War by Coalition: The Effects of Coalition Military Institutionalization on Coalition Battlefield Effectiveness

by

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A.B., Dartmouth College (2002)

Submitted to the Department of Political Science
In Partial Fulfillment of the Requirements for the Degree of

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ABSTRACT

What accounts for variation in the military performance of coalitions and alliances on the battlefield? This dissertation presents and tests a realist-institutionalist theory of coalition military effectiveness, which accounts for both the process of capability aggregation within military coalitions and its implications for coalition fighting effectiveness. It posits that variation in the design of coalition institutions for political-military planning, command relationships and information exchanges significantly affects the ability of member nations to fight alongside each other on the battlefield. According to the theory, coalition military institutions provide the key mechanisms through which coalition members manage intra-alliance uncertainties and fears, thereby allowing for closer coordination of their war effort. The most effective military coalitions adopt joint political-military coalition planning, unity of command with an integrated command staff, and the fluid exchange of information among coalition nations.

The study tests this theory through a mixed-methods approach, complimenting a medium-n statistical analysis with two detailed case studies of coalition wars fought under conditions chosen to provide maximum theoretical leverage. The medium-n statistical analysis examines all interstate coalition wars waged between 1816 and 2007 using the Correlates of War Inter-state War Data (version 4). Using primary documents, memoirs and battle histories, the study tests realist-institutionalist theory in two empirical cases: France and Britain in the First World War (1914-1918) and France and Britain in the Battle of France (May-June 1940). The main finding is that variation in the design of coalition military institutions accounts for differences in coalition battlefield effectiveness both across and within coalitions over time.

The study makes three principal contributions. First, it offers the first serious treatment of coalition military effectiveness in the academic literature. Unlike other research, it expands beyond national military effectiveness to consider the coalition dimension. Second, the study contributes to a growing body of research suggesting the importance of non-material variables to explanations of military effectiveness, drawing attention to the critical importance of coalition military institutions for combat power. Finally, the study informs the public policy debate, suggesting whether the US and other allies could achieve battlefield success more quickly, with fewer casualties and at lower costs if it acted through ad-hoc military coalitions or institutionalized alliances.

Thesis Supervisor: Barry R. Posen
Title: Ford International Professor of Political Science
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<table>
<thead>
<tr>
<th>Chapter One:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Introduction</em></td>
<td>6</td>
</tr>
<tr>
<td>Chapter Two:</td>
<td></td>
</tr>
<tr>
<td><em>What is coalition military effectiveness?</em></td>
<td>24</td>
</tr>
<tr>
<td>Chapter Three:</td>
<td></td>
</tr>
<tr>
<td><em>A Theory of Coalition Military Effectiveness</em></td>
<td>49</td>
</tr>
<tr>
<td>Chapter Four:</td>
<td></td>
</tr>
<tr>
<td><em>An Empirical Examination of the Determinants of Coalition Military Effectiveness</em></td>
<td>114</td>
</tr>
<tr>
<td>Chapter Five:</td>
<td></td>
</tr>
<tr>
<td><em>Franco-British Coalition Military Effectiveness, 1914-1918</em></td>
<td>142</td>
</tr>
<tr>
<td>Chapter Six:</td>
<td></td>
</tr>
<tr>
<td><em>Franco-British Coalition Military Effectiveness, May 1940</em></td>
<td>266</td>
</tr>
<tr>
<td>Chapter Seven:</td>
<td></td>
</tr>
<tr>
<td><em>Conclusion</em></td>
<td>342</td>
</tr>
<tr>
<td>Maps and Figures</td>
<td>357</td>
</tr>
</tbody>
</table>
INTRODUCTION

At least since the time of the Peloponnesian Wars, through the Napoleonic Wars and the twentieth century’s First and Second World Wars, to the recent conflicts in Afghanistan and Libya, the enduring pattern of interstate conflict has been coalition warfare. For the United States, this historical pattern holds especially true: Beginning with the Revolutionary War, the US has waged all its major wars and military interventions alongside allies on the battlefield. Indeed, the norm of coalition war is deeply entrenched in American foreign policy. The most recent Quadrennial Defense Review reaffirms, “In recent years alone, we have cooperated with European allies and partners on operations in Afghanistan and Libya and have joined forces with Asian allies and partners on regional security issues. These and other key networks of alliances and partnerships, many of which are with other leading global military powers, will undergird the ability of the United States to face future crises and contingencies.” In any future military contingencies, then, whether humanitarian interventions, peacekeeping operations to end civil wars, or conventional inter-state wars, the US will almost certainly fight with allies at its side. Coalition warfare will thus continue to shape the course of world history in the century to come.

The long history of coalition warfare attests, however, that not all military coalitions are equally effective on the battlefield. In 1948, 1967 and again in 1973, Arab military coalitions possessed significant quantitative advantages but proved unable to defeat Israel on the

1 Scholars generally regard the Spanish-American War (1898) as a notable exception to this tradition of coalition warmaking. See Walter A. McDougall, Promised Land, Crusade State: The American Encounter with the World since 1776 (Boston: Houghton Mifflin Company, 1997), especially Chapter 2, pp. 39-56.
battlefield. Similarly, for all the adoration of German combat effectiveness during the First and Second World Wars, German military forces failed on the whole in either war to fight effectively in concert with their allies. Indeed, Germany’s many failures in waging coalition warfare, especially on the eastern front, contributed significantly to its ultimate defeat in both world wars. More recently, the coalition effort to secure and stabilize Afghanistan experienced significant difficulties, owing to troop limitations, equipment shortages and national caveats.

Importantly, coalition military effectiveness—understood as, a coalition’s ability to create, sustain and employ maximum war-fighting capabilities from its material resources—often


varies widely even over the course of a war. The Franco-British alliance fought ineffectively for much of the First World War, but through a process of trial and error, developed into an effective coalition to win the war. Twenty-two years later, however, despite their history of successful coalition warfare, the Franco-British alliance would suffer a stunning, swift and decisive defeat to Nazi Germany. Similarly, the Anglo-American alliance was often outfought early in the Second World War, only to become a model of successful coalition war making in 1944-1945. What accounts for such variation in the military performance of coalitions and alliances on the battlefield? In other words, why are some military coalitions able to fight together more effectively on the battlefield than others? And, why does coalition military effectiveness at times vary widely over the course of a war?


This dissertation seeks to answer these important questions by developing and testing a realist institutionalist theory of coalition military effectiveness, which accounts for both the process of capability aggregation within military coalitions and its implications for coalition military effectiveness. My core argument is that coalition military effectiveness requires allied states to transform their national military capabilities and material resources into coalition military capabilities, and this process of capability aggregation depends critically on coalition military institutions. Material resources clearly matter for coalition military effectiveness, but not all military coalitions are equally adept at marshaling those resources into coalition fighting power, as not all military coalitions institutionalize their military cooperation. Coalition military institutions are critical because provide the key mechanisms through which coalition members manage intra-alliance uncertainties and fears, thereby allowing for closer coordination of their war effort. Military coalitions with highly institutionalized political-military cooperation are likely to maximize their ability to turn their national resources into coalition fighting power on the battlefield, whereas military coalitions with absent or minimal institutionalization are likely to generate levels of coalition military power substantially less than the some of their parts. Coalition military institutions are thus the key intervening variable between allied material capabilities and coalition military effectiveness.

EXISTING LITERATURE

The study of international relations has resulted in a great outpouring of theories and empirical research on alliances, most notably in exploring the causes of alliance formation, the relationship between alliances and the occurrence of war, and the reliability of alliance
commitments. Most studies of alliances end, however, with the outbreak of hostilities. Despite the centrality of military coalitions to both the practice and study of international relations throughout history, we thus far know very little about what determines the military effectiveness of coalitions.

This gap in the existing literature is especially puzzling, because wartime coalitions are instrumental to maintenance of the balance of power. As the core theoretical proposition of realist international relations theory, the balance of power holds that states are foremost concerned with their survival as independent actors in the system, and that the best means of ensuring that survival is to prevent a preponderance of power by any one state or alliance, using war to achieve that end if necessary. Accordingly, when a state threatens to dominate the

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12 Noted exceptions are Glenn H. Snyder, Alliance Politics (Ithaca: Cornell University Press, 1997); Weitsman, Dangerous Alliances: Proponents of Peace, Weapons of War.


system, other states respond by building up arms and forming a countervailing coalition to dissuade the threatening state from pursuing hegemony.\textsuperscript{15} If the threat of force fails to deter a state from its pursuit of hegemony, the final move in restoring the balance of power is war.\textsuperscript{16} Military coalitions are thus the primary means by which states check a potential hegemon in balance-of-power theory. Military coalitions are so central to international politics that George Liska concludes, “It is impossible to speak of international relations without referring to alliances; the two often merge in all but name.”\textsuperscript{17}

That most studies of international relations, even those from a realist approach, have “black-boxed” war, treating it as a single aggregated observation with no internal processes, is to exclude from serious study one of the fundamental causal mechanisms of balance-of-power theory—that of, aggregating individual states’ military capabilities in coalitions, transforming those national capabilities into coalition fighting power, and successfully employing coalition military power on the battlefield against a would-be hegemon. In other words, limiting the study


\textsuperscript{17} Liska, \textit{Nations in Alliance: The Limits of Interdependence}, 2.
of military coalitions to peacetime precludes full examination of the causal path by which states actively maintain the balance of power according to theory.

Even if systemic measures of prewar military capabilities, such as gross national product and population size, predict the final outcomes of such wars, it tells us little about how states actively cooperate together in wartime to achieve those outcomes.18 Scholars are all but unanimous in attributing the victory of the Grand Alliance in World War II to the simple fact that the Allies both vastly outnumbered and outproduced the Axis.19 In this view, victory was the natural, inevitable outcome of overwhelming superiority in manpower and resources. This is at best an unsophisticated argument. Richard Overy notes astutely, “The Allies did not have victory handed to them on a plate; they had to fight for it.”20 It fails to account for the relative success or failure of either side in converting those raw materials into actual fighting power, that of, how well either side used those weapons and other matériel on the battlefield. If anything, this explanation gives rise to new empirical puzzles: If states know that structure determines

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outcome, with victory in a prolonged war conferred to the side with the largest productive base, then why do states, like Nazi Germany, fight wars that they knew they are certain to lose; why did the Nazis appear on the verge of European hegemony by mid-1942, when its empire of four hundred million people stretched from the Mediterranean to the Arctic, from the English channel to the Black Sea; and why if Allied victory was inevitable did it only come as the cost of so many lives, so much suffering and so much physical damage and only after more than four long years of war. Paul Kennedy raises similar questions in the history the First World War, asking, “If victory in a prolonged Great Power war usually went to the coalition with the largest productive base, the obvious questions arise as to why the Allies were failing to prevail even after two or three years of fighting-and by 1917 were in some danger of losing-and why they then found it vital to secure American entry into the conflict.”\textsuperscript{21} To begin to understand such questions, we must open the “black box” of war, taking account of wartime politics and decisions, and exploring how fighting wars through military coalitions affects the conduct, duration, and outcome of such wars. In rigorously studying wartime coalitions, we thus have the opportunity to develop a better understanding of the core workings of the balance-of-power mechanism.

To this end, a burgeoning literature on military effectiveness raises questions about the deterministic nature of many realist arguments, suggesting that what happens during a war profoundly affects its outcome. These scholars argue that conventional assessments of military power based on material resources are seriously incomplete in failing to account for how states translate those resources into actual combat power in war. Instead, they argue for the causal weight of nonmaterial sources of military effectiveness, such as domestic political institutions,

culture, social and ethnic cleavages, civil-military relations and regime type.22 In his study of the Indian army, Stephen Rosen explores the relationship between social order and military power, arguing that the amount of military power generated by a state varies with the divisiveness of social structures.23 Kenneth Pollack analyzes the tactical proficiency of Arab militaries, finding their soldiers are poorly led, their leaders fail to communicate in the chain of command, and they are incompetent in handling their weapons, which he attributes to Arab culture.24 Both Risa Brooks and Caitlin Talmadge examine the relationship between civil-military relations and battlefield performance. According to Brooks the balance of power between civilian leaders and military organizations shapes military effectiveness, specifically shared power arrangements tend to prevent countries from realizing their full military potential.25 Talmadge locates the sources of military effectiveness in military organizational practices that military adopt, arguing regimes facing significant coup threats are unlikely to adopt organization practices optimized for

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conventional combat.\textsuperscript{26} One of the most important findings of this literature, and hence also the most vigorously contested, is that democracies, whether because they have bigger economies, form stronger alliances, make better decisions, have higher levels of public support, or garner greater effort from their soldiers, display superior military effectiveness than autocracies.\textsuperscript{27} In short, these studies offer a more nuanced understanding of the sources of military effectiveness, drawing attention to a range of variables beyond material attributes that may influence national military effectiveness.

Heretofore, however, there has been minimal exploration of the sources of coalition military effectiveness. Even military historiography tends to recount military campaigns and battles from different national military perspectives, with limited attention to the coalition contribution on the battlefield. For example, while a great deal has been written about the Fall of France in 1940, most of these works tend to explain the defeat as a singularly French event. The Fall of France in 1940, however, was an \textit{Allied} defeat and therefore any understanding of the debacle must be placed in the context of the Franco-British alliance.\textsuperscript{28}

In addition, much of the growing literature on military effectiveness focuses on largely static variables, whether regime type, social cleavages or culture, which have limited explanatory


\textsuperscript{28} On this point, see Cairns, "Some Recent Historians and the 'Strange Defeat' of 1940," 60-85; Young, \textit{In Command of France: French Foreign Policy and Military Planning, 1933-1940}. 15
power in across-time, within-case variation in military performance. In example, democracies may fight more effectively than autocracies, as claimed by “democratic triumphalists”; however, if regime type remains constant over the course of a war, which is generally the case, democratic advantages or autocratic disadvantages cannot account for variation in wartime military performance. In expanding beyond national military effectiveness to consider the coalition military effectiveness, and by developing an explanation for significant across-time, within-case variation in coalition military effectiveness at the operational level of war, this dissertation offers important corrections to the literature.

POLICY RELEVANCE

This dissertation has significant implications for American foreign policy and military planning. Given that coalition warfare continues to shape the course of world events even after more two thousand years, we ignore it at our peril, no matter how difficult or complex it may be to comprehend. It is therefore critical for both American foreign policy and international relations theory to understand the sources of variation in coalition military effectiveness. With the norm of coalition warfare deeply entrenched in the American military tradition, the United States will almost certainly wage coalition warfare in any future wars or military interventions. What is far less certain, however, is whether the United States will be more likely achieve its strategic objectives in the future by waging such wars through highly institutionalized, longstanding military alliances, such as the North Atlantic Treaty Organization (NATO), or through ad-hoc, temporary coalitions of states that coalesce to pursue a common objective. For

29 For a similar argument, see Talmadge, The Dictator's Army: Battlefield Effectiveness in Authoritarian Regimes, pp. 27-28.
30 Weitsman also raises this question. See Weitsman, Waging War: Alliances, Coalitions and Institutions of Interstate Violence, pp. 3-5, 38-39, 75-76.
all of the debate about American unilateralism under the first term of the George W. Bush presidency, the more typical pattern for the US during these years was to turn to a more flexible form of multilateralism, averting highly institutionalized alliances in favor of waging the wars in Iraq and Afghanistan through loosely organized military coalitions of like-minded nations under its leadership.\textsuperscript{31} This dissertation hopes to inform this contemporary foreign policy debate by providing a theoretically informed understanding of coalition military effectiveness. At issue is not simply whether the US is likely to emerge victorious in such wars, but whether it could achieve such victories more quickly, with fewer casualties and at lower costs if it acted through ad-hoc military coalitions or institutionalized alliances.

ARGUMENT IN BRIEF

The challenge for all military coalitions is to fight as if a single military by transforming their national military capabilities into a combined coalition force. In the effort to develop a seamless battlefield, coalition militaries must become proficient at fighting alongside each other. To this end, three competencies are common to all military coalitions with high coalition military effectiveness. They exhibit the capacity to: 1) integrate their military activities on the battlefield towards a common political-military goal; 2) maintain coalition battlefield cohesion under fire; and 3) demonstrate coalition battlefield responsiveness, when objective conditions at the front force them, at least, temporarily, to discard and adapt their original battlefield plans. Coalition military effectiveness thus measures the degree to which military coalitions display these four attributes in combat.

A military coalition’s ability to integrate its forces, maintain coalition battlefield cohesion,

and generate coalition battlefield responsiveness depends fundamentally on both the degree and form of coalition military institutionalization. In bridging both the realist and liberal institutionalist literatures, I offer a realist institutionalist theory of coalition military effectiveness. Drawing on the realist tradition, I conceive of military coalitions as fundamentally tools of capability aggregation, whether for the purpose of maintaining the balance of power or upending it. Drawing on the arguments of neoliberal institutionalism, I argue that coalition military institutions provide the key mechanisms through which coalition members manage intra-alliance uncertainties and fears, thereby allowing for closer coordination of their war effort. Coalition military institutions are thus the key intervening variable between allied material capabilities and coalition military effectiveness.

Specifically, variation in the design of three sets of institutional processes significantly affects the military coalition’s ability to generate an integrated, cohesive and responsive coalition force. First, common political-military planning facilitates the adoption of a common political-military strategy, which confers to commanders a common understanding to link together military operations, makes the abandonment of allies on the battlefield more costly, and ensures that when opportunities present themselves on the battlefield, coalition military forces will make the most of them, or at least not let them slip by unnoticed.

Second, command relationships, or who has the authority and responsibility to direct the action of coalition military forces, critically influence the capacity of the military coalition to meld and coordinate every element of combat power. It ensure that the coalition military forces fight in ways consistent with the achievement of the coalition’s political-military objectives, fosters norms of cooperation and mutual trust, which inspire among soldiers a willingness to sacrifice oneself for the common cause, and promotes a more effective response to the changing
present, by both delegating tasks quickly and efficiently and resolving competing demands for resources speedily and wisely.

Finally, the exchange of information among allies is vital to coalition military performance. Although allies have private information about their own military capabilities as well intelligence about the military capabilities of enemies, nations are often reticent to share such information even with allies, often for fear that such knowledge could later be used against them. Nevertheless, allies have an interest in maximizing the availability of such information to create more effective operational plans, which take account of national differences in skills, technology and doctrine in the allocation of military missions, build greater trust and confidence among allied militaries, assuaging concerns of abandonment, that, once bullets fly, allied troops will quickly fold and retreat from the battle, and create a shared situational awareness, which improves the coalition’s ability to respond to events of an unfolding battlefield. The most effective coalition militaries thus adopt joint political-military coalition planning, unity of command with an integrated command staff, and the fluid exchange of information among coalition nations.

RESEARCH DESIGN

This dissertation develops and tests a realist institutionalist theory of coalition military effectiveness through use of both quantitative and qualitative methods. This mixed-methods approach has the advantage of countering the limitations of each approach with the comparative strengths of the other. In particular, I complement medium-n statistical analysis with two

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detailed, archival-based case studies of coalition warfare fought under conditions chosen to provide maximum theoretical leverage. The statistical analysis provides an opportunity to study a large number of cases for patterns and correlations. The case study method offers the detailed process tracing needed to explore the possible causal mechanisms behind the correlations or patterns observed in statistical studies, effectively providing a check on whether correlations are spurious or potentially causal and adding greater specification and refinement of hypothesized causal processes. The case method also provides the depth of analysis needed to characterize the variables of interest to this study, which have not heretofore been included in large-\(n\) datasets. This sort of explanatory richness, however, makes it impossible to examine more than a few cases. A tradeoff thus exists between establishing explanatory richness within a case and generating explanatory power across other types of cases. The statistical analysis, however, allow us to explore whether these hypothesized relationships generalize beyond the case studies to a larger population of cases.

Accordingly, in the medium-\(n\) statistical analysis, I study coalition military effectiveness for all interstate wars waged between 1816 and 2007 using the Correlates of War Inter-state War Data (version 4). The unit of analysis is the warring side, such that states fighting on the same side in multilateral wars aggregate together to form a single observation. Loss-exchange ratios at the war-level serve as a proxy for coalition military effectiveness. The statistical analysis serves three research goals: First, the analysis establishes the range of variation in the dependent variable, demonstrating that military coalitions perform better or worse on the battlefield than others. Second, the statistical analysis provides a preliminary test of the explanatory power of competing theories of coalition military effectiveness. Finally, the results of the statistical analysis indicate that the case-study findings apply to the universe of cases, or external validity.

In the case studies, I explore variation in coalition military effectiveness in two cases of coalition warfare selected from the universe of cases. Specifically, I selected the cases of Franco-British military cooperation in the First and Second World Wars. Three selection criteria guided my case selection. First, I look for cases with observable variation in the dependent variable over time, what is known as within-case variation.34 Such cases make it easier to attribute variation in coalition military effectiveness to differences in what military coalitions do with their resources, because they naturally hold constant such material factors, including wealth, industrial development and population. Likewise, such cases often hold constant other variables regarded as casual of coalition military performance, such as regime type and external threat. By controlling for most other causes of coalition military effectiveness, process-tracing allows for a precise examination of whether differing values of my independent variable seems to explain observed differences in coalition military performance.

Second, I aim to find cases that are similar enough to allow for meaningful across-case comparisons. Of course, when coalition military effectiveness varies across cases, such variation may be easily explained by large disparities in material wealth or variation in other explanatory variables, like regime type or external threat. Any variation in these causal factors is likely to confound the analysis. A most-similar cases research design, in which the cases differ in only one independent variable, is therefore necessary to address these challenges.35 Accordingly, I seek to select cases of military coalitions waging wars with similar levels of material resources. To the extent possible, I also intend to hold constant across the cases other explanatory variables thought to influence coalition military effectiveness. In instances where I cannot control for

34 Douglas Dion “Evidence and Interference in the Comparative Case Study,” in Gary Goertz and Harvey Staff eds., Necessary Conditions: Theory, Methodology, and Applications (Lanham, MD: Rowman and Littlefield, 2003), pp. 95-112.
35 George and Bennett, Case Studies and Theory Development in the Social Sciences, 151-160, 164-179, 189-191.
these variables, I try to find cases where the values of these variables are not obvious explanations for coalition military performance, so as to avoid the problem of overdetermination of the dependent variable, which plagues so much of the existing literature on military effectiveness.

Finally, I select cases on the basis of historical significance, as well as availability of detailed information on the internal workings of the military coalition, whether found in the existing historiographies or national archives. As Stephen Van Evera notes, case selection needs to be, at least, in part, guided by the selection of cases of “intrinsic importance,” offering new answers to lasting historical puzzles. This case-study design thus aims to isolate and explore the effects of new variables, including coalition military institutionalization, on some of military history’s most puzzling cases of coalition military performance.

Overall, this mixed-methods research design offers a greater degree of confidence in the validity of my findings. In complementing medium-n statistical analysis with two purposefully selected case studies of coalition warfare, this study offers a careful examination casual process without the usual tradeoff in external validity.

**PLAN OF DISSERTATION**

This dissertation proceeds in six chapters. Chapter Two defines the dependent variable of this study, coalition military effectiveness, and discusses how I plan to measure it. Chapter Three presents my realist institutionalist theory of coalition military effectiveness as well as alternative explanations of coalition military effectiveness. Chapter Four offers a quantitative test of realist institutionalist theory against the alternative explanations. Chapters Five and Six

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examine the consequences of variation in Franco-British military institutions for coalition military performance in the First and Second World Wars. The final chapter concludes with a review of the findings and their implications for American foreign policy and international relations theory.
CHAPTER TWO: WHAT IS COALITION MILITARY EFFECTIVENESS?

INTRODUCTION

What military activities or organizational attributes are essential to the generation of coalition military power? What distinguishes a successful coalition military performance from a display of fair or poor coalition fighting power? In other words, what is meant by coalition military effectiveness?

This chapter answers these critical questions by developing a systematic and comprehensive understanding of coalition military effectiveness. It identifies three competencies as common to all military coalitions with high coalition military effectiveness. They exhibit the capacity to: 1) integrate their military activities on the battlefield towards a common political-military goal; 2) maintain coalition battlefield cohesion under fire; and 3) demonstrate coalition battlefield responsiveness, when objective conditions at the front force them, at least, temporarily, to discard and adapt their original battlefield plans. Coalition military effectiveness thus measures the degree to which military coalitions display these four attributes in combat.

This chapter proceeds in three sections. First, the chapter defines the dependent variable of interest to the study, that of, coalition military effectiveness. It also explains the study’s focus on land warfare at the operational-tactical level of war and distinguishes between coalition military effectiveness and coalition war outcomes. Second, it identifies the military activities in which coalitions must become proficient to fight effectively on the battlefield. Finally, it discusses how to measure the dependent variable for the empirical tests undertaken in subsequent chapters.
A DEFINITION OF COALITION MILITARY EFFECTIVENESS

The dependent variable (DV) of this study is *coalition military effectiveness*, defined as a coalition’s ability to create, sustain and employ maximum war-fighting capabilities from its material resources and human capital.\(^{37}\) When states fight wars through military coalitions, they seek to aggregate their national contributions of material resources and military manpower.\(^{38}\) These aggregated material and human inputs constitute the coalition’s *potential* military power, or what the aggregated material assets of coalition members suggest the coalition could create as fighting power in war. Coalition military effectiveness measures the capacity of a military coalition to translate these resources into *actual* military power, or what a military coalition proves capable of generating on the battlefield. In other words, coalition military effectiveness captures the difference between a coalition’s potential and actual military power on the battlefield (Fig. 2-1).\(^{39}\)

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\(^{37}\) For a similar definition of military effectiveness, see Millett et al., "The Effectiveness of Military Organizations," pp. 2-4.


Figure 2-1: Relationship between Coalition Military Effectiveness, Coalition Military Power, Battlefield Outcomes and War Outcomes

**Potential Coalition Military Power**: Aggregated Material and Human Resources of Military Coalition’s Members

- Economic wealth (GNP)
- Technology
- Industrial Base
- Population Size
- Human capital

**Coalition Military Effectiveness**: how well military coalition both aggregates and translates available material and human resources into actual fighting power

Operational-Tactical Level

Coalition military activity occurs at both the political-strategic and operational-tactical levels. The political-strategic level of military activity refers to the selection of both political objectives and the military means for achieving those objectives. For example, the primary political goal of the Grand Alliance in World War II was the total

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40 Adapted from Brooks, "Introduction," p. 4.
41 Millett et al., "The Effectiveness of Military Organizations," p.3.

26
defeat of Nazi Germany; the employment of Anglo-American forces in North Africa ('OPERATION TORCH') was a strategic course of action taken to secure that goal. In contrast, military activity at the operational-tactical level involves the planning, preparation and conduct of a military campaign and the employment of combat units to fight engagements in order to secure the strategic objective. The initial invasion of North Africa executed a surprise, three-pronged amphibious assault of Morocco and Algeria, where Anglo-American forces landed simultaneously on beachheads and in ports under the cover of darkness with air and naval gunfire support. Strategic objectives no doubt inform operational objectives and plans, as the most effective militaries employ their forces at both the strategic and operational-tactical levels in ways consistent with achieving those goals.

For the purposes of this dissertation, I analyze variation in coalition military effectiveness at the operational-tactical level of war, or the level of the military campaign. The unit of analysis for this study is thus the operation, a series of

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interconnected intended battles making up a single prior military plan. My study focuses on the operational-tactical level for two reasons: First and foremost, the operational-tactical level of war most directly measures the fighting performance of coalition military forces on the battlefield, which is the dependent variable of interest in this study. Second, existing scholarship on coalition warfare tends to focus on the strategic level of war to the neglect of operational art and tactics. Accordingly, most studies of wartime military alliances and coalitions examine the process of strategic planning, with particular attention to intra-coalition unity and discord over war aims and political-military strategy. Few studies explore the consequences of coalition dynamics

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on the coalition’s military performance in campaigns and battles.\footnote{Noted exceptions are Greenhalgh, Victory through Coalition: Britain and France During the First World War; Bensahel, "The Coalition Paradox: The Politics of Military Cooperation"; William Philpott, Three Armies on the Somme: The First Battle of the Twentieth Century (New York, NY: Alfred A. Knopf, 2011); Weitsman, Waging War: Alliances, Coalitions and Institutions of Interstate Violence.} If we want to understand why military coalitions generate different levels of fighting power, however, studies of military coalitions must move beyond the war room and onto the battlefield.

\textit{Land Warfare}

This dissertation focuses on understanding coalition military effectiveness within a single realm of combat, that of, modern land warfare, specifically the control of territory in mid-to-high intensity land warfare. I focus on the middle part of a spectrum ranging from guerilla warfare at the low end to global thermonuclear war at the high end.\footnote{Stephen Biddle adopts a similar focus in his study of military power. See Biddle, Military Power: Explaining Victory and Defeat in Modern War, p. 6.} Mid-intensity conflicts would include regional conventional wars, such as the recent campaigns in Afghanistan, Iraq, the Congo, and the Balkans; high-intensity conflicts are conventional major wars among the great powers. By land warfare, I refer to ground combat fought between rival armies, as well as the air and naval forces that support them, on or over major landmasses.\footnote{For similar definitions of land warfare, see ibid.; Mearsheimer, The Tragedy of Great Power Politics, p.85.} I thus exclude from the investigation independent naval warfare and strategic bombing campaigns. While the conclusions of this study most likely inform the conduct of coalition air and naval warfare, I have chosen to limit my investigation to land warfare for both theoretical and methodological considerations. First and foremost, coalition land warfare both historically and contemporarily is the dominant form of warfare, particularly in wars fought to upend or maintain the balance of power. As John Mearsheimer explains, “armies are of paramount importance in warfare...
because they are the main political instrument for conquering and controlling land, which
is the supreme political objective in a world of territorial states. Naval and air forces are
simply not suited for conquering territory."  

Similarly, British naval strategist Julia Corbett asserts, "Since men live upon the land and not upon the sea, great issues between
countries at war have always been decided—except in the rarest cases—either by what you
army can do against your enemy’s territory and national life, or else by the fear of what
the fleet makes it possible for your army to do."  

Of the ten wars between great powers
over the last two centuries the balance of land power was the principal determinant of
victory, with all ten wars settled by rival armies fighting it out on the battlefield.  

Throughout history, continental powers with large armies have sought to achieve
hegemony in their regions by pursuing expansionist policies and initiating wars of
conquest.  

