HARD HANDS AT A GLANCE: DECISION-MAKING MECHANISMS AND THE CASE OF WILLIAM T. SHERMAN IN 1864

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE General Studies

by

DAVID A. ZELAYA, MAJOR, U.S. ARMY B.A., University of Maryland, College Park, MD, 2009

Fort Leavenworth, Kansas 2021

Approved for public release; distribution is unlimited. Fair use determination or copyright permission has been obtained for the inclusion of pictures, maps, graphics, and any other works incorporated into this manuscript. A work of the United States Government is not subject to copyright, however further publication or sale of copyrighted images is not permissible.

Form Approved REPORT DOCUMENTATION PAGE OMB No. 0704-0188 Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for falling to comply with a collection of information if it does not display a currently valid OMB contro number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS. 3. DATES COVERED (From - To) 1. REPORT DATE (DD-MM-YYYY) 2. REPORT TYPE Master's Thesis SEP 2020 - JUN 2021 18-06-2021 4. TITLE AND SUBTITLE 5a. CONTRACT NUMBER 5b. GRANT NUMBER Hard Hands at a Glance: Decision-making Mechanisms and the Case of William T. Sherman in 1864 5c. PROGRAM ELEMENT NUMBER 6. AUTHOR(S) 5d. PROJECT NUMBER 5e. TASK NUMBER David A. Zelaya 5f. WORK UNIT NUMBER 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 8. PERFORMING ORG REPORT **NUMBER** U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301 9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) 10. SPONSOR/MONITOR'S ACRONYM(S) 11. SPONSOR/MONITOR'S REPORT NUMBER(S) 12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited 13. SUPPLEMENTARY NOTES 14. ABSTRACT U.S. Army doctrine assumes that better decision-making and tactical success leads to better operational outcomes. History, however, provides a more nuanced record. William T. Sherman's 1864 Atlanta campaign provides ample opportunity to test whether tactical decisionmaking and the achievement of stated operational outcomes. The case supports the idea that military decisions are composed of a tactics and logistics mechanism. It also provides evidence that successful tactics can matter to operational success but are not necessary.

15. SUBJECT TERMS

Military Decision-Making, Sherman's Atlanta Campaign, Operational Art, Coup d'Oeil

,		0		1 0 1	, I
16. SECURITY CLASSIFICATION OF:			17. LIMITATION	18. NUMBER	19a. NAME OF RESPONSIBLE PERSON
			OF ABSTRACT	OF PAGES	
- DEDODT	h ADCTDACT	- THE DACE			40h DUONE NUMBER (include area ands)
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. PHONE NUMBER (include area code)
α	(II)	α	(II)	101	
\perp (0)	(0)	(0)	(\circ)	101	

Standard Form 298 (Rev. 8-98) Prescribed by ANSI Std. Z39.18

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

Name of Car	ndidate: David A. Zelaya	
Thesis Title:	Hard Hands at a Glance: Decisi William T. Sherman in 1864	ion-making Mechanisms and the Case of
Approved by	<i>y</i> :	
LTC Willian	n S. Nance, Ph.D.	, Thesis Committee Chair
Candy S. Sm	nith, M.A., MMAS	, Member
William L. K	Knight, Jr., MBA, M.S.	, Member
Accepted thi	s 18th day of June 2021 by:	
Dale F. Spur	lin, Ph.D.	, Assistant Dean of Academics for Degree Programs and Research
		in are those of the student author and do not my Command and General Staff College or

any other governmental agency. (References to this study should include the foregoing

statement.)

ABSTRACT

HARD HANDS AT A GLANCE: DECISION-MAKING MECHANISMS AND THE CASE OF WILLIAM T. SHERMAN IN 1864, by David A. Zelaya, 101 pages.

U.S. Army doctrine assumes that better decision-making and tactical success leads to better operational outcomes. History, however, provides a more nuanced record. William T. Sherman's 1864 Atlanta campaign provides ample opportunity to test whether tactical decision-making and the achievement of stated operational outcomes. The case supports the idea that military decisions are composed of a tactics and logistics mechanism. It also provides evidence that successful tactics can matter to operational success but are not necessary.

ACKNOWLEDGMENTS

The following is the result of the patience, understanding, and support of several people. First among all, my wife Allison has been the foundation of support that has allowed me to commit countless nights to study and writing. My committee, LTC William Nance, Mrs. Candy Smith, and Mr. William Knight each provided a unique perspective that made this project a true pleasure. My small group peers have lightened the load through their creative and kind support. Similarly, my instructors provided me perceptive feedback and an enlightening environment that made this process hugely beneficial. Finally, LTC Christopher Mercado provided mentorship and support I consider myself lucky to have.

TABLE OF CONTENTS

	Page
MASTER OF MILITARY ART AND SCIENCE THESIS APPROVAL PAGE	iii
ABSTRACT	iv
ACKNOWLEDGMENTS	v
TABLE OF CONTENTS	vi
LLUSTRATIONS	viii
CHAPTER 1 INTRODUCTION	1
Background Problem Statement Purpose Primary Research Question Secondary Research Question Hypothesis Assumptions Definitions	5 6 6 6
CHAPTER 2 LITERATURE REVIEW	13
CHAPTER 3 RESEARCH METHODOLOGY	21
The Methodology Case Selection Criteria The Methodology and the Research Question	27
CHAPTER 4 ANALYSIS	32
Chattanooga The Rationality Condition Sherman's Uncertainty Sherman's Cognitive Condition Tactics Mechanism	39 43 45
Logistics Mechanism The Battle of Rocky Face Ridge The Conditions The Tactics Mechanism	48 51 53 56
The Logistics Mechanism The Battle of Resaca	

The Conditions	60
The Tactics Mechanism	62
The Logistics Mechanism	63
The Battles of Dallas - New Hope Church - Pickets Mill	64
The Conditions	
The Tactics Mechanism	69
The Logistics Mechanism	69
The Battle of Kennesaw Mountain	
The Conditions	72
The Tactics Mechanism	73
The Logistics Mechanism	
The Battle for Peach Tree Creek and Atlanta	
The Conditions	
Unification of the Tactics-Logistics Mechanism	
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	80
Purpose	81
Problem Statement	
Primary Research Question	81
Secondary Research Question	
Organization	
Findings	
The Battles	
Paths for Further Study	
Conclusion: Does Winning Matter?	
RIRI IOGRAPHY	01

ILLUSTRATIONS

	Page
Figure 1. Campaign Analysis	85
Figure 2. A Theory of Tactics-Logistics Waves	87
Figure 3. A Mechanistic Approach to a Theory of Tactics-Logistics Waves	89

CHAPTER 1

INTRODUCTION

Background

U.S. Army doctrine assumes that better decision-making leads to better outcomes. Army Doctrinal Publication 6-0 states, "Success in operations demands timely and effective decisions based on applying judgment to available information and knowledge." History, however, seems to state otherwise. The historical record is replete with cases of effective decisions, tactical success, and bitter failure. William T. Sherman's campaign to seize Atlanta in 1864 exemplifies that idea. His campaign in 1864 challenges the premise connecting tactical success and the achievement of operational outcomes.

It is not outlandish to think that a commander's cumulative success on the field of battle aggregates to the success of a campaign. Upon further inspection, however, the connection between tactical decisions and operational outcomes becomes less clear.

Questions begin to emerge. Perhaps the most distressing question is whether decisions accumulate into anything? If they do, what is being accumulated? Is it power, influence, leverage, utility, effects? Strategic level thinkers have been grappling with these questions for some time. History provides several examples of tactical actions misaligning with desired strategic outcomes.

¹ Headquarters, Department of the Army (HQDA), Army Doctrine Publication (ADP) 6-0, *Mission Command: Command and Control of Army Forces* (Washington, DC: Army Publishing Directorate, 2019), 7.

The Vietnam War is a pertinent case to the American psyche. In his book "Dereliction of Duty," Lieutenant General (Ret.) H. R. McMasters describes how America's security establishment faltered during the Vietnam War.² McMasters lays a significant share of the responsibility at the feet of Secretary of Defense, Robert S. McNamara.

McNamara's failure in Vietnam is particularly apropos in regard to the issue of tactical and strategic misalignment. McNamara is best known for his attempt at applying scientific rigor against military problems. McNamara's decision-making process focused on observable data. His goal was to generate outcomes with near logical perfection. McNamara derived his "graduated pressure" strategy from a logical study of economic incentives and deterrence theory. Despite his rational decision-making system, McNamara's legacy is mixed.

The United States' experience in the 2003 invasion of Iraq is another notable example of tactical success and strategic failure. General Tommy Franks undoubtably defeated Saddam Hussein's regime. His "shock and awe" campaign was the ultimate expression and culmination of the blitzkrieg. However, in the face such an overwhelming

² H. R. McMaster, *Dereliction of Duty: Lyndon Johnson, Robert McNamara, the Joint Chiefs of Staff, and the Lies That Led to Vietnam* (New York, NY: Harper Perennial, 2017), 62.

³ Lawrence Freedman, *Strategy: A History* (New York, NY: Oxford University Press, 2015), 149-150.

⁴ Ibid., 502.

⁵ Thomas E. Ricks, *The Generals: American Military Command from World War II to Today* (New York, NY: Penguin Books, 2013), 398.

tactical success, strategic objectives slowly devolved into geo-political chaos. In his book "The Generals," Thomas Ricks highlights the campaign's inadequacy with a quote from a major on Franks' staff: "The American military is simply uncomfortable and weak at linking political repercussions to military action."

While the examples above are compelling, they could just be aberrations in a larger set of interstate conflicts. In their book "The War Ledger" A.F.K. Organski and Jacek Kugler address whether wars in fact accomplish strategic objectives. Their study surveyed the full set of conventional state-on-state conflict in the 20th century to determine if the conduct of war led to the desired changes in the operational environment. They conclude, "In the long run (from 15 to 20 years), the effects of war are dissipated, because losers accelerate their recovery and resume antebellum rates of growth. They may even overtake winners. Soon, the power distribution in the system returns to levels anticipated had the wars not occurred." Their findings directly challenge the efficacy of war as a means of achieving strategic ends.

More recently, Cathal Nolan's study concerning the "allure" of decisive battle and its tendency to lead to irresponsible risk behavior is particularly demonstrative. Nolan's exhaustive survey of conflict dating from the medieval wars of religion to World War II

⁶ Ricks, *The Generals*, 398.

⁷ Abramo F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago, IL: University of Chicago Press, 1991), 144-145.

⁸ Ibid., 145.

⁹ Cathal J. Nolan, *The Allure of Battle: A History of How Wars Have Been Won and Lost* (New York, NY: Oxford University Press, 2019), 572.

challenges the idea of tactical decisiveness. Specifically, he contends that the application of tactical force is not as decisive when attempting to achieve strategic ends. In other words, the application of tactical means leads to tactical success, nothing more.

Nolan uses the example of the American Civil War to make his point. ¹⁰ He frames the civil war as a transitory event nestled between the age of Napoleonic warfare and the coming tide of destruction wrought by industrialized conflict in World War I. Again, he highlights the failure of tactical maneuver to achieve a decision at the strategic level. Whether it was Meade's victory at Gettysburg or Lee's triumph at Chancellorsville, the achievement of strategic objectives remained elusive. That is to say, tactically winning did not matter beyond the tactical level.

Nolan's ideas align well with Liddell Hart's thoughts on the subject of the U.S. Army's strategy in the western theater during the American Civil War. ¹¹ In the west, Grant and Sherman focused their resources against confederate strategic vulnerabilities, setting the stage for strategic success. It was a grand victory, but it was a victory independent of tactical success. The campaigns themselves suffered significant losses and some out-right failures. The details of the case beg the question, if not tactical victory, what characteristics connect tactical actions to the achievement of campaign objectives?

The historical record implies that some other mechanism, removed from tactical decisions, determines the achievement of stated operational objectives. There were several campaigns in the western theater, but one of the most evidential is Sherman's

¹⁰ Nolan, The Allure of Battle, 268.

¹¹ B.H. Liddell Hart, *Sherman* (Westport, CT: Greenwood Press, Publishers, 1978), 205.

campaign to seize Atlanta, Georgia in 1864. It is particularly instructive because the campaign had distinct elements corresponding to the topic at hand. First, it had a clear operational objective—the seizure of Atlanta. Secondly, the campaign had a distinct set of battles, all which were discrete in both time and space. Most importantly, Sherman sustained substantial losses throughout the campaign and yet still achieved his ultimate operational goal. The case of Sherman's hard-handed tactics and Atlanta makes for an ideal study of the relationship between tactical actions and the realization of campaign objectives.

Problem Statement

It is evident the profession of arms has been struggling with what Thomas Kuhn termed an "anomaly" in the conception of war. ¹² These anomalies question some of the fundamental beliefs underpinning the science and art of war. Perhaps the most pressing problem, and the focus of this study, is whether there is a connection between tactical decisions and the achievement of stated operational objectives. In other words, does winning at the tactical level matter?

<u>Purpose</u>

Given the current state of the literature, the purpose of this study will be to understand the mechanisms, if any, that connect tactical decision-making and the achievement of stated operational objectives.

¹² Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 4th ed. (Chicago, IL: The University of Chicago Press, 1 April 2012), 52-54.

Primary Research Question

In the context of Sherman's campaign to seize Atlanta, the problem has two distinct dimensions. First, did Sherman's tactical decisions in battle relate to the achievement of broader outcomes in his campaign to seize Atlanta?

Secondary Research Question

The second dimension of the problem relates to the mechanisms at work that connect tactical actions to operational objectives. Specifically, what decision-making mechanisms determine whether a tactical success has any bearing on the achievement of stated operational objectives?

Hypothesis

The study expects to find evidence supporting the assertion that successful tactical decision-making leads to the achievement of stated operational outcomes. Given the case in question, the study expects to find that Sherman's successful decisions on the battlefield were necessary but insufficient to achieve his stated campaign objectives.

<u>Assumptions</u>

This study will make several assumptions that need highlighting. The study assumes actors are not intentionally attempting to deceive their audiences. It is more than likely that Sherman and the actors with which he interacted were operating with imperfect information and were often misinformed or unknowingly ignorant. ¹³ The

¹³ Daniel Kahneman, *Thinking, Fast and Slow* (New York, NY: Farrar, Straus and Giroux, 2015), 202.

primary source record will inevitably reflect these gaps; however, unless evidence of lying is readily available, it is assumed that all actors were attempting to be truthful.

This study will also assume that all primary source dates and locations were accurate. Sherman and the actors in question had communication systems that were subject to delay. While that delay is clearly important in establishing an accurate narrative, the resources required to verify the exactness of a given event are outside of the scope of this study. It is also important to remember that such a lag was present across all communications with all actors in all places. Ceteris paribus, it will have a minimal effect on the outcome of the case study.

Definitions

This study defines military decision-making as a causal mechanism that attempts to connect a decision-maker's current environment to a desired future environment through planning. For the purposes of this study, military decision-making is made up of a tactics mechanism and a logistics mechanism. This study presumes decision-makers use both these mechanisms in the context of a set of cognitive conditions. This study organizes those conditions along the lines of Carl von Clausewitz's famous trinity – chance, passion, and rationality. 14

The social sciences have a long tradition studying decision-making and provide useful conceptual tools for this study's analysis. Game theory, in particular, explores the

¹⁴ Carl von Clausewitz, *On War*, ed. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1989), 89.

critical components of uncertainty, risk, and incentives.¹⁵ The disciplines of psychology and behavioral economics have explored the effects of cognitive bias and biological imperatives.¹⁶ Sociology has delved into the effects of social roles, taboos, culture, and power dynamics on decision-making.¹⁷ Similarly, military science has defined a rational planning process in the form of doctrine. Each of these disciplines provides ready-made definitions from which to analyze military decision-making.

H. R. McMasters describes war as a conflict of wills for the highest of prizes. ¹⁸ The magnitude of the costs and benefits of military decisions is larger than it is in other decision-making fields like business or politics. The consequence for military failure is wholesale death. That said, there are many aspects of military choices that align broadly with traditional decision-making. What follows is a brief survey of those characteristics as they bear on the study in question.

