.
 27. For more analysis on decisionmaker perspectives of qualitative and quantitative information, see Connable, *Embracing the Fog of War*; and Connable et al., *Will to Fight*.
 28. Any scale could be used. It is generally better to avoid odd (e.g., 1–3 or 1–5) rating systems because these unintentionally encourage satisficing to the center. Using a 1–4, 1–6, 1–10, 1–20, or similar even-numbered scale forces analysts to make evidence-informed value judgments.
 29. For more on the impact of degraded trust during the Vietnam War assessment process, see Connable, *Embracing the Fog of War*, chap. 7.
 30. See McNerney et al., *National Will to Fight*, for further explanation of contexts and the ways in which they can be used to support analysis of factors.
 31. See McNerney et al., *National Will to Fight*, for further explanation of mechanisms and for examples.
 32. *Summary of the 2018 National Defense Strategy: Sharpening the American Military's Competitive Edge* (Washington, DC: Department of Defense, 2018).
 33. This is a proposed definition. For more on the concept of hostile measures, see Ben Connable et al., *Russia's Hostile Measures: Combating Russian Gray Zone Aggression Against NATO in the Contact, Blunt, and Surge Layers of Competition* (Santa Monica, CA: Rand, 2020), <https://doi.org/10.7249/RR2539>.

34. Donald H. Rumsfeld, interview with Steve Inskeep, *Morning Edition*, National Public Radio, 29 March 2005.
35. Connable, *Embracing the Fog of War*.
36. Many other factors influence decision-maker consumption of analysis, including individual biases, relative consumer knowledge of the subject matter, personal interactions with analysts and advisors, staff filtering of data and analysis to the decision maker, et al.
37. Connable, *Embracing the Fog of War*.