And every time, states have formed balancing coalitions against these
aspiring hegemons, because of the serious threat posed to their security and
independence. To defend the balance of power, these military coalitions have waged
major land wars against potential continental hegemons. European history over the past
four centuries attests to this pattern. Military coalitions fought major wars against the
Hasburgs under Charles V in the early sixteenth century, Philip II at the end of the

50 Mearsheimer, The Tragedy of Great Power Politics, p.86.
51 John S. Corbett, Some Principles of Maritime Strategy (Annapolis, MD: US Naval Institute Press,
52 For a list of wars, see Mearsheimer, The Tragedy of Great Power Politics, pp. 110-112.
53 For a similar argument, see Jack S. Levy, "Balances and Balancing: Concepts, Propositions, and
(2010). It is also indicative that most balance-of-power realists illustrate their arguments with examples of
military coalitions formed to balance against would-be continental hegemons. See, for example, Gulick,
Europe's Classical Balance of Power; Dehio, The Precarious Balance: Four Centuries of European Power
Struggle; Claude Jr., Power and International Relations; Morgenthau, Politics among Nations; Kennedy,
Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000; Waltz,
Theory of International Politics; Mearsheimer, The Tragedy of Great Power Politics.
sixteenth century, Spain and the Holy Roman Empire in the Thirty Years War, France under Louis XIV and then Napoleon, against Germany under Wilhelm and then Hitler. All of these coalitions fought long and costly wars, settled by soldiers on both sides who fought and often died in bloody ground battles, at times aided by supporting air and naval forces. To develop a better understanding of balancing dynamics, which is one of the primary goals of this dissertation, it is necessary to study military coalitions engaged in land wars.

Second, beyond its historical significance, coalition land warfare continues to hold implications for contemporary world politics. Any number of great power and regional challengers to the United States, including China, Russia, and Iran, continue to maintain large armies and significant quantities of land-based armaments, such as armor, artillery and small arms. In recent military operations, the wars in Iraq and Afghanistan have predominately involved US-led coalition or NATO forces, with the support of naval and air assets, seeking to topple regimes and maintain political control of territory—that is, fighting and winning a mid-intensity conventional land war. Importantly, coalition land warfare remains the central mission of the United States military.

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56 The QDR (2010), for example, noted, “Whenever possible, the United States will use force in an internationally sanctioned coalition with allies, international and regional organizations, and like-minded nations committed to these common principles.” US Deparment of Defense, *Quadrennial Defense Review*
is most likely to wage any future war or military action as a member of a military coalition, it suggests that the sources of coalition military effectiveness in land warfare deserve serious study.

Finally, land warfare represents the most difficult and complex of all coalition military operations. Most national air and naval forces, because they operate in the global commons, have common communications and operating procedures that facilitate seamless coalition operations. Moreover, multinational naval and strategic air cooperation is better suited to parallel theaters of operation than the combined-arms tactics of land warfare. The convoy system, for example, developed to protect merchant ships and Allied vessels from German U-boat attacks in World War II, employed parallel commands, with a Change of Operational Control (CHOP) line, in which the US Navy protected shipping from the eastern shore board to the west of Greenland, at which point the British Admiralty assumed escort responsibilities. Despite the seam between the American and British navies, the convoy system proved sufficiently effective against German submarines and won the Battle of the Atlantic. In short, coalition land warfare, particularly in comparison with coalition naval and air warfare, demands the greatest


levels of coalition cooperation at the lowest levels of the military hierarchy.

In focusing the investigation on coalition land warfare, we are more likely to capture the full spectrum difficulties and complications that arise when waging wars through military coalitions. We also maintain greater consistency and continuity among the case studies. Moreover, through additional research, there is every reason to believe that the findings of this investigation are likely to enhance our understanding of the causes of coalition military effectiveness in independent naval and strategic air wars.

Coalition Military Effectiveness versus Coalition War Outcomes

Coalition military effectiveness is distinct from military outcomes, specifically whether a military coalition emerges as victor or vanquished in battle or at the end of a war. All else being equal, however, more effective military coalition ought to prevail in war more often than ineffective ones. Accordingly, a number of scholars assess military effectiveness in terms of armed forces’ ability to prevail over adversaries on the battlefield or in war. They generally operationalize military effectiveness as a categorical variable coded as “win/lose” or “win/lose/draw.” For these scholars, military

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59 Paul Kennedy makes a similar point, noting the sources of British strategic military effectiveness in World War One, he remarks “none of these factors would be enough if battles could not be won.” Paul Kennedy, “Military Effectiveness in the First World War,” in Millett et al., eds., Military Effectiveness, p. 345.

effectiveness determines battle outcomes, such that battlefield victory indicates superior military effectiveness in a conflict dyad (Figure 2-1).

To equate victory in battle with military effectiveness, however, is reductionist. Military outcomes depend significantly on a combination of variables, including, but not limited to fighting power, political aims, relative material capabilities, war-fighting strategies, the offense-defense balance, and terrain. If military outcomes were the sole criterion of coalition military effectiveness, one would conclude that Allied forces were more effective the Germans in World War II, or that NATO fought more effectively than the Serbs during the war in Kosovo. A careful examination of these conflicts, however, suggests quite the opposite; both the Germans and Serbs fought more effectively at the operational level with limited resources than the military coalitions opposing them. As Martin Van Creveld concludes, “Though military excellence is inconceivable without victory, victory is by no means the sole criterion of military excellence. A small army may be overwhelmed by a larger one. Confronted with impossible political and economic odds, a qualitatively superior force may go down to defeat through no fault of its own.”

In short, existing studies, because they conflate military effectiveness and military outcomes, fail to explain why some coalitions or militaries fight better, harder and longer

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61 See discussion in Biddle, "Explaining Military Outcomes."
63 van Creveld, *Fighting Power: German and Us Army Performance, 1939-1945*, p. 3.
than their material capabilities would otherwise suggest, or why others collapse on the battlefield despite significant material advantages.

To understand this puzzle, we must open the “black box” of war, taking account of its conduct. Millett and Murray assert, “Victory is an outcome of battle; it is not what a military organization does it battle. Victory is not a characteristic of an organization but rather a result of organizational activity. Judgments of effectiveness should thus retain some sense of proportional cost and organizational processes.” Similarly, Van Creveld contends, “Not the outcome alone, but intrinsic qualities as well must figure in an attempt to measure military (or any other) excellence.” In addition to Millett and Murray and Van Creveld, other studies of military effectiveness, specifically those of Kenneth Pollack, Risa Brooks and Caitlin Talmadge, have assessed military effectiveness in terms of the activities and properties of the military organization. Accordingly, coalition military effectiveness measures a coalition’s competency at performing a set of crucial military activities rather than the ultimate outcome of those activities.

COALITION MILITARY EFFECTIVENESS (THE DEPENDENT VARIABLE)

In which military activities must military coalitions become proficient to fight effectively alongside each other on the battlefield? In the abstract, a military coalition seeks to fight as if it was a single military, allowing for the flexible employment of forces without any consideration of national origins. In practice, the task of transforming

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64 Millett et al., "The Effectiveness of Military Organizations," p.3.
65 van Creveld, *Fighting Power: German and Us Army Performance, 1939-1945*, p.3.
members’ national military capabilities into a combined coalition military force is not easy. The process of capabilities aggregation invariably gives rise to disagreements among members in political and military management of the coalition, because allies seldom have identical national interests, as well as interoperability challenges resulting from the diversity of national doctrines, military technologies and troop skill levels within the coalition.\textsuperscript{67} To overcome these difficulties, military coalitions tend to separate battlefield activities along national lines, largely to avoid fratricide. The resulting division of labor creates seams in the coalition, or boundaries between allied forces. These seams offer vulnerabilities for adversaries to exploit on the battlefield.\textsuperscript{68}

Indeed, it is the favored military strategy of adversaries waging war against military coalitions. In his surprise counteroffensive in the Ardennes in the winter of 1944-1945, known as the Battle of the Bulge, Hitler chose to strike at the seam between the American First and Ninth Armies and Britain’s Second Army and the Canadian First Army, seeking to cut the British and American Allied life in half, capture Antwerp, Belgium, and proceed to encircle and destroy the British and Canadian armies before the Americans could come to their aid.\textsuperscript{69} In destroying four Allied armies, Hitler aimed to coerce the Western Allies into negotiating a separate peace treaty with him, thereby allowing him to unleash the full weight of his war machine against the Soviets in the

\textsuperscript{67} Glenn Snyder’s seminal book explores the role of shared and divergent national interests in alliance formation and management. See Snyder, \textit{Alliance Politics}, especially pp. 10-11, 22-28.


East. In his desperate gamble, what Hitler did not anticipate was allied operational flexibility. In order to reestablish the Allied defensive line, Allied Supreme Commander General Dwight D. Eisenhower temporarily transferred command of the American First and Ninth Armies, until then, under General Omar Bradley’s command, to British Field Marshall Sir Bernard L. Montgomery. The challenge for coalition militaries is thus to create a seamless battlefield where friction is minimal, in which coalition forces link together in both time and space.

In the effort to develop a seamless battlefield, coalition militaries must become proficient at fighting alongside each other. To this end, three competencies are common to all military coalitions with high coalition military effectiveness. They exhibit the capacity to: 1) integrate their military activities on the battlefield towards a common political-military goal; 2) maintain coalition battlefield cohesion under fire; and 3) demonstrate coalition battlefield responsiveness, when objective conditions at the front force them, at least, temporarily, to discard and adapt their original battlefield plans. Coalition military effectiveness thus measures the degree to which military coalitions display these three attributes in combat.

**Coalition Battlefield Integration**

Effective military coalitions exhibit the capacity for coalition battlefield integration. An integrated military coalition is one that brings together the disparate

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combat forces of its members of into a cohesive whole. More specifically, integration refers to the degree to which the coalition’s military activities are internally consistent and mutually reinforcing, and above all directed towards the achievement of a common political-military goal. The Arab coalition against Israel in 1948, for example, demonstrated an almost complete lack of battlefield integration. When a coalition of Egyptian, Iraqi, Syrian, Lebanese and Transjordanian forces invaded Palestine in May 1948, coalition forces were employed towards disparate war aims. Rather than waging a unified effort to conquer the nascent Jewish state, and perhaps destroy it, the coalition fought, what historian Benny Morris, describes as “an uncoordinated, multilateral land grab.” At the outbreak of war, Jordan, rather than thrust westward to the sea, its military forces drove toward Ramallah, Nablus and Hebron, to capture the area later known as the West Bank. Transjordan employed its forces towards achievement of conquest of Palestine, not annihilation of the Jews. In response, Egypt divided its forces into two columns; the left prong proceeded up the coast towards Ashdod, while the other veered eastward, via Beersheba, to seize as much as possible of the southern West Bank, thus denying Transjordan from seizing all of the West Bank. In short, Transjordan and Egypt, although waging coalition war together, employed their forces at cross-purposes, seeking to obstruct the military activities of the other. In contrast, the Allies in OPERATION OVERLORD, the Allied invasion of northwest Europe in World War II, exemplified battlefield integration. A coalition of American, British, Canadian and Free French troops landed on June 6, 1944 along a 50-mile stretch of the Normandy coast, with all allied forces employed towards achieving the objective of securing the landing

73 Ibid., pp.193-196.
beachhead and establishing a firm foothold in Normandy. In assessing coalition battlefield cohesion, then, the question is, "Are coalition forces employed on the battlefield in pursuit of a common political-military objective?"

*Coalition Battlefield Cohesion*

Effective military coalitions maintain *coalition battlefield cohesion* under fire, such that military units hold together and fight when they come in contact with the enemy. In contrast, military coalitions that perform poorly on the battlefield tend to fold up and withdraw from the battle, even though it means leaving their allies isolated and exposed on the battlefield. Of note, coalition battlefield cohesion, as defined in this dissertation, is distinct from *alliance cohesion* as commonly used in the literature.

Existing studies refer to alliance cohesion as the degree to which allies agree on political goals and grand strategy. While this definition succeeds in capturing the importance of strategic coordination among allies, its focus is the realm of high politics and diplomatic agreements rather than the battlefield. It thus leaves unanswered how, if at all, allied soldiers translate strategic-political decisions into operational-tactical military

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cooperation. Coalition battlefield cohesion thus refers to the degree to which the
coalition’s military forces remain intact rather than collapse and retreat, once the bullets
start to fly, placing service and sacrifice to the coalition over survival.

In combat, particularly ground combat, mutual support among tactical elements
is essential for survival, let alone victory. Indeed, the concept of mutual combat support
underlies all battlefield plans and tactics in modern warfare.\(^{76}\) Combined arms operations
and tactics require the coordination and cooperation of different combat arms and units,
such that when employed in concert, the strengths of one arm or unit compensate for the
weaknesses of another, maximizing survival and combat effectiveness of the force.\(^{77}\) For
coalition military forces to fight collectively, as a combined arms force, requires an
especially high level of trust—a shared belief in the willingness of soldiers, regardless of
differences in nationality, to risk their lives for one another. Such strong and resilient
bonds across coalition military units generate battlefield cohesion—a will to fight on,
determined to break the resolve of the enemy.\(^{78}\) Coalition battlefield cohesion is thus
distinct from small-unit cohesion, the strength of individual bonds among members of a
squad or platoon, in that it expands the focus to the strength of such bonds within the
coalition, specifically among soldiers of different nationalities fighting alongside one
another on the battlefield.\(^{79}\)

\(^{76}\) Stephen Biddle refers to this method of force employment as the modern system. See Biddle, *Military
Power: Explaining Victory and Defeat in Modern War*, Chapter 3.

\(^{77}\) Jonathan M. House, *Toward Combined Arms Warfare: A Survey of Twentieth Century Tactics, Doctrine
and Organization* (Lawrence, KS: University Press of Kansas, 2001), pp.4-5.

\(^{78}\) As Field Marshall William Slim remarked, “In the end every important battle develops to a point where
there is no real control by senior commanders. Each soldier feels himself to be alone… But what makes
him go on, alone, determined the break the will of the enemy opposite him, is morale.” Slim’s speech to
the 10th Indian Division, 1941, quoted in ibid., p.10.

\(^{79}\) Influential works on national and small-unit combat cohesion include Edward A. Shils and Morris
Janowitz, "Cohesion and Disintegration in the Wehrmacht in World War II," *Public Opinion Quarterly* 12,
no. 2 (Summer 1948): 280-315; Samuel A. Stouffer, ed., *The American Soldier: Combat and Its Aftermath*
Coalition battlefield cohesion is especially critical when troops encounter
difficult, sometimes dire odds, when plans go awry, casualties are heavy, and the enemy
is close to victory, for then, the only force preventing total collapse and defeat is the bond
among allied units. Early in World War I, Franco-British forces critically lacked
coalition battlefield cohesion, as they fought to stem the tide of the German advance
through Belgium. During the Battle of the Mons, the French Fifth Army, under the
command of General Charles Lanrezac, seeking to preserve his force, fell back without
consulting his British counterpart, General Sir John French, commander of the British
Expeditionary Force (BEF). The Fifth Army’s precipitous retreat caused a twelve-
kilometer-wide gap to develop in the Franco-British line, dangerously exposing the
BEF’s right flank. In assessing coalition battlefield cohesion, then, the question is, “do

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coalition military forces exhibit a willingness to fight and a readiness, if necessary, die for their allies, or do they collapse and hastily retreat, leaving allied forces in the lurch?" 

**Coalition Battlefield Responsiveness**

No military plan, no matter how detailed, can foresee every contingency, development, vulnerability or opportunity that will arise in battle. Indeed, battle is often a contest between combatants to determine which side is more adept in concealing its weaknesses from enemy strong points while exploiting its strengths against enemy vulnerabilities. On a fluid battlefield, with the continuous opening and closing of vulnerabilities and opportunities, victory most often goes to the side with the ability to strike first within these shifting windows of opportunity. An effective military coalition is therefore one that demonstrates *coalition battlefield responsiveness*, or ability to act faster and smarter than the enemy.\(^8\) US-British-Republic of South Korea (ROK) forces demonstrated this quality in the Battle of the Pusan Perimeter during the first months of the Korean War, when the coalition established a defensive perimeter on the southeastern corner of Korea. The coalition military, under the command of Lt. General Walton “Bull Dog” Walker, who famously issued a “stand or die” order to his forces, concentrated combat power more rapidly and successfully than the North Koreans by relying on interior lines, continuously responding and reconfiguring reserves to parry enemy thrusts, and shifting forces along the outer perimeter to reduce or accept vulnerabilities.\(^8\) 

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\(^8\) My understanding of coalition battlefield responsiveness is similar to Brooks’ notion of national battlefield responsiveness. See Brooks, "Introduction," pp. 11-12. See also Riscassi, "Principles for Coalition Warfare," pp.3-4.

More than merely keeping pace with constant changes on the battlefield, coalition battlefield responsiveness thus requires a keen sense of the battlefield, the poise to transition rapidly from one situation to the next, and the initiative to seize opportunities against the enemy. As such, it requires a flexible organization, with an ability to act and react faster than an opponent, and with the higher commanders to the lowest subordinates displaying the adaptability and initiative to make quick, effective decisions through the fog war. Early in the Afghanistan War, in the mountains of Tora Bora, US-Afghan forces lacked such coalition battlefield responsiveness, allowing Osama bin Laden and other top al-Qaeda leaders to withdraw to Pakistan. With credible US intelligence of bin Laden’s lair in the mountain fortress of Tora Bora, the coalition sought to exploit a closing window of opportunity to capture or kill the al-Qaeda leader and his top associates before they escaped to Pakistan. The operational plan called for US airpower to strike the cave complexes in hopes of dislodging the enemy who would then engage indigenous Afghan fighters, in cooperation with US Special Operations Forces (SOF), serving as a blocking force to prevent the enemy from fleeing to Pakistan. Unfortunately, United States’ Afghan allies were reluctant to pursue the enemy in this cavernous terrain—striking, then retreating—and the US was unwilling to commit additional US forces to the Tora Bora campaign. 83 A lack of coalition battlefield responsiveness, initiative and flexibility among coalition forces thus gave bin Laden and his associates ample time to escape to Pakistan. In assessing coalition battlefield responsiveness, the question is “how does the

military coalition react in times when the objective conditions at the front force them, temporarily, to discard their plans, to think and fight adaptively?"

**Coalition Military Effectiveness**

Together, these three tasks comprise an increasingly difficult set of tasks for military coalitions to master on the battlefield. In other words, coalition military effectiveness measures the degree to which military coalitions display these three attributes in combat.  

**Figure 2-2: Variation in Coalition Military Effectiveness**

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No competencies</td>
<td>Integrate their battlefield activities, but cannot maintain battlefield cohesion</td>
<td>Integrate their battlefield activities and maintain battlefield cohesion, but lack coalition battlefield responsiveness</td>
<td>Integrate their battlefield activities, maintain battlefield cohesion, and display coalition battlefield responsiveness</td>
<td></td>
</tr>
</tbody>
</table>

The worst coalition militaries lack the capacity to perform any of these tasks, while the best coalition militaries display all of these proficiencies. In between these two extremes, fair and good coalition militaries exhibit coalition battlefield integration and varying degrees of cohesion, but lack the capacity to adapt their activities for maximum effect. A

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84 In this section, my thinking benefited significantly from the work of Caitlin Talmadge, Explaining Military Effectiveness: Political Intervention and Battlefield Performance (Cambridge, MA: MIT PhD Dissertation, 2011), pp. 16-22.
military coalition thus generates more military power as it exhibits high levels of proficiency in performing these key tasks on the battlefield. In sum, the more integrated, cohesive and responsive a coalition military is, the more likely it will be to realize the potential of its material resources in warfare.

Measuring Coalition Military Effectiveness?

How is it best to measure coalition military effectiveness? In other words, how will we know if a military coalition generates forces with the capacity for battlefield integration, cohesion and coalition battlefield responsiveness? How will we observe variation in the performance of these key military activities over the course of a war? In this section, I address these questions with a discussion of alternative measurements of the dependent variable, both quantitative and qualitative.

In measuring military effectiveness, scholars have generally adopted one of two approaches, using either the loss-exchange ratio of combatants or qualitative indicators of battlefield performance. The former approach measures military effectiveness as the loss-exchange ratio (LER) of combatant states—attacker casualties divided by defender casualties—after accounting for defensive advantages, with the side incurring fewer battle casualties deemed more militarily effective. This measure has intuitive appeal in the simplicity of its calculation, which captures meaningful differences in the ability of militaries to protect their own troops while inflicting losses on the enemy. The LER offers a useful starting point for measuring military effectiveness, but it gives rise to the

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problem of observational equivalence.\(^{86}\) In short, both effective and ineffective military coalitions can suffer high combat losses, even if the reasons are very different, making it difficult to distinguish among them.\(^{87}\) For example, low coalition casualties may result when coalition forces are well integrated and cohesive, as many military analysts argue was the case during the Persian Gulf War in 1991, but low casualties can also arise from the hasty retreat, surrender and utter collapse of coalition forces, as occurred during the Fall of France in 1940.\(^{88}\) Similarly, high coalition casualties may result from poor coalition fighting prowess, owing to a lack coalition battlefield integration, cohesion and responsiveness, as many historians note of the Central Powers on the Eastern Front at the outbreak of World War I.\(^{89}\) But it can also result from highly integrated, cohesive and responsive coalition forces fighting against a highly determined and skilled enemy, as the Allies learned in the Winter of 1944-45.\(^{90}\) In sum, loss-exchange ratios are useful in establishing broad variation in war-level coalition military effectiveness, but they have limited utility without additional measures to capture the performance of specific tasks.\(^{91}\)

\(^{86}\) Observational equivalence refers to the situation in which two or more different processes produce the same observable outcomes, making it difficult to distinguish among them.

\(^{87}\) Talmadge, *The Dictator's Army: Battlefield Effectiveness in Authoritarian Regimes*, p. 34.


\(^{91}\) Moreover, the principal dataset with battle-level combatant deaths is notoriously unreliable. The HERO dataset of individual battles between 1800 and 1982, compiled by the Historical Evaluation and Research Organization (HERO) for the Army, constitutes a biased sample, casting doubt on the validity of any
In view of these limitations, I have chosen to adopt a mixed-methods approach to measurement of the dependent variable. I employ a quantitative study using war-level loss-exchange ratios as a proxy for coalition military effectiveness to establish the range of variation in the dependent variable and test the significance of competing explanations of coalition military effectiveness. I then rely on a series of qualitative indicators questions to measure coalition military effectiveness in terms of coalition battlefield integration, cohesion and responsiveness. This approach allows for close examination of the three combat tasks critical for coalition military effectiveness rather than employ a proxy for them. Table 2.4 presents the indicators used to assess each component of coalition military effectiveness. In answering these questions, I will be able to observe both variation in coalition military performance between coalitions and changes in coalition military effectiveness within the same coalition over time, providing for more rigorous testing of my claims. The next chapter explores the sources of variation in coalition military performance.

findings based on this dataset. For a useful discussion of the problems with existing datasets on battlefield effectiveness, see David French, *Raising Churchill's Army: The British Army and the War against Germany* (Oxford, UK: Oxford University Press, 2000), pp. 4-11.
### Table 2-4: Qualitative Indicators of Coalition Military Effectiveness

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Indicators</th>
</tr>
</thead>
</table>
| **Coalition Battlefield Integration** | • Are military units within the coalition employed towards achievement of a common political-military goal?  
  • Are the activities of military units coordinated? Internally consistent? Mutually reinforcing? |
| **Coalition Battlefield Cohesion**   | • Do units provide tactical support across national boundaries?  
  • Do units retreat from the battlefield without consideration of the battlefield position of units from other nations within the coalition?  
  • Do commanders relay to their foreign counterparts decisions hold the line or retreat and regroup?  
  • When retreats occur, are they organized across national lines to create an organized withdrawal? |
| **Coalition Battlefield Responsiveness** | • To what extent are units able to fight adaptively when battlefield conditions force them, temporarily, to discard their plans?  
  • Are units able to conceal vulnerabilities and seize windows of opportunities against the enemy?  
  • Are units quick to transition from one battlefield situation to the next? |
CHAPTER THREE:
A THEORY OF COALITION MILITARY EFFECTIVENESS

INTRODUCTION

Why are some military coalitions better able to aggregate their national military capabilities into coalition fighting power? Why are some military coalitions able to make the most of their limited material resources on the battlefield, whereas others perform poorly despite significant material advantages? Why are some military coalitions likely to generate integrated, cohesive and responsive coalition military forces, while others field coalition troops incapable of performing these essential military activities? In other words, why are some military coalitions more militarily effectively on the battlefield than others? The goal of this study is to answer these fundamental questions of coalition military effectiveness.

The study develops and tests a theory of coalition military effectiveness based on both the degree and form of coalition military institutionalization. When states wage wars through military coalitions or alliances, they seek to aggregate their military power. During the process of capability aggregation, states transform their national military capabilities and material resources into coalition military capabilities. This process of capability aggregation has become increasingly complex and more demanding over time, as the modern battlefield came to require greater speed, maneuver, and combined arms tactics. In turn, effective capability aggregation within military coalitions has come to demand a high level of coalition military institutionalization.

Coalition military institutions provide the key mechanisms through which coalition members manage intra-alliance uncertainties, transfer knowledge and
technology, and coordinate their war effort. In particular, institutionalization of the military coalition in the form of coalition military planning, command arrangements, and information exchange, is critical to coalition military performance. Military coalitions with highly institutionalized arrangements in these key areas of intra-allied cooperation are likely to maximize their ability to turn their national resources into coalition fighting power on the battlefield, whereas military coalitions with absent or minimal institutionalization are likely to generate levels of coalition military power far less than the sum of their parts.

This chapter proceeds in three sections. First, the chapter discusses extant theories of coalition military effectiveness, suggesting none provides a fully satisfying explanation of the empirical puzzle. Second, I present a theory of coalition military effectiveness, arguing that coalition military effectiveness will vary with degree and form of coalition military institutionalization. The section also develops a set of related hypotheses more clearly elucidating the causal-chain between coalition military institutionalization and coalition military performance on the battlefield. The final section of the chapter discusses how to measure the independent variables of interest to the study.

EXISTING THEORIES OF COALITION MILITARY EFFECTIVENESS AND COALITION MILITARY POWER

There are few formal theories of coalition military effectiveness. Although many histories exist of specific cases of coalition warfare, little scholarship exists on the more
general causes of coalition military effectiveness. In recent years, however, the sources of national military effectiveness have received renewed scholarly attention. From this emerging body of literature, as well as the few theoretical studies of coalition military effectiveness, it is possible to identify four broad classes of writing on the sources of coalition military performance. Each class of writing identifies a different set of factors as fundamental causes or important preconditions of coalition military effectiveness. Although these four classes do not exhaust all scholarship on the subject of military effectiveness, particularly national military effectiveness, each identifies a causal factor or condition often thought to affect coalition military effectiveness, as evidenced by its repeated mention in the literature.

A fundamental divide in the literature on coalition military power exists between the first class of writing, with its emphasis on material factors, and the latter classes, which argue for the causal weight of various non-material sources of coalition military

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effectiveness (Figure 3-3). The first class argues that only material resources, whether economic wealth, industrialization or demographics, are relevant for the generation of coalition military power. The other classes of writing take issue with such a conventional assessment of coalition fighting power, arguing it fails to account for how states translate those resources into actual coalition combat power in war. As Brooks cautions, "Resources are important in assessing potential power, but effectiveness tells how well a state can translate those resources into actual power in war. Effectiveness is the difference between what a state’s raw resources suggest it could potentially do, and what it is actually capable of doing in battle."94

For this reason, the other classes of writing argue for the causal weight of various nonmaterial sources of coalition military effectiveness, specifically regime type, external threat environment, and coalition political cohesion. The second class suggests coalitions of democracies are more likely to generate higher levels of coalition military effectiveness than non-democratic or mixed coalitions. The third class identifies the importance of external threat levels for coalition military performance, with more threatening external environments thought to generate more effective military coalitions. Finally, in recent years, scholars have begun to explore the political dynamics within military coalitions, particularly how the level of threat, both internal and external to coalitions, affects coalition political cohesion, with more politically cohesive coalitions generating higher levels of coalition military effectiveness. Although each of these classes of writing offers important insights and observations about the sources of coalition military effectiveness, I argue that none provides a fully satisfying explanation and present an alternative theory of coalition effectiveness based on both the degree and

94 Brooks, "Introduction," p.3.
form of coalition military institutionalization.

Figure 3-3. Material and Nonmaterial Explanations of Coalition Military Effectiveness and Coalition Military Power

Material Explanations:

Coalition’s Material Assets: Capability Aggregation Model
Aggregated Material and Human Resources of Military Coalition’s Members
- Economic wealth (GNP)
- Technology
- Industrial Base
- Population Size
- Human capital

Coalition Military Power

Non-Material Explanations:

Coalition’s Material Assets:
- Economic wealth (GNP)
- Technology
- Industrial Base
- Population Size
- Human capital

Capability Aggregation Processes
(Intervening Variables):
1. Regime Type
2. External Threat
3. Coalition Political Cohesion
4. Coalition Military Institutions

Coalition Military Effectiveness

Coalition Military Power

Material Explanations: Material Preponderance and the Capability Aggregation Model

What makes some wartime coalitions and alliances more military powerful than others? Napoleon Bonaparte had a simple answer to the question: “God is on the side of
big battalions." 95 This purely materialist conception of coalition military power is one of the most common and influential in the literature. Existing scholarship tends to assume that coalition military power is largely a function of aggregate material resources such as wealth or a large population, and treats military outcomes as synonymous with coalition military effectiveness. As the work of A.F.K. Organski and Jacek Kugler attests, "power is the most important determinant of whether a war will be won or lost." 96 This group of scholars argues that states, or coalitions of states, with larger populations, larger or more industrialized economies, larger and/or better equipped militaries, perform better in wars, such that the side with greater economic wealth or the larger military will be more likely to prevail in battle. 97

Indeed, the association of aggregate material resources with coalition military power underlies much of the realist literature in international relations, including scholarship on alliances. 98 Much of the work emphasizes the capability aggregation

function of alliances in the international system; states ally with other states in order to augment the strength of their own military forces, in what has come to be known as the 

*Capability Aggregation Model*. The assumption underlying this model is that the process of capability aggregation is simple and efficient.\(^9^9\) Numerous empirical studies have relied on this model to build measures of alliance capability aggregation and found allied material preponderance is statistically correlated with success in war.\(^1^0^0\) Both balance-of-power and material preponderance theorists argue that the distribution of material resources and military capabilities between the two sides is the primary determinant of war outcomes and, more importantly for the purposes of this study, accounts for much of the variation in coalition battlefield performance observed across wars.\(^1^0^1\)

*Non-material Explanations: Regime Type, External Threat and Coalition Political Cohesion*

But a growing body of literature suggests that conventional assessments of coalition military power based on material resources are seriously incomplete in failing to account

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\(^9^9\) Morrow coined this term in Morrow, "Alliances and Asymmetry: An Alternative to the Capability Aggregation Model of Alliances."