Army doctrine categorizes decisions by type. Decisions come in two types: execution decisions and adjustment decisions. ¹⁹ Execution decisions progress a line of effort or operation forward in time and space but do not change the plan itself. An

¹⁵ Don Luce and Howard Raiffa, *Games and Decisions: Introduction and Critical Survey* (New York, NY: John Wiley, 1966), 13.

¹⁶ Kahneman, *Thinking, Fast and Slow*.

¹⁷ Freedman, *Strategy*, 572-573; Peter L. Berger and Thomas Luckmann, *The Social Construction of Reality: a Treatise in the Sociology of Knowledge* (New York, NY: Anchor Books, 2011), 58.

¹⁸ H. R. McMaster, *Battlegrounds* (New York, NY: Harper Collins Publishers, 2020). 433.

¹⁹ Headquarters, Department of the Army (HQDA), Army Doctrinal Publication (ADP) 3-0, *Operations* (Washington, DC: Army Publishing Directorate, 2019), 4-1.

adjustment decision progresses a line of effort or operation forward in time and space on a divergent plan from the one originally intended. It is important to note that a decision, regardless of type, can be decisive as long as it affects a stated objective.

The definitions of success and failure are critical to this study's analysis. While there are several ways to define success, this study will identify success as the accomplishment of stated objectives. It defines a successful decision as the condition in which desired outcomes match actual outcomes. While this definition is useful as a model of analysis, the historical record will rarely be so clear. In the case of a gap in the historical record, this study will attempt to derive a "desired outcome" to continue analysis. This will clearly lead to some ambiguity; however, if highlighted transparently, such an assumption will impart significant insights.

Decisiveness is the measure of benefit relative to stated objectives of a given decision. Decisiveness can be positive or negative. If a decision is positively decisive then there is a net benefit in relation to costs. If a decision is negatively decisive then there is a net cost in relation to benefit. This means that decisions may yield both costs and benefits and not be decisive as they are not directly a means achieving an end.²⁰ This is an important distinction as it differentiates it from the more traditional idea of utility in the social sciences.

Cost is a well-known metric in the study of decision-making. Cost is a component variable of decisiveness. It measures the required amount of effort and resources applied

²⁰ Luce, Games and Decisions, 13.

to a given decision.²¹ A decision's benefit similarly describes the resources or advantages a decision-maker might gain through a given choice. It is important to understand that cost and benefit do not maintain a "one-to-one" relation. That means that if costs increase, benefits do not necessarily decrease. In this regard, the human dimension of military decision-making bears significance. In addition to time, money, and ammunition, the defining cost of military decisions is human life.

There are several decision-making variables derived from the social sciences.

Perhaps one of the best understood is uncertainty. Uncertainty is a measure of the amount of information available concerning a given outcome's probability. When an actor is operating under conditions of uncertainty, they are unable to assess probability.²²

Furthermore, according to classic rationality theory, when decision-makers operate under conditions of uncertainty, they cannot formally assess risk.²³ That said, in the real-world decision-makers act according to their understanding of their environment; therefore, even if a given situation is devoid of actual information, decision-makers use heuristics to bypass uncertainty and assess risk.²⁴

The social sciences provide a particularly useful definition of risk. Risk is a measure of the probability of a given outcome, the cost of both failure and success, and

²¹ Luce, Games and Decisions, 13.

²² Ibid.

²³ Ibid.

²⁴ Kahneman, *Thinking, Fast and Slow*, 98.

the benefit of both failure and success.²⁵ In the context of war, a decision-maker's risk takes into account cost in combat power and benefits toward the achievement of objectives against the likelihood of an event occurring.

When discussing risk and uncertainty, this study will not assume that actors are making decisions based on the definitions provided above. These definitions are conceptual tools used to distill the complexity inherent in a case-study and allow for comparison over time. Sherman, his adversaries, and their subordinates most certainly made decisions regardless of an understanding about probabilities, utilities, costs, and benefits. That said, this study hopes to understand how sufficiently (or insufficiently) these models relate to reality. It will attempt to conceptualize the messy, vague, and ambiguous historical record for the purpose of finding a broader pattern.

This study uses a causal systems-mechanism framework to conceptualize military decision-making. The concept of a system-mechanism outlined by Derek Beach provides a useful vehicle for understanding military decision. Beach describes causal mechanisms as the factors that relate conditions in an initial-state to conditions in an outcome-state. The concepts described above are possible components of a causal mechanisms that connect tactical decisions to campaign outcomes.

Sherman's campaign to seize Atlanta in 1864 provides a perfect opportunity to compare reality against a set of causal mechanisms. Regardless of the outcome, the study will generate insights into one of the defining assumptions of the military profession. It

²⁵ Luce, Games and Decisions, 13.

²⁶ Derek Beach and Rasmus Brun Pedersen, *Process-Tracing Methods:* Foundations and Guidelines (Ann Arbor: University of Michigan Press, 2019), 30.

could confirm the hypothesis that tactical winning matters; thus, detailing the causal mechanisms that connect decisions to objectives. It could also prove the hypothesis false, highlighting and defining the contours of an anomaly in the paradigm that governs military thinking. Either way, the study will add valuable insight to an important aspect of the military profession.

The profession of arms has been discussing the broader issue of decision-making for some time. To appreciate the findings of this study, it is important to understand the topic in terms of the broader context of prior literature. Without an understanding of the broader discourse, an argument's assumptions and conclusions may not make sense.

What follows is a review of that discourse in relation to military decision-making.

CHAPTER 2

LITERATURE REVIEW

The literature relating to Sherman's military decision-making is broad and broached most topics, events, problems, and perspectives. The field is divided into two methodological branches. The first tends toward the epistemological and ontological roots associated with social sciences. The second tends towards an historical tradition. Both fields are rich and both make valid claims within the scope of their methods. It would seem they both tend to avoid each other. As this study will rely on historical narrative the following outlines the literature surrounding the story of Sherman's decision-making.

The historical method traces its roots back through Herodotus and his work, "The Histories." Even then, historians sought to understand cause and effect. ²⁸ As a result, Herodotus established a methodological tradition focused on the narrative prose. ²⁹ A narrative is the selective retelling of events in perceived chronological and causal order. ³⁰

²⁷ Herodotus and Robert B. Strassler, *The Landmark Herodotus: The Histories* (New York, NY: Anchor Books, 2009), ix.

²⁸ Ibid.

²⁹ Ibid.

³⁰ John Lewis Gaddis, *The Landscape of History: How Historians Map the Past* (Oxford, UK: Oxford University Press, 2004), 95.

The historical method has endured through millennia for a reason. It has profound strengths, but it has its shortcomings. John Lewis Gaddis eloquently describes history's strengths and weaknesses in his book, "The Landscape of History."³¹

Gaddis compellingly describes history, regardless of methodology or detail, as a narrative.³² In fact, he holds that historians cannot hope to tell an objective story because, at some point, they must make a choice to leave out some level of detail. Instead, the historian must be upfront about that fact, and attempt to sift through the milieu to find threads that can be traced to their origin and perhaps provide something that approaches truth.

The historical narrative method is well established in the field of military history and in qualitative research fields. This investigation uses Center for Army Military History's "Guide to the Study and Use of Military History" as a foundational guide to construct its narrative. ³³ A historical narrative begins with a review designed to identify the parameters of the study. It highlights the importance of focus and scope. A refined research question provides focus. Resource availability, the audience, and the medium through which the outcomes of the study will be communicated provide scope. The guide then highlights the importance of crafting a narrative.

³¹ Gaddis, *The Landscape of History*.

³² Ibid., 98.

³³ John E. Jessup and Robert W. Coakley, *A Guide to the Study and Use of Military History* (Washington, DC: Center of Military History United States Army, 2000).

Jeannette Kamp's "Writing History: A Companion for Historians" provided a modern foundation for the weaving of a narrative. Kamp's system uses five distinct steps as a guide to conduct a case study research plan; the first of which is to develop a provisional research question, then explore the literature, develop a provisional research plan, explore the sources, and finally, to conduct a definitive research plan.³⁴

Sherman's campaign will act as the narrative vehicle by which this study seeks to gain insight concerning military decision-making. The case study method will be the primary tool of analysis. The case study will rely on a foundation of primary source material. The National Archive's "Civil War: Official Record of the Union and Confederate Armies" is the U.S. Government's officially approved narrative of the American Civil War from 1861 to 1864. The work is a collection of official correspondences, orders, records, maps, and reports. Historians at the National Archives have organized it into series that are divided by topics relating to operations, prisoners of war, and annual reports. Each series includes records from both Confederate and U.S. Army forces. The Official Record is contemporaneous, rendering it critical in understanding the state of mind of leaders at the time of the conflict. Few other sources provide such depth of insight. While the record is detailed and expansive, it is not a complete narrative. A substantial amount of the planning and coordination that occurred

³⁴ Jeanette Kamp, Susan Legêne, Matthias van Rossum, and Sebas Rümke. *Writing History!: A Companion for Historians* (Amsterdam: Amsterdam University Press, 2020).

³⁵ War Department, *Official Records of the War of the Rebellion* (Washington, DC: U.S. National Archives, 1887).

throughout the Civil War occurred through unofficial means. It is, therefore, necessary to augment the Official Record with other primary sources.

Simpson and Berlin's "Sherman's Civil War; selected Correspondence of William T. Sherman, 1860-1865" will act as the subsequent pillar of primary source material.³⁶ Naturally, the editors organized Sherman's personal and official correspondence chronologically. Like the Official Record, it is both robust and incomplete. It includes official letters between himself and other military leaders such as U.S. Grant, who is of particular interests for the purpose of this study. It also includes correspondence with his wife, his brother, and others. The authors used a topic-relevance based selection criteria to determine what to include in their work. They chose which letters to include based on how they related to "northern politics, the pressure of popular expectations on military operations, the roles and responsibilities of the press, the nature and intensity of confederate resistance, justification for the treatment of civilians in occupied areas, women's participation in the conflict, slavery, emancipation, the enlistment of blacks in the U.S. Army, and the problems of peacemaking and reconstruction." They did not include rudimentary and routine reports that are otherwise included in the Official Record.

Published in 1888 in Century Magazine, Sherman's "The Grand Strategy of the Rebellion" is also of exceptional value to this study. ³⁷ In this short article Sherman

³⁶ Brooks D. Simpson and Jean V. Berlin, *Sherman's Civil War: Selected Correspondence of William T. Sherman, 1860-1865* (Chapel Hill: The University of North Carolina Press, 1999).

³⁷ William T. Sherman, "The Grand Strategy of the War of the Rebellion," *Century Magazine* 35, no. 7 (November 19, 1887): 580–598.

outlines his views concerning strategic and operational objectives and the means of achieving them during the Civil War. While this is clearly a useful document, it comes with a notable flaw. Written and published more than twenty years after the fact, Sherman's hindsight could lead to bias. They do, however, provide the broader operational and strategic architecture for his campaign in Atlanta.

Sherman's memoirs act as the next primary source for this study.³⁸ William T.

Sherman was an Ohio native and West Point Graduate. Prior to the civil war, Sherman had a reputation as a consummate but ultimately undistinguished professional.³⁹ Sherman gained his reputation and fame during the Civil War and maintained his high status afterward. He wrote his memoirs in 1891, well after the war, which is the primary weakness of the document. Human memory is a fickle thing that gently blurs facts into narratives that tend to augment held beliefs and soothe bruised egos.⁴⁰ It is critical to maintain a suspicious eye when relying on memories. That said, its strength is the insight it provides into Sherman's overall actions, thoughts, beliefs, and values.

Sherman, like all other leaders, did not make decisions in a vacuum. In the context of military operations, the adversary's perspective and actions are a necessary component of decision-making. ⁴¹ An investigation of Sherman's decision-making would be incomplete without an understanding of his adversary's perspective. Joseph E.

³⁸ William T. Sherman, *Memoirs of General W. T. Sherman*, vols. 1-2 (New York, NY: Library of America, 2007).

³⁹ Hart, *Sherman*.

⁴⁰ Kahneman, *Thinking, Fast and Slow*, 202.

⁴¹ HQDA, ADP 3-0, 1-3.

Johnston's memoirs, therefore, are critical to gaining insight on Sherman's decision making. Unlike Sherman, Johnston did not write his own memoirs. 42 They were in fact written in 1891 by his assistant Bradley T. Johnson who claimed he was present with Johnston throughout the conflict. While Johnson's work provides clear insight, it is far from the gold standard. The work is a step removed from a true primary source. While the memoirs remain important, they are clearly not ideal. That said, they do still provide important context concerning Johnston's own actions, thoughts, beliefs, and values.

Not unlike an adversary, a military leader's higher headquarters also plays a critical role in decision-making. In the case of Sherman's experience, Lieutenant General Ulysses S. Grant played a significant part. Grant and Sherman developed their strategy and operational approach as a team. ⁴³ It is not possible to understand Sherman's decision-making without understanding Grant. Grant's memoirs will serve as the basis for understanding his own perspective. Like Sherman and Johnston, he wrote his memoirs after the war, in 1885. ⁴⁴ The gap in time makes this an important but flawed source as memory is fallible, bias sets in, and incentives change. Understanding those shortcomings, however, allows the study to proceed.

⁴² Bradley T. Johnson, *Memoir of the Life and Public Service of Joseph E. Johnston* (Franklin Classics, 2018), https://support.creativemedia.io/.

⁴³ Hart, *Sherman*, 232.

⁴⁴ Ulysses S. Grant and Elizabeth D. Samet, *The Annotated Memoirs of Ulysses S. Grant* (New York, NY: Liveright Publishing Corporation, a division of W. W. Norton & Company, 2019) xv.

The operational environment in which a military leader operates also frames their decisions when planning and executing operations. ⁴⁵ This study conceptualizes the operational environment into three system levels—tactical, operational, and strategic. While primary sources provide a significant amount of that understanding, it lacks a narrative structure and is not organized conceptually. Therefore, this study will use several secondary sources to fill the gaps and to provide a conceptual framework based on a systems understanding of the operational environment.

Liddell Hart's "Sherman" is a biography written in 1958 focused on Sherman's experience in the civil war. 46 Hart states his intent was to "portray the workings of a man's mind" and "to project the film of Sherman onto the screen of contemporary history." Liddell Hart was a British Military Officer who became an influential thinker during the inter-period. His are of course concerned strategy, military planning, and most famously, the development of the "indirect approach." Some have questioned his true purpose. They hold that Hart shaped his narrative to promote his ideas, specifically, the "indirect approach." While biased in its purpose, Hart's analysis and narrative interpretation of events are useful.

To mitigate against that bias, however, this study will rely on additional secondary sources. Of note is Albert Castel from the University of Kansas who provides a vivid but historically accurate narrative of Sherman's Atlanta campaign in his book

⁴⁵ HQDA, ADP 3-0, 1-1.

⁴⁶ Hart, *Sherman*.

⁴⁷ Albert E. Castel, "Sherman: Propaganda as History." *The Journal of Military History* 67, no. 2 (2003): 405–426.

"Decision in the West." Additionally, William Murray and Wayne Hsieh provide a broader history of the campaign in the context of the overall civil war in their book "A Savage War." Again, the intent is to gain a broader understanding of context that will provide insight concerning the information provided by the primary sources. 49

⁴⁸ Albert E. Castel and Laura Kriegstrom Poracsky, *Decision in the West: the Atlanta Campaign of 1864* (Lawrence: University Press of Kansas, 1995).

⁴⁹ Williamson Murray and Wayne Wei-Siang Hsieh, *Savage War: a Military History of the Civil War* (Princeton, NJ: Princeton University Press, 2018).

CHAPTER 3

RESEARCH METHODOLOGY

Research methodology is not unlike a battle. A methodology can bristle with impressive and complex systems, or it can overwhelm with its sheer size. A research methodology can be elegant in its simplicity and robust in its sophistication. Research methodologies seem to have a romantic quality in their ability to enamor the researchers. Just as a battle must be tied to broad objectives in order to be decisive, a methodology must align with a research question. That is to say, if a methodology does not help answer a question then it is useless.

The purpose of this chapter is to outline how this study systematically processed data into an analysis that addresses whether winning matters. The reader should gain confidence that the methodology allows the study to specify exactly what conclusions can (and cannot) be made concerning the research question. Most importantly, this chapter should outline the path toward future study of the topic and research question.

This study seeks to understand how successful tactical decisions relate to the realization of operational outcomes. The study will accomplish this by identifying a specific causal mechanism that connects tactical decisions to operational outcomes.

Additionally, this study will endeavor to understand the conditions under which possible causal mechanisms do (or do not) activate to lead to a given outcome.

This study does not endeavor to understand the impact of magnitude or variance of a mechanism on a given outcome. To study variance and magnitude researchers need large populations and cases that yield generalizable data. Unfortunately, case-study methodologies specifically limit the population size. More importantly, the conclusions

drawn from case-studies have limits in terms of generalizability. Therefore, this study seeks to identify of mechanisms and conditions in relation to the research question.

Specifically, this study attempts to identify whether decision-making causal mechanisms exist and, if so how they might work. The outcome of the study is a framework from which to build a broader understanding of military decision-making. From such a lattice, further investigation can build toward more formal variance-based investigations.

Unfortunately, nuance, hidden complexity, and qualification can lead to obfuscation. It is important to provide context to assist in understanding. A mixed methodology composed of a historical narrative embedded in a process-tracing framework can adequately provide this.

Stephen Biddle uses a mixed methodology in his book "Military Power." It acts as the exemplar for this study. Dr. Biddle currently serves as a Professor of International and Public Affairs at Columbia University and as a Senior Fellow in Defense Policy at the Council of Foreign Relations. He is a social scientist by trade and his work reflects his background.

Biddle's primary focus in "Military Power" differs significantly from that of this study; however, his mixed methodology is instructive. ⁵⁰ It acts as a guide in studying problems with underdeveloped theoretical foundations, small sample sizes, and imperfect data. Dr. Biddle attempted to take the best attributes from several methodologies and combine them to mitigate against their weaknesses. In "Military Power," he uses the case

⁵⁰ Stephen D. Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton, NJ: Princeton University Press, 2010).

study method, process tracing, and statistical analysis to study how military power relates to the achievement of military outcomes.

Dr. Biddle highlights the case study's ability to provide rich contextualization that re-frames problems and identifies unforeseen variables. ⁵¹ For example, it would be difficult to claim a detailed understanding of William T. Sherman's decision-making without an understanding of his mental biases, his knowledge of the operational environment, and his educational background. That said, Dr. Biddle also highlights the case study's inability to generalize outside of the case of study.

Dr. James N. Rosenau further details the case study's shortcomings in his foundational book, "The Scientific Study of Foreign Policy." While Dr. Rosenau was concerned with the field of foreign policy research, he nonetheless strikes at the methodology's weakness, which is an inability to generalize or compare knowledge from case study to case study. 52

Dr. Biddle, therefore, mitigates the case study's weaknesses by using theoretical methods that build toward a generalized accumulation of knowledge. ⁵³ Using process-tracing, he focuses on identifying mechanisms that connect the case study to broader theories. He then uses the case study to generate variables that he can further investigate, deconstruct, synthesize, and teste empirically.

⁵¹ Biddle, *Military Power*, 9.

⁵² J. N. Rosenau, *The Scientific Study of Foreign Policy* (London: Pinter, 1980).

⁵³ Biddle, *Military Power*, 9.

The Methodology

To that end, this study will use a within-case simplistic process-tracing methodology. Process-tracing is a well-established method used across varying disciplines and contexts.⁵⁴ Process-tracing will provide the framework through which data will be analyzed in relation to the research question. The following will first describe the general framework by defining the methodology's characteristics. It will conclude with the methodology's specific application towards the question at hand.

Process-tracing is a qualitative methodology that seeks to understand how a cause is connected to an outcome via a mechanism. The analysis presupposes causality and focuses on understanding the causal mechanism. A causal variable triggers a mechanistic process that yields an output and generates an outcome. A mechanism is not an intermediate variable. Researchers use variables to understand variation across a population and establish correlation or causality through counter factual analysis. A research using a process-tracing methodology is not necessarily concerned with variability because they have already assumed the mechanism exists. If it exists, process-tracing attempts to understand how it works. If it does not exist than process-tracing attempts to find a mechanism that does. Tangentially, process-tracing provides an understanding of the conditions under which mechanisms operate. 55

The term "within-case" refers to the scope of the study. The scope will be a single historical event studied chronologically and in context. In other words, this study will not

⁵⁴ Beach, *Process-Tracing Methods*, 1.

⁵⁵ Ibid., 4.

seek to compare the case in question with another case, and it will not compare the case with a hypothetical counter factual. A "within case" approach is bottom-up in the sense that it gains insight from a particular event which can then be tested in the future in larger n-case studies to gain understanding of variability, magnitude of effect, and generalizability. ⁵⁶

The term "simplistic" refers to the depth of analysis applied against understanding "how" a causal mechanism works to connect a cause (decision-making) to an outcome (achieved objectives at the operational level). A simplistic approach only asks whether a mechanism exists, under what conditions a mechanism is activated, and what attributes help identify its presence. Conversely, a mechanistic approach seeks to understand how a given cause triggers a mechanism. It also deconstructs the process into actors and activities to connect the cause to the outcome.

While process-tracing is a central component of this study's methodology, this study is mixed in its approach. Within the broader framework established by process-tracing, this study will rely heavily on the narrative historical tradition to identify mechanisms through pattern, sequence, trace, and account evidence.⁵⁷

The narrative historical tradition is critical for several reasons. First, a historical approach allows for a holistic contextualization of conditions acting on the causal mechanism in question. In the case of the research question, decision-making must be understood in the context of the local environment, the path-dependent mind set of the

⁵⁶ Beach, *Process-Tracing Methods*, 29.

⁵⁷ Ibid., 172.

actors, and the traditions that drive activities and inhibit action. Second, a narrative approach allows the analysis to embed itself within the perspective of the central actor, in case Sherman.⁵⁸ This is important as several of the conditions (and even the mechanism itself) are defined by the internal narrative structures held by a central actor.⁵⁹

The analysis phase of this study is organized chronologically into sections by battle. The first part of each section is a historical narrative focused on the central actor's decision-making. The second part of each section analyzes the battle in terms of contextual conditions (the state of the environment and the state of the central actors) and mechanistic attributes (activities and actors) linking causes to outcomes. The central actor is the leader of the organization conducting the campaign in question. In this case, the mechanistic attributes of the decision-making mechanism are tactics and logistics. The contextual conditions of the actor will be understood using the familiar Clausewitzian trinity framework (Rationality, Passion, and Chance). 60

The historic narrative will attempt to weave a holistic understanding of the major battles. While time will certainly connect battles logically, by narratively constructing events in a standardized manner across the campaign the study will identify continuities and discontinuities across contextual conditions and mechanistic attributes.

The continuities and discontinuities derived from the historic narrative will act as the primary inputs for analysis into the second sub-phase. It will then analyze contextual

⁵⁸ Venkatesh Rao, *Tempo: Timing, Tactics and Strategy in Narrative-Driven Decision-Making* (Detroit, MI: Ribbon Farm Inc., 2011), 65.

⁵⁹ Ibid., 69.

⁶⁰ Clausewitz, On War, 89.

conditions and mechanistic attributes independently as they manifest themselves across the campaign. The result will be an understanding of three things. First, within the case in question, the analysis will address whether a mechanism that causally connected tactical actions to operational outcomes was present. Second, under what conditions was the mechanism activated and under what conditions was the mechanism abated. Finally, did the mechanism benefit or hinder the attainment of the central actor's stated objectives.

The systematic analysis across battles from the beginning of the case to the end of the case will allow the reader to visualize the conditions and mechanism in action.

Further study can then proceed to comparative small-n methodologies and eventually to variance based large-n studies.

Case Selection Criteria

This study developed case selection criteria based on two requirements. The first requirement was that the case addressed the research question. The second requirement was that the case be testable within the parameters of the methodology. While these case selection criteria risk "cherry-picking" and confirmation bias, the study mitigates that risk through methodological design. Specifically, the study strives to be transparent about data collection and analysis. Through rigorous use of primary source material, judicious citation, and counter-argumentative analysis, the study hopes to provide an unbiased and balanced view of the case.

The research question helps define the first set of case evaluation criteria. The case had to consist of a campaign composed of discrete battles. According to U.S. joint doctrine, a campaign is a series of related operations aimed at achieving strategic and

operational objectives within a given time and space.⁶¹ Operations are a sequence of tactical actions within a common purpose.⁶² The set of "tactical actions" that will act as the primary unit of analysis is the battle. A battle is a set of related engagements.⁶³ Due to resource constraints, primarily time, the case also had to be contained within a continuous period of time and the battles had to be continuous across space. As process-tracing is ontologically asymmetrical, the case had to have resulted in campaign success (the study cannot test the proposed mechanism to generate an outcome if the case does not have the required outcome to begin with).⁶⁴ Finally, in order to define campaign success, the case had to have a record of contemporary stated campaign objectives in English.

The second set of case evaluation criteria consisted of testability requirements. Specifically, the selected case had to reduce the impact of exogenous factors on the campaign outcome. Therefore, the ideal case would include two enemy forces of equal combat power, similar structure, similar doctrine, similar culture, similar religion, similar language, similar equipment, and equal familiarity with the terrain. With said factors held constant, the study's analysis would highlight the impact of the decision-making mechanism.

⁶¹ Joint Chiefs of Staff (JCS), Joint Publication (JP) 1, *Joint Doctrine* (Washington, DC: Office of the Joint Chiefs of Staff, 2018), x.

⁶² Ibid.

⁶³ Joint Chiefs of Staff (JCS), Joint Publication (JP) 3, *Joint Operations* (Washington, DC: Office of the Joint Chiefs of Staff, 2018), 1-14.

⁶⁴ Beach, *Process-Tracing Methods*, 25.

The test criteria were strong enough to yield a relatively small set of cases outlined below. The remaining cases were the American Civil War, the American Revolutionary War, and the War of 1812.

The American Civil War is particularly useful as both belligerent armies had similar tactics, education, equipment, culture, training, language, and familiarity with American terrain. These similarities allow the study to consider these variables as held constant, thus focusing the analysis on the variation in decision-making. Additionally, there exists an abundance of primary-source records concerning orders, decisions, and outcomes readily accessible in English. Finally, historians view the American Civil War as a major transition point towards a new type of warfare. Most importantly, for the purposes of this study, the campaigns in the American Civil War were still bounded in space and time.

Despite having occurred approximately a century prior to the American Civil War, the American Revolutionary War has many of the same advantages in terms of feasibility of study. However, despite the American Army and British Army's shared culture, language, and training (at least for the officers), the American military at the time was in its infancy and lacked a systematic "way of war" as would be described by Michael Bonura in his book "Under the Shadow of Napoleon." In fact, he argues that by the end of the Revolutionary War the American Army was using a mix of British,

⁶⁵ Peter Paret, ed., *Makers of Modern Strategy: from Machiavelli to the Nuclear Age* (Princeton, NJ: Princeton University Press, 1986), 415.

⁶⁶ Michael A. Bonura, Under the Shadow of Napoleon: Frech Influence on the American Way of Warfare from the War of 1812 to the Outbreak of WWII (New York, NY: New York University Press, 2012).

French, and Prussian tactics that would add significant variation between itself and the vastly more professional British Army. ⁶⁷

The War of 1812 is a middle ground between the two previous options. According to Bonura, the American Army by that time had begun to establish a system of regulations dictating training, tactics, and administration (specifically, more French). This, however, is an issue for the purposes of the study. It increases the effect of a variable we want to hold constant between the two forces we seek to study.

Given these three sets, the civil war proved the "best fit" in terms of data availability and relevance to the research question. The exact campaign selection criteria went through similar analysis. The two primary options were Grant's wilderness campaign and Sherman's Atlanta campaign. While both cases met the required criteria, Sherman's campaign in Atlanta consisted of battles that were discreetly distinct from one another. This distinctiveness allows for a more independent analysis of the mechanism from battle to battle and was, therefore, the final determination for case selection.

The Methodology and the Research Question

A critical factor aligning the research question to the methodology is the current state of the literature. As mentioned in Chapter 2, the literature concerning the formal analysis of decision-making in a military context at the tactical-operational seam is nascent. There has been robust theorizing and testing of the strategic-operational and strategic-tactical level. There have also been significant studies of tactics, operations, and

⁶⁷ Bonura, *Under the Shadow of Napoleon*, 8-9.

⁶⁸ Ibid., 46.

strategy in their own rights.⁶⁹ There has yet to be a generalizable theory connecting tactics to campaigns via the decision-making mechanism. Military professionals take the connection between the operational and tactical levels of war for granted. As such, process-tracing from a theory building perspective is particularly useful.

This study will leverage a mixed methodology that incorporates the strengths of both narrative history and formal process-tracing to answer the research question. While there are certainly weaknesses, this study will endeavor to be transparent about those weaknesses. In the end, the methodology allows the study to either refute the mechanistic claim outright, adjust the claim in further detail, or confirm the claim. Regardless of outcome, the methodology adds to the professional body of knowledge and provides a road map for further investigation.

⁶⁹ Freedman, *Strategy*.

CHAPTER 4

ANALYSIS

On the evening of March 10th1864, a disheveled and gangly man would sit down to the dim light of flickering candle to write a weary letter to his wife. ⁷⁰ In it, he would attempt to console his grieving love after the loss of her mother. ⁷¹ He too was grieving as the deceased was his mother as well. The old woman had taken him into her home when he had found himself an orphan as a child. ⁷² Grief, however, was not unknown to William T. Sherman. Not long before he had lost his youngest son to the scourge of disease. ⁷³ In his letter he mentions his pain and seems to struggle to set it aside. He does not seem to want to dwell on his anxiety. It was not too long ago that he had suffered a mental breakdown. ⁷⁴ It is possible he still carried the shame with him like a weighty haversack around his neck. Beneath the newly awarded stars that adorned his shoulders, Major General William Tecumseh Sherman was a man.

That night William Tecumseh Sherman was a specific type of man. He was not the commander of the Army of the Tennessee, victorious conqueror of Vicksburg,

Chattanooga, and Meridian. He was a man mourning the death of his son and mother. He

⁷⁰ Simpson and Berlin, *Sherman's Civil War*, 604.

⁷¹ Ibid.

⁷² Sherman, Memoir of General William T. Sherman, vol. 1, 14.

⁷³ John S.D. Eisenhower, *American General: the Life and Times of William Tecumseh Sherman* (New York, NY: New American Library, 2015), 151.

⁷⁴ Hart, Sherman, 106.

was also the man that would lead one of the most successful campaigns in American history. One cannot understand the campaign without understanding him as well. So too, one cannot understand the man without knowing something of his role as commander.

Military commanders make decisions. Military commanders are people. Thus, this study will need to understand military decisions from the perspective of a single person. In this case that person is William T. Sherman during his campaign to seize Atlanta in 1864. This study hopes to analyze how this man linked his actions from battle to battle into a broader campaign using the twin mechanisms of tactics and logistics.

Military decision-making is, at its foundation, human decision-making. It is human in its ends, ways, and means. Several disciplines have sought to understand military decision-making by deconstructing humanity out of the problem and distillery decision-making down to generalizable logic. 75 Others have attempted to understand decision-making by seeing the world through distinct and unique eyes of the decision-maker. 76 Each approach has strengths and weakness. The following seeks to leverage the strengths of both disciplines. It chronologically isolates mechanisms and conditions via a narrative from the perspective of William T. Sherman.

The narrative will focus on Sherman's 1864 campaign to seize Atlanta from the grip of the Confederate Army. It will trace the influence of Sherman's tactics and logistics to understand how they relate to the achievement of his campaign's objective.

Each section includes an analysis of three conditions -rationality, uncertainty, and

⁷⁵ Justin Conrad, *Gambling and War: Risk, Reward, and Chance in International Conflict* (Annapolis, MD: Naval Institute Press, 2017).