\(^1^0^1\) More recently, however, empirical findings have cast doubt on the significance of material preponderance for war outcomes. In the most exhaustive investigation of the association between material preponderance and war outcomes, Stephen Biddle finds a weak relationship at best. His efforts to estimate the odds of victory in war with five material indices of military power—gross national product (GNP), population, military personnel, military expenditures, and a composite index—explain at most 60 percent of war outcomes. Biddle, *Military Power: Explaining Victory and Defeat in Modern War*, pp. 20-23. In a challenge to Biddle's findings, Beckley argues that the more economically developed combatant consistently outfought the poorer side in battle. See Beckley, "Economic Development and Military Effectiveness."
for how states translate those resources into actual coalition fighting power. In short, what matters for coalition military power is not simply aggregate levels of material resources, but how well coalitions use those resources in fighting actual battles, or coalition military effectiveness. Accordingly, other scholars emphasize that certain non-material factors—democratic political institutions, external threat, and coalition political cohesion—significantly affect the generation of coalition military power. This class of theories offers an explanation for why some military coalitions consistently excel at turning aggregate resources into coalition fighting power, while others display constant weakness, and still others exhibit variations in their coalition military prowess over time. In short, they suggest why military coalitions with similar levels of material resources may fight more or less effectively on the battlefield and thus generate very different levels of coalition military power.

**Regime Type: Alliances of Democracies**

The most prominent and most theoretically developed theory of coalition military effectiveness is regime type. Some scholars argue that democratic military coalitions enjoy certain advantages over types of coalitions in selecting and waging winnable wars. This research begins with an observed link between regime type and war outcomes: since 1815, democracies have been more likely than non-democracies to win wars, particularly

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102 As Brooks recounts, military power is a combination of both "the basic resources" of a state or coalition and "how it uses those resources, or effectiveness." Brooks, "Introduction," p. 3.

103 Studies on the sources of national military effectiveness also point to social cleavages, culture and civil-military relations. While these explanations enhance our understanding of national military effectiveness, they are less relevant for the generation of coalition fighting power than the other three non-material explanations treated at length in this study. For more on the sources of national military effectiveness, see footnote 93 earlier in this chapter.
if they are the initiators of such conflicts. In Democracies at War, Dan Reiter and Allan C. Stam advance two sets of explanations to account for this phenomenon: selection effects and military effectiveness. According to the selection-effects argument, democracies are systematically better at strategic assessment, selecting to fight only wars that they know they can win. Democratic leaders have greater electoral incentives to avoid unwinnable wars, as voters will punish leaders who initiate such costly military blunders. Liberal democracies also benefit from a robust marketplace of ideas that ensures leaders have access to high-quality information regarding their adversaries, so they more accurately assess the balance of power before deciding on military action.

Democracies thus select into winnable wars.

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104 In a seminal study, Reiter and Stam found that democracies won 76 percent of all wars in which they were combatants, including about two-thirds of the wars in which they were the targets of hostilities, and nearly all of the wars in which they were initiators of conflict. In recent years, however, the validity of those findings has been cast in doubt, as scholars have retested these claims, with use of alternative codings and the addition of "draws" to the dataset. See also Lake, "Powerful Pacifists: Democratic States and War," 24-37; Bruce Bueno de Mesquita and Randolph M. Siverson, "War and the Survival of Political Leaders: A Comparative Study of Regime Types and Political Accountability," ibid.89, no. 4 (December 1995): 841-855; Dan Reiter and Allan C. Stam, "Democracy, War Initiation and Victory," ibid.92, no. 2 (1998): 377-389; Reiter and Stam, Democracies at War; Bruce Bueno de Mesquita et al., The Logic of Political Survival (Cambridge, MA: The MIT Press, 2003). For challenges to these empirical claims, see Desch, "Democracy and Victory: Why Regime Type Hardly Matters," pp. 5-47; Desch, Power and Military Effectiveness: The Fallacy of Democratic Triumphalism; Marko Djuranovic, Democracy or Demography?: Sources of Victory in Modern War (Saarbrücken, Germany: VDM Verlag Dr. Müller Aktiengesellschaft & Co., 2008); Downes, "How Smart and Tough Are Democracies? Reassessing Theories of Democratic Victory in War," pp. 9-51.


Once in a war, democracies also make superior war fighters. Democratic states enjoy important wartime advantages because they better mobilize their wealth, garner greater public support for wars, attain better effort from troops in the field, and make better strategic decisions. More relevant for the purposes of this investigation, David Lake, Ajin Choi and others argue that democracies make superior allies in wartime, thus making them more likely to win wars. Scholars posit two causal mechanisms to explain why democracies make better wartime partners. First, they argue that democracies are more reliable allies in wartime than autocracies, owing to higher domestic audience costs and more veto players in a democratic political system. The core of the audience costs argument is that democratic leaders suffer large domestic audience costs if they fail to fulfill alliance commitments. Democratic publics are reticent to break alliance commitments with other democracies and sanction leaders who fail to honor

them. Therefore once democratic leaders assume alliance obligations, they are less likely
to renege on them for fear of political reprisals and punishments. Likewise, the
existence within democratic political institutions of multiple "veto players," or political
actors with the ability to prevent a change of the status quo, makes it more difficult for
democracies to enter into international commitments. But once these commitments are
made, the same institutional constraints that made it difficult for democracies to assume
obligations also make difficult for them to overturn them. As a result of both higher
domestic audience costs and multiple veto players within democratic political systems,
alliances of democracies are more reliable and durable than other types of alliances. The reliability of democratic alliance commitments leads some scholars to conclude that wartime cooperation among democratic allies is more effective than that of mixed
alliances or alliances comprising only autocracies. What remains unclear, however, is
how such alliance reliability translates into greater coalition fighting effectiveness.

Second, they contend that democracies are better able to cooperate together in

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wartime than non-democracies, because they share a common ideology that engenders greater trust and fraternity, and, in turn, more effective military cooperation. According to Randolph Siverson and Juliann Emmons, democracies tend to form alliances with each other because of their shared commitment to the norms of cooperation and amity.¹¹³ Beyond the shared bonds of friendship and ideological affinity, democratic alliances benefit from open, transparent governments, which provide allies with access to quality information about their intentions, the intensity of their preferences, and their willingness to adhere to their wartime commitments. In turn, allies can monitor each other and, if necessary, punish transgressors, such as those with a tendency to free ride on the military efforts of others.¹¹⁴ Accordingly, these scholars conclude that democratic military coalitions cooperate more effectively in wartime than other types of coalitions.

Although theories of democratic victory have attracted significant scholarly attention in recent years, explanations of coalition military effectiveness based on regime type suffer from a number of critical theoretical and empirical shortcomings. Theoretically, there are compelling reasons to suppose that purely democratic military coalitions find it more difficult to cooperate effectively in wartime than either autocratic or mixed-type coalitions. As Mancur Olson and Richard Zeckhauser suggest, a shared ideological affinity may create incentives for allies to free ride, reasoning that their

democratic brethren will contribute more out of a sense of fraternal obligation. Indeed, accusations of free riding and inequalities in burdensharing are endemic to the history of the world’s largest and most powerful alliance of democratic nations, that of, NATO. Even the greater transparency of democratic political systems may not be enough to identify and punish such transgressions, as rather than clarifying the policies and intentions of democratic allies, transparency often overwhelms outside observers with excessive and contradictory information. On the contrary, it is equally plausible that mixed military coalitions, because democracies and autocracies have different strengths and weaknesses, are more military effective on the battlefield than either purely democratic or entirely autocratic coalitions.

Empirically, the evidence is simply lacking to conclude that democracies are more likely to align with each, or that democratic military coalitions are more militarily effective than either mixed or autocratic coalitions. The key proposition that democracies are likely to align with each other and therefore fight alongside each other on the battlefield is empirically weak, as history offers so few examples of purely democratic alliances. Siverson and Emmons’s own data indicate that democratic alliances

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accounted for only 3.24 percent of the total in the 1920–1939 period and 10.97 percent in the 1946–1965 period. Indeed, in the overwhelming majority of wars in which democracies won in alliance with other states, these alliances included nondemocracies. The Correlates of War (COW) dataset reports only one case of a victorious military coalition comprised solely of democratic states, that of, the 1956 Sinai War, in which Israel, France and Great Britain defeated Egypt. With so few cases, the theory accounts for little of the variation in coalition military effectiveness observed throughout history.

Moreover, the theory gives rise to a significant number of anomalous cases, specifically instances when democratic coalitions fought ineffectively and autocratic coalitions fought effectively on the battlefield. For example, what accounts for the disastrous military performance in 1940 of a democratic military coalition of France and Great Britain against the highly autocratic Nazi Germany, or the more successful military performance of the Sino-North Korean coalition from 1950-1953? These puzzling and historically important anomalies cast serious doubt on the causal mechanisms of this theory.

What is more, the theory has limited explanatory power in accounting for across-time, within-case variation in coalition military performance. If regime type remains constant over the course of a war, which is generally the case, democratic advantages or

120 Siverson and Emmons, "Birds of a Feather: Democratic Political Systems and Alliance Choices in the Twentieth Century." Desch notes that the growth of purely democratic alliances was likely a Cold War phenomenon, a response by democracies born not out of ideological affinity, but fear of the Soviet military threat. Desch, "Democracy and Victory: Why Regime Type Hardly Matters," p.29.
autocratic disadvantages cannot account for variation in wartime military performance. It gives us little insight, for example, into wide variation coalition military performance of Franco-British coalition during the First and Second World Wars, or of the Arab coalitions fighting against Israel in wars between 1948 and 1973. It is therefore necessary to turn to other theories of coalition military effectiveness.

External Threat

Realist scholars of international relations have long posited that the international threat environment induces states to find ways to cooperate and fight as effective wartime allies.\(^{123}\) The central proposition of external-threat theory is higher levels of threat produce greater incentives for military coalitions to fight effectively on the battlefield, whereas low levels of threat are likely to generate less effective military coalitions. Because national survival often depends on coalition battlefield success, states should be highly responsible to threats, increasing their willingness to adjust their military activities so that they can fight more effectively alongside allies in the field. In his seminal study *The Sources of Military Doctrine*, Barry Posen argues that the external threat environment creates powerful incentives for states to adopt effective military practices. What matters most is the interaction between the external threat environment and civilian intervention in military affairs. In periods of heightened external threat, when the prospect of war looms large, fear of defeat prompts civilian leaders to question long-standing military practices and results in civilian intervention to force change on the military. Conversely, when threats are low, such intervention will not occur, giving free

\(^{123}\) This argument is consistent with balancing behavior, whether states balance solely against power or against threats. See Waltz, *Theory of International Politics*, especially pp. 166-176; Walt, *The Origin of Alliances*, pp. 17-49.
reign to the organizational biases inherent in military bureaucracies. In periods of low external threat, military leaders, who are generally risk averse and oriented towards organizational stability and prestige, will resist any changes to military doctrine or force structure.\(^{124}\)

From Posen’s theory it follows that military coalitions will achieve higher levels of coalition military effectiveness, increasing, as the threat environment grows more dangerous. For military coalitions threatened with costly or losing wars, civilian leaders will be more likely to intervene to impose cooperation among allied militaries, which in turn fosters better coalition battlefield integration, cohesion and responsiveness.\(^{125}\)

Militaries as organizations will prefer to fight alone, because allies complicate military planning, diminish organizational control and increase uncertainty over operations in war. The only way to overcome these parochial interests is for the civilian leadership to take charge and ensure that alliance policy infuses military operations. But absent a compelling threat or risk of military defeat such intervention will be very unlikely. These differing threat environments will thus generate very different levels coalition military effectiveness.

What is puzzling for this theory are the numerous instances in which military


\(^{125}\) João Resende-Santos offers a similar argument about the sources of national military effectiveness, predicting that states will emulate the successful innovations of others out of fear of the military disadvantages that arise from being less competitively organized and equipped. See João Resende-Santos, "Anarchy and the Emulation of Military Systems: Military Organization and Technology in South America, 1870-1914," *Security Studies* 5, no. 3 (Spring 1996).
coalitions faced severe external threats but still performed relatively poorly on the battlefield. In both world wars, Germany and its allies confronted simultaneous threats from the east and the west. Despite the gravity of the military situation, Germany and its wartime coalition partners fought at cross-purposes, often left each other in the lurch, and were slow to improvise a joint response to battlefield challenges. Equally perplexing are instances in which military coalitions fought fairly effectively despite relatively low or diminishing external threats. Examples include the US-led military coalition in the 1991 Gulf War and the Allies in the waning months of Second World War, when Germany was all but beaten. If coalition military effectiveness is all a function of external threats, these anomalies should not be so common.

Coalition Political Cohesion

In recent years, some scholars have begun to expand the concept of the threat to include relations among allies within military coalitions. Paul Schroeder was the first to note that alliances can be both “weapons of security and instruments of management.” This turn of attention to the internal management of military coalitions has given rise to new theories of alliance formation and management, including Glenn Snyder’s entrapment-abandonment complex, Christopher Gelpi’s explanation of alliance formation, Weitsman’s study of coalition political cohesion, and Wallander’s

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126 To be sure the Germans were victorious on the Eastern Front in the First World War but that victory came despite abysmal coalition military effectiveness, owing to very poor coalition military cooperation between Germany and Austria-Hungary. For a comparative perspective see DiNardo and Hughes, "Germany and Coalition Warfare in the World Wars: A Comparative Study."

127 This discussion benefited from Talmadge, The Dictator's Army: Battlefield Effectiveness in Authoritarian Regimes, p. 29.

examination of alliance persistence, and Pressman’s theory of alliance restraint. What these scholars share in common is a more nuanced understanding of threats, as existing not exclusively outside the confines of the coalition, but within it, as well. For these scholars, states may form coalitions to protect themselves against a common external threat, but they may also come together because they fear each other as much or more as a state outside the coalition.

Weitsman develops this understanding of external and internal threats into a theory of coalition political cohesion. She posits that when a high level of threat emanates from within the coalition, political cohesion will be low to nonexistent. In contrast, when threat level is low within the coalition, coalition political cohesion will be relatively high. Combining these insights with those of the effects of external threats on coalition cohesion, she identifies four types of coalitions, with varying levels of political cohesion. First, coalitions that confront a low level of internal threat combined with a high level of external threat will achieve moderate to high political cohesion, as the existence of a common enemy provides sufficient incentives to maintain cooperation. Second, when states confront high levels of external threat as well as high levels of internal threat, cohesion will be difficult, although not impossible to sustain. Third, coalitions that confront low levels of internal threat and low levels of external threat provide the necessary, but not sufficient, conditions for cohesion. Finally, coalitions that face low levels of external threat and high levels of internal threat will have little to no


cohesion. Although the causal path is not specified, she argues implicitly that reduced coalition political cohesion undermines coalition military effectiveness, while enhanced coalition political cohesion generates better coalition military effectiveness.

In challenge to Weitsman’s theory, Nora Bensahel asserts that the relationship between coalition political cohesion and coalition military performance is more complex. In the first serious study of the sources of coalition military effectiveness, Bensahel proposes that a “coalition paradox” exists between the maintenance of the political cohesion and the adoption of the most efficient tactics in coalition warfare, at least when the external threat environment is low. On the one hand, if coalition members focus on the military requirements of the operation without accounting for the political interests of its members, the coalition risks disintegration. On the other hand, if coalition members give excessive attention political cohesion without adequately addressing the military requirements of the operation, the coalition risks defeat on the battlefield. In short, greater coalition military effectiveness in a low-threat environment may paradoxically result in reduced coalition military effectiveness.

Whatever the causal path, theories emphasizing threat environment and coalition political cohesion cannot account for historically important cases in which coalition military performance deviates from its predictions. The Franco-British alliance at the start of the First World War constitutes a puzzling anomaly for this theory. In 1914, France and Great Britain faced a grave and unambiguous threat from Germany, along with a low threat level within the coalition, but failed to realize the potential of their material resources. Although Weitsman’s theory predicts moderate-to-high levels of

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coalition military effectiveness, Franco-British coalition forces were not well integrated, cohesive, or responsive.

That having been said, explanations based on the management of military coalitions, such as coalition political cohesion, hold promise, because they have the potential to explain both across-case and across-time, within-case variation in coalition military performance. In contrast to explanations of wealth, capability aggregation, and regime type, the internal management of military coalitions can change in a relatively short period of time, even within the course of a war. In the proceeding section, I therefore develop a theory of coalition military effectiveness, which explores the consequences of internal management of military coalitions for coalition battlefield performance.

A THEORY OF COALITION MILITARY EFFECTIVENESS

A military coalition’s ability to integrate its forces, maintain coalition battlefield cohesion, and exhibit coalition battlefield responsiveness depends fundamentally on both the degree and form of coalition military institutionalization. In bridging both the realist and liberal institutionalist literatures, I offer a realist institutionalist theory of coalition military effectiveness. Drawing on the realist tradition, I conceive of military coalitions as fundamentally tools of capability aggregation, whether for the purpose of maintaining the balance of power or upending it. Drawing on the arguments of neoliberal institutionalism, I argue that coalition military institutions provide the key mechanisms through which coalition members manage intra-alliance uncertainties and fears, thereby allowing for closer coordination of their war effort. Coalition military institutions are
thus the key intervening variable between allied material capabilities and coalition military effectiveness.

**Capability Aggregation Model**

Military coalitions are fundamentally tools of capability aggregation. They allow nations to accomplish in concert what they cannot accomplish alone. In balance-of-power theory, the aggregation of military capabilities by status-quo states and their employment of those capabilities on the battlefield is the fundamental causal mechanism for maintaining the balance of power. In waging coalition warfare, states seek to aggregate their military capabilities and material resources, expanding the power base of the coalition and simultaneously denying those same capabilities to the enemy.

This understanding of military coalitions, known as the **Capability Aggregation Model**, underlies most scholarship on coalitions and alliances. In his seminal work on the origins of alliances, Stephen Walt concludes, “the primary purpose of most alliance is to combine members’ capabilities in a way that furthers their respective interests... Most great-power alliances have arisen in order to aggregate power” Similarly, James Morrow argues, “the dominant view sees alliances as tools for aggregating capabilities against threat; nations form alliances to increase their security by massing their

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132 For revisionist coalitions, composed of dissatisfied states, what are often secondary states seeking profit by bandwagoning with an aspiring hegemon, greater brute force increases their likelihood of success in overturning the established order, even if they must all share the spoils of war. For status-quo coalitions, comprised of satisfied states for which the first concern is security, greater brute force increases their likelihood of defeating aggressors.

133 Friedman, "Alliance in International Politics," pp.10-11.


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capabilities against a common enemy... capability aggregation is the central theme of most work on alliances."135

In recent years, scholars have begun to investigate other causes alliance formation, moving beyond the traditional understanding of alliances as tools for amassing military power. This emerging scholarship suggests that states may sometimes form alliances for the purpose of managing and restraining the new ally.136 However, even these scholars concede that the capability aggregation purpose of alliances either coexists with the management function of alliances, or predominates when the level of external threat is high.137 Indeed, Jeremy Pressman suggests that the causal mechanism of alliance restraint is the same as that of alliance capability aggregation—the institutional pathway for mobilization and the use of power within the alliance.138 Alliances, particularly wartime alliances, are thus fundamentally weapons of capability aggregation.

The Capability Aggregation Model rightly identifies the principal function of coalitions and alliances as capability aggregation, but it presupposes that the process of capability aggregation is efficient (Table 3-1). In this model, military alliances are able to combine efficiently the military capabilities of member states into a fighting force equal to the sum of its parts.139 But military history attests that this process of capability aggregation, whereby allied nations seek to develop the capacity to fight alongside each

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137 See, for example, Weitsman’s distinction between tethering and balancing behaviors in alliances. Weitsman, Dangerous Alliances: Proponents of Peace, Weapons of War, 17-30.
138 Pressman, Warring Friends: Alliance Restraint in International Politics, especially 2-4.
139 Examples of studies which either implicitly or explicitly assume that alliances are equal to the sum of their parts include Morrow, "Arms Versus Allies: Trade-Offs in the Search for Security."; James D. Morrow, "Alliances, Credibility and Peacetime Costs," Journal of Conflict Resolution 38, no. 2 (1994); Schweller, Deadly Imbalances: Tripolarity and Hitler’s Strategy of World Conquest; Morgenthau, Politics among Nations; Walt, The Origins of Alliances; Friedman, "Alliance in International Politics."
other as if a single military, with close integration, cohesion, and coalition battlefield responsiveness, is a complex and difficult undertaking. Importantly, military alliances and coalitions display wide variation in their capacity to convert national resources and capabilities into actual coalition fighting power, what is coalition military effectiveness. In a classic example from military history, Arab military coalitions possessed significant quantitative advantages against Israel in 1948, 1967 and 1973 but on each occasion, proved unable to defeat the Jewish state on the battlefield. This historical anomaly suggests that military coalitions vary significantly in their capacity to aggregate national military capabilities and transform them into coalition fighting power.

Table 3-1: Capability Aggregation: Are Military Coalitions More than, Less than or Equal to the Sum of their Parts?

| COALITION MILITARY POWER = \( \alpha (C_1 + C_2 + \ldots + C_n) \), where |
|-----------------|-----------------|
| \( C_1 \) = Nation 1’s military power, |
| \( C_2 \) = Nation 2’s military power, |
| \( C_n \) = Nation N’s military power, |

\( \alpha \) = CAPABILITY AGGREGATION PROCESS

<table>
<thead>
<tr>
<th>Theories of Capability Aggregation</th>
<th>WHAT IS THE VALUE OF ( \alpha )?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Capability Aggregation Model</td>
<td>Equal to the sum: ( \alpha = 1 )</td>
</tr>
<tr>
<td>2. Joint Production Economies and Specialization</td>
<td>More than the sum: ( \alpha &gt; 1 )</td>
</tr>
<tr>
<td>3. Inefficiencies in Political Coordination</td>
<td>Less than the sum: ( 0 &lt; \alpha &lt; 1 )</td>
</tr>
</tbody>
</table>

The political science literature provides theoretical support for such variation in coalition and alliance capability aggregation. Indeed, the microeconomics literature

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suggests that alliances—analogous to joint production by separate and independent firms—may be more than the sum of their national military contributions by enjoying the benefits of military specialization and joint production economies (Table 3-1). In this view, David Lake argues that gains from joint production economies occur in three ways. First, technology influences the costs of projecting force over a long distance, such that the technological innovations of the Second World War, specifically the long range bomber and nuclear weapons—reduced the cost of military power projection. Second, the production of security for one state often produces security benefits for other states as well, much as the US effort to defer the Soviets during the Cold War created security benefits for both the US and potential targets of Soviet aggression in Europe and Asia.

By coordinating their efforts, or what economists refer to as “internalizing” their positive externalities, states may able to reduce redundant efforts and share costs, thereby lowering joint defense burdens from their unilateral levels. Finally, pooling their resources and efforts makes possible a military division of labor between states, producing mutual rewards through military specialization and exchange. To realize increasing returns of scale through military cooperation, states need to accept total military interdependence. The anarchic, self-help nature of the international system, however, often makes military interdependence a high-risk strategy in international policies; the ally of today could become the enemy of tomorrow.

142 Ibid., 49-51.
143 Ibid., 47-49.
What is more, the large potential benefits of military cooperation are most often offset by the inefficiencies inherent in coalition political bargaining (Table 3-1). In her study of coalition military performance, Nora Bensahel identifies five reasons why the process of capabilities aggregation may be inefficient. First, because states remain uncertain of the future intentions both adversaries and friends, states have strong incentives to retain military autonomy. Glenn Snyder develops this notion into the entrapment-abandonment paradox of alliance politics. Second, alliances suffer from collection action problems and the related challenges of free riding and disagreements on burdensharing. Third, because states need only identify compatible, not identical national interests to form an alliance, alliances must engage in a process of intra-alliance bargaining, which may frustrate or impede efforts to effectively aggregate capabilities. Fourth, even though nations may have strong incentives to aggregate their national capabilities, national militaries may retain strong organizational preferences for military autonomy. In their implementation of civilian orders to assemble an effective coalition force, national military officers often enjoy broad discretion in their implementation of the necessary operational and tactical arrangements. Finally, the process of capability aggregation may suffer from interoperability challenges resulting from the diversity in national military technologies and troop skill levels. For all these reasons, Holsti et al.

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147 Olson Jr and Zeckhauser, "An Economic Theory of Alliances."
150 Steve Bowman argues that a lack of interoperability is the “single most significant factor that may cause friction” within an alliance. See Steve Bowman, "Historical and Cultural Influences on Coalitions Operations," in Thomas J. Marshall, ed., *Problems and Solutions in Future Operations* (Carlisle, PA: Strategic Studies Institute, US Army War College, 1999), 1-21. In addition to differences in weapons
conclude, "alliance capabilities are less—perhaps substantially less—than that of the individual nations combined..."\(^{151}\)

Military history seems to support this conclusion, as alliances and coalitions routinely fail to aggregate their capabilities into a fighting force equal to the sum of their parts. The Anglo-American alliance in World War II was, in the view of most historians, the most successful and militarily effective coalition in history.\(^{152}\) Even as a model of coalition military effectiveness, the Anglo-American alliance was less than the sum of its parts. The wartime alliance was plagued by inefficiencies, arising from bitter disputes over military strategy, differences in national interests, and mutual suspicions.\(^{153}\) General Dwight Eisenhower, reflecting on his military command of the Allies in World War II, remarked,

\begin{quote}
History testifies to the ineptitude of coalitions in waging war. Allied failures have been so numerous and their inexcusable blunders so common that professional soldiers had long discounted the possibility of effective allied action unless available resources were so great as to assure victory by inundation. Even Napoleon's reputation as a brilliant military leader suffered when students ... came to realize that he always fought against coalitions—and therefore against divided counsels and diverse political, economic, and military interests.\(^{154}\)
\end{quote}

Even if coalition-fighting power is generally less than the sum of its parts, military coalitions differ significantly in how successfully or un成功fully they are able to aggregate their national capabilities. In other words, military coalitions vary in coalition

\footnotesize
systems and skill levels are dissimilar cultures, specifically language barriers, religion, customs, heritage, gender roles and social values that may affect the way militaries collaboration. See Gal Luft, *Beer, Bacon and Bullets: Culture in Coalition Warfare from Gallipoli to Iraq* (Charleston, SC: BookSurge, 2010).

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151 Holsti et al., *Unity and Disintegration in International Alliances*, 22.

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153 For short, but excellent review of Anglo-American alliance dynamics, see Stoler, *Allies in War: Britain and America against the Axis Powers, 1940-1945*.

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military effectiveness from slightly to significantly less than the sum of their parts. To understand such variation, we must account for both the process of capability aggregation within military coalitions and its consequences for coalition military performance.

**Coalition Military Institutions**

The key to effective capability aggregation is coalition military institutionalization. Coalition military institutions, understood as the organizational structures, complex rules and norms that regulate relations, constrain activities and shape expectations among coalition members, enable states to aggregate capabilities more efficiently and effectively than would otherwise be possible in their absence. As the process of capability aggregation has become increasingly complex and more demanding over time, because of the speed, maneuver, and combined arms tactics of the modern battlefield, effective capability aggregation has come to demand a high level of military institutionalization.

Coalition military institutions provide the key mechanisms through which coalition members manage intra-alliance uncertainties and fears, thereby allowing closer coordination of their war effort. The fundamental obstacle to allied military cooperation is the security dilemma, which gives rise to reciprocal fears of abandonment and entrapment among allies. On the one hand, states fear entrapment—that is, they fear

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alliance commitments will encourage allies to behave recklessly, dragging them into needless conflicts in which they have no interest at stake. On the other hand, states fear abandonment—that is, they fear that their allies will abandon them against the enemy, not fulfilling their alliance commitments in times of war. The dilemma for states is that efforts to reduce the risk of abandonment are likely to increase the risk of entrapment, and vice versa.\textsuperscript{157}

Coalition military institutions are critical in that they help to states to allay such fears, thereby removing critical barriers to allied military cooperation. First, institutions provide high-quality information about the current and future intentions of allies, which increases trust of others’ benign motives, reduces fears about relative gains, decrease perceptions of intra-coalition threat, and, in turn, makes states more willing to coordinate their military endeavors. Because states can never be certain of the future intentions of their allies, they have strong incentives to avoid becoming too dependent on allied military capabilities.\textsuperscript{158} Likewise, they will be disinclined to provide allies with military technology and knowledge of their battlefield practices, if they have reason to fear such information could later be used against them.\textsuperscript{159} Institutions help to assuage fears about future behavior by creating a venue where members can voice and manage their concerns.

\textsuperscript{157} Snyder, pp. 180-182.
as well as provide more predictable routines for their interaction.\(^{160}\) By improving both
the quality and quantity of information available within the coalition, institutions increase
the level of transparency among members, raising the expected costs of moral hazard and
cheating, as the likelihood of detection and retaliation increases, thus ensuring that allies
take greater steps to avoid them.

Second, coalition military institutions further encourage cooperation by increasing
the number of transactions among allies over time. This institutionalized iteration
discourages both abandonment and entrapment by creating the prospect of future gains
through cooperation, thereby invoking the “shadow of the future” to deter states from
reneging on their coalition military commitments or behaving in ways that are overtly
reckless.\(^{161}\) In short, a state which failed to abide by its coalition military commitments
would jeopardize its prospects of benefiting from future military cooperation, because its
allies would likely retaliate in kind. In this way, institutions encourage reciprocity among
allies.

Third, coalition military institutions link together all allied political and military
cooperation, whether that cooperation is diplomatic, economic, among navies, armies or
air forces, intelligence organizations, the research and development of new military
technologies, or weapons production. Because they negotiate a wide range of issues
together, allies are able to negotiate package deals, simultaneously bargaining across

\(^{160}\) The term “voice opportunities” comes from Albert Hirschman, *Exit, Voice and Loyalty—Response to
Decline in Firms, Organizations and States* (Cambridge: Harvard University Press, 1970). On this point,
see also Joseph M. Grieco, “State Interests and International Rule Trajectories: A Neorealist Interpretation
of the Maastricht Treaty and European Economic Monetary Union,” *Security Studies* Vol. 5 no. 3 (Spring

multiple issues for combined settlement. In other words, issue linkage increases interdependence among allies, creating opportunities for side payments to eventually reach a mutually satisfactory compromise.\textsuperscript{162} Such linkages also make betraying the military coalition more costly, because it provides allies with multiple issue areas for extracting punishment.

Finally, coalition military institutions reduce the transaction costs of military cooperation. In providing a framework for further cooperation, institutions reduce the costs of negotiating, monitoring and verifying cooperative arrangements, making cooperation more profitable and thus more attractive.\textsuperscript{163} In prescribing regular interaction among allies, institutions facilitate agreement on military planning, operations and war aims. In sum, coalition military institutions help to mitigate concerns about the present and future behavior of allies, thereby enabling states to overcome key obstacles to military cooperation. To this point several game-theoretic models of alliance formation suggest that more institutionalized alliances should perform better than their less institutionalized counterparts in terms of alliance reliability, credibility of signaling intentions and the occurrence of war.\textsuperscript{164}

Beyond the degree of coalition military institutionalization, whether it is high or low, the form of that institutionalization matters significantly for coalition military


\textsuperscript{163} Keohane, \textit{After Hegemony}, pp. 89-92.

performance. More recent work from Patricia Weitsman has suggested that the institutional arrangements constructed to prosecute coalition wars exercise a powerful influence on war-fighting effectiveness. She posits that both the size of the coalition and the structure of decision making are critical determinants of coalition military effectiveness. Specifically, states may adopt broad institutional arrangements in peacetime to manage the peace among allies, or to signal widespread international support and legitimacy for an action, yet such arrangements when called on in wartime tend to undermine coalition military effectiveness by adding an unwieldy number of actors, introducing a multitude of interoperability challenges and complicating decision-making procedures. Weitsman makes a major contribution in pointing to the consequences of institutional design for coalition military effectiveness. What are less clear, though, are precisely which institutional structures and decision-making mechanisms matter the most for the generation of coalition fighting effectiveness.

In order to develop a better understanding of the relationship between coalition military institutionalization and coalition battlefield performance, this study focuses on variation in the design of three key sets of institutional processes: coalition military-planning procedures, command relationships, and information exchange. These three areas of coalition military institutionalization significantly affect the capacity to generate coalition forces with coalition battlefield integration, cohesion, and responsiveness.


\[166\] Weitsman, Waging War: Alliances, Coalitions and Institutions of Interstate Violence, pp. 14-47.
Figure 3-4. A Realist Institutional Theory of Coalition Military Effectiveness

<table>
<thead>
<tr>
<th>Independent Variable: Degree and Form of Coalition Military Institutionalization</th>
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</thead>
<tbody>
<tr>
<td>Coalition's institutional processes for:</td>
</tr>
<tr>
<td>1. Political-Military Planning</td>
</tr>
<tr>
<td>2. Command Relationships</td>
</tr>
<tr>
<td>3. Information Exchange</td>
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</tbody>
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<tr>
<th>Dependent Variable: Coalition Military Effectiveness</th>
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<tr>
<td>Coalition's ability to aggregate national military capabilities and transform them into coalition military capabilities with the capacity for:</td>
</tr>
<tr>
<td>1. Battlefield Integration</td>
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<tr>
<td>2. Coalition Battlefield Cohesion</td>
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<td>3. Coalition battlefield responsiveness</td>
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Coalition Political-Military Planning

Coalition political-military planning is critical for coalition military effectiveness. Specifically, joint political-military planning facilitates the adoption of a common political-military strategy. Because national interests are hardly ever identical, nations rarely enter a military coalition with identical views on the political objectives to be achieved or the military means to be employed by the coalition. In prescribing regular interaction among allies, the process of joint political-military planning provides a mechanism for allies to reconcile such differences, creating both channels of communication and routines for decision-making and consultations. Representation and

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167 As Paul Kennedy remarks, “military alliances were, and are not, the same as friendships.” Paul Kennedy, “Military Coalitions and Coalition Warfare over the Past Century,” in Keith Neilson and Roy A. Prete, ed., *Coalition Warfare: An Uneasy Accord* (Waterloo, Ont.: Wilfrid Laurier University Press, 1983), p. 3.
voting rights on allied war councils and planning processes provide states with voice opportunities to advance and defend their national interests within the military coalition, providing even militarily-weaker allies with a means of influencing the negotiation process, which mitigates fears of domination by stronger allies. In creating an institutional mechanism for each to influence the policy of the others, allies send a highly credible signal their benign intentions, that each will use its military power in ways that are both responsible and predictable, assuaging fears of abandonment and entrapment.

In other words, the process of joint political-military planning increases transparency among allies. By its nature, joint political-military planning entails the exchange of information among allies, specifically knowledge of each other’s military capabilities, including force levels, weapons technology, and mobilization schedules, as well as knowledge of each other’s war aims and doctrinal preferences. The exchange of such information provides a reliable way to assess the current and future intentions of allies, thus alleviating suspicions and reducing uncertainties about the future behavior of allies. In negotiating the adoption of a common political-military strategy, allies formalize operational plans, military contributions and expectations. Although allies are


certainly able to break such institutional agreements, the formal agreement itself makes defection and cheating more costly, thereby reducing its likelihood of occurrence. ¹⁷¹

Joint coalition political-military planning facilitates coalition battlefield integration, cohesion, and coalition battlefield responsiveness. The adoption of a common political-military strategy enhances coalition battlefield integration by conferring to coalition commanders a common understanding to link together military operations, battles and engagements in both space and time. ¹⁷² It also provides the basis for calculating force requirements, specifically national military contributions, while taking account of national differences in mobilization processes, logistic capabilities, weapon quality and troop-skill levels.

With a shared understanding of military operations, as well as the greater fidelity that tends to emerge through repeated contacts in the planning process, coalition forces are likely to develop a stronger commitment to coalition military operations, thereby enhancing coalition battlefield cohesion. Coalition military planning thus alleviates mutual mistrust through transparency mechanisms, raising the costs of defection and defining what constitutes defection. The shadow of the future discourages the abandonment of allies on the battlefield, as an ally in need of support today is likely to be the source of reinforcements in a time of future peril. ¹⁷³

¹⁷¹ Admittedly, empirical support for this claim is weak. Leeds and Anac found alliances with higher levels of institutionalization or more formal alliance were not more reliable in honoring alliance commitments. See Leeds and Anac, "Alliance Institutionalization and Alliance Performance."


Finally, a common military strategy ensures the clear and unambiguous identification of military objectives, which is critical for coalition battlefield responsiveness, as it ensures that when opportunities present themselves on the battlefield, coalition military forces will make the most of them, or at least not let them slip by unnoticed.\(^{174}\) A common military strategy, as negotiated through joint political-military planning, thus binds national militaries together into an integrated, cohesive and responsive coalition military. The alternative is compartmentalization of the planning process, which allows plans to be drawn up in an idealistic vacuum, without the consultation of allies, even though the success of their execution is likely to depend critically on allied militaries.

Command Relationships

The capacity for military coalitions to generate integrated, cohesive, and responsive military forces depends fundamentally on \textit{command relationships}.\(^{175}\) Command structures establish who has the authority and responsibility to direct the action of subordinates subject to a code of military discipline. While the challenge of exercising command is as old as war itself, its dimensions have grown significantly in modern times, particularly with the advent of combined-arms warfare.\(^{176}\) Once a force subdivides into subunits, command structures become especially critical for surmounting the problem of assigning a specific mission to each, and of ensuring the proper coordination among


\(^{175}\) I use term “command” to refer to the full concept of command, control and communications (C\(^3\)). Command refers to the ability of commanders to direct the battle by making decisions and issuing orders to subordinates. The mechanisms by which he directs the battle are termed control and communications.

them. These difficulties increase with the number and size of units, the power and range of their weapons, the speed of their advance and retreat, and size of their theaters of operation. As the units in question differentiate in function and missions, that is, become specialized, the difficulty of coordinating the force grows still further. In waging coalition warfare, the introduction of specialized military units from multiple nations increases exponentially the challenge of melding and coordinating every element of combat power towards achievement of the objective.

To overcome these challenges, military coalitions must adopt unity of command, which is the practice of bringing together all forces operating in a single theater under a single commander, assisted by a staff of representatives from all coalition nations. In turn, unity of command provides military coalitions with the capacity to generate integrated, cohesive, and responsive forces. Indeed, it is nearly impossible to achieve a high level of coalition battlefield integration in the absence of unity of command. With political-military objectives laid down, the responsibility of all coalition commanders is to gather intelligence, plan the battle, and monitor operations in achievement of those objectives. Importantly, a supreme coalition commander provides a mechanism to ensure that coalition military forces fight in ways consistent with the achievement of the coalition’s political-military objectives, as he or she benefits from a broad and comprehensive understanding of all theater operations, which encourages the integrated employment of coalition combat forces across the entire front of operation.

In one of the most vivid descriptions of the coalition commander’s role in bringing

177 van Creveld, p. 6.
about coalition battlefield integration, Generalissimo Ferdinand Foch explained, “I am the leader of an orchestra. Here are the English Bassos, here the American baritones, and there the French tenors. When I raise my baton, every man must play, or else he must not come to my concert.” In the absence of a unified command, national military commanders are more likely to engage in debilitating competition, in which each commander’s view of the battle is too narrow to appreciate the larger theater-wide military landscape, and each national contingency pursues its own narrow interests and objectives at the expense of the coalition as a whole. General John Pershing, commander of the American Expeditionary Force in World War I, recognized this problem in 1918, arguing:

The principle of unity of command is undoubtedly the correct one for the Allies to follow. I do not believe that it is possible to have unity of action without a supreme commander. We have already experience enough in trying to coordinate the operations of the Allied Armies without success. There has never been real unity of action. Such coordination between two or three armies is impossible no matter who the commanders-in-chief may be. Each commander-in-chief is interested in his own army, and cannot get the other commander’s point of view or grasp of the problem as a whole. I am in favor of a supreme commander and believe that the success of the Allied cause depends on it.

In issuing clear and unambiguous military objectives and operational plans, a unified command makes unilateral action, defection and cheating among allies more costly, as military activities taken in contravention of coalition commander’s orders cannot go unnoticed, particularly with liaison officers providing regular battlefield reports to

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coalition command headquarters. In short, a unified command brings about unity of action in both time and space, such that coalition military forces become both closely integrated on the battlefield.

Unity of command also enhances coalition battlefield cohesion. Effective command relationships are the product of both command structures and command leadership. While the former is largely a matter of organization, the latter concerns the characteristics of commanders within that organization. While all coalition commanders have the legal authority to issue orders to subordinates who must carry them out in accordance with the code of service discipline, not all coalition commanders practice leadership, that capacity to influence others to do willingly what is necessary to accomplish the mission. General Eisenhower, as supreme commander of Allied forces in Europe, appreciated the importance of command leadership, asserting:

Since cooperation, in turn, implies, such things as selflessness, devotion to a common cause, generosity in attitude, and mutual confidence, it is easy to see that actual unity in allied command depends directly upon the individuals in the field. This is true if for no other reason than no commander of allied force can be given complete administrative and disciplinary powers over the whole command. It will therefore never be possible to say the problem of establishing unity in any allied command is ever completely solved. This problem involves the human equation and must be met day by day."

Similarly, Elliot Cohen observes that General Foch conceived of his role as supreme commander, as "the power to persuade and suggest, not to order." As coalition commander, leadership is the capacity to motivate and persuade, instill a sense of

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common direction and purpose, and act with tact and forbearance in addressing the
concerns and needs of allies. It is thus an essential element of command.

It plays a critical role in developing coalition battlefield cohesion. Coalition
commanders are in a position to establish norms of cooperation, mutual respect, devotion
to the common cause and mutual confidence among allied troops. General Eisenhower,
who exemplified the leadership qualities of a highly effective coalition commander,
appreciated this capacity to affect allied unity and, in turn, coalition battlefield
integration. In a widely circulated story of a remark he supposedly made to General
Patton, he admonished, "I don’t mind if one officer refers to another as that son of bitch.
He’s entitled to his own opinion. But the instant I hear of any American officer referring
to a brother officer as that British son of a bitch, out he goes." It requires a military
commander who remains sensitive to equality in both burden sharing and risk taking, as
well credit. Such leadership qualities engender commitment and loyalty among coalition
military forces, making them more likely to remain and fight, once bullets start to fly,
placing service and sacrifice to the coalition over individual-unit survival.

Of particular importance is the adoption of an integrated command staff, with
military representatives from each of nation within the military coalition, to support the
supreme coalition commander. The practice of integrating staffs ideally flows down to
the lowest levels of the organization in which national units are likely to fight alongside
one another in the field. An integrated command staff provides voice opportunities for
allies to represent their national perspectives and respective concerns, thereby assuaging

\[185\] Quoted in Theodore Powell, Democracy in Action: The Voices of Men in American Government and
\[186\] See Anthony J. Rice, "Command and Control: The Essence of Coalition Warfare," Parameters (Spring
fears and strengthening commitments to coalition military operations.

Equally important, the supreme allied command must give all allied view a fair hearing. Eisenhower reflect these sentiments, writing to Lord Louis Mountbatten as the latter prepared to assume command in South East Asia, advising, “Patience, tolerance, frankness, absolute honesty in all dealings, particularly with all persons of the opposite nationality, and firmness are absolutely essential.”\(^{187}\) The fostering of trust requires time for a careful appraisal of one another to emerge from the many professional and personal relationships forged within the coalition. In the heat of battle, when rapid decisions must be made on the battlefield, the earned trust and confidence of coalition troops is critical to a coalition commander’s ability to ensure coalition battlefield cohesion, thus extracting a sustained and unwavering commitment to coalition military operations.

Finally, unity of command is critical for generating coalition military forces with the capacity for coalition battlefield responsiveness. On a fluid battlefield, both when plans go awry and opportunities present themselves to strike a critical blow against the enemy, allied unity of command enhances the capacity of coalition troops to respond more quickly and adeptly than the enemy.\(^{188}\) A unified coalition command structure provides a broad and comprehensive understanding of all theater operations, enabling the military coalition to identify manage the most critical vulnerabilities among its own forces, as well to spot the profitable windows of opportunity against enemy forces. The coalition can more effectively respond to changing present, both delegating tasks quickly and efficiently and resolving competing demands for resources speedily and wisely.\(^{189}\)


\(^{188}\) Rice, "Command and Control: The Essence of Coalition Warfare."

\(^{189}\) Cohen and Gooch, Military Misfortunes, pp. 161, 240.
Importantly, a single command structure breaks down national boundaries as barriers to the military coalition’s capacity to suppress weaknesses and strike opportunities, making coalition military units more interchangeable across the front of operations. The military coalition thus develops the flexibility to shift and move forces in response to battlefield developments. This capacity to act and react faster and more intelligently than the enemy creates is the essence of coalition battlefield responsiveness.

Even though unity of command is arguably the most fundamental principle of coalition warfare, it remains one of the most difficult principles to realize in wartime. Because it requires nations within the coalition to relinquish a degree of sovereign authority over their forces to a foreign commander, allies often lack the requisite trust and confidence in one another to adopt a unified command system. Most recently, coalition forces waging the war in Afghanistan lacked unity of command for the first six years of US-NATO military operations. In the absence of unified command arrangements, however, a system of national spheres of responsibilities, or parallel command structure, and to a lesser extent, a lead-nation command structure, in which one nation, typically the nation contributing the most military forces, assumes the responsibilities of command, permits coalition partners to pursue their own national interests and political objectives with little consideration of the interests of the coalition as a whole and to the detriment of coalition military effectiveness.

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Information Exchange

The exchange of information among allies is vital to coalition military performance. *Information exchange* refers to the rules, procedures and norms associated with the gathering, analysis and dissemination of information among coalition nations about their own military activities and capabilities, as well as those of allies and adversaries.\(^{193}\) By definition, allied nations have private information about their own military affairs, including evaluations of their capabilities as well as the costs, risks and the probability of success of alternative military plans. In addition, their intelligence agencies are likely to have collected information on the military capabilities and plans of both allies and enemies.\(^{194}\) Although such information clearly bears on the coalition’s military plans, nations are often reticent to share such information with allies, if not inclined to provide false or intentionally misleading information, often fearing that such knowledge could later be used against them.\(^{195}\) Even among ostensibly close friends and old allies, secrets are always kept.

Nevertheless, allies have an interest in maximizing the availability of such information for coalition military effectiveness. First, the exchange of information about one’s own military capabilities and activities, as well as the enemy’s capabilities and military plans, enhances coalition battlefield integration. This information is critical to make effective operational plans and ensure that, in its battlefield activities, coalition partners act in ways consistent with achievement of common military objectives. It also


\(^{195}\) See, for example, Bradley F. Smith, *Sharing Secrets with Stalin: How the Allies Traded Intelligence, 1941-1945* (Lawrence: University Press of Kansas, 1996).
ensures that the military coalition takes account of national differences in skill levels, weapon quality, and logistics support in allocating military missions, thus assigning achievable military tasks to forces.¹⁹⁶

Second, information exchange increases coalition battlefield cohesion. In sharing sensitive military information, allies send to each other a credible signal of their benign intentions, mitigating fears about relative gains. The free flow of information increases transparency and builds trust and confidence among allied military staffs. With greater knowledge about the military plans of allies comes greater certainty about the intentions of allied forces. Information sharing can increase their confidence in each other, assuaging fears allies will abandon them against the enemy, and in turn making allied partners more likely to come to the aid of each other in battle.

Finally, information sharing enhances coalition battlefield responsiveness. The timely provision and exploitation of information and intelligence is critical for coalition battlefield responsiveness. It creates a shared situational awareness, which improves the coalition’s ability both to defend its vulnerabilities against enemy attack and exploit opportunities of target.¹⁹⁷ In sum, coalition military effectiveness depends critically on the exchange of information among allies about military capabilities and activities.

HYPOTHESES ON COALITION MILITARY EFFECTIVENESS

What forms of coalition military institutionalization are likely to generate the highest levels of coalition military effectiveness? More specifically, when will military-
planning procedures, command relations, and information exchange produce coalition forces with the capacity for coalition battlefield integration, cohesion, and coalition battlefield responsiveness? In this section, I present four ideal-type military coalitions, explaining how variation in coalition military affects coalition military effectiveness. More specifically, I account for how both the degree and form of coalition military institutionalization produces the four values of the independent variable (e.g., poor, fair, good and excellent), which I developed earlier in the chapter. Finally, I present several hypotheses about when coalition military effectiveness should be better or worse, depending on variation in both the degree and form of coalition military institutionalization.

*The “Excellent” Military Coalitions: High Coalition Military Institutionalization for Maximum Coalition Military Effectiveness*

The most effective military coalitions are those that display battlefield integration, cohesion, and coalition battlefield responsiveness. The generation of coalition forces with these combat skills requires the close coordination of military activities from highest to lowest levels of the political-military hierarchy. This type of coalition military cooperation is generally only possibly when the coalition adopts a specific set of institutional mechanisms toward coalition military forces. Specifically, it requires joint political-military coalition planning, unity of command with an integrated command staff, as well as the appointment of commanders with specific command leadership skills, and the fluid exchange of information among coalition nations.

First, the most effective military coalitions engage in extensive, representative, and routinized joint political-military planning. These coalitions establish channels of
communication and routines for decision-making, particularly at the highest levels of the political-military hierarchy. These communication and decision-making procedures are inclusive, as they provide for the representation and voting rights of all allies, ensuring “voice opportunities” for all. To manage their collective war effort, these coalitions create an allied war council, or similar organization, invested with the task of making critical decisions related to prosecution of the war beginning with the negotiated adoption of a common political-military strategy.

What makes these military coalitions highly effective, however, is that joint military planning extends beyond the highest levels of the coalition. Throughout the military hierarchy, military officers regularly interact and consult with their allied counterparts, particularly with regards to the planning and execution of military operations. Within these joint-planning bodies, conversation is relatively unguarded, allowing for productive conversation and debate. Although allies may at times conflict intensely over how to best wage the war, their shared interests are sufficient to prevent such disagreements from devolving into defection or open disaffection.

As a result of such joint political-military planning, these military coalitions adopt clear war aims and a common political-military strategy, which confers to military commanders a common understanding of the battlefield for linking together all military operations, engagements and battles in space and time. These repeated contacts and exchanges not only facilitate coalition battlefield integration, but they enhance coalition battlefield cohesion by building greater trust and fidelity among coalition soldiers, thus making them more willing to stay and fight, risking their lives for one another. Moreover, because the adoption of formal agreements and plans makes defection and
cheating more costly, these military coalitions almost never abandon allies on the battlefield. Finally, joint political-military planning increases the coalition battlefield responsiveness of coalition military forces, as their shared understanding of military objectives ensures that when opportunities present themselves on the battlefield, coalition military forces will make the most of them, or at least not let them slip by unnoticed.

Second, the most effective military coalitions adopt unity of command with an integrated command staff, and they select and appoint officers who possess the coalition-leadership skills needed to effectively wage a coalition war. These coalitions establish unity of command down to the lowest level of the military hierarchy in which units are combined in formation. A supreme allied commander, acting as the theater’s command-in-chief, assumes responsibility for conduct of the war within the theater of operations. Because the supreme allied commander holds the broadest view of the battlefield, along with the authority to assign military tasks to units and oversee their accomplishment, his command generates coalition battlefield integration. Regardless of the nationality of the commander, the command staff represents the cross-section of national units under command, thus providing all allies with representation. Similarly, liaison officers both communicate the intentions of commanders and provide oversight by providing regular battlefield reports to coalition commanders. In these military coalitions, even if nations retain the right to appeal command decisions, they seldom use it, because defection and unilateral action is simply too costly in the shadow of the future. Likewise, subordinates in the field obey the orders of coalition commanders from foreign militaries, as the contravention of such orders fails to go unnoticed. In short, unified command enables these military coalitions to achieve unity of effort on the battlefield. Because these
military coalitions carefully select and appoint as coalition commanders those officers with the leadership capacity to motivate, persuade and inspire, as well as act with tact and forbearance in their dealings with allies, they have the mutual confidence of their troops, who fight with coalition battlefield cohesion.

Finally, within the most effective military coalitions, information sharing is fluid. These military coalitions actively promote the exchange of information among the national militaries of the coalition and between political and military leaders. Neither military leaders representing different national contingencies nor their political overseers have good reason to withhold information about intentions, capabilities or military plans. There is no concerted effort by politicians or military leaders to distort or withhold information provided to allies. By institutionalizing procedures for information sharing, military units from different nations are able to disseminate vital information to one another quickly in battle, improving their capacity to achieve and maintain coalition battlefield integration and cohesion, as well as to respond and exploit opportunities on the unfolding battlefield.

In sum, military coalitions with the best capacities for coalition battlefield integration, cohesion, and coalition battlefield responsiveness are most likely in those coalitions which achieve high levels of coalition military institutionalization, specifically they adopt joint political-military coalition planning, unity of command with an integrated command staff, as well as the appointment of commanders with specific command leadership skills, and the fluid exchange of information among coalition nations. The classic example of a military coalition that engaged in such institution building, and thus generated an effective coalition army as result, is the Anglo-American
alliance fighting in Western Europe in World War II.

The “Poor” Military Coalitions: No Coalition Military Institutionalization Yields the Lowest Coalition Military Effectiveness

Some military coalitions lack the capacity to generate coalition military forces with the capacity for battlefield integration, cohesion, or coalition battlefield responsiveness. As a coalition, these nations are utterly ineffective fighting alongside one another on the battlefield. They most often fight at cross-purposes of one another, with each nation waging its own parallel war to achieve its own national objectives, with little consideration of the war aims or operational plans of its allies. Indeed, they tend to actively obstruct the military activities of their allies, if it serves their own interests.

As allies, they do no little more than name a common foe. They are likely to engage in little more than nominal joint-military planning, even at the highest levels of the political-military hierarchy. These coalitions lack channels of communication and routines for decision-making, even at the highest levels of the political-military hierarchy. Because of this lack of institutionalized political-military planning, these coalitions are unable to identify common war aims or to adopt a shared military strategy for waging the war. The results for coalition military effectiveness are disastrous. Commanders lack a shared understanding of the battlefield, which impedes their capacity to meld together their forces. Furthermore, military officers from different national contingencies are estranged from one another, and resist any efforts at coordination. The coalition simply lacks a mechanism that makes unity of action possible. Because mistrust of allies is generally high within these coalitions, political and military leaders are reticent to adopt unity of command, as it would require placing their troops under the authority of foreign
commanders. Instead, they prefer to adopt a parallel command structure, in which each nation retains control of its forces and fights on the battlefield within an assigned area of responsibility. The result is national seams, which serves as a physical barrier to coalition battlefield integration, cohesion, and coalition battlefield responsiveness. Finally, information sharing within these military coalitions is extremely poor. Allies tend to withhold information from one another, and even exchange obviously deceptive or false information that serves their goals and interests. They are reluctant to speak frankly with allies, for fear that any information provided about capabilities or military plans could later be used against them. Because the coalition lacks institutional mechanisms to allay fears of abandonment or entrapment, allies are mistrustful and suspicious of one another, making allied soldiers less willing to sacrifice their lives for one another. The cumulative effect of these institutional pathologies is their disastrous coalition military performance. Examples of military coalitions, which generated the worst coalition military effectiveness, as a result of their failure to build coalition military institutions, are the Arab coalition against Israel in 1948 and the Central Powers in World War I.

“Fair” Military Coalitions: Lower Levels of Coalition Military Institutionalization for Fair Coalition Military Effectiveness

Coalition military effectiveness should be fair—but not the worst—when military institutionalization is low, specifically when the military coalition engages in joint political-military planning at the highest levels but lacks unity of command and procedures for information sharing. While joint political-military planning among political and military leaders enables the coalition to integrate its military forces, the
absence of institutionalized command relations and information exchange inhibits the coalition’s capacity to generate coalition battlefield cohesion, and coalition battlefield responsiveness.

In these military coalitions, a shared interest in defeating the enemy encourages closer political-military cooperation, within limitations imposed by mutual fears and suspicions of allies’ intentions. To better coordinate their combined war effort, these military coalitions are likely to engage in joint political-military planning at the highest levels of the political and military leadership. In recognition of their mutual interest in defeat of the enemy, they are apt to adopt an allied war council or similar organization to identify common war aims and decide issues of military strategy. Such planning procedures are generally inclusive, thus providing all allies with voice opportunities in the decision-making process. As a result of such high-level joint political-military planning, these military coalitions adopt clear war aims and a common political-military strategy. This shared understanding of military objectives and operations provides commanders with the capacity to integrate their military activities across the battlefield.

Even though allies acknowledge their shared interests in defeating the adversary, they remain wary of one another, whether fearful of abandonment or entrapment or apprehensive about the future intentions of allies. Such concerns pose significant barriers to deeper military cooperation. Joint military planning and regular contact among officers tends occur only at the highest levels, such that lower-level commanders are left to plan and execute the details of military operations in relative isolation from their allied counterparts. The absence of such repeated contacts and exchanges, which foster trust and comradeship among coalition soldiers, reduces coalition battlefield cohesion.
Likewise, because military plans and national commitments are more ambiguous,
unilateral action and defection is less costly and thus more attractive to member nations. With so few institutionalized mechanisms for the development of greater trust and fidelity among allied militaries, coalition soldiers share only a weak sense of commitment to a common cause, making them less willing to sacrifice their lives and more likely to retreat from the fight, even when it means leaving allies in the lurch.

Within these military coalitions, mutual suspicions are likely to prevent the adoption of unity of command, as allies are simply unwilling to relinquish this level of sovereign control over their own military forces. Instead, they prefer to wage coalition war through a parallel command structure. This type of command arrangement, however, limits coalition battlefield integration and frustrates the generation of coalition battlefield cohesion and coalition battlefield responsiveness. First, a parallel command structure creates national seams on the battlefield, which makes the close integration, cohesion, and coalition battlefield responsiveness of multinational forces a physical improbability. Second, in the absence of a supreme allied commander to impose direction, national commanders are more likely to engage in competition, in which each commander’s view of the battle is narrow, and each national contingency pursues its own narrow interests and objectives at the expense of the coalition as a whole, thus limiting coalition military effectiveness. Finally, without a unified command structure, with its capacity for making rapid battlefield decisions and executing them before the enemy has time to regroup, there is simply no institutional mechanism to create coalition battlefield responsiveness.

Finally, information exchange within these military coalitions is problematic. While allies lack strong incentives to deliberately misrepresent the information that they
exchange with one another, they are inclined to withhold sensitive information about military capabilities, mobilization schedules and technological advancements, for fear such knowledge could later be used against them. Accordingly, allies are guarded in their interactions with one another and less likely to institutionalize procedures for information sharing. The results are particularly damaging to the coalition’s ability to generate coalition battlefield responsiveness. In short, military units from different nations are unable to disseminate vital information to one another quickly in battle, reducing their capacity to respond effectively to battlefield developments.

To summarize, military coalitions with low levels of coalition military institutionalization are likely to generate fair coalition military effectiveness. While joint political-military planning among political and military leaders facilitates the integration of coalition forces, the absence of institutionalized command relations and information exchange inhibits the coalition’s capacity to generate coalition battlefield cohesion, and coalition battlefield responsiveness. Examples of military coalitions with low coalition military institutionalization and therefore fair coalition military effectiveness are the Franco-British alliance the middle years of the First World War and the Syrian-Egyptian coalition in 1973.

“Good” Military Coalitions: Intermediate Levels of Coalition Military Institutionalization for Good Coalition Military Effectiveness

Coalition military effectiveness should be moderately good when coalition military institutionalization is intermediate, specifically when military coalitions adopt joint political-military planning and establish lead-nation command arrangements but institute few procedures for information exchange. In these military coalitions, joint political-
military planning is extensive and command relations are either in the form of lead-nation or supreme-allied commander, which facilitates coalition battlefield integration and cohesion. These military coalitions generally lack coalition battlefield responsiveness, however, because even with a unified command established at the top of the military hierarchy, command relations fall along national lines lower in the military echelon, and information exchange occurs primarily at the highest levels of the coalition.

These military coalitions have institutionalized joint political-military planning, having created an allied war council or similar organization to decide on allied war aims and oversee coalition military strategy. Accordingly, these military coalitions adopt clear war aims and a common political-military strategy, which confers to coalition commanders a common understanding of military objectives and operations for integrating their forces on the battlefield. In these military coalitions, joint military planning extends beyond top political and military leaders to lower-ranked coalition commanders, with significant effects for coalition battlefield cohesion. Because such political-military planning processes are generally inclusive, providing all allies with voice opportunities within the coalition, and encourage repeated contacts and exchanges among military officers, allies develop a greater trust in one another and a more robust commitment to coalition’s war effort. Coalition soldiers are more willing, in turn, to risk their lives and, if necessary, die for one another in fighting for the coalition’s cause. Moreover, because the adoption of formal agreements and plans makes defection and cheating more costly, these military coalitions are less likely to abandon allies on the battlefield.