⁷⁶ Rao, *Tempo*, 65.

cognitive state—derived from Carl von Clausewitz's famous trinity. These three conditions describe Sherman's perception of his situation and environment, not the actual situation and environment. To establish a contextual understanding of the environment and the conceptual framework, the first section will describe Sherman's conditions in detail. It is important to understand that the conditions did not always influence the mechanisms; therefore, the subsequent sections will address conditions by exception.

Sherman's campaign in Atlanta is of particular interests because of its asymmetry. Despite having achieved his campaign objective of seizing Atlanta, of the eight battles he fought, he lost four of them. There would seem to be a mismatch between victory at the tactical level and victory at the operational level. Sherman's case in Atlanta, thus, provides an opportunity to compare successful and unsuccessful battles as they relate to the twin mechanisms—tactics and logistics. By tracing the influence of each mechanism through both tactical losses and victories this study aims to understand how they connect the tactical and operational levels of war.

Chattanooga

The early months of 1864 represents a period of transition in the American Civil War, its actors, and the nation. At the political level, the U.S. Government had a presidential election approaching at the end of the year. ⁷⁸ The U.S. finds itself on the precipice of a choice between Lincoln and his adversaries. ⁷⁹ Lincoln represents

⁷⁷ Clausewitz, On War, 89.

⁷⁸ Castel and Poracsky, *Decision in the West*, 6.

⁷⁹ Ibid.

unconditional victory at the stiff price of blood and pain; his adversaries represent immediate peace at the cost of permanent disunion.⁸⁰ While victories at Vicksburg and Chattanooga help Lincoln's cause, the country knows there are still many miles left to walk before the war is over. Many simply lose the will to continue the march.⁸¹

Economically, as U.S. Army forces have reconquered territory, the fortunes of the confederacy dwindled in their wake. The loss of the Mississippi River at the battle of Vicksburg divided the confederacy and deprived it of resources in the west. 82 It also led to a crisis of confidence. Inflation spiraled out of control as trust in the Confederacy's permanence waned. 83 The only remaining economic artery rested in Georgia from the Gate City of Atlanta to the wind-swept coast in Savannah. 84 While the U.S.'s industrial might grew with the reoccupation of the west, the confederacy struggled to produce essentials for life, much less war.

Despite clear economic weakness, the people of the south and its Army remained resolute if resigned. The people of the confederacy transitioned to a focus on survival. That is to say, they knew they had to endure, and through that endurance, they might seize victory. Thus, small and insignificant as they may have been, victories mattered.

⁸⁰ Castel and Poracsky, *Decision in the West*, 6.

⁸¹ Ibid., 9.

⁸² Sherman, "The Grand Strategy of the War of the Rebellion."

⁸³ Castel, *Decision in the West*, 27.

⁸⁴ Hart, Sherman, 233.

Lee's hold over Richmond, Virginia and victories like Chickamauga communicated a resounding message—The Confederacy planned to fight.

Militarily, the U.S. Army and confederacy were in flux. Each was undergoing leadership transitions based on recent performance. In March the U.S. Army promoted Ulysses S. Grant, raising him to the highest rank yet established in the U.S. Army of Lieutenant General and replacing Major General H.W. Halleck as Commander for U.S. Army forces in the field. ⁸⁵ The confederates in Georgia were similarly in the midst of transition. In the aftermath of Chattanooga, in January 1864 Jefferson Davis accepted Braxton Bragg's resignation and begrudgingly placed Joseph E. Johnston in Command of the Army of Tennessee. ⁸⁶

In early March Sherman was a on steamboat approaching Memphis making his way back from his Meridian campaign. ⁸⁷ On March 10th he wrote a letter to his wife, Ellen Ewing Sherman, conveying his view of what was to come. ⁸⁸ He began his private missive by consoling her on the recent deaths of her mother and pastor and reminiscing on the death of their son Willy. It was still fresh in their minds. In a thinly veiled attempt to distract his wife, and perhaps himself, he transitioned away from personal matters towards military ones. He struck an optimistic tone as he described his vision of future operations into Georgia.

⁸⁵ Castel, *Decision in the West*, 57.

⁸⁶ Johnson, A Memoir of the Life and Public Service of Joseph E. Johnston, 94.

⁸⁷ Simpson, Sherman's Civil War, 604.

⁸⁸ Ibid.

Things would quickly change. On March 18th Sherman would take command of the Military Division of the Mississippi from Grant, who had himself been promoted. ⁸⁹ With his new command came its three armies—the Army of the Tennessee, the Army of the Ohio, and the Army of the Cumberland. ⁹⁰ Sherman was still flush with relative success from Vicksburg and Meridian. His outlook was, therefore, optimistic as he traveled back towards Chattanooga. On his way he met with each of his subordinate commanders and conveyed what he thought lay ahead. ⁹¹

On April 4th, shortly after arriving in Chattanooga, he received a letter from Grant outlining a strategy to finally end the war. Sherman seized the initiative and began preparing himself and his armies. He began by coordinating for the consolidation of his command, as both Schofield and McPherson's forces were still far afield. 92

Through the end March and April Sherman would commitment himself to preparation. His goal was to act in concert with Grant.⁹³ In his memoir he stated, "The great question of the campaign was one of supplies."⁹⁴ He had to synchronize the arrival of soldiers and supplies in order to align his operations with Grant's campaign.

⁸⁹ Castel, *Decision in the West*, 67.

⁹⁰ Sherman, Memoirs of General W. T. Sherman, vol. 2, 19.

⁹¹ Castel, *Decision in the West*, 79.

⁹² Sherman, Memoirs of General W. T. Sherman, vol. 2, 12.

⁹³ Sherman, "The Grand Strategy of the War of the Rebellion."

⁹⁴ Sherman, Memoirs of General W. T. Sherman, vol. 2, 12.

In terms of manning, one of his top priorities was receiving the soldiers on loan to Major General Nathaniel P. Banks supporting operations along the Red River. ⁹⁵ Sherman already had a low opinion of both Banks and in a letter he sent on April 8th he made his displeasure clear and demanded the return of his forces starting on the 10th. ⁹⁶ He would not receive them in time and would have to leave without them.

He also needed to contend with the effects of furloughs. In late April he estimates that McPherson is short several thousand soldiers because of furloughs. ⁹⁷ While furloughs at times provided a net-increase in combat power—primarily though hometown recruiting—they were a short-term drain. In this case, they were depriving one of his commands almost a third of its combat power. Manning challenges would continue to plague Sherman's thoughts well into the start of his campaign.

The rest of his time in April was committed to building stores of supplies at Chattanooga. He was not one to shy away from the details, as he clearly conveyed in a letter to the Assistant Secretary for War, Charles A. Dana on April 24th, "I figured up the mathematics and saw that must have daily 145 carloads of essentials for 30 days to enable me to fill the requirement, only 75 daily was all the roads were doing." 98

⁹⁵ Simpson, Sherman's Civil War, 611.

⁹⁶ Sherman, Memoirs of General W. T. Sherman, vol. 2, 17.

⁹⁷ Simpson, *Sherman's Civil War*, 611.

⁹⁸ Ibid., 624.

Interestingly, his higher command was driving his time constraint, not enemy tempo. Grant had informed Sherman he wanted to begin operations on the 1st of May. The start date for his campaign would shift several times early that month.

The Rationality Condition

To understand William T. Sherman's plan, it is necessary to know something of how his plan came to be. Likewise, to understand how his plan came to be it is necessary to understand something about William T. Sherman's staff. While staffs had certainly existed well before the American Civil War, the idea of general staff at the time differs significantly from today. Modern staffs help commanders understand, visualize, describe, direct, and lead. 99 Staff's during the American Civil War took their cues from Napoleon and the 17th century. 100 Staffs were smaller in size and their duties and responsibilities limited. Planning, deciding, and leading belonged to the commander. When in battle staffs became even smaller. In Sherman's case, he preferred to travel with his aides de camp that ultimately acted as messengers. On the eve of his first battle in Georgia Sherman wrote, "[m]y general headquarters and official records remained back at Nashville, and I had near me only my personal staff and inspector-general." Sherman seemed to prefer a minimalist approach and reveled in the details of his plans. If one thing was for sure, if there was a plan, it would be his.

⁹⁹ HQDA, ADP 6-0, 2-12.

¹⁰⁰ Bonura, *Under the Shadow of Napoleon*, 120.

¹⁰¹ Sherman, Memoirs of General W. T. Sherman, vol. 2, 41.

Sherman saw himself, the nation he loved, and the army he led at a precipice in March 1864. He felt he had momentum forward with a wind at his back after a string of victories leading from Vicksburg, to Chattanooga, and ending most recently in Meridian. He knew all too well that he and his army yet had miles left to walk and a ticking clock keeping time. Despite his victories, he knew well the cost. He also knew the mood of the nation. 102 The American people were wary of war. They wanted peace and would be willing to pay dearly for it, to include giving up their union. They would soon make their will known in the upcoming Presidential election that November. If the rebels were going to be defeated it had to happen before the fall.

With the clock ticking, on March 4th Sherman received a letter from Lieutenant General Grant with the thing he had desired most, a strategy. Above all else, a strategy implied an end, and there was no one who desired an end to the scourge of war more than William Tecumseh Sherman.

It was a simple vision. Grant sought to attack his adversary, wherever he may be, "converging" and at once. ¹⁰³ Grant and Sherman, together, would simultaneously squeeze and divide the confederates from both north and south. Grant would face Robert E. Lee himself in Virginia. Sherman was to attack Joseph E. Johnston in Georgia. The goal was to keep each so occupied that they could not support each other.

Sherman was elated. Unlike Grant, Sherman had an intellectual affinity for the art of his chosen profession. From his time out west, attempting to coordinate efforts

¹⁰² Simpson, *Sherman's Civil War*, 613.

¹⁰³ Sherman, Memoirs of General W. T. Sherman, vol. 2, 37.

amongst a rambunctious bunch of ambitious generals, he had yearned for unified and coordinated action. ¹⁰⁴ Here he finally had it. He would respond to Grant that he vehemently agreed with his designs and would support them to his utmost ability.

Having been in Cincinnati, he endeavored to meet each of his commanders in person on his way Chattanooga. His was a grand army if ever there was one. His command consisted of the Army of the Cumberland, the Army of the Tennessee, and the Army of the Ohio. 105 The Army of the Cumberland, the most magnificently arrayed of the three was led by Major General Thomas. A portly and uptight fellow, Thomas was no doubt one of the finest and most professional commanders on the American continent. His Army reflected his personality. The Army of the Tennessee, Sherman's beloved old command, was led by Major General McPherson. While not as grand as the Cumberland, the men of the Tennessee were supremely proud of their reputation and their honored position in the eyes of their commander. The Army of the Ohio was not much more than a corps, its combat power having been committed in support of operations to the north. 106 While small, Sherman trusted its commander, Major General Schofield, and new it could hold its own in a fight.

As he made his way down from Cincinnati to Chattanooga, Sherman assessed the condition of his new command. In total he surmised he had 402,270 soldiers on paper. He also quickly realized paper counted for little on the line. Due to furloughs and the

¹⁰⁴ Castel, *Decision in the West*, 41.

¹⁰⁵ Sherman, Memoirs of General W. T. Sherman, vol. 2, 33-34.

¹⁰⁶ Castel, *Decision in the West*, 87.

expiration of enlistments, his forces on the ground were closer to 180,087 present for duty. 107

He discovered significant imbalances within his three armies. Thomas's army alone made up the great share of his combat power. As magnificent as this army was, its commander jealously guarded it. Expiring logistics had drained McPherson's army to about half the strength of Thomas's command. It, however, was not near as bad as Schofield's army. The Army of the Ohio was composed of the XXIII Corps with a headquarters and some cavalry. Sherman initially accepted the situation in the hopes of receiving two divisions he had loaned out. Unfortunately, he would have to accept his array of forces as they were. 109

Like all generals in the age of railroads, Sherman tethered his plan to logistics. He commandeered both rail and carts, to the chagrin of civilian authority and business, for the purposes of sustaining his army. He also viewed logistics as one of his adversary's primary weaknesses and planned to attack them in kind. More importantly, he understood that demonstrating a threat against an adversary's logistics would illicit a predictable response. Sherman planned to use that fact to his advantage in two ways. First, and more directly, he would threaten Johnston's lines of communication at all times to guarantee his adversaries rearward movement (regardless of battlefield success).

¹⁰⁷ Sherman, Memoirs of General W. T. Sherman, vol. 2, 19.

¹⁰⁸ Castel, *Decision in the West*, 88.

¹⁰⁹ Simpson, Sherman's Civil War, 631.

¹¹⁰ Ibid., 617.

Second, he would accept risk in his own lines of communication, thus acting in such a manner that Johnston would find unexpected. 111

Sherman's Uncertainty

In early 1864 William T. Sherman's knowledge of his forces, his environment, and his adversary were all in flux but settling. According to his correspondence with Grant, he held the greatest amount of uncertainty concerning his own forces. ¹¹² Sherman believed he had a strong understanding of Johnston, confederate forces, and their actions. In his letters to Grant, he exuded confidence in his assessment of Johnston's options. ¹¹³ That is to say, he does not pretend to know what Johnston will do, but he does seem confident in his understanding of what Johnston can do. In relation to his operational environment, he makes little mention of his understanding of the land and its people. His disposition is understandable considering he is no stranger to the south. ¹¹⁴ In his younger years he spent a significant amount of time surveying the land he now campaigned on. Just before the war he lived in Baton Rouge Louisiana where he was well liked as the commandant of what would eventually become Louisiana State University. In remarks concerning the people of the south he seemed confident and did not dwell on them much.

¹¹¹ Eisenhower, American General, 174.

¹¹² Simpson, Sherman's Civil War, 611.

¹¹³ Ibid., 617.

¹¹⁴ Hart, *Sherman*, 11.

Sherman's top concern was strategy. Specifically, he wanted, for the first time, to execute his actions in concert with Grant and the rest of the U.S. Army forces. ¹¹⁵ In early March he and Grant had agreed on the concept of their coordinated campaigns. ¹¹⁶ In April it was time to look towards their execution. Sherman needed to synchronize his concentration of combat power with Grant's movement. His was concerned that his forces would not be ready by the time Grant would direct him to meet Johnston.

Sherman's greatest source of uncertainty was his own force. At the top of Sherman's frustration was an element of 10,000 soldiers on loan to Major General Nathaniel P. Banks. He had originally sent the force, commanded by Major General A. J. Smith, to the Red River to help reinforce the U.S. Army positions. ¹¹⁷ Despite his vehement instructions to Banks that he return the forces in 30 days, the expedition along the Red River took longer than expected. Up until the end of April Sherman was increasingly unsure whether his detachment would arrive in time. ¹¹⁸

To complicate things further, furloughs continued to drain his combat power.

According to letters he sent in April he estimated that he had two divisions worth of soldiers in McPherson's army out on furlough. 119 Considering McPherson's standing strength, this was far from a marginal amount of combat power. While he was pessimistic

¹¹⁵ Sherman, "The Grand Strategy of the War of the Rebellion."

¹¹⁶ Simpson, *Sherman's Civil War*, 617.

¹¹⁷ Castel, *Decision in the West*, 99.

¹¹⁸ Simpson, Sherman's Civil War, 631.

¹¹⁹ Ibid., 605.

as to their return, he continued to plan as though he would have them returned well into April.

Sherman's Cognitive Condition

On the eve of his campaign to Atlanta, one could characterize William T. Sherman's mental state as exhausted optimism. Throughout his letters to his brother, his wife, and U.S. Grant, he conveyed his sense that the conflict was coming to a costly but inevitable end. He believed the "hard hand of war" was the means to that end. 120

While he supported a strong approach to the conduct of the war, Sherman did not convey personal ill-will towards the people of the south. He did not refer to the southern people in derisive terms and did not convey bloodlust. He maintained a nuanced view concerning the confederacy. Again, he did not convey any sense of hatred towards his adversary. In fact, he often talks of the rebel leaders with a hint of respect. ¹²¹ His feeling towards the confederate soldier was, however, tarnished due to atrocities they had committed against Black U.S. Army soldiers.