The adoption of a lead-nation command relationship, or the appointment of a
supreme allied commander, further improves the coalition’s capacity to generate well integrated and cohesive coalition military forces. In these military coalitions, command relationships are most likely one of two kinds—supreme allied commander or lead-nation command—with similar effects on coalition military effectiveness. In the former arrangement, allies agree to appoint a single theater-level coalition commander with authority over all coalition forces employed in the theater. In the latter, allies agree to subordinate their military forces to a lead nation, generally the nation contributing the bulk of troops and matériel, which then assumes primary responsibility for command of coalition forces.

These arrangements bring about unity of command on the battlefield, with resultant gains for coalition battlefield integration and cohesion. The appointment of a supreme coalition commander provides a the coalition with a mechanism to ensure all coalition forces fight in ways consistent with the achievement of the coalition’s political-military objectives, thereby enhancing coalition battlefield integration. Similarly, in issuing clear and unambiguous military objectives and operational plans, a supreme allied commander, or lead-nation command structure, makes abandoning allies on the battlefield more costly, as military activities taken in contravention of coalition commander’s orders, including unauthorized retreats, will not escape notice.

Although these military coalitions achieve a more unified command structure with the appointment of a single coalition commander, they do not realize the full benefits of unity of command, for the chain of command remains essentially national. As allies, they struggle with their competing preferences for retaining sovereign authority over their forces and achieving unity of action with allied troops on the battlefield. In an effort to
resolve these competing demands, they agree to superimpose a supreme allied commander over what remain separate national chains of command. The retention of what remain national chains of command limits the coalition’s potential to achieve the highest levels of coalition battlefield cohesion, as such an arrangement encourages commanders to retain a narrower of the battlefield from a national rather than a coalition perspective. It creates national seams on the battlefield, in which allied armies fight almost without exception exclusively within assigned national areas of responsibility.

These national chains of command effectively limit exchanges and contacts among allied officers and soldiers of different nationalities, which, in turn, impede the development of stronger bonds of friendship and loyalty among coalition forces. Furthermore, the absence of an integrated command staff denies the coalition a critical means for the exchange of information among allies, as well as key opportunities to provide all allies with a fair hearing of concerns and fears, both of which foster mutual trust and commitment within the coalition. Because there is no institutional mechanism guaranteeing voice opportunities to allies for representing their national perspectives and managing their concerns about military operations, the degree to which the coalition generates higher or lower levels of coalition battlefield cohesion is likely to depend critically on the leadership of the supreme allied commander, whether he has the capacity to motivate and persuade, act with tact and forbearance, and inspire a sense of camaraderie and commitment to a common cause in his dealings with allies. In the heat of battle, when rapid decisions must be made on the battlefield, when allies may be inclined to make recourse to national caveats, the earned trust and confidence of coalition troops is critical to a coalition commander’s ability to maintain coalition battlefield
cohesion. While this command structure brings gains in coalition battlefield integration and cohesion, it is far too fragmented, excessively layered and unwieldy to achieve coalition battlefield responsiveness.

Finally, information exchange within these military coalitions is problematic. Allies lack strong incentives to deliberately misrepresent the information that they exchange with one another and are disinclined to withhold sensitive military information and intelligence, but they lack an institutional mechanism to facilitate the horizontal exchange of such information. These allies calculate that they are unlikely to face a future military conflict with one another and thus have few fears that information about military capabilities would later be use against them. Accordingly, they are less guarded in their interactions with one another and make efforts to institutionalize procedures for information sharing. While these efforts are likely to improve the sharing of information among allies at the top of the political-military hierarchy, procedures for information sharing are underdeveloped at lower levels of the military echelon, where national chains of command remain an impediment to horizontal information exchange. The absence of such institutionalized mechanisms of horizontal information sharing inhibits the coalition’s capacity for coalition battlefield responsiveness, as military units from different nations are unable to disseminate vital information to one another quickly in battle, reducing their capacity to respond quickly and effectively on the battlefield.

To summarize, military coalitions with joint political-military planning, a lead-nation command structure and limited information exchange generate coalition military forces with the capacity for integration and cohesion but not coalition battlefield responsiveness. In other words, coalition military effectiveness should be moderately
good when coalition military institutionalization is intermediate. Examples are the Allies in the Final Hundred Days of the First World War and NATO in the war for Kosovo.

Summary of Hypotheses

The central hypothesis of my theory of coalition military effectiveness is that military coalitions with higher levels of coalition military institutionalization generate higher levels of coalition military effectiveness. In other words, institutionalized military coalitions are likely to fight more effectively on the battlefield than non-institutionalized military coalitions, all other things being equal. In the chart below, I present the main hypotheses derived from the four ideal-type military coalitions developed in the preceding section, summarizing how variation in coalition military institutionalization affects coalition military effectiveness. Although they are ideal types, meaning that no military coalition will ever match perfectly as the described type, it is still possible to analyze coalition mechanisms for political-military planning, command relationships and information exchange and trace their effect on coalition military effectiveness. In short, when the institutional mechanisms largely accord with a particular ideal type, it is possible to generate a predication about the likely result for coalition battlefield performance.
<table>
<thead>
<tr>
<th>Independent Variable:</th>
<th>Dependent Variable:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coalition Military Institutionalization</td>
<td>Coalition Military Effectiveness</td>
</tr>
</tbody>
</table>

### POOR Military Coalitions:
*No Coalition Military Institutionalization Yields the Lowest Coalition Military Effectiveness*

- Political-Military Planning: Lack routines for decision-making; No supreme allied war council or similar organization
- Command Relationships: Parallel command structure
- Information Exchange: Misrepresent and withhold sensitive information
- Coalition Battlefield Integration: Not integrated
- Coalition Battlefield Cohesion: Not cohesive
- Coalition battlefield responsiveness: Not responsive

### FAIR Military Coalitions:
*Low Levels of Coalition Military Institutionalization for Fair Coalition Military Effectiveness*

- Political-Military Planning: Joint political-military planning at highest levels only; create supreme allied war council or similar organization
- Command Relationships: Parallel command structure
- Information Exchange: Unlikely to deliberately misrepresent the information that they exchange, but they are inclined to withhold sensitive military information.
- Coalition Battlefield Integration: Somewhat integrated
- Coalition Battlefield Cohesion: Not cohesive
- Coalition battlefield responsiveness: Not responsive

### GOOD Military Coalitions:
*Intermediate Levels of Coalition Military Institutionalization for Good Coalition Military Effectiveness*

- Political-Military Planning: Extensive Joint political-military planning, extending from highest to lowest levels of coalition; Create supreme allied war council or similar organization; well-established channels of communication and inclusive decision-making procedures
- Command Relationships: Lead-nation command structure and/or supreme allied commander
- Information Exchange: Limited information sharing, especially lower in the military echelon; some withholding of sensitive information but unlikely to deliberately misrepresent information that they exchange
- Coalition Battlefield Integration: Relatively well integrated
- Coalition Battlefield Cohesion: Somewhat cohesive
- Coalition Battlefield Responsive: Not responsive
**Excellent Military Coalitions:**
*High Coalition Military Institutionalization for Maximum Coalition Military Effectiveness*

| Political-Military Planning: Extensive Joint political-military planning, extending from high-level political and military leaders to lower-ranked coalition commanders; Create supreme allied war council or similar organization; Well-established channels of communication and inclusive decision-making procedures | Coalition Battlefield Integration: Well integrated  
Coalition Battlefield Cohesion: Highly cohesive  
Coalition Battlefield Responsiveness: Relatively responsive |
<table>
<thead>
<tr>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Command Relationships: Unity of command with integrated command staff down to the lowest levels in which allied forces fight alongside each other on battlefield; Appoint coalition commanders with leadership skills</td>
<td>Information Exchange: Fluid exchange of information throughout political-military hierarchy</td>
</tr>
</tbody>
</table>

With the preceding set of hypotheses in mind, it is possible for the theory to make some broad predictions about expected variation coalition battlefield effectiveness, both across-coalitions and within-coalition over time. These predictions make for a comparison with the predictions of other theories of coalition military power and effectiveness discussed earlier in the chapter, specifically those of material preponderance, regime type, external threat, and coalition political cohesion. In the chart below, I list each theory’s hypotheses about predicted variation in coalition military effectiveness, both for across case and within case over time.
Table 3-3: Competing Explanations of Coalition Military Power and Effectiveness

<table>
<thead>
<tr>
<th>Theory of Coalition Military Power</th>
<th>Across-Coalition Variation in Coalition Military Power</th>
<th>Within-Coalition Over Time Variation in Coalition Military Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Preponderance</td>
<td>Military coalitions with similar levels of economic wealth, industrial development and/or population size should generate similar levels of coalition military power</td>
<td>No variation predicted except over extended periods of time, such that as military coalitions become wealthier, they will produce greater coalition military power</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theory of Coalition Military Effectiveness</th>
<th>Across-Coalition Variation in Coalition Military Effectiveness</th>
<th>Within-Coalition Over Time Variation in Coalition Military Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regime type</td>
<td>Military coalitions of democracies should generate higher levels of coalition military effectiveness than non-democratic and mixed coalitions (Lake, Choi)</td>
<td>No prediction made, as regime type is unlikely to change over the course of a single war</td>
</tr>
<tr>
<td></td>
<td>Mixed military coalitions should generate the highest levels of coalition military effectiveness, in comparison with both purely democratic and purely autocratic military coalitions (Lai and Reiter)</td>
<td></td>
</tr>
<tr>
<td>Theory of Coalition Military Effectiveness</td>
<td>Across-Coalition Variation in Coalition Military Effectiveness</td>
<td>Within-Coalition Over Time Variation in Coalition Military Effectiveness</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>External Threat</strong></td>
<td>Military coalitions confronted by similar external threat environments should perform similarly on the battlefield (Posen, Walt)</td>
<td>Coalition military effectiveness should vary with shifts in the external threat environment, such that coalition military effectiveness should improve with increases in the level of external threat. Likewise, coalition military effectiveness should decrease with reductions in the level of external threat.</td>
</tr>
<tr>
<td></td>
<td>Military coalitions confronted by the highest levels of external threat should generate forces with the greatest coalition military effectiveness (Posen, Walt)</td>
<td></td>
</tr>
<tr>
<td>Theory of Coalition Military Effectiveness</td>
<td>Across-Coalition Variation in Coalition Military Effectiveness</td>
<td>Within-Coalition Over Time Variation in Coalition Military Effectiveness</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Coalition Political Cohesion</strong></td>
<td>Military coalitions that confront high external threats and low internals should generate fair to high levels of political cohesion, and hence fair to high coalition military effectiveness (Weitsman)</td>
<td>Coalition military effectiveness should vary with shifts in coalition political cohesion, based on changes in the external/internal threat environment</td>
</tr>
<tr>
<td></td>
<td>Military coalitions that confront high external threats, as well as high internal threats, should produce low political cohesion, and thus generate lower coalition military effectiveness (Weitsman)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Military coalitions that confront both low external and internal threats have the necessary but not sufficient conditions for political cohesion, making coalition military effectiveness indeterminate (Weitsman)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Military coalitions that face low external threats and high internal threats should produce little political cohesion, and thus the worst coalition military effectiveness (Weitsman)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In a low external threat environment, high levels of coalition political cohesion result in lower coalition military effectiveness (Bensahel)</td>
<td></td>
</tr>
</tbody>
</table>
**METHODOLOGY**

The aim of this dissertation is to test the hypotheses generated from my realist institutionalist theory of coalition military effectiveness against alternative hypotheses in the extant literature. In the next section, I describe how I will measure both my independent and dependent variables in the coming chapters. Finally, I propose a research design for evaluating these competing theoretical claims.

**Measuring the Variables of Interest**

How will we recognize institutionalized military coalitions from their non-institutionalized counterparts? How will we evaluate institutionalization of political-military planning, command relationships and information exchange? In this section, I address these questions with a discussion of measurement of the independent variable, concluding that qualitative evidence offers the most useful and reliable means of measuring this variable.
Measurement of Coalition Military Institutionalization (IV)

To measure coalition military institutionalization, I rely on qualitative indicators of coalition political-military planning, command relationships and information exchange. Table 3-5 presents the indicators (answers to the questions posed below) used to assess both the degree and form of coalition military institutionalization, as outlined earlier in this chapter. In answering these questions, I make use of evidence gathered from coalition and government documents, personal diaries and correspondence, as well as the secondary literature. In the quantitative analysis, I create ordinal variable for the level of coalition military institutionalization, based on coalition command relations. In the case studies, I make use of qualitative indicators to trace both the causes and effects of coalition military institutionalization, as outlined in my theory, and to assess the relative effects of institutionalization in comparison with the explanatory variables from competing theories.
<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Indicators</th>
</tr>
</thead>
</table>
| Political-Military Planning | • Does the military coalition have routines for decision-making?  
• Are decision-making procedures inclusive or exclusive?  
• Does the military coalition establish a war council or similar high-level political-military organization? If so, how often does this organization meet?  
• Does joint planning extend down the military echelon, particularly among lower-ranked military commanders? |
| Command Relationships | • Does the coalition adopt parallel, lead nation or unified command arrangements? |
| Information Exchange | • Do allies regularly withhold and/or misrepresent sensitive information, or do they freely exchange such information?  
• Does the fluid exchange of information take place throughout the political-military hierarchy?  
• Do units communicate across national lines? How often do they do so?  
• Does the coalition adopt formal procedures and channels of communication for the exchange of information? |
CHAPTER FOUR: AN EMPIRICAL EXAMINATION OF THE DETERMINANTS OF COALITION MILITARY EFFECTIVENESS

INTRODUCTION

This chapter presents a statistical analysis of the determinants of coalition military effectiveness for all wartime military coalitions in the post-Napoleonic period. To my knowledge, this analysis represents the first study to explore quantitatively the sources of coalition military effectiveness. The purpose of this chapter is threefold: First, the analysis establishes the range of variation in both the dependent and independent variables of interest. The study demonstrates wide variation among military coalitions in coalition military institutionalization, as well coalition military performance. Second, the statistical analysis provides a preliminary test of the explanatory power of competing theories of coalition military effectiveness. As introduced and developed in Chapter Three, coalition military institutions, material preponderance, regime type and external threat offer alternative explanations for why military coalitions are more or less successful at fighting wars. Finally, the results of the statistical analysis indicate that the case-study findings, as reported in subsequent chapters, apply to the universe of cases, or external validity.

To preview the findings, the statistical analysis offers good preliminary support for the proposition that institutionalized military coalitions fight more effectively on the battlefield than their non-institutionalized counterparts. Consistent with the hypothesis that the coalition military institutionalization increases coalition military effectiveness,

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198 Dan Morey conducted the first empirical investigation on the determinants of coalition war outcomes. Our studies differ importantly, therefore, in our dependent variables. In addition, he includes bilateral wars in his dataset and subsequent analysis. Daniel S. Morey, "Military Coalitions and the Outcome of Interstate Wars," Foreign Policy Analysis (2014): 1-17.
military coalitions which adopt a unified command structure are significantly more likely to fight effectively in wars. Seventy-seven percent of military coalitions with a unified command structure are militarily effective, compared to less than half of military coalitions relying on a parallel-command arrangement. Moreover, a poor coalition military performance is significantly less likely to occur among military coalitions with a unified command structure. These coalitions are half as likely to fight poorly on the battlefield compared with coalitions in which each nation retain operational control of its own forces. Importantly, these results are robust, holding up to a number of additional empirical tests.

This chapter proceeds in five sections. The first section discusses the procedure adopted for establishing the universe of cases. The next section reviews the dataset and operationalizes the variables of interest. The third section presents the empirical results. The chapter concludes with a discussion of the implications of these findings for the case studies.

UNIVERSE OF CASES

The universe of cases for this study is all wartime military coalitions of interstate wars waged in the post-Napoleonic period. To generate this universe of cases, I begin with the Correlates of War (COW) Interstate War dataset, which contains all military conflicts resulting in at least 1,000 battle deaths, as fought between at least two independent states. Following other studies, I modify this dataset to disaggregate

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199 This study uses version 4.0 of the dataset, which includes all interstate wars fought between 1816 and 2007. See Sarkees and Waynman, Resort to War: 1816-2007. In one point of disagreement with the COW War List, I omit The Bosnian War of Independence (COW War No. 215) from the dataset, because it is primarily a civil war with between Bosnian Croats, Bosnian Serbs and Bosnian Muslims, with external
several larger wars into separate interstate conflicts to more accurately reflect the relatively distinct political issues at stake, as well as important differences in the composition of the warring parties. For example, in the case of World War II, the war in the Pacific against Japan was politically and militarily distinct from the war against Nazi Germany in Europe, and, of equal importance to the purposes of this study, the military coalitions formed to defeat these revisionist powers differed significantly both in the participating states and the nature of their cooperative effort. The specific requirement for disaggregation is thus that the fighting occurs on separate fronts, such that developments on fronts are substantially independent, or the military belligerents on at least one side are different. Accordingly, I disaggregate World Wars I and II, the Vietnam War and the Persian Gulf War. This process gives rise to 97 interstate wars between 1817 and 2007, approximately forty percent of which are multilateral wars.

For all wars, I am able to identify the warring sides, such that each war gives rise to two units of observation, Warring Side A and Warring Side B. For multilateral wars, I aggregate together into a single unit of observation all states fighting on the same side in a given war. I then drop from the dataset all cases in which states fought alone on a warring side. This procedure gives rise to 46 cases in which states came together to wage war against either a lone adversary or rival military coalition. Accordingly, the

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military interventions by Serbia and Croatia to support their ethnic brethren. It is therefore more appropriately coded as civil conflict.

200 See, for example, Reiter and Stam, "Democracy, War Initiation and Victory."; Reiter and Stam, Democracies at War.

201 Appendix A offers a more detailed discussion of the reasons for disaggregation, as well as the process used to subdivide these wars into multiple military conflicts.

202 This approach follows Morey, "Military Coalitions and the Outcome of Interstate Wars."
The unit of analysis in this study is the wartime military coalition. Table 4.1 presents the 46 cases of wartime military coalitions, identifying both the interstate wars and the nations forged together as a warring side.

<table>
<thead>
<tr>
<th>War</th>
<th>Military Coalition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austro-Sardinian, 1848-1849</td>
<td>Italy/Sardinia, Modena, and Tuscany</td>
</tr>
<tr>
<td>Roman Republic, 1849</td>
<td>France, Austria-Hungary and Two Sicilies</td>
</tr>
<tr>
<td>Crimean, 1853-1856</td>
<td>France, Great Britain, Italy and Ottoman Empire</td>
</tr>
<tr>
<td>Italian Unification, 1859</td>
<td>Italy and France</td>
</tr>
<tr>
<td>Second Schleswig-Holstein, 1864</td>
<td>Germany and Austria-Hungary</td>
</tr>
<tr>
<td>Lopez, 1864-1870</td>
<td>Argentina and Brazil</td>
</tr>
<tr>
<td>Spanish-Chilean, 1865-1866</td>
<td>Peru and Chile</td>
</tr>
<tr>
<td>Seven Weeks, 1866</td>
<td>Saxony and Austria-Hungary</td>
</tr>
<tr>
<td>Seven Weeks, 1866</td>
<td>Italy, Germany and Mecklenburg Schwerin</td>
</tr>
<tr>
<td>Franco-Prussian, 1870-1871</td>
<td>Germany, Baden, Bavaria, and Wurttemberg</td>
</tr>
<tr>
<td>Pacific, 1879-1883</td>
<td>Peru and Bolivia</td>
</tr>
<tr>
<td>Boxer Rebellion, 1900</td>
<td>Russia, Japan, Great Britain, France and the United States</td>
</tr>
<tr>
<td>Third Central American, 1906</td>
<td>El Salvador and Honduras</td>
</tr>
<tr>
<td>Fourth Central American, 1907</td>
<td>El Salvador and Honduras</td>
</tr>
<tr>
<td>First Balkan, 1912-1913</td>
<td>Serbia, Bulgaria and Greece</td>
</tr>
<tr>
<td>Second Balkan, 1913</td>
<td>Serbia, Greece, Romania and Ottoman Empire</td>
</tr>
<tr>
<td>World War I – Eastern Front, 1914-1918</td>
<td>Germany, Austria-Hungary, Ottoman Empire and Bulgaria</td>
</tr>
<tr>
<td>World War I – Eastern Front, 1914-1918</td>
<td>Russia, Serbia and Romania</td>
</tr>
<tr>
<td>World War I – Western Front, 1914-1918</td>
<td>Germany, Austria-Hungary, Ottoman Empire</td>
</tr>
<tr>
<td>World War I – Western Front, 1914-1918</td>
<td>France, Great Britain, United States, Italy, Portugal, Belgium and Greece</td>
</tr>
<tr>
<td>Hungarian-Allies, 1919</td>
<td>Czechoslovakia and Romania</td>
</tr>
<tr>
<td>Noonan War, 1939</td>
<td>Soviet Union and Mongolia</td>
</tr>
<tr>
<td>World War II – Invasion of Poland, 1939</td>
<td>Germany and Soviet Union</td>
</tr>
</tbody>
</table>

203 Although most quantitative studies of war adopt the individual state or conflict dyad as the unit of observation, such a research design is not appropriate in this study, as it would exaggerate the influence of larger military coalitions in the dataset and therefore bias the results. See Paul Poast, "(Mis)Using Dyadic Data to Analyze Multilateral Events," *Political Analysis* 18, no. 4 (2010): 403-425.
<table>
<thead>
<tr>
<th>War</th>
<th>Military Coalition</th>
</tr>
</thead>
<tbody>
<tr>
<td>World War II – Invasion of Norway, 1940</td>
<td>Norway, Denmark and Great Britain</td>
</tr>
<tr>
<td>World War II – Invasion of France and Low Lands, 1940</td>
<td>France, Great Britain, Belgium and Netherlands</td>
</tr>
<tr>
<td>World War II – Italo-Greek War, 1940-1941</td>
<td>Italy and Germany</td>
</tr>
<tr>
<td>World War II – Italo-Greek, 1940-1941</td>
<td>Greece and Great Britain</td>
</tr>
<tr>
<td>World War II – Eastern Front, 1941-1945</td>
<td>Germany, Bulgaria (pre-1944), Romania (pre-1944), Hungary and Finland</td>
</tr>
<tr>
<td>World War II – Eastern Front, 1941-1945</td>
<td>Soviet Union, Bulgaria (post-1944) and Romania (post-1944)</td>
</tr>
<tr>
<td>World War II – Western Front, 1941-1945</td>
<td>Germany and Italy (pre-1943)</td>
</tr>
<tr>
<td>World War II – Western Front, 1941-1945</td>
<td>United States, Great Britain, Canada, South Africa, Ethiopia, Italy (post-1943) and Brazil</td>
</tr>
<tr>
<td>World War II – Pacific, 1941-1945</td>
<td>United States, Great Britain, New Zealand and Australia</td>
</tr>
<tr>
<td>World War II – Soviet Japanese, 1941-1945</td>
<td>Soviet Union and Mongolia</td>
</tr>
<tr>
<td>Arab-Israeli, 1948</td>
<td>Egypt, Iraq, Syria, Lebanon and Jordan</td>
</tr>
<tr>
<td>Korean, 1950-1953</td>
<td>North Korea and China</td>
</tr>
<tr>
<td>Korean, 1950-1953</td>
<td>United States, South Korea, Great Britain, Australia, Canada, Belgium, France, Greece, Netherlands, Thailand, Turkey, Philippines, Ethiopia, and Colombia</td>
</tr>
<tr>
<td>Sinai, 1956</td>
<td>Israel, Great Britain and France</td>
</tr>
<tr>
<td>Vietnam, 1965-1973</td>
<td>United States, South Vietnam, Thailand, Australia, Cambodia, Philippines, and South Korea</td>
</tr>
<tr>
<td>Six-Day, 1967</td>
<td>Egypt, Syria and Jordan</td>
</tr>
<tr>
<td>Yom-Kippur, 1973</td>
<td>Egypt, Syria, Iraq, Jordan and Saudi Arabia</td>
</tr>
<tr>
<td>Ethiopian-Somalian, 1977-1978</td>
<td>Ethiopia and Cuba</td>
</tr>
<tr>
<td>Ugandan-Tanzanian, 1978-1979</td>
<td>Uganda and Libya</td>
</tr>
<tr>
<td>Gulf, 1991</td>
<td>United States, France, Italy, Great Britain, Canada, Egypt, Syria, United Arab Emirates, Qatar, Kuwait, Saudi Arabia and Morocco</td>
</tr>
<tr>
<td>Kosovo, 1999</td>
<td>United States, Great Britain, France, Germany, Italy, Netherlands and Turkey</td>
</tr>
<tr>
<td>Afghanistan Invasion, 2001</td>
<td>United States, Great Britain, Canada, France and Australia</td>
</tr>
<tr>
<td>Iraq Invasion, 2003</td>
<td>United States, Great Britain and Australia</td>
</tr>
</tbody>
</table>
DATA AND RESEARCH DESIGN

This study uses three primary data sources to code the dependent and independent variables of interest, specifically COW Project and Polity IV dataset, as well as original data collection and coding. Both the COW and Polity IV data are widely used in empirical analyses of international relations. The following sections explain how I operationalize the variables of interest.

Dependent Variable

The dependent variable in this study is coalition military effectiveness, which I operationalize as the overall loss exchange ratio (LER) of a military coalition in a particular war. Although my theory focuses on the operational level of war, the lack of reliable and available data of individual battles or military operations necessitate that I structure any quantitative tests of coalition military performance by war. A military coalition’s LER is the ratio of enemy forces killed to friendly forces killed. The higher the military coalition’s LER, the more effective the military coalition fought on the battlefield, and vice versa. For example, a 4:1 ratio (LER = 4) signifies that for every

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205 The principal dataset with battle-level combatant deaths is notoriously unreliable. The HERO dataset of individual battles between 1800 and 1982, compiled by the Historical Evaluation and Research Organization (HERO) for the Army, constitutes a biased sample, casting doubt on the validity of any findings based on this dataset. For a useful discussion of the problems with the HERO dataset, see French, Raising Churchill's Army: The British Army and the War against Germany, pp. 4-11.

206 While LER has been traditionally defined as friendly forces killed to enemy forces killed, this definition tends to be semantically confusing because a high LER corresponds to low coalition military effectiveness. I therefore decided to use the reciprocal of this traditional measure to avoid any semantic confusion. In this analysis, a high LER corresponds with higher coalition military effectiveness. For studies using LERs as a measure of national military effectiveness, see Reiter and Stam, "Democracy, War Initiation and Victory."; Reiter and Stam, Democracies at War; Biddle, Military Power: Explaining Victory and Defeat in Modern War; Biddle and Long, "Democracy and Military Effectiveness."; Downes, "How Smart and Tough Are Democracies? Reassessing Theories of Democratic Victory in War."
allied solider who perished during the war, the military coalition was able to kill four enemy combatants. Conversely, a ratio of 1:4 (LER = .35) indicates that the military coalition was able to kill only one enemy combatant for every four of its battlefield dead during the war. In other words, military coalitions with the capacity to destroy enemy forces while protecting their own demonstrate higher coalition military effectiveness, whereas military coalitions lacking such a capacity or only able to inflict enemy losses at high costs to their own forces exhibit lower coalition military effectiveness. LER thus provides an objectively measurable, continuous-variable index of coalition military performance.

In addition, I create a dichotomous version of a military coalition’s LER, coding military coalitions with LERs greater than one (LER > 1) as “more effective” and LER less than 1 as “less effective.” Importantly, the selection of LER=1 as the threshold distinguishing between more or less effective military coalitions is non-arbitrary. LER of one indicates parity, while a LER of less than one suggests that a military coalition is less proficient than its enemy in inflicting losses, losing relatively more soldiers in each exchange. In contrast, a LER of greater than one indicates that a military coalition is relatively more capable of inflicting battle losses than opposing forces. The dichotomous version of the dependent variable facilitates the calculation of two-way tables with measures of association in the analysis.

Given significant reservations about the quality of COW’s combatant death data, I compiled data from Clodfelter, supplementing it where necessary with information from secondary sources, and where no information from other sources was available, with
COW values. Because LER is not normally distributed, the data are logged to correct for skew. Figure 4-1 shows the distribution of LERs for all wartime military coalitions from 1816 to 2007.

*Figure 4-1. The distribution of LERs for all wartime military coalitions from 1816 to 2007. The scale is log adjusted.*

These data demonstrate significant variation in coalition military effectiveness, with loss exchange ratios ranging from a low of approximately one enemy soldier killed for every 6 coalition personnel lost (logLER = -.806) to a high of 2500 enemy killed for every one coalition soldier (logLER = 3.398). Military coalitions producing the worst coalition military effectiveness are the Ugandan-Libyan military coalition in the Ugandan-Tanzanian War, the Arab military coalitions in 1948 and 1967, and the Allies in the Battle of France and the Low Lands in 1940. At the other extreme, military coalitions demonstrating the best coalition military performance are the US-led coalition during the

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Iraq and Afghanistan invasions, the US-led military coalition during the Gulf War, and NATO in the Kosovo War. Table 4-2 rank orders military coalitions according their coalition military effectiveness.

Table 4-2: Ranking of Wartime Military Coalitions From Best to Worst Coalition Military Effectiveness

<table>
<thead>
<tr>
<th>Rank</th>
<th>War</th>
<th>Military Coalition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kosovo, 1999</td>
<td>United States, Great Britain, France, Germany, Italy, Netherlands and Turkey</td>
</tr>
<tr>
<td>2</td>
<td>Afghanistan Invasion, 2001</td>
<td>United States, Great Britain, Canada, France and Australia</td>
</tr>
<tr>
<td>3</td>
<td>Gulf, 1991</td>
<td>United States, France, Italy, Great Britain, Canada, Egypt, Syria, United Arab Emirates, Qatar, Kuwait, Saudi Arabia and Morocco</td>
</tr>
<tr>
<td>4</td>
<td>Iraq Invasion, 2003</td>
<td>United States, Great Britain and Australia</td>
</tr>
<tr>
<td>5</td>
<td>World War II – Pacific, 1941-1945</td>
<td>United States, Great Britain, New Zealand and Australia</td>
</tr>
<tr>
<td>6</td>
<td>Sinai, 1956</td>
<td>Israel, Great Britain and France</td>
</tr>
<tr>
<td>7</td>
<td>World War II – Soviet Japanese, 1941-1945</td>
<td>Soviet Union and Mongolia</td>
</tr>
<tr>
<td>8</td>
<td>Franco-Prussian, 1870-1871</td>
<td>Germany, Baden, Bavaria, and Wurtenburg</td>
</tr>
<tr>
<td>9</td>
<td>Lopez, 1864-1870</td>
<td>Argentina and Brazil</td>
</tr>
<tr>
<td>10</td>
<td>Korean, 1950-1953</td>
<td>United States, South Korea, Great Britain, Australia, Canada, Belgium, France, Greece, Netherlands, Thailand, Turkey, Philippines, Ethiopia, and Colombia</td>
</tr>
<tr>
<td>11</td>
<td>World War II – Eastern Front, 1941-1945</td>
<td>Germany, Bulgaria (pre-1944), Romania (pre-1944), Hungary and Finland</td>
</tr>
<tr>
<td>12</td>
<td>Vietnam, 1965-1973</td>
<td>United States, South Vietnam, Thailand, Australia, Cambodia, Philippines, and South Korea</td>
</tr>
<tr>
<td>13</td>
<td>World War II – Invasion of Poland, 1939</td>
<td>Germany and Soviet Union</td>
</tr>
<tr>
<td>14</td>
<td>World War I – Western Front, 1914-1918</td>
<td>Germany, Austria-Hungary, Ottoman Empire</td>
</tr>
<tr>
<td>15</td>
<td>Boxer Rebellion, 1900</td>
<td>Russia, Japan, Great Britain, France and the United States</td>
</tr>
<tr>
<td>16</td>
<td>Second Schleswig-Holstein, 1864</td>
<td>Germany and Austria-Hungary</td>
</tr>
<tr>
<td>Rank</td>
<td>War</td>
<td>Military Coalition</td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
<td>-------------------</td>
</tr>
<tr>
<td>17.</td>
<td>Italian Unification, 1859</td>
<td>Italy and France</td>
</tr>
<tr>
<td>18.</td>
<td>World War II – Italo-Greek, 1940-1941</td>
<td>Greece and Great Britain</td>
</tr>
<tr>
<td>20.</td>
<td>Crimean, 1853-1856</td>
<td>France, Great Britain, Italy and Ottoman Empire</td>
</tr>
<tr>
<td>21.</td>
<td>Roman Republic, 1849</td>
<td>France, Austria-Hungary and Two Sicilies</td>
</tr>
<tr>
<td>22.</td>
<td>Spanish-Chilean, 1865-1866</td>
<td>Peru and Chile</td>
</tr>
<tr>
<td>23.</td>
<td>Seven Weeks, 1866</td>
<td>Italy, Germany and Mecklenburg Schwerin</td>
</tr>
<tr>
<td>24.</td>
<td>Nomonhan War, 1939</td>
<td>Soviet Union and Mongolia</td>
</tr>
<tr>
<td>25.</td>
<td>World War II – Western Front, 1941-1945</td>
<td>Germany and Italy (pre-1943)</td>
</tr>
<tr>
<td>26.</td>
<td>Austro-Sardinian, 1848-1849</td>
<td>Sardina, Modena, and Tuscany</td>
</tr>
<tr>
<td>27.</td>
<td>World War I – Eastern Front, 1914-1918</td>
<td>Russia, Serbia and Romania</td>
</tr>
<tr>
<td>28.</td>
<td>World War I – Eastern Front, 1914-1918</td>
<td>Germany, Austria-Hungary, Ottoman Empire and Bulgaria</td>
</tr>
<tr>
<td>29.</td>
<td>World War II – Western Front, 1941-1945</td>
<td>United States, Great Britain, Canada, South Africa, Ethiopia, Italy (post-1943) and Brazil</td>
</tr>
<tr>
<td>30.</td>
<td>Hungarian-Allies, 1919</td>
<td>Czechoslovakia and Romania</td>
</tr>
<tr>
<td>31.</td>
<td>Second Balkan, 1913</td>
<td>Serbia, Greece, Romania and Ottoman Empire</td>
</tr>
<tr>
<td>32.</td>
<td>Seven Weeks, 1866</td>
<td>Saxony and Austria-Hungary</td>
</tr>
<tr>
<td>33.</td>
<td>Third Central American, 1906</td>
<td>El Salvador and Honduras</td>
</tr>
<tr>
<td>34.</td>
<td>World War II – Italo-Greek, 1940-1941</td>
<td>Italy and Germany</td>
</tr>
<tr>
<td>35.</td>
<td>First Balkan, 1912-1913</td>
<td>Serbia, Bulgaria and Greece</td>
</tr>
<tr>
<td>36.</td>
<td>World War II – Invasion of Norway, 1940</td>
<td>Norway, Denmark and Great Britain</td>
</tr>
<tr>
<td>37.</td>
<td>World War I – Western Front, 1914-1918</td>
<td>France, Great Britain, United States, Italy, Portugal, Belgium and Greece</td>
</tr>
<tr>
<td>38.</td>
<td>Fourth Central American, 1907</td>
<td>El Salvador and Honduras</td>
</tr>
<tr>
<td>39.</td>
<td>Yom Kippur, 1973</td>
<td>Egypt, Syria, Iraq, Jordan and Saudi Arabia</td>
</tr>
<tr>
<td>40.</td>
<td>World War II – Eastern Front, 1941-1945</td>
<td>Soviet Union, Bulgaria (post-1944) and Romania (post-1944)</td>
</tr>
<tr>
<td>41.</td>
<td>Pacific, 1879-1883</td>
<td>Peru and Bolivia</td>
</tr>
<tr>
<td>42.</td>
<td>Korean, 1950-1953</td>
<td>North Korea and China</td>
</tr>
</tbody>
</table>
Explanatory Variables

This section discusses operationalization of the independent variables of interest in this study, specifically coalition military institutionalization, as well as competing explanatory variables, including material preponderance, regime type and external threat.

Primary Hypothesis

The primary hypothesis developed and tested in this dissertation is whether military coalitions with higher levels of coalition military institutionalization are able to fight more effectively on the battlefield than their less institutionalized counterparts. My theory of coalition military institutionalization, as introduced and developed in Chapter Three, argues that three sets of institutional mechanisms are critical for the generation of coalition military effectiveness. In particular, institutionalization of the military coalition in the form of coalition military planning, command arrangements and information exchange is critical to coalition military performance. Military coalitions with highly institutionalized in these areas of intra-allied cooperation are likely to maximize their ability to turn their national resources into coalition fighting power on the battlefield, whereas military coalitions with absent or minimal institutionalization are likely to generate levels of coalition military power.

<table>
<thead>
<tr>
<th>Rank</th>
<th>War</th>
<th>Military Coalition</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.</td>
<td>World War II – Invasion of France and Low Lands, 1940</td>
<td>France, Great Britain, Belgium and Netherlands</td>
</tr>
<tr>
<td>44.</td>
<td>Arab-Israeli, 1948</td>
<td>Egypt, Iraq, Syria, Lebanon and Jordan</td>
</tr>
<tr>
<td>45.</td>
<td>Six-Day, 1967</td>
<td>Egypt, Syria and Jordan</td>
</tr>
<tr>
<td>46.</td>
<td>Ugandan-Tanzanian, 1978-1979</td>
<td>Uganda and Libya</td>
</tr>
</tbody>
</table>
To test this hypothesis in the quantitative analysis, I focus on the institutionalization of command arrangements within military coalitions. For each of the 46 cases, I code whether the military coalition established a unified or parallel command arrangement, drawing on alliance treaties and the extensive secondary literature available on each case. I define unity of command as the practice of bringing together all forces operating in a single theater under a single commander.\textsuperscript{208} Military coalitions have historically achieved unity of command by adopting one of two models of a unified command organization: \textit{integrated coalition command structure} and \textit{lead-nation command structure}. An \textit{integrated coalition command structure} appoints a single command-in-chief, or supreme coalition commander, who is responsible for the overall direction of the war effort, and supported by an integrated command staff, which consists of military representatives from each of nation within the military coalition.\textsuperscript{209} Through an integrated command staff, participating nations are represented in the command headquarters in principal staff billets, not solely as liaison officers, thereby allowing contributing governments to both monitor and influence command decisions.

Historically the most common unified coalition command organization, however, is the \textit{lead-nation command structure}, in which a single nation, generally the nation providing the bulk of the military forces, assumes overall command of military operations, with other nations retaining their national chains of command and generally offering liaison officers to the coalition command headquarters.\textsuperscript{210} In the absence of unified command

\footnotesize
\begin{itemize}
\item \textsuperscript{208} U.S. Department of the Army, "Field Service Regulations–Operations, Field Manual 100-5" (Washington, DC: US Department of the Army, 1954).
\item \textsuperscript{210} Ibid.
\end{itemize}
arrangements, however, a system of national spheres of responsibilities, or parallel command structure, results in which nations retain their own independent command structures.

The primary independent variable of interest is thus Unified-Command Structure, coded as a dichotomous variable, which takes on a value of 1 if a military coalition adopts either integrated or lead-nation command structures and 0 if the military coalition assumes a parallel command arrangement. Because coalition command arrangements often vary over the course of a single war, coding decisions represent the highpoint of coalition military institutionalization. Table 4-3 presents the coalition command arrangements of each military coalition.

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211 The once exception to this coding rule is the case of the Central Powers on the Eastern Front in World War I. Austria-Hungary and Germany flirted briefly with a unified command structure; however, less than a month later the military coalition reverted back to a parallel command arrangement. Given the brief nature of this command arrangement, coding the military coalition as relying a parallel command structure seemed a more accurate representation of the coalition’s military institutions. See Herwig, "Disjointed Allies: Coalition Warfare in Berlin and Vienna, 1914," 265-280; Craig, "The World War I Alliance of the Central Powers in Retrospect: The Military Cohesion of the Alliance," 336-344.
<table>
<thead>
<tr>
<th>Coalition Command Structures of Wartime Military Coalitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Table 4-3</strong> Parallel Command Structure (N=24)</td>
</tr>
<tr>
<td><strong>Roman Republic, 1849</strong></td>
</tr>
<tr>
<td>- France, Austria-Hungary and Two Sicilies</td>
</tr>
<tr>
<td><strong>Crimean, 1853-1856</strong></td>
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<td>- France, Great Britain, Italy and Ottoman Empire</td>
</tr>
<tr>
<td><strong>Seven Weeks, 1866</strong></td>
</tr>
<tr>
<td>- Italy, Germany and Mecklenburg Schwerin</td>
</tr>
<tr>
<td><strong>Pacific, 1879-1883</strong></td>
</tr>
<tr>
<td>- Peru and Bolivia</td>
</tr>
<tr>
<td><strong>Third Central American, 1906</strong></td>
</tr>
<tr>
<td>- El Salvador and Honduras</td>
</tr>
<tr>
<td><strong>Fourth Central American, 1907</strong></td>
</tr>
<tr>
<td>- El Salvador and Honduras</td>
</tr>
<tr>
<td><strong>First Balkan, 1912-1913</strong></td>
</tr>
<tr>
<td>- Serbia, Bulgaria and Greece</td>
</tr>
<tr>
<td><strong>Second Balkan, 1913</strong></td>
</tr>
<tr>
<td>- Serbia, Greece, Romania and Ottoman Empire</td>
</tr>
<tr>
<td><strong>World War I – Eastern Front, 1914-1918</strong></td>
</tr>
<tr>
<td>- Germany, Austria-Hungary, Ottoman Empire and Bulgaria</td>
</tr>
<tr>
<td><strong>World War I – Eastern Front, 1914-1918</strong></td>
</tr>
<tr>
<td>- Russia, Serbia and Romania</td>
</tr>
<tr>
<td><strong>World War I – Western Front, 1914-1918</strong></td>
</tr>
<tr>
<td>- Germany, Austria-Hungary, Ottoman Empire</td>
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<tr>
<td><strong>Hungarian-Allies, 1919</strong></td>
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<tr>
<td>- Czechoslovakia and Romania</td>
</tr>
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<td><strong>World War II – Invasion of Poland, 1939</strong></td>
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<td>- Germany and Soviet Union</td>
</tr>
<tr>
<td><strong>World War II – Invasion of Norway, 1940</strong></td>
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<tr>
<td>- Norway, Denmark and Great Britain</td>
</tr>
<tr>
<td><strong>World War II – Invasion of France and Low Lands, 1940</strong></td>
</tr>
<tr>
<td>- France, Great Britain, Belgium and Netherlands</td>
</tr>
<tr>
<td><strong>World War II – Italo-Greek, 1940-1941</strong></td>
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<tr>
<td>- Italy and Germany</td>
</tr>
<tr>
<td><strong>World War II – Eastern Front, 1941-1945</strong></td>
</tr>
<tr>
<td>- Germany, Bulgaria (pre-1944), Romania (pre-1944), Hungary and Finland</td>
</tr>
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<td><strong>World War II – Western Front, 1941-1945</strong></td>
</tr>
<tr>
<td>- Germany and Italy (pre-1943)</td>
</tr>
<tr>
<td><strong>Arab-Israeli, 1948</strong></td>
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<td>- Egypt, Iraq, Syria, Lebanon and Jordan</td>
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<tr>
<td><strong>Sinai, 1956</strong></td>
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<tr>
<td>- Israel, Great Britain and France</td>
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<td><strong>Vietnam, 1965-1973</strong></td>
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<td>- Egypt, Syria, Iraq, Jordan and Saudi Arabia</td>
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<td><strong>Ugandan-Tanzanian, 1978-1979</strong></td>
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<td>- Uganda and Libya</td>
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</table>
**Unified Command Structure (N=22)**

<table>
<thead>
<tr>
<th>Event</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Austro-Sardinian, 1848-1849</td>
<td>• Sardina, Modena, and Tuscany</td>
</tr>
<tr>
<td>Italian Unification, 1859</td>
<td>• Italy and France</td>
</tr>
<tr>
<td>Second Schleswig-Holstein, 1864</td>
<td>• Germany and Austria-Hungary</td>
</tr>
<tr>
<td>Lopez, 1864-1870</td>
<td>• Argentina and Brazil</td>
</tr>
<tr>
<td>Spanish-Chilean, 1865-1866</td>
<td>• Peru and Chile</td>
</tr>
<tr>
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<td>• Saxony and Austria-Hungary</td>
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<td>Franco-Prussian, 1870-1871</td>
<td>• Germany, Baden, Bavaria, and Wurtemburg</td>
</tr>
<tr>
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<td>• Russia, Japan, Great Britain, France and the United States</td>
</tr>
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<td>World War I – Western Front, 1914-1918</td>
<td>• France, Great Britain, United States, Italy, Portugal, Belgium and Greece</td>
</tr>
<tr>
<td>Nomonhan War, 1939</td>
<td>• Soviet Union and Mongolia</td>
</tr>
<tr>
<td>World War II – Italo-Greek, 1940-1941</td>
<td>• Greece and Great Britain</td>
</tr>
<tr>
<td></td>
<td>World War II – Eastern Front, 1941-1945</td>
</tr>
<tr>
<td></td>
<td>• Soviet Union, Bulgaria (post-1944) and Romania (post-1944)</td>
</tr>
<tr>
<td></td>
<td>World War II – Western Front, 1941-1945</td>
</tr>
<tr>
<td></td>
<td>• United States, Great Britain, Canada, South Africa, Ethiopia, Italy (post-1943) and Brazil</td>
</tr>
<tr>
<td></td>
<td>World War II – Pacific, 1941-1945</td>
</tr>
<tr>
<td></td>
<td>• United States, Great Britain, New Zealand and Australia</td>
</tr>
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<td></td>
<td>Soviet-Japanese, 1945</td>
</tr>
<tr>
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<td>• Soviet Union and Mongolia</td>
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<tr>
<td>Korean War, 1950-1953</td>
<td>• North Korea and China</td>
</tr>
<tr>
<td>Korean, 1950-1953</td>
<td>• United States, South Korea, Great Britain, Australia, Canada, Belgium, France, Greece, Netherlands, Thailand, Turkey, Philippines, Ethiopia, and Colombia</td>
</tr>
<tr>
<td>Ethiopian-Somalian, 1977-1978</td>
<td>• Ethiopia and Cuba</td>
</tr>
<tr>
<td>Gulf, 1991</td>
<td>• United States, France, Italy, Great Britain, Canada, Egypt, Syria, United Arab Emirates, Qatar, Kuwait, Saudi Arabia and Morocco</td>
</tr>
<tr>
<td>Kosovo, 1999</td>
<td>• United States, Great Britain, France, Germany, Italy, Netherlands and Turkey</td>
</tr>
<tr>
<td>Afghanistan Invasion, 2001</td>
<td>• United States, Great Britain, Canada, France and Australia</td>
</tr>
<tr>
<td>Iraq Invasion, 2003</td>
<td>• United States, Great Britain and Australia</td>
</tr>
</tbody>
</table>

**Alternative Explanatory Variables**

The material preponderance hypothesis argues that the balance of material capabilities determines coalition military power. In particular, military coalitions with
larger populations, larger or more industrialized economies, larger and/or better-equipped militaries, perform better in wars, such that the side with more material assets performs better in wars. To measure Relative Material Capabilities, I use data from the Correlates of War National Capabilities Index to calculate the ratio of the major power’s military-industrial capabilities to the combined capabilities of the two sides. This continuous variable is an index of economic, population, and military factors, thus accounting for the most important material sources of military power.\textsuperscript{212}

The regime-type hypothesis purports that democracies perform better in wars, such that purely democratic military coalitions generate higher levels of coalition military effectiveness than non-democratic or mixed coalitions. Data on regime type come from the Polity IV Project, which classifies nations on a scale from -7, most autocratic, to 7, most democratic.\textsuperscript{213} I use these data to create both a continuous and categorical measure of the regime-type variable. Polity IV calculates the average democracy-autocracy scores of military coalition, while Democracies totals the number of democratic nations (states with a Polity IV score greater than or equal to seven) participating in the coalition.

The central proposition of the external-threat theory is that higher levels of threat produce greater incentives for military coalitions to fight effectively on the battlefield, whereas low levels of threat are likely to generate less effective military coalitions. I test two different proxies of external threat. Territory is a dichotomous measure classifying whether the war erupts over a territorial dispute, with all wars coded 1 if ‘territory’ is the


\textsuperscript{213} Monty G. Marshall and Keith Jaggers., \textit{Polity Iv Project: Political Regime Characteristics and Transitions, 1800-2010} (College Park, MD: Center for International Development and Conflict Management, University of Maryland, 2010),
primary issue for belligerents and 0 for all other non-territorial disputes, including wars over policy, regime or other conflicts. Territorial disputes between states embody salient external threats, with studies finding that they have the highest probability of escalating to war.\(^{214}\) Indeed, disagreements over territory often threaten the territorial integrity of the nation. *External Threat* is a dichotomous measure to classify the war as territorial if ‘territory’ is the primary issue for each participant; all other disputes, including wars over policy or regime type, as non-territorial disputes. The codes derive from the COW Militarized Interstate Dispute (MID) dataset.\(^{215}\)

*Arms Race* is a second indicator of external threat. To identify high external threat environments, the variable codes as 1 all military coalitions in which at least one member nation engaged in an arms race with the enemy combatant in the years immediately preceding the outbreak of war. The codes come from Gibler et al., which builds upon the strategic rivalry dataset of Thompson.\(^{216}\) Thompson identifies strategic rivals as nations sharing a mutual perception of each other as competitors and enemies, and who pose an actual or latent threat of military conflict to each other. Gibler et al. refine this list of rivals to identify those rivalries resulting in arms races, specifically those instances in which both states have increased their military spending, personnel, or both, by eight-percent or more in each year of a three-year period. Arms races among

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rivals represent a heightening of the threat environment and thus serve as a proxy for external-threat level.

Finally, I consider several control variables. I employ *War Initiator* as a control variable for two reasons. First, defensive advantages generally increase the relative costliness of fighting on the offense, studies employing battle-level LERs account whether a combatant is the attacker or defender. At the war level, such coding is more complex; in a long war, each side is likely to the attack in some military operations and the defender in other battles. War initiator therefore offers the closest equivalent, providing a way for the study to offer some control for the costliness of waging war on the offense. Second, the selection-effect argument suggests that war initiators are likely to exhibit superior coalition military effectiveness, because they select into wars, thus likely opting to fight weak enemies. Studies have found this effect to be particularly pronounced among democracies. Accordingly, I create a dummy variable, *War Initiator*, which codes as 1 if any member of the military coalition initiated the war, as well as an interaction term War Initiator*Democracies to test the selection-effect argument. These data are taken from the COW dataset and Downes.

*USA Dummy* is a dummy variable indicating whether a military coalition includes the United States as a member country. I code all military coalitions involving the United States as a member country.

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218 For similar arguments about selection effects and fighting prowess, see Reiter and Stam, *Democracies at War*, pp. 19-25; Bueno de Mesquita et al., *The Logic of Political Survival*; Goemans, *War and Punishment: The Causes of War Termination and the First World War*; Gartner, "War Casualties, Policy Positions and the Fate of Legislators."


131
States as 1 and all others coded 0. This inclusion of the *USA Dummy* variable in the model aims to test the proposition that the United States, particularly in the post-World War II period, is uniquely effective at waging coalition wars. Data come from the COW Interstate War dataset on war participants.

Finally, I create a dichotomous *Attrition Strategy* variable to code all military coalitions adopting an attrition strategy, as opposed to a maneuver or punishment strategy. Previous studies have demonstrated that military strategy is a significant predictor of the initiation, duration and outcome of interstate wars, with maneuver strategies as the most successful.\(^{221}\) Maneuver strategies, such as the Germany blitzkrieg in World War II, emphasize mobility over brute force with allied forces seeking to avoid set-piece battles in favor of breakthroughs at weak points, and the encirclement and division of the enemy’s forces.\(^{222}\) In contrast, attrition strategies, such as that of the Western Allies in World War I, aims to annihilate the enemy by directly engaging with its forces, slowly eroding the enemy’s capacity to make war. Consequently, attrition strategies, such as strategy of the Allies on the Western Front in World War I, are immensely costly both in soldiers’ lives and matériel.\(^{223}\) To account for the costliness of attrition, *Attrition Strategy* is a dummy variable, which takes on a value of 1 if a military coalition adopts an attrition strategy in the war or 0 otherwise. Data are from Stam and Bennett and Stam.\(^{224}\)

---


\(^{222}\) A third type of military strategy is punishment. I have opted not to discuss punishment strategies because subsequent coding revealed that few military coalitions adopted this strategy.

\(^{223}\) Stam, *Win, Lose, or Draw: Domestic Politics and the Crucible War*, 52-53.

\(^{224}\) Reiter and Meek, "Determinants of Military Strategy, 1903-1994: A Quantitative Empirical Test." Stam, *Win, Lose, or Draw: Domestic Politics and the Crucible War*. In the few cases where nations within the
Statistical Methods

The statistical analysis employs two-way tables with measures of association and pairwise comparisons of means, supplemented with ordinary least squares (OLS) regression models, to test claims about the sources of coalition military effectiveness.

EMPIRICAL RESULTS

Bivariate evidence supports the proposition that institutionalized military coalitions generate higher levels of coalition military effectiveness. Table 4-4 presents the findings of a bivariate cross-tabulation of coalition military institutionalization and the dichotomous coalition-military-effectiveness variable: “more effective” or “less effective.” Consistent with the hypothesis that the coalition military institutionalization increases coalition military effectiveness, Table 4-4 shows that the military coalitions which adopt a unified command structure are significantly more likely to fight effectively in wars. Seventy-seven percent of military coalitions with a unified command structure fight effectively on the battlefield, thus achieving LERs greater than one, compared to 46% military coalitions relying on a parallel-command arrangement. Moreover, a poor coalition military performance is significantly less likely to occur among military coalitions with a unified command structure, with institutionalized military coalitions half as likely generate LERs less than one, compared to their noninstitutionalized counterparts.

---

military coalition employed different military strategies, I coded the strategy of the largest state (in terms of capabilities).
Table 4-4: Cross-Tabulation of Coalition Command Structure and Coalition Military Effectiveness for Wartime Military Coalitions, 1816-2007

<table>
<thead>
<tr>
<th>Coalition Command Structure</th>
<th>“Less Effective” (LER&lt;1)</th>
<th>“More Effective” (LER&gt;1)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel Command</td>
<td>13 (54%)</td>
<td>11 (46%)</td>
<td>24 (52%)</td>
</tr>
<tr>
<td>Unified Command</td>
<td>5 (23%)</td>
<td>17 (77%)</td>
<td>22 (48%)</td>
</tr>
<tr>
<td>Total</td>
<td>18 (39%)</td>
<td>28 (61%)</td>
<td>46 (100%)</td>
</tr>
</tbody>
</table>

Pearson $\chi^2(1) = 4.7633$, $Pr = 0.029$

The results are similarly significant when using the continuous coalition-military-effectiveness variable: military coalition LERs. Table 4-5 presents the results of a one-tailed-t test for a pairwise comparison of means ($p = 0.003$). The results of the bivariate analysis are thus consistent with my theory of coalition military institutionalization.

Table 4-5: Pairwise Comparison of Mean log(LER) for Coalition Command Structures

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>$\Sigma$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel Command</td>
<td>0.641</td>
<td>0.164</td>
</tr>
<tr>
<td></td>
<td>(4.374)</td>
<td></td>
</tr>
<tr>
<td>Unified Command</td>
<td>-0.081</td>
<td>0.157</td>
</tr>
<tr>
<td></td>
<td>(0.829)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Numbers in parentheses are the mean LER values in original format, thus transformed back from the logarithmic. $p = 0.003$

To conduct a more rigorous test of this hypothesis, I control for alternative explanations using multivariate regression. Tables 4-6, 4-7 and 4-8 display the results of these tests. All models use the continuous coalition-military-effectiveness dependent variable (military coalition LERs) and employ OLS analysis. Models 1-4 show the effect of coalition command structure, relative material capability and external threat on
coalition military effectiveness. Consistent with the bivariate analysis, coalition command structure is positive and significant in all models.

Importantly, this effect remains statistically significant, even when the analysis takes into account the coalition participation of the United States or the adoption of an attrition strategy. Coalition military performance is also significantly associated with the relative material capabilities, achieving statistical significance in nine models. The results are mixed for the external-threat hypothesis. Although territorial disputes are no more likely statistically to generate higher levels of coalition military effectiveness, high external threat levels, as resulted in arms races with the enemy prior to war, significantly improve coalition fighting power. The effect loses significance, however, when the model controls for whether the military coalition adopted an attrition strategy.

Table 4-6: Coalition Military Institutionalization, Material Preponderance, External Threat and LERs, OLS Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Coefficient</td>
<td>Coefficient</td>
<td>Coefficient</td>
</tr>
<tr>
<td></td>
<td>(Std. Err.)</td>
<td>(Std. Err.)</td>
<td>(Std. Err.)</td>
<td>(Std. Err.)</td>
</tr>
<tr>
<td><strong>Unified Command</strong></td>
<td>0.712*</td>
<td>.492**</td>
<td>0.484**</td>
<td>0.530**</td>
</tr>
<tr>
<td></td>
<td>(0.227)</td>
<td>(0.152)**</td>
<td>(0.151)</td>
<td>(0.145)</td>
</tr>
<tr>
<td><strong>Relative Material Capabilities</strong></td>
<td>0.018**</td>
<td>0.017**</td>
<td>0.017**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.003)</td>
<td>(0.002)</td>
<td></td>
</tr>
<tr>
<td><strong>External Threat</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Territorial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.235</td>
<td></td>
<td></td>
<td>0.365*</td>
</tr>
<tr>
<td></td>
<td>(0.191)</td>
<td></td>
<td></td>
<td>(0.151)</td>
</tr>
<tr>
<td><strong>Arms Race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.081</td>
<td>-0.215</td>
<td>-0.018</td>
<td>-0.356</td>
</tr>
<tr>
<td></td>
<td>(0.157)</td>
<td>(0.104)</td>
<td>(0.191)</td>
<td>(0.115)</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-0.081</td>
<td>-0.215</td>
<td>-0.018</td>
<td>-0.356</td>
</tr>
<tr>
<td></td>
<td>(0.157)</td>
<td>(0.104)</td>
<td>(0.191)</td>
<td>(0.115)</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td><strong>R²</strong></td>
<td>0.183</td>
<td>0.656</td>
<td>0.668</td>
<td>0.698</td>
</tr>
</tbody>
</table>

*significant at p < .05; **significant at p < .01.
Table 4-7: Coalition MilitaryInstitutionalizationand Control Variables, OLS Analysis
Log(LER)
Model 5
Model 6
Variable
Coefficient
Coefficient
Unified Command

(Std. Err.)

(Std. Err.)

.439**

0.514**

(0.159)

(0.132)

Relative Material

0.016**

0.014**

Capabilities

(0.003)

(0.002)

Arms Race

0.329*

0.155

(0.152)

(0.154)

0.289

USA Dummy

(0.216)

Attrition Strategy

-0.629
(0.205)

Constant
N
R2
*significant

-0.342

0.277

(0.139)

(0.231)

46
0.711
at p < .05; **significant at p < .01.

46
0.754

Consistent with more recent work challenging the empirical correlation between
democracy and victory, this analysis finds a lack empirical support for the regime-type
hypothesis.