His view of Black southerners—and even his Black U.S. Army soldiers—were racist but he cared little to think of them. 122 He generally referred to them as a group

¹²⁰ Simpson, *Sherman's Civil War*, 614.

¹²¹ Sherman, "The Grand Strategy of the War of the Rebellion"; Simpson, *Sherman's Civil War*, 609.

¹²² Castel, *Decision in the West*, 129.

outside of the conflict. If anything they seemed a nuisance to him and their cause as a side show to the reunification of the country. 123

During this time Sherman was inundated with work. While he relished in the details of his plans, the work was taking its toll. There were several anecdotes of his late night planning session resulting in his ragged and weary disposition during the day. 124 His letters related the minutest detail relating to train schedules, movement tables, and timelines. 125 Proper execution of the U.S. Army plan occupied his entire focus.

Oddly enough, civilians and journalists most perturbed Sherman's mental state during this time. In fact, his only mention of anger and frustration in his correspondence were towards the media or anything relating to them. ¹²⁶ His decision-making relating to civilians and journalist tended to be hasty and heavy handed, uncharacteristic for his demeanor in all other things.

Overall, Sherman was tired but ready for the campaign to come. While he felt the pain of personal tragedy, he seemed able to compartmentalize by pouring himself into his work. Maintaining synchronization with Grant provided him the most stress. He was calm and collected when dealing with U.S. Army forces, the enemy, and the southern people. He was prone to anger by civilians and journalist. He seemed ready, however, to embark on the final act of this tragic story.

¹²³ Hart, *Sherman*, 148-149.

¹²⁴ Ibid., 257.

¹²⁵ Simpson, Sherman's Civil War, 624.

¹²⁶ Castel, *Decision in the West*, 118.

Tactics Mechanism

A decision-maker and a decision-making process are the two components that make up the tactics mechanism. ¹²⁷ In this case, the decision-maker was the commander, William T. Sherman. The decision-making process was Sherman's tactics, defined as the organized arrangement and employment of combat power towards the achievement of a stated objective. ¹²⁸ The "and" operator implies two necessary but insufficient subconditions. First, the commander must organize combat power. Second, the commander must employ that combat power. The conditions (rationality, uncertainty, emotional state) of the commander, determine the modes of organization and employment.

Mechanistic evidence of a tactics mechanism can take several forms. The most obvious is a commander's tactical plan in the form of a formal operations order or correspondence. 129

In Sherman's case, in March and April 1864 Sherman developed his plan. ¹³⁰ As mentioned, Sherman had a strategy—act against the confederates in coordination with the rest of U.S. Army forces in the north. He also had an operational framework—his campaign to seize Atlanta. A strategy and an operational approach, however, do not constitute tactics.

¹²⁷ Beach, *Process-Tracing Methods*, 38.

¹²⁸ HQDA, ADP 3-0, 1-1.

¹²⁹ Beach, *Process-Tracing Methods*, 172.

¹³⁰ Castel, *Decision in the West*, 89.

Sherman only developed his tactical plan after having gained a perceived level of certainty concerning the start of Grant's campaign and availability of his forces. According to his correspondence, he would have preferred to have a plan far earlier. As early as April 11th, Sherman had iterated on several options. On April 10th he wrote to Grant describing his first tactical plan. 131 It was a decentralized maneuver with three avenues of attack moving from north to south. Schofield would march against Athens; Thomas would attack Johnston like towards Atlanta; McPherson would maneuver south against Rome. When Sherman realized A. J. Smith would not be returning, he adjusted his plan to compensate for McPherson's weakened composition. The second plan that he communicated to his wife on the 27th of April was far more centralized and went from Dalton to Kingston, Allatoona, and finally Atlanta. 132 It was adjusted based on changes to the timing of Grant's campaign and Sherman's realization that furloughed soldiers would also not be return to the fight. He finally solidified his plan in early May several days prior to his planned departure. It was only then that he could begin planning the details of tactical plan in earnest.

Logistics Mechanism

The logistics mechanism is also composed of an actor and a process that connect tactical battles to operational outcomes. ¹³³ The principal actor remains the commander.

¹³¹ Simpson, *Sherman's Civil War*, 617.

¹³² Ibid., 631.

¹³³ Beach, *Process-Tracing Methods*, 38.

American military doctrine defines logistics as the planning and execution of support and movement operations focused on the attainment of a stated objective. 134

Mechanistic evidence for the logistics mechanism parallels evidence for the tactics mechanism. The strongest evidence for the presence of the logistics mechanism is a commander's plan outlining directions to be taken as they relate to movement and support. Evidence for a logistics mechanism mostly takes the form of formal orders and correspondence.

Upon his return from the Meridian campaign and his assumption of command, logistics became Sherman primary focus. ¹³⁵ His purpose was to move against the confederacy in conjunction with Grant in Virginia. To that end, Sherman particularly focused on the synchronized movement of his forces towards Chattanooga by early May. On March 18th, Sherman went to work coordinating for the concentration of his armies. It was no easy task as, apart from the Army of the Cumberland, his forces were spread across the theater. ¹³⁶

In addition to movement of personnel, the problem of sustaining his army consumed Sherman's mind. It was clear he knew how to align the details of supply against the requirements of his campaign. He routinely filled his correspondence with details of train schedules, rail capacity, and supply stores. ¹³⁷ While the small size of his

¹³⁴ Headquarters Department of the Army (HQDA), Army Doctrinal Publication (ADP) 4-0, *Sustainment* (Washington, DC: Army Publishing Directorate, 2019), 1-1.

¹³⁵ Simpson, Sherman's Civil War, 624.

¹³⁶ Castel, Decision in the West, 118.

¹³⁷ Simpson, Sherman's Civil War, 624.

staff likely had something to do with the amount of detail he committed to his understanding of logistics, it was also apparent that his mind naturally gravitated to the science of sustainment. That said, his emotions and biases often effected his decisions. For instance, it would seem that his disdain for journalist and civilian profiteers led him to heavy handed decisions. Specifically, he commandeered civilian train cars for military use. ¹³⁸ He also refused to transport civilians on his recently commandeered trains. ¹³⁹

His logistics plan reflected the dominant traits of the time. His lines of supply aligned with railroads and water ways. Maintaining these lines of supply remained a top priority in his planning. He committed significant amounts of his combat power to securing key nodes connecting him to the Mississippi. So important was logistics to Sherman that he went so far as to adjust his tactical plan to protect his lines of supply. ¹⁴⁰ Interestingly however, Sherman was unique in that he understood he could exploit the shared understanding between him and his adversary that lines of supply were vital. Thus, Sherman created a plan that allowed him to continue his operations with severed lines of supply. The idea was heresy amongst the West Point educated elites running both armies and was therefore a surprise. ¹⁴¹

¹³⁸ Ibid.

¹³⁹ Castel, *Decision in the West*, 92.

¹⁴⁰ Hart, *Sherman*, 233.

¹⁴¹ Bonura, *Under the Shadow of Napoleon*, 116.

The Battle of Rocky Face Ridge

By the end of April Sherman had completed his battlefield circulation, solidified his lines of communication, established a sizable supply depot in Chattanooga, and issued his orders to begin the necessary movement on his campaign. According to his correspondence, Grant initially ordered him to start his campaign on the 30th of April. Sherman, however, had also requested a delay in order to get McPherson's Army of the Tennessee in line with Thomas's Army of the Cumberland. Regardless of Grant's decision, Sherman committed himself to leaving in accordance with initial instructions.

Of Sherman's three armies, Thomas's was the only command ready to begin the fight. That said, Thomas's Army made up the majority of Sherman's combat power anyways. Sherman planned to use Thomas's overt forward presence as a fixing mechanism to allow either McPherson or Schofield the opportunity to maneuver to positions of advantage. Sherman assumed that if he threatened Johnston's lines of communication, the rebels would maneuver to protect them. Sherman trusted that such a maneuver would result in a withdrawal towards Atlanta. While Sherman's task was to seize Atlanta, his purpose was to keep Johnston isolated from the rest of the confederacy

¹⁴² Castel, *Decision in the West*, 126.

¹⁴³ Sherman, Memoirs of General W. T. Sherman, vol. 2, 39.

¹⁴⁴ Castel, *Decision in the West*, 125.

¹⁴⁵ Simpson, Sherman's Civil War, 618.

¹⁴⁶ Hart, *Sherman*, 233.

in the south. ¹⁴⁷ Sherman knew Johnston was located northwest of the Oostanaula River in the town of Dalton. Sherman believed if he could threaten Johnston's lines of communication across the Oostanaula Johnston would concede his current position. He planned to use Thomas to attack south close to a prominent ridge line known as Rocky Face Ridge to draw Johnston into battle. He would then simultaneously maneuver either Schofield or McPherson against a flank that would both surprise Johnston and force him to withdrawal towards Atlanta. ¹⁴⁸

For this plan to work, Sherman would need his three armies to maneuver in unison. As of May 1st, that united movement would not be possible. Schofield was moving his forces south by train from Cleveland Tennessee. Sherman assessed it would take him several days to arrive. They would not cross into Georgia until the 5th of May. McPherson was also still positioning his forces south from Alabama and Tennessee and would be several days away. McPherson's army would only begin moving through Chattanooga on May 5th. 149

By May 5th Sherman assumed Grant had begun his campaign in Virginia. His suspicions were confirmed via communications with Halleck. Sherman conveys that regardless of his disposition he planned to begin his attack on May 6th. That evening Sherman ordered Thomas to move south and make contact with Johnston's forces. By this time, Schofield reported that he had arrayed himself east of Thomas, just north of

¹⁴⁷ Sherman, "The Grand Strategy of the War of the Rebellion."

¹⁴⁸ Castel, *Decision in the West*, 121.

¹⁴⁹ Ibid., 123-126.

Rocky Face Ridge. McPherson sent word that he had managed to maneuver elements of his army ten miles south of Chattanooga west of Sherman's position at Ringgold. 150

At sunrise on May 7th the battle began in earnest. ¹⁵¹ Thomas moved south from Ringgold and made initial contact with rebel cavalry about 4 miles north of Rocky Face Ridge at Tunnel Hill along the main railroad line leading south. They secured the route and continued to maneuver south. Simultaneously, while still strung out into Tennessee, Schofield's lead elements aligned themselves east of Thomas and just north east of Rocky Face Ridge. McPherson's Army is still moving from the northwest close to Gordon Springs towards their ultimate destination, Snake Creek Gap. That night Sherman held a council of war and finalizes his plan of attack. ¹⁵²

The Conditions

Sherman's original tactical plan, developed several days prior, was a turning movement. He envisioned Thomas and Schofield attacking from the north to the south towards Dalton, Johnston's headquarters. His primary goal was to distract Johnston from McPherson's maneuver through Alabama. McPherson's primary purpose was to threaten Johnston's lines of communication and force Johnston to withdraw.

Unfortunately, A. J. Smith's two division were still unavailable. Without those two divisions, McPherson would not be strong enough to withstand an attack on his own.

Compounding the tactical problem, McPherson was running behind and was still

¹⁵⁰ Castel, *Decision in the West*, 123.

¹⁵¹ Ibid., 128.

¹⁵² Ibid., 126.

maneuvering into position. Based on the risk to McPherson, Sherman decided to maintain the general form of maneuver, but instead of threatening Rome, McPherson would threaten Resaca. ¹⁵³ While not as bold, in Sherman's eyes it still forced Johnston's movement back towards Atlanta.

The final plan committed Thomas and Schofield from north to south to fix

Johnston near Rocky Face Ridge. McPherson would maneuver south and west through a small corridor between the mountains known as Snake Creek Gap. McPherson's purpose was to threaten Johnston bridging, railroads, and forces in Resaca. 154

On May 7th the plan would go into action. The fighting was fierce along the northern slopes of Rocky Face Ridge. Thomas managed secure a foothold in the north of the ridgeline. Unfortunately, Thomas and Schofield smashed themselves against a wall of well-established confederate earthworks along the ridge. At dusk on May 7th, after several attacks on the southern portion of U.S. Army forces would need to concede a tactical failure with significant casualties and no measurable gain in key terrain. 155

Operationally, Sherman's plan succeeded. McPherson moved to Snake Creek Gap and forced Johnston to abandon Dalton. Sherman was, thus, in position for the next phase of the campaign against Resaca. 156

¹⁵³ Simpson, Sherman's Civil War, 632.

¹⁵⁴ Ibid., 638.

¹⁵⁵ Castel, *Decision in the West*, 129.

¹⁵⁶ Ibid., 135.

This is the first time where Johnston's actions directly concerned Sherman. His primary risk was Johnston massing against a relatively weak McPherson. Sherman, however, remained confident that Johnston would act as expected if his lines of communication became threatened. Unfortunately, Sherman remained frustrated by a lack of effective cavalry reconnaissance. Sherman seemed to gain most of his understanding from information gathered during battle. This lack of information early resulted in several large adjustments to his plans right up until the eve of the attack.

Another source of frustration was his poor understanding the routes leading towards his objectives. Sherman seemed to have overlooked the difficulty with which forces would be able to maneuver west. Delays to both McPherson and Schofield desynchronized Sherman's maneuver in the opening phase of the battle. Thankfully, Thomas, while tactically ineffective, was able to buy McPherson and Schofield the time to resynchronize. Sherman's over confidence concerning the terrain led him to faulty planning assumptions concerning the time it would take his subordinates to move across the battlefield. 158

The perfect example of just such an incident occurred the morning of May 7th.

Due to his concerns about McPherson's weakness, Sherman wanted to maneuver Thomas and Schofield through Snake Creek Gap. Sherman did not understand how difficult a movement it was and realized too late how long it would take to maneuver two armies to the south-west. After having already started them along the route to Snake Creek Gap, the

¹⁵⁷ Castel, *Decision in the West*, 116.

¹⁵⁸ Ibid., 149.

road is so bad they have to detour and change their route. 159 The congestion and confusion created by the constant changes clearly created friction.

Just prior to his battle at Rocky Face Ridge Sherman seemed to be completely consumed with the task at hand. In correspondence to his wife in the months prior he had attempted to settle his affairs. ¹⁶⁰ As he approached May, his correspondence focused more and more on his campaign. If anything seemed to be on his mind it was frustration with anything that obstructed his purpose. He conveyed his anger concerning A. J. Smith's late arrival but seemed to resign himself to reality and move on. He did not seem to convey much emotion, if any, against his enemy. It would seem that he refrained from allowing his emotions to affect his decision-making as it related to Johnston. ¹⁶¹

The Tactics Mechanism

In the case of the battle of Rocky Face Ridge the tactics mechanism was present, activated, but negated. There is evidence that Sherman created a plan, executed that plan, and that it resulted in a muted application of combat power. The evidence of Sherman's planning is clear in correspondence and official reports that he sent to his subordinates, Halleck, and Grant in the days leading to battle. He also recounted the events in substantial detail in both his memoir and a subsequent pamphlet with century magazines.

¹⁵⁹ Castel, *Decision in the West*, 149.

¹⁶⁰ Simpson, Sherman's Civil War, 634.

¹⁶¹ Ibid., 581-638.

¹⁶² Sherman, Memoirs of General W. T. Sherman, vol. 2, 39-40.

Sherman wrote, "I had no purpose to attack Johnston at Dalton in front, but marched from Chattanooga to feign at his front and to make a lodgment in Resaca." ¹⁶³

There was robust evidence that Sherman's armies executed his plan at Rocky

Face Ridge. Perhaps the most compelling evidence comes from the Confederate leaders

facing Sherman during the battle. In Johnston's memoir, his aide Bradley Johnson writes,

"[Sherman's] tactics were simple. He moved in three columns. The center engaged

Johnston in his fortified position. Either flanking column pushed on by him as it found
opportunity." 164

The tactics mechanism, while present, was not strong enough to lead to tactical success. The negative effect of the uncertainty condition overcame the positive effect of the rationality condition. Specifically, Sherman's uncertainty concerning the arrival of his forces negated the effect of his tactics. The continued uncertainty concerning his available combat power and his environment forced Sherman to reframe his tactical plan resulting in friction. Despite overwhelming force and a tactical plan, the uncertainty conditions generated the friction necessary for Confederate force to take the day. Despite the tactical loss, however, the logistics mechanism would connect this tactical defeat to an operational success.

The Logistics Mechanism

There is substantial evidence for the presence and activation of the logistics mechanism at the battle of Rocky Face Ridge. There is both evidence that Sherman had a

¹⁶³ Sherman, "The Grand Strategy of the War of the Rebellion."

¹⁶⁴ Johnson, A Memoir of the Life and Public Service of Joseph E. Johnston.

logistics plan and that his logistics plan was executed resulting in an effective build-up of potential combat power.

The top logistical priority for Sherman during the battle of Rocky Face Ridge was the coordinated and synchronized movement of soldiers across the battlefield. Friction generated by uncertainty concerning McPherson's available combat power slowed effects of the logistics mechanism; however, the time bought by Thomas's attack against Rocky Face Ridge, provided McPherson the time to mass at Snake Creek Gap. Thus, the tactical defeat allowed time for the logistics mechanism to set the stage for the next phase along the line of operation.

In addition to personnel movement, Sherman also had to ensure he had adequate provisions for his maneuvers. Tunnel hill, through which the sole Atlanta-bound railroad passed, became a critical initial objective for Thomas and the Army of the Cumberland as they maneuvered south. With a line of supply secured, all the work building combat power in Chattanooga during April paid off.

The Battle of Resaca

The evening of May 9th Sherman went to sleep with his three armies arrayed according to plan. Schofield continued pressing south against Johnston at Rocky Face Ridge, while Thomas probed Dalton. Sherman assumed that over the night McPherson would take Resaca, leaving Johnston trapped on the wrong side of a river. Sherman, thus saw the possibility that he could end this campaign then and there. Sherman had already received reports from McPherson that he was two miles from Resaca. He was confident

that McPherson would jump at the opportunity to cut Johnston off. 165 Sherman was so confident he exclaimed, "I've got Joe Johnston dead!" 166

Unfortunately, McPherson hesitated, allowing Johnston to mass and fortify Resaca before the Army of the Tennessee could route him. Sherman again adjusted his plan. Thomas would leave IV Corps to press Dalton, allowing the rest of the Army Cumberland and the Army of the Ohio to march and meet McPherson at Snake Creek Gap. McPherson would fortify Snake Creek Gap towards Resaca while the rest of the U.S. Army forces maneuvered to join him. 167

From May 10th to May 12th Sherman's Army marched along narrow poorly maintained roads to meet McPherson. One can only imagine the thoughts of disappointment on Sherman's mind as he stewed on an opportunity lost. When he finally met McPherson Sherman, in his characteristic laconic way, chastised McPherson and set to the task he had at hand. 168

Sherman assumed Johnston was executing a withdrawal across the Oostanaula. Sherman thought he had to execute a pursuit in order to envelop and destroy Johnston. Sherman's assumption proved incorrect. In the afternoon of May13th, Sherman's lead elements clashed in Johnston's defenses two miles from Resaca. 169 Sherman had no

¹⁶⁵ Sherman, Memoirs of General W. T. Sherman, vol. 2, 43.

¹⁶⁶ Castel, *Decision in the West*, 141.

¹⁶⁷ Ibid., 144.

¹⁶⁸ Sherman, Memoirs of General W. T. Sherman, vol. 2, 46.

¹⁶⁹ Castel, *Decision in the West*, 151.

tactical plan, assuming he would be in the pursuit. Confederates rebuffed Sherman's forces, and he decided to break contact to reorganize his combat power.

Sherman, still believing Johnston was withdrawing, planned to attack from north to south pressuring Johnston at Resaca. From May 14th to May 15th, elements of Thomas's and Schofield's armies would clash headlong into fortified confederate positions with almost no progress. It was not until the evening of the 15th, when a division's worth of U.S. Army combat power had crossed pontoon bridges at Lay's Ferry, that Johnston conceded Resaca to U.S. Army forces. 170

The Conditions

The battle of Resaca seems to run against the conventional wisdom that "plans are useless and planning is essential." At Resaca Sherman certainly had a plan; it was just the wrong one. Sherman's assumption that Johnston would withdrawal led him to plan a pursuit. With a better understanding of the situation, it was quite possible that he could have instead planned a deliberate attack.

Sherman's pursuit plan had two parts. First, he envisioned a gradual application of pressure from the north would disrupt a hasty river crossing to the south. Second, a strike force would cross the Oostanaula River in order to disintegrate Johnston's army as it executed its withdrawal across the river at Resaca.

Given the mental construct of a pursuit, his units attacking south simply executed frontal assaults expecting to meet successively bounding rear-guard actions. Instead, they met prepared defenses that maximized rifles, musket, and artillery fields of fire.

¹⁷⁰ Castel, *Decision in the West*, 169.

Additionally, McPherson remained uncommitted just west of Resaca. In a proper attack, McPherson could have applied his own pressure and perhaps supported Thomas and Schofield (which he in fact did on a small scale and without depth).

Therefore, while the rationality condition did influence the tactics mechanism, it would seem that the effect of the uncertainty condition led Sherman to develop the wrong plan. Sherman's overconfidence and lack of reconnaissance led him to develop a faulty plan and thus misapply the tactics mechanism.

The uncertainty condition played an important role in the battle of Resaca. The uncertainty condition seemed particularly strong for two reasons. The first was an ineffective reconnaissance. It had plagued Sherman from the start of his campaign. Not only was his cavalry ineffective, their lack of skill dissuaded Sherman from using them. Sherman left his primary cavalry commander, Brigadier General Gerard, screening to the west of Snake Creek Gap. He sent the remaining portion of his Cavalry south to Lay's Ferry as a strike force. His lack of confidence in his cavalry seemed to have been reinforced by an overabundance of confidence in himself. Just as earlier in the campaign, he remained confident about his ability to predict Johnston's actions. Sherman's lack of trust in his cavalry and overconfidence led him astray.

At this point, the tempo of operations seemed to be hitting a peak. Since well before the start of the campaign, Sherman had been working late into the night. His

¹⁷¹ Castel, *Decision in the West*, 115.

¹⁷² Hart, *Sherman*, 250.

¹⁷³ Castel, *Decision in the West*, 154.

nocturnal habits only became more acute with the start of the campaign. ¹⁷⁴ Considering that the tempo of the campaign had yet to yield since May7th, sleep deprivation may have taken its toll on Sherman's decision-making. While there is no direct evidence that sleep deprivation hindered his decisions, scant sleep does have heavy price. It is reasonable to assume that Sherman's inhibited mental state could have played a role in what seem to be preventable tactical mistakes.

The Tactics Mechanism

At the battle of Resaca the tactics mechanism was present, active, but disrupted. Specifically, the uncertainty condition seemed to have played the most deleterious role in the outcome of the battle. The uncertainty condition manifested as a lack of confidence in his cavalry and overconfidence in himself. Unfortunately, it led Sherman to misapply the tactic mechanism. He arrayed his combat power to conduct a pursuit in the face a deliberate strong point defense. This led to maneuver without fire (Thomas's and Schofield's maneuvers to the North) and fire without maneuver (the subsequent U.S. Army repulse of confederate counter attacks in the north). 175 Additionally, it led Sherman to commit his cavalry as a strike force as opposed to a reconnaissance element.

Sherman's cognitive condition seemed to have hampered the effect of the tactics mechanism. It is reasonable to presume that a lack of sleep, constant movement, and continued stress took its toll on Sherman's decision-making. Seven days of continuous operations and enemy contact likely exacted a price from Sherman's mental condition.

¹⁷⁴ Hart, *Sherman*, 257.

¹⁷⁵ Castel, *Decision in the West*, 154.

Significant prolonged stress, especially in somebody with a history of mental breakdown, can have a significant effect on decision-making. Considering Sherman had multiple uncharacteristic lapses in judgement at the battle of Resaca, it was likely that he was cognitively exhausted.

The Logistics Mechanism

While Resaca was certainly costly, it was still a victory. Sherman achieved his stated goal of pushing Johnston south of the Oostanaula towards Atlanta. It would seem that the logistics mechanism was not only present and active; it played a significant role in Sherman's tactical level success.

While the rationality condition led Sherman to a faulty tactical plan, it also led him to a successful logistics plan. Sherman's wet-gap crossing at Lay's Ferry postured combat power south of the Oostanaula and was decisive to his continued tactical success. Despite conducting the operation for the wrong tactical reason, the result of a division's worth of combat power threatening Johnston's rear flank forced the desired outcome.

Logistics provided Sherman with options that mitigated the effects of the uncertainty condition. That is to say, even if the fog of war blinded him the short-term, he had initiated action on his logistics plan well before the fog could have affected him.

Resaca demonstrated that a robust logistics plan that massed combat power to threaten the enemy beyond the short term, provided the enemy with a dilemma. Johnston could very well have maintained Resaca at the expense of Atlanta.

The Battles of Dallas - New Hope Church - Pickets Mill

After Resaca, Sherman and Johnston continued their dance across Georgia, slowly approaching Atlanta. From May 15th until their next meeting on the 24th, Sherman would out-maneuver Johnston into a withdrawal. They maneuvered about each other from Calhoun to Adairsville and finally to Cassville, near a crossing to the Etowah. After establishing himself at Allatoona Pass, Johnston found himself with only the Chattahoochee to guard Atlanta from Sherman's relentless march.

Sherman planned again to out-maneuver Johnston by crossing the Etowah further south near a small road junction in Dallas, Georgia and from there taking Marietta reestablishing his lines of supply while cutting off Johnston's. ¹⁷⁷ It was a risk, as Sherman would have to cut himself from his line of supplies along the railroad. He had also extended himself from his base of supply at Chattanooga. Sherman's robust logistics plan enabled by efficient rail, however, to stock his armies with enough supplies to last twenty days independently. ¹⁷⁸ On the southern bank of the Etowah he arrayed Schofield to the south east towards Dallas, Thomas in the center aligned against New Hope Church and Schofield to the North East covering the flank with an eye towards probing Allatoona Pass.

On the 23rd, just as Sherman had begun massing his combat power south of the river, Johnston's cavalry caught wind of the U.S. Army's actions. Johnston reacted

¹⁷⁶ Eisenhower, American General, 182.

¹⁷⁷ Castel, *Decision in the West*, 213.

¹⁷⁸ Hart, *Sherman*, 255.

quickly and arrayed himself broadly along Sherman's path. By May 25th Johnston had concentrated his forces at Dallas and New Hope Church. 179

Convinced that Johnston would likely continue his withdrawal towards Atlanta, Sherman did not expect much resistance on his way to Marietta. He, therefore, did not have a plan when fighting broke out at new Hope Church with one of Thomas's corps in the late afternoon of May 26th. Expecting only a small force, Sherman directed Thomas to press a frontal assault, assuming that a small confederate force would be easily overwhelmed. Unfortunately, Confederate Major General Alexander Stewart's Division from Hood's Corps was prepared to meet the assault with a prepared defense. By nightfall Thomas had suffered over 600 casualties and had been dealt a bloody-nosed repulse. ¹⁸⁰

On the 27th Sherman endeavored to conduct an envelopment of Confederates at New Hope Church. ¹⁸¹ He planned to continue to fix them with Thomas's forces while taking McPherson's combat power through Dallas to strike Johnston on his western flank. Sherman attempted to move up his artillery to conduct a proper attack. Unfortunately, confederates matched Thomas and he made little progress. In addition, later that afternoon Sherman received a report of heavy contact at Dallas with

¹⁷⁹ Eisenhower, American General, 182.

¹⁸⁰ Castel, *Decision in the West*, 226.

¹⁸¹ Sherman, Memoirs of General W. T. Sherman, vol. 2, 58.

McPherson. Sherman realized his speedy path to Marietta was blocked and his hopes of an envelopment dashed. 182

Having realized the strength of his enemy's disposition, Sherman aimed to attack in the east. He assumed that Johnston's strength in the west meant he had to weaken himself elsewhere. He tasked Thomas with finding Johnston's eastern flank and attacking it. While Sherman's maneuver caught Johnston's forces at Picket's Mill by surprise, U.S. Army forces acted slowly and the rebels rallied. 183

The U.S. Army attack was slow and uncoordinated through severely restricted terrain. Unsupported by artillery, U.S. Army soldiers paid a dear price for their frontal assault. The battle ended in a U.S. Army retreat that pushed Thomas's lines back north of Pumpkin Vine Creek. Sherman had actually ordered the attack canceled but the message reached too late. 184

Sherman once again adjusted. His men's sustainment was beginning to dwindle, and he had to get back to his lines of supply. He ordered McPherson to pull away from Dallas and move to meet Thomas's right on their way to the rail lines at Acworth.

Schofield was to protect the U.S. Army eastern flank. 185

As McPherson was beginning to conduct his movement north to leave Dallas, the confederates went on the attack. At 3:45 in the afternoon on the 28th of May the

¹⁸² Sherman, Memoirs of General W. T. Sherman, vol. 2, 59.

¹⁸³ Castel, *Decision in the West*, 237.

¹⁸⁴ Ibid., 235.

¹⁸⁵ Sherman, Memoirs of General W. T. Sherman, vol. 2, 60.

confederates plunged forward in the face of a well-developed U.S. Army defense supported by artillery. By 6:00 p.m. the rebel assault had withered to a halt. From the 28th to the end of May, the U.S. Army and rebel forces remained locked in their positions, unwilling to risk exposing a flank. Eventually Sherman continued his plan to maneuver back towards the rail line at Acworth. Apart from the confederate attack at Dallas, there is no getting around that fact that the U.S. Army and Sherman had been defeated.

The Conditions

From New Hope Church through the battle of Dallas, Sherman's planning was robust and if not effective. Again, the uncertainty condition and rationality condition combined to skew the effect of the tactics mechanism. When Sherman's perceptions of Johnston's actions were accurate, as they seemed to be directly following Resaca, his rational planning led to the employment of effective tactics. As Sherman's understanding diverged from reality, as it seems to do after crossing the Etowah, his rational planning led him astray.

Despite his tactical failures, Sherman continued to fight logistically. He placed a particular premium on extended it the depth of his operations. He places particular focus on repairing destroyed railroad lines as he continues south. His lines are robust enough to provide his army with 20 days of supplies after crossing the Etowah. That said, his decision to break from his lines of supply turnoff the logistics mechanism. After his

¹⁸⁶ Castel, *Decision in the West*, 247.

¹⁸⁷ Sherman, Memoirs of General W. T. Sherman, vol. 2, 60.

victory at Dallas, he again refocused on logistics, knowing it was the means by which he could continue his campaign. Sherman was clearly thinking beyond his immediate situation, enabling the logistics mechanism.

South of the Etowah, Sherman fell into a similar trap as he had at Resaca. He seemed overconfident. Throughout the campaign, Sherman has shown a lack of empathy towards Johnston. That is not to say he did not respect his abilities. Sherman would eventually come to praise Johnston years after the war for his tactical skill. At the time, however, Sherman seemed to put little effort into trying to understand Johnston.

This led Sherman to think that Johnston's default was to retreat. ¹⁸⁹ Despite his experience at Resaca, after pushing Johnston beyond the Etowah, Sherman continued to think Johnston would continue a rebel retreat to Atlanta. This again led Sherman to conduct a pursuit as opposed to a deliberate attack. From Dallas to Pickets Mill, infantry-heavy frontal assaults without artillery support characterized Sherman's tactics. They clearly led to failure and death.

Sherman did, however, maintain a strong understanding of his own force.

Towards the end of May he realized that his operational reach was approaching its limit.

He knew that unless he re-established his lines of supply he would culminate. This understanding drove the next step of his campaign and allowed him to continue his fight.

Despite his continued habit of staying up late into the night, the tempo of operations slowed after Resaca. Sherman and his troops took deliberate time to rest and

¹⁸⁸ Sherman, "The Grand Strategy of the War of the Rebellion."

¹⁸⁹ Castel, *Decision in the West*, 218.

recover.¹⁹⁰ As the intensity increased, especially towards the end of May, it is apparent that Sherman's mental state worsened. His dithering concerning Pickets Mill, uncharacteristic for him, led to a failed and costly assault. His hesitation to withdrawal McPherson almost resulted in his early culmination. Therefore, a trend seemed to emerge, relating operational tempo with Sherman's cognitive abilities.