225

~ teae
Both the average Polity IV score and the total number of democracies

within the coalition fail to achieve significance, although the latter approaches
significance level. Democracy has a statistically significant effect only when large
coalitions of democracies initiate hostilities. Overall, however, these data seem to cast
doubt on the findings of previous studies, particularly those of Choi, as well as Reiter and
Stam, which extoll the beneficial effects of democracy for military effectiveness.22 6

Studies that find a lack of empirical support for the association between democracy and victory are
Downes, "How Smart and Tough Are Democracies? Reassessing Theories of Democratic Victory in War,"
9-51; Dan Reiter et al., "Another Skirmish in the Battle over Democracies and War," ibid.34, no. 2 (2009).
226 Reiter and Stam, "Democracy, War Initiation and Victory."; Reiter and Stam, Democracies at War.
Choi, "The Power of Democratic Cooperation," 180-194; Choi, "Cooperation for Victory: Democracy,
225

136


Table 4-7: Coalition Military Institutionalization, Democratic Military Coalitions and LERs, OLS Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 7</th>
<th>Model 8</th>
<th>Model 9</th>
<th>Model 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log(LER)</td>
<td>Coefficient</td>
<td>Coefficient</td>
<td>Coefficient</td>
<td>Coefficient</td>
</tr>
<tr>
<td></td>
<td>(Std. Err.)</td>
<td>(Std. Err.)</td>
<td>(Std. Err.)</td>
<td>(Std. Err.)</td>
</tr>
<tr>
<td>Unified Command</td>
<td>0.485** (0.149)</td>
<td>0.406* (0.153)</td>
<td>0.482** (0.153)</td>
<td>0.407** (0.134)</td>
</tr>
<tr>
<td>Relative Material</td>
<td>0.017** (0.003)</td>
<td>0.016** (0.003)</td>
<td>0.014** (0.003)</td>
<td>0.007* (0.003)</td>
</tr>
<tr>
<td>Capabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regime</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polity IV</td>
<td>0.020 (0.013)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democracies</td>
<td>0.083† (0.041)</td>
<td>0.093* (0.040)</td>
<td>0.014 (0.041)</td>
<td></td>
</tr>
<tr>
<td>War Initiator</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>War Initiator*Polity IV</td>
<td>0.303† (0.155)</td>
<td>0.063 (0.149)</td>
<td></td>
<td>0.267** (0.075)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.159 (0.108)</td>
<td>-0.250 (0.102)</td>
<td>-0.431 (0.135)</td>
<td>-0.264 (0.125)</td>
</tr>
<tr>
<td>N</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>R²</td>
<td>0.676</td>
<td>0.686</td>
<td>0.713</td>
<td>0.789</td>
</tr>
</tbody>
</table>

γ = trend, or borderline significant at p < 0.1; *significant at p < .05; **significant at p < .01.

In sum, the results of this analysis offer preliminary support for the positive effects of coalition military institutions on coalition military effectiveness. The statistical analysis demonstrates that coalition military institutionalization is positively and significantly associated with higher levels of coalition military effectiveness. This relationship persists even in controlling for other explanatory variables. The analysis also provides empirical support for the material preponderance hypothesis, indicating that the

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relative balance of material capabilities positively affects coalition military performance. The forgoing analysis offers weak and mixed support for both the regime-type and external-threat hypotheses. Overall, the findings point to the effects of both coalition military institutions and material preponderance on the generation of coalition military power.

CONCLUSION

This chapter offered a preliminary test of the explanatory power of competing theories of coalition military performance. The results offer statistical support for this dissertation’s theory of coalition battlefield effectiveness, namely, that institutionalized military coalitions generally fight more effectively on the battlefield than their less institutionalized counterparts. While the statistical analysis offered important findings, the investigation of the causal mechanisms behind these correlations requires adoption of qualitative methods. The case study method allows for the detailed process tracing needed to explore these causal processes. Accordingly, the next two chapters present the cases of Franco-British wartime cooperation from 1914 to 1918 and in May 1940.
APPENDIX A

The First World War presents a clear division between the western and eastern fronts, as the actors, issues, and outcomes are all different. Reiter and Stam also include a German-Belgian War, in which they code Germany as winning quickly. While the German military occupied much of Belgium, including Brussels, after 1914, it failed to capture the entire country, and the Belgians continued to fight alongside the French and the British along the western front.\(^{227}\) I therefore opt not to generate a separate Belgian-German War.

The Second World War most obviously requires disaggregation. Most students of the war would agree that the war in the Pacific against Japan was both politically and military independent from the war against Nazi Germany. Both the Asian and European theaters, however, can be further subdivided into multiple conflicts in which the political stakes or the military belligerents were significantly different. In Asia, the War in the Pacific, waged by a US-led coalition against the Japanese, was a four-year long, brutal series of island-hopping military operations against the Japanese, while Soviet Union’s entry into the Pacific theater occurred at last in the August 1945, when the Soviet Union, in cooperation with the Mongolian army, launched a major offensive against Japanese forces in Inner Mongolia and Manchuria.

In Europe, seven separate wars resulted from fascist military aggression and Allied military efforts to reverse it. The first outbreak of war occurs in 1939 with the

\(^{227}\) See Reiter and Stam, "Democracy, War Initiation and Victory."; Reiter and Stam, *Democracies at War.*
German-Soviet invasion and occupation of Poland.\textsuperscript{228} Nazi military aggression produces a second war with the invasion of Norway in the early spring of 1940. While some scholars have included a separate German-Danish War, I have chosen to subsume it into Germany’s war with Norway, as Nazi aggression against Norway was intimately tied to the fate of Denmark. Indeed, Hitler’s invasion order of March 1, 1940 called for invasion and occupation of both nations.\textsuperscript{229} The next war occurs with Germany’s invasion of France and the Low Countries, beginning on the 10 May 1940. I disagree with the decision of some studies to further subdivide German invasion into separate wars against the Dutch, Belgians and French, because battlefield developments were interconnected, with the rapid collapse of Dutch and Belgian resistance tied to the Fall of France. In accordance with the other studies, I code the Italo-Greek conflict as a separate war, which expands to include the participation of the German military and Commonwealth Expeditionary Force, in support of their respective allies. Likewise, the German invasion of Yugoslavia is a separate war, with the Yugoslav army unable to withstand the German onslaught. Finally, the war between Germany and the Soviet Union in the East was largely independent of the war waged by the Western Allies in the West, justifying its coding as a separate war.

The dataset also disaggregates wars multi-phase wars, even if fought on a single primary front, to better account for important shifts between bilateral confrontations and multilateral conflicts. Under this coding, the Korean War,

\textsuperscript{228} Although Bennett and Stam code Nazi Germany’s occupations of Czechoslovakia and Austria as wars, subsequent studies have dropped these observations, having noted that these conflicts were not actually wars. See D. Scott Bennett and Allan C. Stam, "The Duration of Interstate Wars, 1816-1985," \textit{American Political Science Review} 90 (1996); Goemans, \textit{War and Punishment: The Causes of War Termination and the First World War}; Slantchev, "How Initiators End Their War: The Duration of Warfare and the Terms of Peace."

Vietnam War and the Persian Gulf Wars are candidates for disaggregation. First, the Korean War subdivides into three distinct conflicts: a war between the Democratic People’s Republic of Korea (DPRK) and the Republic of Korea, following the North’s invasion of the South; a war between the combined forces of the ROK and the United Nations against North Koreans; and a war between the expanded coalition forces of the United Nations and ROK against the coalition forces of North Korea and China. Both the enlargement of the warring parties and shifting war aims indicate that this case should be subdivided under the coding rules. Ultimately, however, I opt not to disaggregate this case, because reliable data, particularly of battlefield dead on the Chinese and North Korean side, are only available at the aggregate level. Second, the Vietnam War subdivides into two distinct interstate conflicts, the first of which entailed the lengthy American military intervention, and the latter which resulted in North Vietnam’s conquest of the South in 1975. Finally, Iraq War splits into two phases, one the brief Iraq-Kuwait clash and the other the American-led war to dispel Saddam’s forces from Kuwait.

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230 Reiter and Stam make a similar differentiation in the phases of the Vietnam War and other scholars have subsequently adopted this approach. See Reiter and Stam, "Democracy, War Initiation and Victory."; Reiter and Stam, *Democracies at War*.

231 For a similar approach, see Slantchev, "How Initiators End Their War: The Duration of Warfare and the Terms of Peace."
CHAPTER FIVE: FRANCO-BRITISH COALITION MILITARY EFFECTIVENESS, 1914-1918

INTRODUCTION

Beginning in 1914, France and Britain became uneasy wartime allies, united together in a common struggle to defeat the German bid for continental hegemony. For the next four years, 1914 to 1918, the two countries confronted the multifarious problems of waging coalition warfare, of how to join together two national armies with different, if not conflicting, national interests, speaking different languages, using different and incompatible equipment, and with vastly different cultures and traditions. While problems of coordination are endemic in coalition war, they became much more acute for the French and British, because of the unprecedented scale of death and destruction in the First World War. The Franco-British coalition met with both success and failure in overcoming these obstacles to effective cooperation in the field, such that coalition military performance varied widely over the course of the war. The French and British fought side by side but ineffectively for much of the First World War, yet after 1916, slowly adapted to the challenges of waging coalition warfare to become a well integrated and cohesive—even if less than responsive—fighting force. What accounts for such wide variation in the military performance of the Franco-British coalition on the battlefield? In other words, why was the coalition not able to consistently capitalize on its significant material advantages over Germany to fight more effectively in the field, and what accounts for the better coalition battlefield performance in the final months of the war? In this chapter, I argue that the answers to these questions depend fundamentally on both the degree and form of coalition military institutionalization.
The French and British experience as allies in First World War demonstrates that coalition military institutions made the critical difference in fighting together effectively on the battlefield. At the outbreak of war, and well in to the first years of the war, a lack of institutionalized political-military planning, command relations and information exchange within the coalition impaired coalition military effectiveness, as French and British commanders alike gave priority to national interests over the wider interests of the military coalition. The French and British high commands developed separate national military strategies and national plans of battle, and no coordinating political or military machinery existed to synthesize them into an effective coalition military strategy. As a result of these institutional deficiencies in coalition military planning, command relations and information sharing, the two allied armies fought a series of costly and poorly fought campaigns early in the war.

Despite these early challenges, the coalition endured, adapted and improved in the field of battle. The turning point came in 1916 at the Battle of the Somme. Although the enduring image of the Somme is as a tragedy of senseless slaughter, the historical reality is far more complex, as the campaign marked a major turning point in coalition military cooperation. In advance of the 1916 campaign, the French and British set up institutional procedures for common political-military planning in the way of allied conferences, and later formalized into the workings of the Supreme War Council. A common political-military plan paid dividends on the battlefield, with coalition forces displaying enhanced coalition battlefield integration and greater but uneven cohesion, even if still no capacity for coalition battlefield responsiveness. Thereafter the coalition grappled with institutional solutions to problems of command relations and information sharing, though
such efforts progressed unevenly and haltingly. In the final year of the war, however, the French and British found and put in place institutional mechanisms for command relations, with the appointment of a supreme allied commander on the Western Front. The combination of the Supreme War Council and a generalissimo, in the person of French General Ferdinand Foch, brought about a closer and more effective working relationship in the field, with observably better coalition battlefield integration and cohesion, as well as some limited capacity for coalition battlefield responsiveness, particularly when compared with their performance earlier in the war. The battlefield evidence, both the wide variation in coalition military performance observed between 1914 and 1918, and the timing nature and direction of such changes, provides significant support for realist institutionalist theory.

This chapter proceeds in four main parts. The first section provides background, reviewing the origins of the Entente Cordiale and the basic course of Franco-British relations before the outbreak of the war. The second section presents an overview of combat on the Western Front, and discusses the selection criteria for the campaigns and battles examined in his chapter. The remaining sections examine Franco-British wartime collaboration in what I determine are three relatively distinct periods of coalition military institutionalization, with specific predictions for coalition military effectiveness. In applying the coding questions to the areas of Franco-British political-military planning, command relations and information exchange, I find that coalition military institutionalization varied from “minimal” at the outbreak of the war to “low” after the Winter 1915/1916, and finally achieved “intermediate” levels after the end of March 1918, until the signing of the armistice. For each of these values of the independent
variable, I generate a series of predictions about how the Franco-British coalition should have performed on the battlefield according to realist-institutionalist theory and the other competing theories presented in Chapter Three. The chapter then examines the battlefield evidence to assess the explanatory power of coalition military institutions relative to other competing explanations. The chapter concludes with a summary of the main findings.

**BACKGROUND**

The First World War made strange bedfellows of the French and British governments and their peoples. For more than ten centuries, ever since the Norman Conquest of 1066, France and Britain had been natural enemies, the histories of the two nations inextricably bound together by mutual antagonism, rivalry and wars.\(^{232}\) Though the two countries had not fought against each other since the French defeat, a British victory, at Waterloo, in 1815, they remained bitter rivals. As recently as 1898 Franco-British rivalry in the scramble for Africa had brought the two nations to the brink of war over Fashoda on the upper Nile.\(^{233}\) In the first decade of the twentieth century, however, France and Britain drew closer together to counter the growing threat of Germany to the balance of power. Germany now stood as preeminent power on the Continent, with the

\(^{232}\) For an overview of Franco-British relations since the seventeenth century, see Robert Toms and Isabelle Toms, *That Sweet Enemy: The British and the French from Sun King to the Present* (London: Knopf, 2006).

combined strengths of a large and growing population, a dynamic economy and a strong army, and it continued to grow, outpacing the industrial production of its nearest continental rivals and more impressively still, by 1914, rivaling the British in industrial strength.\textsuperscript{234} Given German growth weakened the relative position of all the other European great powers, it was bound to cause some friction and unease across Europe, particularly amongst its neighbors.\textsuperscript{235} Rather than allay such fears, however, from the 1890s onwards, German pursued a more aggressive and bellicose foreign policy to secure a "place in the sun," with the colonies and fleet to match its ambitions.\textsuperscript{236}

This more aggressive turn succeeded mostly in driving its potential rivals closer together. For France, Germany had become the paramount, ever since the debacle of 1870-71.\textsuperscript{237} With a stagnant population and inferior industrial base, France was a permanent disadvantage in balancing German power. Recognition of this fact promoted French statesmen to court allies in earnest, the first success of which was the alliance with Russia, formally concluded in 1894.\textsuperscript{238} The Franco-Russian alliance would remain the cornerstone of French grand strategy until 1914, but it alone could not solve all French strategic problems, particularly given the economic backwardness, bureaucratic


\textsuperscript{236} According to Tripitz's "risk theory," Germany required a naval fleet large enough that no other great power would risk battle. In this view, the German challenge to British naval supremacy would force the British to accommodate rather than oppose German interests. See Paul M. Kennedy, \textit{The Rise and Fall of British Naval Mastery} (London: Ashfield Press, 1976).


\textsuperscript{238} In the event of war, France and Russia agreed to joint mobilization and military action, thus threatening Germany with the prospect of a two-front war. See George F. Kennan, \textit{The Fateful Alliance: France, Russia, and the Coming of the First World War} (New York: Pantheon, 1984).
inefficiency, and political instability in Russia.\textsuperscript{239} France therefore sought to ally itself with Britain, as its still-enormous industrial and financial resources tilted the balance, especially in the event of a long. These strategic calculations led the French Foreign Minister, Théophile Declassé, to conclude, “If we could lean on both Russia and England, how strong we should be in relation to Germany.”\textsuperscript{240} Whatever ill will the French still harbored towards their traditional enemy, France needed Britain as a counterweight to German power.

The emerging German threat provoked a similar reassessment of British enmity towards the French. Confronted with limited resources, extended commitments across the globe, and concurrent threats to the empire and home isles, Britain thus moved to end its “splendid isolation” from European affairs and return to a traditional policy of balance of power on the Continent.\textsuperscript{241} As the pace of the Anglo-German naval race quickened, British attitudes towards Germany grew decidedly more hostile. Even if the strategic intention of the German naval buildup was predominately defensive, it was perceived as aggressive and a direct challenge to British maritime supremacy. By 1902, the First Lord of the Admiralty, the Earl of Selborne, was sufficiently alarmed as to warn the Cabinet: “I am convinced that the great new Germany navy is being carefully built up from the point of view of a war with us.”\textsuperscript{242} As the need to confront the German naval challenge grew more urgent, London sought to settle old imperial rivalries, so it could shift all too

\textsuperscript{242} Quoted in Kennedy, \textit{The Rise and Fall of British Naval Mastery}, p. 215.
scarce resources from the burdens of imperial defense to safeguarding the home waters. Great Britain entered into a friendly understanding with France, signing what became known as the Entente cordiale on 8 April 1904, which resolved all outstanding imperial differences between the two countries.

For the next decade, until the outbreak of the First World War, the French attempted to convert the Franco-British Entente into a formal alliance, but the British assiduously avoided any binding commitment to the defense of France. French statesmen regarded the entente as a prelude to a formal alliance, one with a firm British military commitment to the defense of France. The French Foreign Minister, Théophile Declasse, expressed his hopes for the future of the entente, writing in 1904 shortly after the signing of the agreement, it “should lead us, and I desire that it shall lead us, to a political alliance with England.” In the British view, however, the Entente was strictly a colonial settlement between former imperial rivals and implied no obligations of mutual assistance in times of war. As Eyre Crowe explained in 1911, “The fundamental fact

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of course is that the Entente is not an alliance. For the purposes of ultimate emergencies it may be found to have no substance at all. For an entente is nothing more than a frame of mind...”\textsuperscript{248} Far from paving the way toward a formal alliance with France, the Entente was to give the British greater flexibility in great power politics, preserving a “free hand” in continental affairs.\textsuperscript{249} France thus looked on in frustration, and above all alarm, as Britain refused to commit to a formal military alliance. Although French statesmen courted the British for the next decade, their efforts met with little success beyond military and naval staff talks held intermittently after 1906.\textsuperscript{250} The French saw in these staff talks a more binding British commitment to France, either failing to appreciating, or choosing to ignore, the British Foreign Secretary Sir Edward Grey’s repeated warnings that such talks were in no way a formal guarantee of British military intervention.\textsuperscript{251} Even if the Entente carried no formal obligations, the French countered, Franco-British staff talks gave rise to a subtler form of obligation, a moral one.\textsuperscript{252}

This divergence of views brought the Entente to the brink of collapse in the summer of 1914, even before the first shots were fired along the Franco-German frontier.

All throughout the July Crisis, Britain stood apart, almost aloof, from the continental

\textsuperscript{251} In an exchange of letters between the two governments in 1912, Grey was insistent on this point. “From time to time in recent years French and British naval and military experts have consulted together,” he wrote to Paul Cambon, the French Ambassador in Paris. “It has always been understood that such consultation does not restrict the freedom of either government to decide at any future time whether or not to assist the other by armed force.” Grey-Cambon correspondence reprinted in Great Britain Parliament House of Commons, Papers by Command Volume 101 (London: H.M. Stationery Office, 1914), Enclosures 1-2, No. 105, pp. 156-158.
\textsuperscript{252} During the July Crisis, Grey made a similar argument before the Cabinet, claiming that Britain had “both moral obligations of honour and substantial obligations of policy in taking sides with France.” Quoted in Keith Robbins, Sir Edward Grey: A Biography of Lord Grey of Fallodon (London: Cassell, 1971), p. 295.
march towards war. French requests for armed assistance fell on stony ground, as the British government asserted its complete freedom of decision. To the end it remained an open question whether Great Britain would intervene in a European war or stand aside.\footnote{Poincaré recounted in his memories that “until the last moment, the French government did not know what England’s position would be.” Raymond Poincaré, p. 437.} The French responded to British indecision with grave anxiety, disappointment and intense bitterness. In London, the French Ambassador, Paul Cambon, demanded to know “whether the word ‘honour’ should be struck from the English vocabulary.”\footnote{Quoted in James Joll, \textit{The Origins of the First World War} (London: Longman, 1992), p. 34.} In the end, what saved the Entente from a complete and irreparable break was not any moral obligation to France but the German violation of Belgian neutrality.\footnote{Doughty, "France," p. 54.} Fearing German control of the Low Countries, as well as the prospect of the German fleet operating in the Channel, the Cabinet perceived the German invasion of Belgium as a direct threat to British national interests. At midnight on 4 August, Britain declared itself in a state of war with Germany, thus opting in the final hour to stand with France. It remained an open question, however, whether these erstwhile enemies turned allies could fight effectively together on the battlefield. The tensions of the July Crisis represented a less than auspicious start.

\textit{Fighting on the Western Front and the Selection of Military Campaigns and Battles, 1914-1918}

This chapter examines the wartime military collaboration of the French and British armies with a close study of the major campaigns and battles fought on the Western Front between 1914 and 1918. Specifically, the chapter analyzes the following six major campaigns or battles: the Battle of Charleroi-Mons and the delaying actions
fought at Le Cateau and Guise during the Great Retreat in 1914; the Battle of the Marne in 1914; the Battle of the Somme in 1916; the German MICHAEL Offensive in March 1918; the German GEORGETTE Offensive in April 1918; and the Allied counterattack at Amiens-Montdidier in August 1918.

Of all the fighting on the Western Front, this chapter examines these battles for three main reasons. First, they were all coalition battles, in which both French and British troops fought alongside each other in the field against a common foe. For this same reason, campaigns fought with predominately French or mainly British forces, like the German attack of the French Army at Verdun in early 1916, or Haig’s assault on Passchendaele in 1917, were excluded from the analysis. Instead the study focuses on battles in which substantial numbers of French and British fought together, not alone, against enemy forces, thus allowing for an assessment of the effectiveness of the coalition in the field.

Second, the study examines only those battles in which other allies of France and Britain either did not participate directly or played a minimal role in the fighting. Notably, Belgian forces played a significant role in operations during the so-called Race to the Sea at the end of 1914, and American troops contributed importantly to the final major offensives against Germany, including the Meuse-Argonne campaign, from September to November 1918. This is not to say that the fighting effectiveness of Allied forces contradicts the prediction of the realist institutionalist theory, only that the extensive participation of these forces would likely confound the analysis, given that only Britain and France fought together in the war with substantial manpower and weapons from start to end. The study therefore focuses on what were substantively the important
combined battles of the French and British armies fought over the course of the war.

Finally, this series of battles includes both offensive and defensive coalition operations, thus accounting for the effects of offensive-defensive advantages.\textsuperscript{256} In examining French and British forces both on the attack and holding their ground, it allows for an examination of Franco-British coalition military effectiveness, even when coalition forces adopted different operational-tactical orientations at different times in the war. In other words, it mitigates important sources of exogenous variation in coalition military performance, thus making the findings more robust.

Table 5-1: Selection of Coalition Campaigns and Battles for Analysis

<table>
<thead>
<tr>
<th>Year</th>
<th>Type</th>
<th>Offensive Operations</th>
<th>Defensive Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1914-1916</td>
<td>Minimal Coalition</td>
<td>Battle of the Marne, Sept. 1914</td>
<td>Battle of Charleroi-Mons, Aug. 1914</td>
</tr>
<tr>
<td></td>
<td>Military Institution</td>
<td></td>
<td>Battles of Le Cateau and Guise, Aug. 1914</td>
</tr>
<tr>
<td>1916-1918</td>
<td>Low Coalition Military</td>
<td>Battle of the Somme, 1916</td>
<td>MICHAEL Offensive, March 1918</td>
</tr>
<tr>
<td></td>
<td>Institutionization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1918</td>
<td>Intermediate Coalition</td>
<td>Amiens-Montdidier Offensive, August 1918</td>
<td>GEORGETTE Offensive, April 1918</td>
</tr>
<tr>
<td></td>
<td>Military Institution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The remainder of this chapter provides evidence about the level of coalition military institutionalization in the three key areas of political-military planning, command relations and information exchange, generates a series of predictions about how Franco-British should have performed on the field according to the competing theories presented in Chapter Three. It then assesses the empirical evidence of the coalition’s battlefield performance, coding the dependent variable based on the set of coding questions presented in Chapter Two. Each campaign or battle thus offers the opportunity to evaluate the validity of competing predictions. The analysis generally confirms the predictions of realist-institutionalist theory, suggesting that coalition military institutions made the critical difference to Franco-British coalition military performance in the war.

“MINIMAL” FRANCO-BRITISH COALITION MILITARY INSTITUTIONALIZATION, PREWAR TO 1916

This section shows that at the outbreak of hostilities, France and Great Britain were ill prepared to wage a coalition war, much less the long and costly attritional struggle of the First World War. For the first year and a half of the war, coalition military institutionalization was minimal, according to the set of coding questions adopted in Chapter Three. During this time, the Franco-British coalition lacked institutional mechanisms in the areas of joint political-military planning, coalition command relations, and information exchange. Although the French and British managed to adopt a set of similar war aims, they failed as a coalition to build the institutional machinery needed to realize those aims on the battlefield. The two nations engaged in minimal coalition political-military planning, fought under independent national commands, and exchanged information with each other selectively through an ad hoc system of liaison officers and
unofficial contacts. Coalition military institutionalization was thus minimal, what were identified in the third chapter as the lowest levels associated with poor coalition military effectiveness.

**Coalition Political-Military Planning**

From the prewar decade until the end of 1915, the institutional machinery for coalition political-military planning was minimal. To the extent joint planning occurred at all, it was limited to the exchange of views between two governments, based on infrequent and ad hoc contacts among French and British diplomats and military commanders. During the prewar decade, the general staffs of the two nations met intermittently to devise plans for the rapid dispatch of the British Expeditionary Force (BEF) to the Continent, should the British government ever decide to render armed assistance to France. In early 1905, Major General Sir James Grierson, the Direct of Military Operations (DMO), began unofficial military talks with the French military attaché in London, Major Victor Huguet. The following year, the first politically sanctioned staff talks occurred between the French and British General Staffs.257 The secretive nature of the talks limited participation and knowledge to the highest levels of government, however, placing them outside the purview of most top officials and military officers, including Lord Kitchener, the future Secretary of State for War.258 These conversations lapsed when Grierson left the War Office in the summer of 1906, and were

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257 In January 1906, the CID received authorization from the new Secretary of State for War, Lord Haldane, with the approval of Grey, to enter into military conversations with the French General Staff. See Williamson, *The Politics of Grand Strategy: Britain and France Prepare for War, 1904-1914*, pp. 75-76.

not resumed until 1991, when the Agadir Crisis threatened war.\textsuperscript{259} In 1911, 1912 and 1913, Brigadier General Henry Wilson, appointed DMO in 1910, visited the Continent, each time making bicycle and motor tours of the Franco-Belgian frontier and conferring with his counterparts on the French General Staff.\textsuperscript{260}

These staff talks worked out detailed arrangements for the mobilization and transport of the BEF to France but never settled what would happen once their armies took to the field. By the end the first round of staff talks, held in 1905, the French and British General Staffs had settled nothing beyond the size and route the BEF would take across the Channel. The British placed the size of the expeditionary force at six divisions, totaling approximately 100,000 men, calculations based more on domestic political constraints than a careful assessment of the Entente’s manpower requirements for defeating Germany in a war. As Edward Spears, a British liaison officer in the war, concluded, the size of the force merely “represented the maximum number of divisions which could be formed out of the force retained at home for draft-finding purposes.”\textsuperscript{261}

The Franco-British talks thus made no effort to align the French demand for security with the size of the expeditionary force on offer from London. What emerged most clearly from these early discussions, however, was that a British force of this size would have to disembark at French rather than Belgian ports, for reasons of maritime security. In talks

\textsuperscript{259} Douglas Haig, in one of a series of letter written from India where he was Chief of Staff, reflected to Henry Wilson “But these war scares should do good if the lesson of unpreparedness is driving home in the right quarters.” Quoted in Keith Jeffery, \textit{Field Marshal Sir Henry Wilson: A Political Soldier} (Oxford, UK: Oxford University Press, 2006), p. 101.


\textsuperscript{261} Although Haldane asserted in his postwar memoirs that the size of the expeditionary force was “the result of careful study,” other participants in the war and historians have since discredited this claim. See Richard Burdon Haldane Haldane, \textit{Before the War} (London: Funk & Wagnalls Company, 1920), pp. 156-182; Edward Spears, \textit{Liaison, 1914: A Narrative of the Great Retreat} (London: W. Heinemann ltd., 1930), pp. 80-81.
with the French, Grierson agreed the BEF would land at Calais, Cherbourg and Boulogne, and from these ports move by rail to its zone of concentration.\textsuperscript{262} The precise location of the British zone was still unresolved, however, when military conversations lapsed after Grierson left the War Office in the summer of 1906.

Once official staff talks resumed again in 1911, France and Britain worked to finalize the details of these logistical arrangements. Wilson worked tirelessly with his French counterparts to prepare for the organization and deployment of the BEF. On his arrival at the War Office in 1910, he found that little progress had been made with the French in preparing the expeditionary force for continental war. "I am very dis-satisfied with the state of affairs in every respect," he recorded in his diary. "No real arrangements for concentration & movements of either Expedy Force or Territorials. No proper arrangements for horse supply..."\textsuperscript{263} For the next three years, he worked tirelessly to push forward military preparations and strengthen contacts between the French and British armies. Together with General Dubail of the French General Staff, Wilson formalized these plans into a written understanding between the two armies. On the basis of their joint memorandum, signed on 20 July 1911, the British would mobilize and deploy an expeditionary force of six British infantry and one cavalry division to northern France.\textsuperscript{264} This British force of 150,000 men would disembark at the ports of Rouen, Havre and Boulogne and then move by rail to a forward zone in the Maubeuge-Hirson-Le Cateau

\textsuperscript{263} Wilson, \textit{The Policy of the Entente: Essays on the Determinants of British Foreign Policy 1904-1914}, p.87.
\textsuperscript{264} Memorandum of meeting held on July 20, 1911, between General Dubail and General Wilson, 21 August 1911, reprinted in Gooch and Temperley, \textit{British Documents on the Origins of the War, 1898-1914}, No. 640, p. 629.
triangle by the sixteenth day of mobilization.\textsuperscript{265} These plans were so complete as to include a provision to allow the troops to have a ten-minute rail break at Amiens for coffee.\textsuperscript{266} By 1914, all the logistical arrangements had thus been put in place for dispatching the British across the Channel.

Despite these carefully laid technical plans, vital questions of military strategy remained unresolved at the outbreak of war in August 1914. The prewar staff talks never worked out what would happen once the armies took the field of battle, specifically whether the British would join the French line or move forward into Belgium to conduct independent operations along the Belgian coast. The French expressed a strong preference for the British to take up a position on the left of the French line, though they gave no indication of its plans for the employment of British troops. As early as September 1906, General Jean Brun, then the Chief of the French General Staff, proposed to British military leaders that the expeditionary force fight as an extension of the French left wing.\textsuperscript{267} This proposal met with fierce opposition from British generals, however, who preferred for the BEF to move into Belgium to secure the Channel ports against German occupation.\textsuperscript{268} The French need for direct military support thus came into immediate conflict with the traditional British interest in defending the Low Countries.


\textsuperscript{266} Alan Palmer, \textit{The Salient} (London: Constable, 2007), p. 20.