The Tactics Mechanism

As mentioned above, the tactics mechanism was present, active, but had mixed results. When Sherman's cognitive condition was favorable, his understanding of the environment and his planning were all aligned, the tactics mechanism proved decisive. Sherman's performance from Resaca to the Etowah seemed to support that premise. When the cognitive, rationality, and uncertainty conditions were misaligned, disaster seemed always around the corner. Sherman's actions after crossing the Etowah highlight this idea.

The Logistics Mechanism

The logistics mechanism seemed less effected by adverse conditions. It seemed present, active, and effective throughout the operations north of the Etowah.

Interestingly, this was the first time in this campaign Sherman experimented with breaking way from his lines of supply. At some level, his willingness to break from conventional logistics wisdom generated surprise in his adversary. Johnston's experience at Allatoona pass seemed to exemplify this surprise. Johnston had assumed that Sherman

¹⁹⁰ Castel, *Decision in the West*, 216.

would give battle at Allatoona because it was the only way to maintain Sherman's lines.

Johnston seemed to have disregarded options otherwise. Thus, when Sherman did in fact break with convention it ruined Johnston's plan.

That said, he deliberately shut off his logistics mechanism crossing the Etowah.

He placed his forces at significant risk. At the end of the campaign U.S. Army forces were feeling the effects. Ultimately, the absence of the logistics mechanism south of the Etowah forced Sherman to abandon his operations and move back towards Acworth.

The Battle of Kennesaw Mountain

From the end of May to mid-June both Sherman and Johnston endeavored to reestablish themselves. Sherman focused on re-establishing his lines of supply along the railroad connecting him to Chattanooga. ¹⁹¹ His primary operational goal was to continue moving towards Marietta. ¹⁹² Sherman viewed Marietta as the base from which to leap across the Chattahoochee. Johnston focused on reorienting his defense around Marietta. Sherman seemed to have thought that Johnston would likely break contact south of the Chattahoochee. If Johnston were to stand anywhere north of the river, however, it would be in the formidable peaks north of Marietta. ¹⁹³

Sherman seemed in optimistic state of mind during this time. Despite a miserable and cold rain, he and his army had some respite from battle. He had reestablished his lines of supply and had received reinforcements. Personally, he had received the good

¹⁹¹ Eisenhower, American General, 185.

¹⁹² Castel, *Decision in the West*, 264.

¹⁹³ Ibid.

news that his wife Ellen has birthed a baby boy in good health. In terms of his view of his own performance, he seemed reserved but confident, stating on June 12th, "I think thus far I have played my game well." Sherman's optimism seemed to be driving him to think the situation was approaching its final end, a final decisive battle.

A lateral shifting of combat power from east to west characterized operations in June. Sherman arrayed his armies along the railroad leading towards Marietta. Thomas occupied Sherman's center and was his main effort. Sherman placed Schofield on Thomas's western flank and McPherson on Thomas's eastern flank. From May 5th until the 14th, Thomas initially arrayed himself from west to east along a line from Lost Mountain to Brush Mount north of Marietta. As Sherman maneuvered to occupy his position along the railroad, Johnston progressively adjusted his lines to the east. By June 17th Johnston had adjusted his western flank along Mud Creek and maintained his eastern flank along Bush Mountain. 195

Sherman continued to posture his forces for an offensive operation to take

Marietta. On June 22nd as Schofield maneuvered closer to Marietta from the west, John

Bell Hood attacked. Unfortunately for Hood, Schofield had already erected a robust

defense. Schofield repelled Hood's attack, forcing Hood to retreat, ending the opening act

of the battle of Kennesaw Mountain. 196

¹⁹⁴ Simpson, *Sherman's Civil War*, 646.

¹⁹⁵ Earl J. Hess, *Kennesaw Mountain: Sherman, Johnston, and the Atlanta Campaign* (Chapel Hill: The University of North Carolina Press, 2016), 12.

¹⁹⁶ Ibid., 34.

By June 24th Sherman had settled on attacking Johnston directly at Kennesaw Mountain in attempt to break his center and win a decisive battle. Sherman ordered McPherson to attack to feint from the north to allow Thomas to break Johnston's center. Schofield was tasked to attempt a flanking maneuver from the southwest. 197

Despite Significant misgivings, they executed their assault on the morning of June 27th. Both in the east with McPherson and in the center with Thomas, U.S. Army forces smashed against well-developed rebel defenses. In both sectors, U.S. Army soldiers struggled against both steep climbs and dense foliage as they attacked. The result was an overwhelming disaster. Despite robust intelligence of enemy positions and artillery support, Sherman's attack failed to find weaknesses in Johnston's lines. By the evening of the 27th, the rebels had forced Sherman to find another way. ¹⁹⁸

The Conditions

The battle of Kennesaw Mountain provides a divergent case in many respects.

Unlike previous battles, all three conditions seem optimal for effective activation of both the tactics and logistics mechanisms. The favorable conditions, thus, allow for a clearer understanding of them mechanisms themselves.

The rationality condition in this case seems ideally suited towards success.

Sherman has the time, energy, and resources to generate a plan of action. Based on the historical record he in fact does develop such a plan. Importantly, he develops his plan

¹⁹⁷ Castel, *Decision in the West*, 280.

¹⁹⁸ Ibid., 317.

early on the 24th of June, three days prior to his attack. ¹⁹⁹ Such a robust planning timeline should have provided his subordinates time to develop their own plans, conduct preparation, and rehearse. It also allowed for refinement of the plane and bottom-up feedback.

The uncertainty condition was also favorable to Sherman's success. Sherman had ample time to gather information on the strength, disposition, and composition of confederate forces. He also had a superior understanding of his own situation. He was able to conduct detailed inspections of his lines and talk directly to his commanders. Finally, his understanding of the terrain was fairly complete. He understood the effects of the terrain and had time to see it firsthand. Given all this information, Sherman's understanding of his situation was relatively accurate.

Sherman's cognitive condition was also favorable. Given the slow tempo of operations, Sherman had time to rest and recover. His general mood seems optimistic based on recent personal events and his progress in relation to Grant. ²⁰⁰ He also seems to feel as though he has the initiative, given his comments concerning a need for a decisive battle. Relative to any other time during his campaign towards Atlanta, Sherman's cognitive conditions seems to be at its peak.

The Tactics Mechanism

Given favorable conditions, the battle at Kennesaw Mountain allows for the clearest picture of how the tactics mechanism might work. It would seem that the

¹⁹⁹ Hess, Kennesaw Mountain, 62.

²⁰⁰ Castel, *Decision in the West*, 279.

conditions allowed for both the presence and activation of the tactics mechanism; however, in this particular case the type of tactics Sherman used seemed particularly critical.

Kennesaw Mountain provides the clearest example of the idea that tactics matter. Sherman decided to conduct a frontal assault. He attacked broadly across the enemy's front in the hopes of overwhelming rebel forces. His hope was that such an attack would expose a weak point somewhere along the line of battle for him to exploit. He supported his assault with robust artillery and sequenced his attack to provide his enemy simultaneous problems. Despite these measures, however, his tactics were no match for the realities of a strong rebel defense. Instead of providing the rebels multiple simultaneous problems, he provided them with simultaneous targets, resulting in utter failure.

Theories outside the scope of this study best explain Sherman's failure. Of note, Stephen Biddle's theory of force employment is instructive here. ²⁰¹ According to Biddle's theory, Sherman's tactics did not account for the devastating effects of modern firepower. They also did not successfully use fire to suppress enemy forces in order to allow for maneuver. Thus, Sherman's tactics exposed his soldiers to the full strength of rebel defensive firepower and ultimately led to his failure.

The Logistics Mechanism

The favorable conditions at Kennesaw Mountain led to the presence and effective activation of the logistics mechanism. With Sherman's lines re-established, he was able

²⁰¹ Biddle, *Military Power*, 27.

to reconstitute his combat power. More importantly, he was able to extend his operational reach beyond the Etowah River indefinitely. The result was, despite a devastating loss, Sherman was able to recover and continue to maneuver. At the conclusion of the fight at Kennesaw, he tasked McPherson with maneuvering from the north to the south to out flank Johnston. When Sherman asked McPherson what he required, McPherson responded that he would need six days of supply. Due to Sherman's robust logistics plan, McPherson received exactly that and was able to maneuver and force Johnston out of Marietta. Again, as before, Sherman's logistics proved operationally decisive.

The Battle for Peach Tree Creek and Atlanta

Following the costly maneuver against rebel forces at Kennesaw Mountain, Sherman aimed to maintain pressure on Johnston. Sherman continued to press Johnston well into July, pushing him to the south side of the Chattahoochee. ²⁰³ On July 8th elements of Schofield's army began crossing the Chattahoochee at Soap Creek, just north of Atlanta. ²⁰⁴ Sherman hoped to avoid Johnston's strong defensive position and attack Atlanta from the north.

Unfortunately, for Johnston despite having dealt Sherman several devastating blows, his continued habit of retreating had exasperated Jefferson Davis. On the evening of July 17th Johnston was relieved of command and replaced by Hood. Hood was known

²⁰² Castel, *Decision in the West*, 322.

²⁰³ Sherman, Memoirs of General W. T. Sherman, vol. 2, 86.

²⁰⁴ Ibid., 88.

for his aggression and zeal, though some doubted his other qualities.²⁰⁵ Regardless, he would be the one to face Sherman as the U.S. Army fought to seize Atlanta.

Sherman's plan was simple. He sought to isolate Atlanta and the rebels therein from the rest of the confederacy. From there he would conduct a classic siege until the rebels surrendered the city. ²⁰⁶ Based on where he crossed the Chattahoochee, Sherman endeavored to cut Atlanta off from north to south by way of the east. He tasked McPherson and Schofield with attacking Decatur from the east and the north respectively. Sherman tasked Thomas with attacking from the north towards Peach Tree Creek. ²⁰⁷ Knowing Hood had taken over from Johnston, Sherman assumed the rebels would stay and fight for Atlanta. ²⁰⁸

At mid-day on July 20th Hood went on the offensive and attacked Thomas at Peach Tree Creek. As Hood prepared to launch his offensive, however, he was informed of McPherson's nearly unopposed maneuver in Decatur. ²⁰⁹ Hood had to, therefore, delay his attack against Thomas to shift combat power east, causing significant confusion. Hood's attack resulted in an estimated 2,500 rebel casualties and failure. ²¹⁰

²⁰⁵ Castel, *Decision in the West*, 353.

²⁰⁶ Ibid., 359.

²⁰⁷ Sherman, Memoirs of General W. T. Sherman, vol. 2, 87.

²⁰⁸ Castel, *Decision in the West*, 367.

²⁰⁹ Sherman, Memoirs of General W. T. Sherman, vol. 2, 90.

²¹⁰ Castel, *Decision in the West*, 381.

On Sherman's part, he had assumed Hood's main effort was in the east. Upon discovering, that Hood had in fact massed to the north against Thomas, Sherman sensed opportunity. Unfortunately, McPherson again hesitated and did not take the opportunity to seize Atlanta unopposed then and there. On the 21st of July, however, McPherson redeemed himself by seizing Bald Hill from where he cold bombard Atlanta proper. At this point Sherman had begun transitioning to thoughts for his siege. He had published orders to his commanders to begin digging-in.²¹¹

Hood saw the need to re-orient in the direction of Decatur and ordered an attack for the 22nd. Having already invested themselves, McPherson's men beat back the rebel attack in 45 minutes. Sadly, a small rebel outpost killed McPherson towards the end of the battle. From the 22nd of July until September Sherman methodically isolated Atlanta route by route. On September 1st Hood conceded the prize and Atlanta was fairly won.

The Conditions

The final phase of the campaign to seize Atlanta was almost the inverse of Kennesaw Mountain. Sherman again had favorable conditions, yet this time his tactics were decisively effective. The difference between Kennesaw Mountain and Atlanta was the combination of his tactics mechanism with his logistics mechanism.

²¹¹ Sherman, Memoirs of General W. T. Sherman, vol. 2, 94.

²¹² Castel, *Decision in the West*, 398.

²¹³ Eisenhower, *American General*, 200.

As Sherman crossed the Chattahoochee, he found himself with the luxury of time. He had time to cross, time to recover, and time to think. In Atlanta the rationality condition was favorable to both his tactics and logistics. Sherman envisioned an envelopment that would give Hood more problems than he could manage at one. His logistics enabled his tactics. He was able to array his forces across the breadth of the battlefield because of his ability to move and sustain combat power.

Time also allowed him the ability to reduce his uncertainty. Additionally, as he slowly cut Atlanta off from the rest of the world, he was reducing Hoods options for action thus decreasing his own uncertainty. His robust lines of communication also allowed him to receive information from his own forces rapidly, increasing his understanding across the battlefield.

Finally, in terms of his cognitive condition, the situation seemed favorable. After crossing the Chattahoochee Sherman's sense of confidence seems to have solidified, despite the defeat at Kennesaw Mountain. He was also relatively well rested and in good spirits.

Unification of the Tactics-Logistics Mechanism

The Battle for Atlanta is the culminating act of his campaign. His tactics best fit the situation at hand for several reasons. First, He takes advantage of his strength in numbers. Sherman's envelopment from the north at Peach Tree Creek and the east at Decatur, forced Hood to make a difficult decision as to his disposition. Hood either could protect himself from Thomas or from Schofield; he could not do both adequately.

Second, he sequenced his operation towards the ultimate aim of seizing Atlanta.

Sherman's decision to begin his operation by isolating Atlanta ensured that Hood had

limited options. By subsequently digging-in his forces, he solidified his gains, ensuring that even if hood had massed against any one of his armies, U.S. Army forces would be able to withstand the attack (as they did near Decatur).

Perhaps most importantly, Atlanta represents the unification of his logistics and tactics mechanism. His robust lines of supply and personnel overmatch allowed him to operate at a breadth that over-stretched Hood's capabilities. In fact, it is fair to say that Sherman's logistics decisively enabled his ability to envelop Hood.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Sherman's campaign to seize Atlanta in 1864 provides strong evidence that winning can matter. The evidence supports the assertion that tactics can matter given the presence of strong logistics and permissive conditions. The evidence consists of official records, personnel correspondence, memoirs, and several secondary sources. This evidence generated a narrative from William T. Sherman's point of view focused on those things that influenced Sherman's decisions.

Like all narratives, the study was chronological. The units of measure were the eight battles involving the entirety of Sherman's Army on his campaign to seize Atlanta in 1864. The study then analyzes each battle in relation to three conditions and two causal mechanisms. The three conditions define Sherman's narrative environment and are composed of a rationality condition, cognitive condition, and an uncertainty condition. The Clausewitzian trinity acted as the conceptual basis for the three conditions. There are two proposed mechanisms that connect tactical actions to operational objectives. The first is the tactics mechanism and the second is the logistics mechanism. These mechanisms worked within the context of the three conditions. The state of the conditions activated and deactivated each of the mechanisms.

Purpose

This study's conceptual framework used a simplistic process-tracing methodology. ²¹⁴ Given the current state of the literature, the purpose of this study will be to identify if the proposed causal mechanisms were present and under what conditions they become active or in active. While outside of the scope of this study, it begins to provide insight concerning how the mechanism actually work.

Problem Statement

The overriding assumption of military theory is that winning matters. Specifically, the military assumes that making good decisions and winning battles leads to the achievement of operational objectives. The historical record seems to challenge that assumption. This study primarily seeks to find evidence that such a connection exists. It also attempts to gain insight concerning how tactical decisions relate to the achievement of stated operational objectives.

Primary Research Question

In the context of Sherman's campaign to seize Atlanta, did Sherman's tactical decisions in battle relate to the achievement of broader outcomes in his campaign to seize Atlanta?

Secondary Research Question

The second dimension of the problem relates to the mechanisms at work that connect tactical actions to operational objectives. Specifically, what decision-making

²¹⁴ Beach, *Process-Tracing Methods*, 35.

mechanisms determine whether a tactical success has bearing on the achievement of stated operational objectives?

Organization

This final chapter consists three sections. The first section, findings, will review the outcome of the study, the possible interpretation of the findings, and the implications of the findings. The second section will discuss recommendations for further study. The final section will summarize the major themes and point of the study.

Findings

Based on the case study of William T. Sherman's 1864 campaign to seize Atlanta, tactical decisions can lead to the achievement of operational outcomes. In other words, this study partially supports the hypothesis that tactical decision-making is positively correlated to the achievement of operational objectives. As the study relates to the second research question, the condition for successful transition from one battle to the next was the presence of either an effective tactics mechanism or an effective logistics mechanism. That said, tactics and logistics were most effective when they were unified as demonstrated during the final battle at Atlanta.

It is important to note, however, the data could also support the idea that the only requirement for success is an effective logistics mechanism. While the activation of the tactics mechanism varied throughout the campaign, the logistic mechanism remained activated throughout almost all the battles except for one (New Hope Church-Pickets Mill-Dallas). In that case, the tactics mechanism failed and the logistics mechanism was degraded, presumably leading to the overall failure of the battle. Therefore, it remains

relatively unclear what would have occurred if Sherman had effective tactics and ineffective logistics.

Overall, the findings seem to point to an anomaly in the current theory of victory in the operational level of war. The data seem to challenge the well-established belief that effective tactics leads to the achievement of operational objectives. Sherman's campaign is rife with tactical failure. These failures were not inconsequential. In all the battles he lost, Sherman suffered greater casualties than his adversary, failed to secure terrain, and did not accomplish stated objectives. Yet despite, these failures Sherman was able to continue his campaign with remarkable success. This simple mismatch, forces professionals to confront the reality that the current definition of victory may overemphasize tactics. Specifically, the evidence points to the logistics mechanism as the primary vehicle for continued progression in a campaign. Furthermore, the tactics mechanism seems to relate to the logistics mechanism by the cost/benefit associated with accomplishing an objective and how that costs/benefit relates to the next step along the line of operations.

That said questions remain. For example, perhaps only some tactical victories matter. For instance, if Sherman had lost tactically in the final battle for Atlanta, the effect of logistics would be inconsequential. That implies that the logistics mechanism is only decisive as long as it gets an army to a specific decisive battle.

Another important question is one of typology. This study only endeavored to identify the presence of the tactics and logistics mechanisms. It does not address which systems tactics and logistics are most effect. As mentioned early, Stephen Biddle's

treatment of force employment may be a corresponding theory compares one set of tactics to another.²¹⁵

Finally, and perhaps most importantly, this study focused on the effect of Clausewitzian conditions and the tactics-logistics mechanism on Sherman alone. A more robust analysis would include the interaction between Sherman's conditions and tactics-logistics mechanism and the conditions and mechanisms of his adversary.

The Battles

There were eight battles included in the study. The study defined success or failure from the perspective of the protagonist, William T. Sherman. A battle was success if, at end-state, Sherman's armies accomplished their stated tactical objectives.

Given these requirements, Sherman's campaign consisted of four defeats and four losses. The tactical success-failure ratio is one-to-one. The study evaluated each battle against two proposed causal mechanisms within the context of three conditions. The mechanisms were assessed as present-not present, active-not active, and effective-ineffective. For a mechanism to be present there had to be evidence of both a mechanistic actor (Sherman) and a mechanistic process (operations process—plan, prepare, execute, assess). For a mechanism to be activated its actors and processes had to influence the environment. Effectiveness was judge based on whether the mechanism aided or hindered the achievement of stated objectives.

²¹⁵ Biddle, *Military Power*, 209.

The tactics mechanism was present and active in eight of eight battles. It was effective in three of eight cases. The logistics mechanism was also present and active across eight of eight battles. It was effective in five of eight battles.

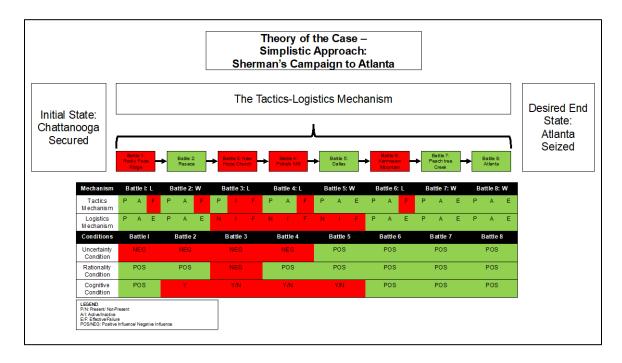


Figure 1. Campaign Analysis

Source: Created by author.

Three battles were particularly instructive in understanding the interaction and behavior of the tactics-logistics mechanism. The first was the set of battles for New Hope Church-Pickets Mill-Dallas. These were unique because they were the only battle were Sherman separated himself from his supply lines. The first two battles were failures and offensive. The final battle was a success and defensive. The variation in success and failure along offensive and defensive lines seems to imply that the type of tactics implored matters as it relates to success. In fact, throughout Sherman's campaign there

seems to be a trend of failure in the offense and success in the defense. The absence of the logistics mechanism reinforces the idea that such a relationship exists. While it is clear that three cases are not enough to establish a robust correlation, it does point to a possible anomaly for further study.

The second interesting case was the battle for Kennesaw Mountain. Kennesaw was unique because of the favorability of the conditions. This case was the only battle where the Clausewitzian conditions were all favorable and yet the battle still led to failure. In this case, one could not attribute Sherman's failure to a lack of information, poor planning, or even Sherman's cognitive state. This implies that perhaps, force employment along the lines of Biddle's military power theory was instrumental to success or failure.

The final unique case, the battle for Atlanta, highlights the compound effectiveness of tactics and logistics. In this case Sherman had favorable conditions and effective activation of both the tactics and logistics mechanisms. This battle seemed to support the idea that the most effective outcomes occur when commanders effectively leverage tactics and logistics.

Paths for Further Study

Given the limitations of this study, there are several avenues for continued investigation. Perhaps the most intriguing relates to how the tactics-logistics mechanism operates. Based on the initial findings of this study, figure below illustrates possible model that aligns with the data and synths well with force employment theories. In the model the curve represents the flow of combat over time. The dotted line represents the minimum threshold for accomplishment of a given objective. The logistic mechanism

dictates the flow of combat power of time (it is important to note the logistics machinist in not the flow of personnel and material itself). The arrow between the curve and the success threshold represents the tactics mechanism. The tactics mechanism can either be the means by which a commander employed force to rise to the success threshold or it can be the margin for error a commander has if they are in a material position of advantage.

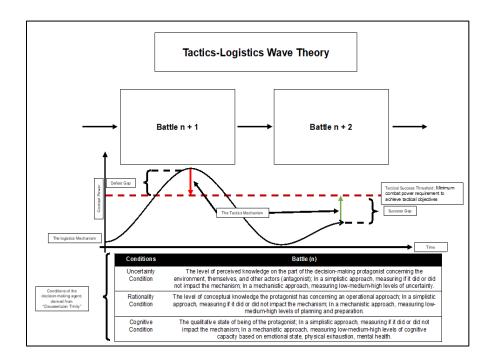


Figure 2. A Theory of Tactics-Logistics Waves

Source: Created by author.

In a more theoretical vein, future studies could first test the capacity of the logistics mechanism to generate combat power flows over time. They could then test the premise that combat power ratios relate to tactical success or failures. Finally, they could

attempt to understand the degree to which force employment can overcome or squanders a combat power differential between two forces.

In a more historical focus, future study could perhaps look at another campaign in which there may have been greater variation the logistics mechanism. A good example may be Sherman's campaign to Savanah. In his famous "March to the Sea," Sherman deliberately cuts himself off from supplies to enable increased tempo and maneuverability. Such a case study could gain further insight as to the strength of the logistics mechanism. Another example could be Napoleon's campaign towards Moscow where he inadvertently cut himself from his lines of supply.

Finally, the most complex line of inquiry relates to the interaction of adversary tactics-logistics mechanism. The figure 3 illustrate a possible model for tactics-logistics mechanism interaction. In this model, the minimum success threshold is defined by the interaction with an adversary T-L Waves. As the figure demonstrates, two T-L waves interact not unlike standard physical waves. Peaks and troughs amplify and mute each other to create interference patterns. One can further adjust the model to include environmental effects as well.

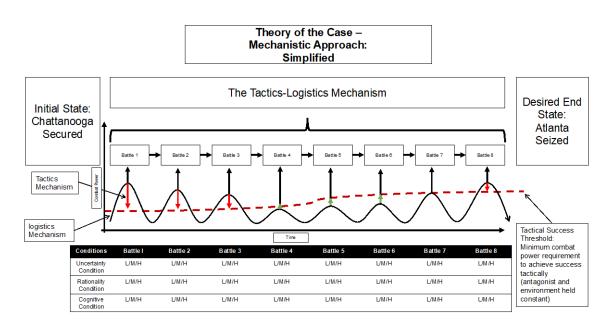


Figure 3. A Mechanistic Approach to a Theory of Tactics-Logistics Waves *Source:* Created by author.

Conclusion: Does Winning Matter?

It seems fairly obvious that winning has always and will always matter in war. It is so obvious that some might even say it was presumptuous or "silly" for this study to even ask such a fundamental question. Perhaps it was silly, considering this study's findings support the basic premise. That said the findings were not conclusive. The study did not find that winning always mattered. It also did not find that winning never mattered. Instead, it found something in-between, something messy. It found that under some conditions winning mattered and in other conditions it did not. The study left several loose ends. For instance, how does force employment increase or decrease the strength of the tactics mechanism. The study also begs the question, how does the logistics mechanism build combat power and do different ratios of combat power matter? Perhaps most importantly, the study says little about the adversary's decision-making

cycle and conditions. There are lots of loose ends indeed. The thing about loose ends is they beg pulling. If one pulls long enough, one might find a belief, once seen as obvious, may begin to unravel.

BIBLIOGRAPHY

- Beach, Derek, and Rasmus Brun Pedersen. *Process-Tracing Methods: Foundations and Guidelines*. Ann Arbor: University of Michigan Press, 2019.
- Berger, Peter L., and Thomas Luckmann. *The Social Construction of Reality: a Treatise in the Sociology of Knowledge*. New York, NY: Anchor Books, 2011.
- Biddle, Stephen D. *Military Power: Explaining Victory and Defeat in Modern Battle*. Princeton, NJ: Princeton University Press, 2010.
- Bonura, Michael A. *Under the Shadow of Napoleon: French Influence on the American Way of Warfare from the War of 1812 to the Outbreak of WWII*. New York, NY: New York University. Press, 2012.
- Boyd, John, and Grant Tedrick Hammond. *A Discourse on Winning and Losing*. Maxwell Air Force Base, AL: Air University Press, 2018.
- Castel, Albert E. "Sherman: Propaganda as History." *The Journal of Military History* 67, no. 2 (2003): 405–426.
- Castel, Albert E., and Laura Kriegstrom Poracsky. *Decision in the West: the Atlanta Campaign of 1864*. Lawrence: University Press of Kansas, 1995.
- Clausewitz, Carl von. *On War*. Edited by Michael Howard, and Peter Paret. Princeton, NJ: Princeton University Press, 1989.
- Columbia University, School of International and Public Affairs. "Stephen Biddle." Accessed November 2, 2020. https://www.sipa.columbia.edu/faculty-research/faculty-directory/stephen-biddle.
- Conrad, Justin. *Gambling and War: Risk, Reward, and Chance in International Conflict.*Annapolis, MD: Naval Institute Press, 2017.
- Eisenhower, S.D. John. *American General: The Life and Times of William Tecumseh Sherman*. New York, NY: New American Library, 2015.
- Freedman, Lawrence. *Strategy: A History*. New York, NY: Oxford University Press, 2015.
- Gaddis, John Lewis. *The Landscape of History: How Historians Map the Past*. Oxford, UK: Oxford University Press, 2004.
- Grant, Ulysses S., and Elizabeth D. Samet. *The Annotated Memoirs of Ulysses S. Grant.* New York, NY: Liveright Publishing Corporation, a division of W. W. Norton & Company, 2019.

- Hart, B.H. Liddell. *Sherman*. Westport, CT: Greenwood Press, Publishers, 1978.
- Headquarters, Department of the Army. Army Doctrine Publication 3-0, *Operations*. Washington, DC: Army Publishing Directorate, 2019.
- ———. Army Doctrine Publication 4-0, *Sustainment*. Washington, DC: Army Publishing Directorate, 2019.
- ——. Army Doctrine Publication 6-0, *Mission Command: Command and Control of Army Forces*. Washington, DC: Army Publishing Directorate, 2019.
- Herodotus, and Robert B. Strassler. *The Landmark Herodotus: The Histories*. New York, NY: Anchor Books, 2009.
- Hess, Earl J. Kennesaw Mountain: Sherman, Johnston, and the Atlanta Campaign. Chapel Hill: The University of North Carolina Press, 2016.
- Jessup, John E., and Robert W. Coakley. *A Guide to the Study and Use of Military History*. Washington, DC: Center of Military History United States Army, 2000.
- Johnson, Bradley Tyler. A Memoir of the Life and Public Service of Joseph E. Johnston: Once the Quartermaster General of the . . . Army of the United States, and a General in the Army of the Confederate States of America. Franklin Classics, 2017. https://support.creativemedia.io/.
- Joint Chiefs of Staff. Joint Publication 1, *Joint Doctrine*. Washington, DC: Office of the Joint Chiefs of Staff, 2018.
- ———. Joint Publication 3, *Joint Operations*. Washington, DC: Office of the Joint Chiefs of Staff, 2018.
- Kahneman, Daniel. *Thinking, Fast and Slow*. New York, NY: Farrar, Straus and Giroux, 2015.
- Kamp, Jeanette, Susan Legêne, Matthias van Rossum, and Sebas Rümke. *Writing History!: A Companion for Historians*. Amsterdam: Amsterdam University Press, 2020.
- Kuhn, Thomas S. *The Structure of Scientific Revolutions*. 4th ed. Chicago, IL: The University of Chicago Press, 2012.
- Luce, Don, and Howard Raiffa. *Games and Decisions: Introduction and Critical Survey*. New York, NY: John Wiley, 1966.
- McMaster, H. R. Battlegrounds. New York, NY: Harper Collins Publishers, 2020.

- ——. Dereliction of Duty: Lyndon Johnson, Robert McNamara, the Joint Chiefs of Staff, and the Lies That Led to Vietnam. New York, NY: HarperPerennial, 2017.
- Murray, Williamson, and Wayne Wei-siang Hsieh. Savage War: A Military History of the Civil War. Princeton, NJ: Princeton University Press, 2018.
- Nolan, Cathal J. *The Allure of Battle: A History of How Wars Have Been Won and Lost.* New York, NY: Oxford University Press, 2019.
- Organski, Abramo F.K., and Jacek Kugler. *The War Ledger*. Chicago, IL: University of Chicago Press, 1991.
- Paret, Peter, ed. *Makers of Modern Strategy: from Machiavelli to the Nuclear Age*. Princeton, NJ: Princeton University Press, 1986.
- Rao, Venkatesh. *Tempo: Timing, Tactics and Strategy in Narrative-Driven Decision-Making.* Detroit, MI: Ribbon Farm Inc., 2011.
- Ricks, Thomas E. *The Generals: American Military Command from World War II to Today*. New York, NY: Penguin Books, 2013.
- Rosenau, J. N. The Scientific Study of Foreign Policy. London: Pinter, 1980.
- Sherman, William T. *Memoirs of General W. T. Sherman*. Vols. 1-2. New York, NY: Library of America, 2007.
- ——. "The Grand Strategy of the War of the Rebellion." *Century Magazine* 35, no. 7 (November 19, 1887): 580–598.
- Simpson, Brooks D., and Jean V. Berlin. *Sherman's Civil War: Selected Correspondence of William T. Sherman, 1860-1865.* Chapel Hill: The University of North Carolina Press, 1999.
- War Department. *Official Records of the War of the Rebellion*. Washington, DC: U.S. National Archives, 1887.