\textsuperscript{268} Indeed, British military planners explored seriously the prospect of landing the force at Antwerp, but the Royal Navy refused to guarantee the safety of disembarkation ports above the Dover-Calais line, closer to, or within, Belgium. Further ruling out landings in Belgium, the Belgian General Staff maintained a policy of strict neutrality and therefore refused to make any contingency arrangements for the deployment of the BEF to Belgium. See Philpott, "The General Staff and the Paradoxes of Continental War," pp. 87-92.
These conflicting strategic interests were not easy to resolve, and in the prewar staff conversations they never were. The British War Office was content to "defer a decision upon this point until the very last moment," observing astutely in April 1907 that the "same set of railway lines from Calais, Boulogne, would lead British forces, disembarking at these ports equally to the French left or the Belgian right."\footnote{269} For its part, the French General Staff was more concerned with whether the British would take part in a continental war, than the details of what sort of commitment ought to be made if they came at all. In 1909, when Henry Wilson had asked General Ferdinand Foch, "What would you say was the smallest British military force that would be of any practical assistance to you in the event of a contest such as we have been considering?" Foch replied immediately, "One single private soldier, and we would take good care that he was killed."\footnote{270} By 1914, Franco-British military planning had hardly advanced much further. To this point the French war plan, Plan XVII, made no definitive provision for placing the British in the French line of battle. Given all the uncertainty about British strategic intentions, the chief of the French General Staff, Joseph Joffre, advised the Supreme War Council in April 1913, "We will act prudently therefore in not taking any

account of British forces in our projected operations." But for ruling out an immediate offensive through Belgium British influence on French war planning was minimal.

In all prewar staff conversations, France took the lead and looked Britain as the junior partner. Joffre consulted with Henry Wilson on certain issues, but in the main kept his own counsel, working out the main elements of Plan XVII with no British input into its formulation. Given both the lack of a formal commitment and the small size of British land forces, French military leaders expected the British should them come at all to fall in with their military plans. Wilson for his part was willing to accept a large measure of French strategic direction in the prewar planning process, including no less than the choice of Maubeuge as the British concentration area. In deferring to the French in the prewar staff talks, Wilson and other British staff officers entrusted the safety of the BEF to a war plan its commanders had played no part in developing, and which therefore took no account of British interests or strategic preferences in its design. Given the prewar staff talks were always provisional and noncommittal, the British, as General Sir William Robertson, later observed, “were not able to insist upon our right to

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examine the French plan in return for our cooperation.” “When the crisis arose, there was no time to examine it,” Robertson recalled, “and consequently, our military policy was for long wholly subordinate to the French policy…”

British strategic independence soon asserted itself, however, as the outbreak of war brought the two allies into immediate conflict over military strategy and the conduct of the war. Although the French and British armies found themselves fighting side by side against a common foe, that in no way implied that the war aims or strategic priorities of the two nations were identical. France and Britain agreed broadly on fighting the war to prevent German hegemony in Europe and to achieve the restoration of Belgian independence and the liberation of German-occupied French territory. Beyond these shared war aims, each nation harbored interests and ambitions of its own. For France, invaded and occupied, the absolute priority was always the defense and liberation of French territory, which they hoped to achieve as quickly as possible, and with the minimum national sacrifice in blood and treasure. In contrast, the British primary concern was for the security of the Channel ports and the expulsion of the Germans from the Low Countries. What is more the British hoped to have the French, at their bidding,

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274 Robertson served as Quartermaster General of the BEF at the outbreak of war and then as Chief of Staff of the BEF in 1915, before finally being made the Chief of the Imperial General Staff from 1916 until the end of the war. See William Robertson, *Soldiers and Statesmen, 1914-1918: Vol 1* (London: Cassell, 1926), p. 49.

275 As early as 5 September 1914, France, Britain and Russia affirmed this unity of purpose in signing the Pact of London, wherein they promised not to conclude a separate peace with the enemy. They also agreed not to propose peace terms without the prior authorization of the others. Bell, *France and Britain, 1900-1940: Entente and Estrangement*, p. 83.

assume the main burden of fighting to achieve these aims. The fundamental tenant of British war strategy was to raise a large British army to win the war at a time when its continental allies would have exhausted themselves in the struggle, so London could then impose its peace terms on enemy and ally alike. In the meantime, Britain would have to husband carefully its manpower, sending only a small army and token reinforcements to the Continent. Even as Kitchener promised to raise an army of a million trained English soldiers to deploy to France at the start of July of 1915, he warned the French, “Before that date you will get none or practically none.” If not quite fighting to the last Frenchman, Kitchener’s grand strategy gave some truth to bitter French complaints, including those of General Huguet, the head of the French mission attached to the British army, that “England wants to win the war with the minimum sacrifice in men,” leaving France to make all the military sacrifices. The parameters were thus set for longstanding disputes over how to fight the war, whether to defend Paris at the expense of the Channel ports, or visa versa, and how to share more equitably the burden of

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fighting, both in the length of front occupied and the number of troops engaged in battle.\textsuperscript{281}

Still no institutional machinery for political-military planning had been put in place to overcome the divergence of national interests. At the start of the war France and Britain resorted to traditional diplomatic channels as the primary means for coordinating their wartime effort. This protracted and cumbersome process began with individual ministers crossing the Channel to consult with their opposite numbers, with any agreement at this level then required to gain the full approval of both governments.\textsuperscript{282} Along with the official diplomatic representations in Paris and London were an ad hoc system of official and unofficial military attachés, ministerial missions and personal emissaries. In Paris, Lord Esher attached himself to the French government as an unofficial advisor to the War Office, acting as Kitchener’s personal emissary and soon the linchpin of relations between the two war ministers.\textsuperscript{283} But in wartime decisions had to be taken quickly, when as Maurince Hankey, secretary of the British Cabinet, observed, the “problems presenting themselves to the Allies were too numerous, too varied, too technical and too urgent to be dealt with solely through the normal diplomatic channels and instead required “direct and frequent consultations between the principal ministers concerned.”\textsuperscript{284} In other words, the political and military leadership of the two nations needed to meet regularly and work together closely to plan and wage a coalition war. The first meeting of the two premiers, Asquith and Viviani, occurred not until July

1915, however, almost a full year after the declaration of war. Over the same period, Kitchener met with his opposite in number, Alexandre Millerand, only five times to discuss allied war strategy.\textsuperscript{285} Churchill diagnosed the problem in June 1915, observing, “The lack of any real coordination in the exertions and plans of the Allies has been evident at every stage.”\textsuperscript{286} Robertson came to a similar conclusion, lamenting, “the want of adequate machinery for initiating military policy and giving effect to it.”\textsuperscript{287} In the first years of the war, some collaboration and consultation existed within the Entente, but, in the absence of a common planning process, each nation pursued more or less its own course.

Franco-British collaboration was likewise little easier to achieve on the battlefield. Entente planning for joint military operations consisted of a few ad hoc and hasty meetings arranged between French and British commanders in the field.\textsuperscript{288} Though much of the planning in the Battle of the Frontiers centered on the French need for British participation, military planning remained a French prerogative, with the British relegated to a minor role in the French planning process. Even then, these impromptu meetings were held much less to work together on devising a common operational plan, than for the French to arrive with a fully worked-out plan which they sought to impose on the British high command. The British commander-in-chief Sir John French was largely content to fall in with the French strategy, as long as he retained some

\textsuperscript{286} Quoted in Dutton, "Britain and France at War, 1914-1918," p. 77.
measure of confidence in Joffre’s plan of campaign.²⁸⁹ These initial meetings therefore set an important precedent for future Franco-British military planning: French and British commanders drew up detailed operational plans in relative isolation of each other, but with the full expectation of the other falling in with them.²⁹⁰ The task of then stitching these plans together into a single cohesive coalition strategy fell to the liaison missions of the two armies. But the liaison mechanism, in the absence of other institutional machinery for political-military planning, was insufficient for the task.²⁹¹ “They might arrange details,” Edward Spears, a British liaison officer in the war, observed, but the liaison missions “could not break down the water-tight compartment in which each staff worked, nor had they the authority to determine whether any fundamental divergence of conception, any charge of heart or min, had occurred in the commanders.”²⁹² Lord Esher offered a similarly scathing assessment of Franco-British liaison, writing to a colleague, in 1915, “there is no real liaison... There is a complete ‘failure’ of liaison—if by that word is meant frank collaboration in planning our sincere co-operation in executing operations—between the allied armies.” For the first years of the war, all the coalition could manage in the way of coalition military planning was a poor “tailoring operation,” in which “different plans were stitched together” to obscure rather than resolve strategic

²⁹⁰ For example, during the critical Race to the Sea, the British made their own plans to mount an expedition for the relief Antwerp, with the expectation that the French Command would fall in with them. Joffre’s opposition to the expedition and his failure to support the British plan brought bitter recriminations from Kitchener, who complained stridently to Millerand. The precedent was thus firmly set of the two commands drawing up their own separate plans, even when the success of the planned attack would depend critically on the participation of the other. On Antwerp and the Race to the Sea, see Ian FW Beckett, Ypres: The First Battle, 1914 (London: Longman, 2004).
²⁹¹ The word “liaison” derives from the French verb lier, to bind or tie together, which in the military context means communication or contact maintained between allied military forces to bind together the actions of one or more commanders and their forces. See Greenhalgh, Victory through Coalition: Britain and France During the First World War, p. 75.
²⁹² Spears, Liaison, 1914: A Narrative of the Great Retreat, pp. 119-120.
differences. With no coalition military institutions, the French and British tendency was to “procrastinate and muddle along,” as Lord Esher derisively observed.

**Command Relationships**

At the outbreak of the war the two nations adopted a parallel command structure. The British commander-in-chief Sir John French carried with him to France written instructions from the new Secretary for State for War, Lord Kitchener, which established in no uncertain terms the independence of his military command. These instructions, issued with the approval of the Cabinet, laid down the task: “The special motive of the Force under your control is to support and co-operate with the French Army… [and] to assist the French Government in preventing or repelling the invasion by Germany of French and Belgian territory…” In view of Britain’s limited commitment to the land war, however, at least until such time as the New Armies could be raised, Sir John was to give priority to the safety of the force. To his point, “while every effort must be made to coincide most sympathetically with the plans and wishes of our Ally,” Kitchener warned against “participation in forward movements where large bodies of French troops are not engaged and where your Force may be unduly exposed to attack…” Sir John’s command was therefore to be “an entirely independent one,” and he would “in no case

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296 As the “numerical strength of the British Force and its contingent reinforcement is strictly limited,” Kitchener cautioned, the “greatest care must be exercised towards a minimum of losses and wastage.” Wallach, *Uneasy Coalition: The Entente Experience in World War I*, p. 24.
297 Ibid.
come in any sense under the orders of any Allied General.” Kitchener’s directives were thus unequivocal; the British army it would at all times remain an autonomous force, acting in collaboration with, not under the control of, the French army.

Kitchener’s instructions to Sir John were not shared with the French, however, leaving Joffre to assume for the first nine months of the war that the BEF was under his command. Given the smallness of the British contingent and its presence fighting on French soil, such an assumption is hardly surprising. The one known discussion of the command relationship in the prewar staff talks had resulted, according to a French attaché report, dated in March 1912, in the following imprecise formulation: “the coordination of the operations of British Army with the French Armies of the North-east will be settled by instructions issued by the commander-in-chief of the French forces operating that in that theatre to the commander-in-chief of the British troops.” On the basis of this prewar agreement, Joffre assumed for himself the powers of a “generalissimo” in August 1914. But that agreement resulted from nothing more binding than a verbal understanding that “command would belong at sea to the British admiral on land to the French general.” In Great Britain, the prewar arrangement meant little. Kitchener’s instructions to Sir John put the British firmly at odds with French perceptions of the relationship. As these instructions were not passed on to the French, Joffre continued to believe that the BEF was under his orders. Not surprisingly, Joffre’s attempts to impose

298 Italics added for emphasis. Ibid., p. 4.
299 Philpott, Anglo-French Relations and Strategy on the Western Front, 1914-1918, pp. 18-19.
302 Cambon to Ministère des Affaires Etrangères, 23 March 1915, quoted in Greenhalgh, Victory through Coalition: Britain and France During the First World War, p. 27.
his will on the British high command met with Sir John's refusals to subordinate himself to the French commander-in-chief. The French government finally learned the true nature of Sir John's command in April 1915, only after nine months of war. 303

In the absence of a well-defined command mechanism, whether allied commanders forged effective working relationships came down to the interaction of personalities and the personnel of the two commands. At the start of the war, however, the temperaments and language skills of the commanders most responsible for achieving allied cooperation in the field made them ill-fitted to deal with allies. The British commander-in-chief was notoriously stubborn, insecure and mercurial by temperament, plunged from optimism to gloom in moments. 304 As if these personalities weaknesses were not enough to discount him from command in a coalition war, he spoke a French that "was no of a kind readily intelligible to a Frenchman." 305 Indeed, doubts were raised both at the time and have persisted ever since about his suitability as commander-in-chief, owing to serious deficiencies in both character and experience. 306 The French showed a similar lack of thought in its appointment of General Charles Lanrezac as the

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303 The question of command was brought to the fore with the French government's decision to place its expeditionary force at the Dardanelles under the command of the British General Sir Ian Hamilton. The French war minister argued that in recognition of placing a French general under Hamilton's orders, Joffre "ought to be recognized as supreme" in the west. Millerand raised the question in private letter to Kitchener, writing to his British counterpart on 21 March 1915. In response, Kitchener promised to pass on to him a copy of his original instructions to Sir John. It was left to Esher to clarify the situation. In a letter to Sir John on 3 April, Lord Esher reported that Millerand was "thunderstruck" to learn that Sir John's command was independent, whereas "Joffre has been allowed to think from the beginning that you had been instructed to act under him." See Esher to Sir John, 3 April 1915, and corresponding diary entry, in Brett et al., eds., Journals and Letters of Reginald, Viscount Esher, pp. 226-227. See also Roy A Prete, "Joffre and the Question of Allied Supreme Command, 1914–1916" (paper presented at the Proceedings of the Annual Meeting of the Western Society for French History, 1989), pp. 330-331; Greenhalgh, Victory through Coalition: Britain and France During the First World War, pp. 26-28.


commander of the Fifth Army, charged with affecting the close cooperation of the British on his left. Lanrezac was a strong Anglophobe, disposed with “an instinctive mistrust of foreigners,” according to Spears, and spoke not a word of English. In his dealings with the British, he was hasty, dismissive and prone to outbursts of temper. Spears recalled the initial meeting between the two commanders as “a complete fiasco,” with the French general making no effort to disguise his disdain of Sir John, and the British commander taking great offense. The episode strained relations between the allied high commands, though, in the absence of unity of command, cooperation in the field depended entirely on Sir John’s continuing goodwill, particularly his willingness to comply with French directives and his degree of confidence at any particular moment in Joffre’s plan.

Information Exchange

Information exchange both before and after the outbreak of war was sporadic and selective, owning to a general reticence to share sensitive information. Before 1914, France and Britain revealed some information about their respective military capabilities, doctrine and tactics. Beginning in 1909 senior French and British officers visited each other’s staff college and attended annual maneuvers. There were of course restrictions on what British officers were permitted to observe on visits to French barracks, as well as certain limitations on what the French attaché in London could observe of the British army. But as a result of these contacts, the British army adopted some French methods of

309 Ibid., p. 75.
organization, doctrine and tactics. The French General Staff closely monitored these developments, noting with approval the "notable progress in the British army's preparations with respect to a war on the continent," even if British strategic intentions remained uncertain.

The prewar staff talks also led to an exchange of a great deal of information about French and British mobilization capabilities, all of the logistics of manpower, rolling stock, shipping tonnage, railway networks, horses and food stores. Joffre and his staff were more reticent to share other details of the French war plan, however, forcing Wilson to admit to the CID in August 1911 that he had no specific knowledge of French strategy in the event of war with Germany. Joffre later outlined Wilson on his plan of concentration, Plan XVII, with the British general learning "where the French G.S. want us to go, and what their plans are" over the course of these discussions. By 1914, however, the British, according to Sir Williams Robertson, still "knew very little" about the French plan. In short, Joffre was more open and candid with the British than any of his predecessors, but he remained guarded and never took British officers into his close confidence.

French diplomats and military leaders were not above misleading their British counterparts or passing along to them deliberately false intelligence, as long as it served

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316 Robertson, *Soldiers and Statesmen, 1914-1918: Vol 1*, p. 49.
French interests. The British General Staff received various French assessments of
German military strategy and tactics, as well as some information on the organization of
the German army and the performance of German military equipment. As London
received very little intelligence from the Continent beyond military attaché reports before
1914, the British government came to rely almost wholly on French intelligence of
German capabilities and intentions. Paris exploited this dependency to create a picture
of the German military threat for London intended to raise British fears and draw them
closer to France. As part of these efforts, on at least one occasion, the French
government knowingly passed along false information on German war plans. In 1909,
the War Office received documents from the Deuxième Bureau, the intelligence branch
of the French General Staff, purporting to be German plans for the invasion of the British
Isles. Though General Sir J. Spencer Ewart, the Director of Military Operations and
Intelligence, thought the documents genuine, the conclusions of Lord Hadlen, the
Secretary of State for War, were closer to the mark. The documents, he suspected, had

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317 Matthew S Seligmann, Spies in Uniform: British Military and Naval Intelligence on the Eve of the First
Strategy: Britain and France Prepare for War, 1904-1914, p. 53.
318 For much of the prewar period, Britain lacked a regular system for the collection and analysis of secret
intelligence. In part, it reflected a view of gaining intelligence by clandestine means as underhanded and
utterly abhorrent. It was only with the establishment of the Secret Service Bureau in October 1909 that
Britain made the first serious effort to professionalize its covert intelligence service. On the prewar
development of British intelligence, see Christopher M. Andrew, "Secret Intelligence and British Foreign
Policy," in Christopher M. Andrew and Jeremy Noakes, ed., Intelligence and International Relations,
Espionage against Germany, 1907–1914," The Historical Journal 26, no. 4 (1983): 867-889; John Ferris,
"Before 'Room 40': The British Empire and Signals Intelligence, 1898–1914," The Journal of Strategic
Studies 12, no. 4 (1989): 431-457; Seligmann, Spies in Uniform: British Military and Naval Intelligence on
the Eve of the First World War.
319 The plans seemed to confirm the existence of an extensive network of German spies active in Britain,
preparing the ground for a German invasion of the east coast. On prewar British fears of German
espionage and the threat of German invasion, see David French, "Spy Fever in Britain, 1900–1915," The
Historical Journal 21, no. 2 (1978): 355-370; Andrew Green, Writing the Great War, Sir James Edmonds
Andrew, Defend the Realm: The Authorized History of MI5 (London: Vintage, 2009), pp. 3-52; Keith
been “concocted” by the French government “in order to wake us up and draw attention to our military needs,” thus giving further impetus to the Franco-British staff talks.\(^{320}\)

The episode serves to illustrate that prewar intelligence exchanges were selective and calculated to steer British foreign towards a firm continental commitment.

Even after the outbreak of war, the exchange of information between French and British remained limited, owing to a lack of mechanisms for information sharing. Some information was exchanged on operation matters, as well as intelligence methods and even espionage networks. In the first year of the war, for example, the French started to forward their aerial photographs to the British headquarters, which resulted in several British studies of French intelligence methods.\(^{321}\) The two nations also cooperated to some extent on secret intelligence gathering, with an allied bureau set up in late 1914 in Folkestone, England to coordinate and direct their espionage activities in occupied France and Belgium.\(^{322}\) Representatives of the allied intelligence services appointed to the Folkestone Bureau met at least once every day to pool information and assemble it into a single bulletin for transmission by telegraph to their respective high commands.\(^{323}\) It was not enough to overcome the espionage rivalry between the French and British intelligence services, however, as each service maintained a free hand in running his own agents and

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\(^{320}\) The War Office offered the following account of the Deuxième Bureau’s discovery of the German invasion plan: “This document had been obtained from a French commercial traveller, who was proceeding from Hamburg to Spa. He travelled in the same compartment as a German whose travelling-bag was similar to his own. The German, on leaving the train took the wrong bag, and on finding out this the commercial traveller opened the bag left behind, and found that it contained detailed plans connected with a scheme for the invasion of England. He copied out as much of these plans as he was able during the short time that elapsed before he was asked to give up the bag.” From CAB 38/15/16 “Proceedings of a Subcommittee of the Committee of Imperial Defence... to Consider the Question of Foreign Espionage in the United Kingdom, 3\(^{rd}\) Meeting,” July 12, 1909.


A postwar report of the British government acknowledged, "denunciations, buying up other services’ agents, duplication of reports, and collaboration between agents of the various Allied systems were not uncommon."\(^{325}\)

In the absence of other institutional machinery, however, much of the information shared between the two governments occurred through an ad hoc system of letters, subjective impressions and official and unofficial reports relayed through diplomats, liaison officers, attachés and other representatives. The French and British attached liaison missions to the command headquarters of the other, with these officers tasked to watch, listen and report on military planning and operations.\(^{326}\) These duties required keeping in touch with the front and traveling back and forth between the headquarters to report on allied preparations or progress.\(^{327}\) On his duties as a liaison officer, Edward Spears, recounted, "would often be called upon without warning not only to explain a situation but to interpret it, to foretell how a general would act, what the result of an operation was likely to be."\(^{328}\) In this way liaison officers acted as critical conduits of information throughout the war. But the information provided by such individuals was

\(^{324}\) The most famous of the allied espionage networks was the “La Dame Blanche,” a network of more than a thousand agents operating in occupied territories. The most extensive studies of the network are Tammy M Proctor, Female Intelligence: Women and Espionage in the First World War (New York: NYU Press, 2006); Pierre Decock, La Dame Blanche. Un Réseau De Renseignements De La Grande Guerre (Raleigh: Lulu, 2011).


\(^{327}\) Ibid., pp. 187-188.

\(^{328}\) Edward Spears, Prelude to Victory (London: Jonathan Cape, 1939), p. 47.
often idiosyncratic, inaccurate or just plain wrong, and therefore did little to further better cooperation.\textsuperscript{329} 

The upshot of so much historical ill will and mutual mistrust was a tendency towards secrecy and compartmentalization, even at significant costs to the alliance. In the first months of the war, when French and British staff staffs had yet to develop a confidence in each other, the tendency towards secrecy and reticence was particularly marked. As the liaison officer attached to the French Fifth Army headquarters, Spears recalled, “General Lanrezac and the Operations Branch of his Staff were very reticent, and it was often impossible to obtain from them the information G.H.Q. had asked for. My frequent questions as to whether there was any change of plan invariably met with the same answer: ‘General Lanrezac is carrying out with all celerity and dispatch the orders of the Generalissimo, which have been fully explained to and accepted by the British commander-in-chief.’”\textsuperscript{330} The French liaison officer with the BEF, Victor Huguet, complained about a similar lack of candor from British headquarters.\textsuperscript{331} These tendencies were difficult to overcome even after the first year of fighting, with Lord Esher warning at the end of 1914, “perfect frankness is wanting between the highest authorities engaged in conducting the war...”\textsuperscript{332} In short, though the means existed to communicate securely, the French and British governments remained wary and guarded in their communications.\textsuperscript{333} 

\textsuperscript{329} David Dutton, \textit{The Politics of Diplomacy: Britain, France and the Balkans in the First World War} (London: Tauris, 1998), p. 8. \textsuperscript{330} Spears, \textit{Liaison, 1914: A Narrative of the Great Retreat}, p. 122. \textsuperscript{331} Huguet, \textit{Britain and the War: A French Indictment}. \textsuperscript{332} Brett et al., eds., \textit{Journals and Letters of Reginald, Viscount Esher}, p. 200. \textsuperscript{333} In 1911, France and Britain agreed to prepare a codebook for Entente-communications in the event of war. The codebook was printed in 1913, and Spears, who worked with his French counterpart on the code’s lexicon and rules of service, delivered three copies of it to Paris—one for the French General Headquarters, one for the French Fifth Army Headquarters, and a third for the French cryptologic section.
SUMMARY OF COALITION MILITARY INSTITUTIONS AND THEORY
PREDICTIONS, PREWAR YEARS TO 1916

The preceding section showed that the Franco-British coalition lacked institutional mechanisms for effective cooperation on the battlefield early in the war. Both prior to 1914, and well into the first years of the war, the coalition broadly lacked institutions for common political-military planning, unity of command and information sharing: The general staffs of the two armies made their own operational plans and commanded their own forces, with little specific knowledge or understanding of the other’s intentions in the field, despite the exchange of liaison officers. As a result, realist-institutionalist theory predicts the Franco-British coalition should have performed poorly in the early years of the war, demonstrating a consistent lack of integration, cohesion and responsiveness in the field. In other words, evidence of good battlefield performance from the outset of the war would cast serious doubt on the realist institutionalist theory. The next section examines a series of coalition battles fought on the Western front in 1914, so as to assess the validity of these predictions.

Predictions of Realist Institutional Explanation

- The Franco-British military coalition should have performed poorly on the battlefield, displaying a consistent lack of coalition battlefield integration, cohesion and responsiveness, owing to the absence of coalition military institutions for political-military planning, unity of command, and intelligence sharing.

Confirming Evidence:

- Before 1916, Franco-British coalition military effectiveness should be very poor, with units displaying a consistent lack of coalition military integration, cohesion and responsiveness.

Disconfirming Evidence:
- The Franco-British coalition displayed integration, cohesive and responsiveness in the early years of the war, fighting effectively at a time when coalition military institutions were almost nonexistent.

Predictions of Alternative Explanations for Coalition Military Power and Effectiveness:
- **Material Preponderance:** As the two sides were fairly evenly matched, both the Germans and Franco-British coalition should generate similar levels of military power.
- **Regime Type:** As France and Britain were both democracies, the coalition should fight effectively on the battlefield from the outset.
- **External Threat:** External threat was relatively high, predicting that coalition military effectiveness was fairly good from the outset.
- **Coalition Political Cohesion:** As the Franco-British coalition confronted a high level of external threat, and a high level of internal threat, as a consequence of a long history of enmity prior to the war, it suffered from poor political cohesion and therefore was able to generate only lower levels of coalition military effectiveness.

**EFFECTS OF MINIMAL COALITION MILITARY INSTITUTIONALIZATION ON FRANCO-BRITISH COALITION MILITARY PERFORMANCE**

This section examines three major campaigns or battles—the Battles of Charleroi-Mons, the delaying actions near Le Cateau and Guise, and the counterstroke at the Marne—fought at the outset of the war, when Franco-British coalition military institutionalization was minimal, and coalition military effectiveness therefore should have been poor. For each of engagement, the section presents the background and the forces employed on both sides, as well as a summary of the main battle events. It then assesses Franco-British coalition military effectiveness, answering the set of coding questions posed in Chapter Two. For all three campaigns and battles, the evidence demonstrates that the French and British armies fought poorly, consistent with the predictions of realist-institutionalist theory. In these opening campaigns of the war, the allied armies displayed a consistent lack of coalition battlefield integration, cohesion and
responsiveness, and for reasons directly attributable to the absence of coalition military institutions.

The German Invasion of France: The Battle of Charleroi-Mons and the Great Retreat

The German invasion of northern France provides the first critical test of Franco-British coalition military effectiveness. The BEF fought alongside the French Fifth Army in defense of the northern frontier, engaging the enemy first at Charleroi-Mons, followed by a series of delaying actions, in retreat, at Le Cateau and Guise. These initial Allied efforts to halt the German advance offer some preliminary confirmation for realist institutionalist theory. Despite the approximate equality of opposing forces on the Western Front, the French and British armies fought at cross purposes of one another and lost all cohesion, while their commanders were slow to react and improvise a response to the German advance through Belgium and northern France.

Background

The German war plan was truly breathtaking in its daring. Faced with on enemies on its eastern as well as western borders, Germany intended to deliver a knockout blow against France and Britain in the west before wheeling eastwards to deal with the slower-moving armies of Russia. To achieve a quick decision over France and Britain, the Germans executed a modified version of the Schlieffen Plan, with its powerful right-wing envelopment. The spearhead of the attack was the German right wing, which was to advance through neutral Belgium into northern France, sweep around the west of Paris
and finally swing back east to envelop and destroy the French and British field armies.\textsuperscript{334}

It was an audacious gamble, as the only chance of success lay in speed and surprise. That it came within a whisper of success in 1914 owed much to the failure of French and British military leaders to anticipate the danger of the German right wing.

Instead, the \textit{Entente} prepared to meet the German invasion with an all-out offensive of its own against the enemy. Joffre’s Plan XVII provided for the deployment of the French and British armies along the Franco-German frontier, positioning them forward to attack into Alsace-Lorraine or Belgium, or both, according to the final scheme of operations. Unlike its German counterpart, Plan XVII contained no fixed operational ideas other than a promise “to deliver, with all forces assembled, an attack against the German armies,” giving Joffre maximum flexibility to determine strategy in the field.\textsuperscript{335}

On 14 August, he committed the First and Second French Armies to an offensive in Lorraine, timed to coincide with the Russian invasion of East Prussia.\textsuperscript{336} Always intended as a diversion to draw German troops away from the main French offensive, the French incursion into Lorraine met with disaster, as French troops fell back to the rear of


\textsuperscript{335} Such an offensive would allow France to honor promises made to the Russians in 1912 to conduct a “vigorous and determined” offensive within 10 days of mobilization. Doughty, \textit{Pyrrhic Victory}, p. 24.
their own start line. At the same time reports reached the French high command of large-scale German troops movements across Belgium. The German plan had revealed itself to be a two-pronged attack in Alsace-Lorraine and in Belgium, south of the Meuse, advancing towards the Ardennes Forest. As the Germans had now shown themselves to stronger than expected on both flanks, they must be correspondingly weaker in the center, in the Ardennes. Convinced he now understood German operational intentions, Joffre ordered the French Third and Fourth Armies on 22 August to attack the Germans in the Ardennes, believing a decisive breakthrough was possible. As the Third and Fourth Armies charged into Belgium, Joffre told the minister of war “the moment of decisive action is near.”

But the advance faltered, owing to a fundamental miscalculation of enemy numbers. In prewar planning, the Entente had concluded the enemy lacked sufficient manpower to make anything more than minor excursion into Belgium. Reflecting its

337 Ibid., p. 57.
338 Ibid., pp. 64-65.
340 In the decade before the war, the Deuxième Bureau was able to offer precise and accurate intelligence on the German plan of attack, but nothing was definitive. In 1903 and 1904, French intelligence acquired a set of German planning papers, the so-called “Vengeur” documents, which indicated the Germans would strike across Belgium in an attempt to outflank the French line. Even if the intelligence was bogus, as some historians have contended, the documents alerted the French High Command to the possibility that the Germans might sweep through Belgium both north and south of the Sambre-Meuse river line. Moreover, French intelligence reported massive German railway construction in the Aix-la-Chapelle region, near the Belgian border. As late as April 1914, French intelligence received a copy of Germany’s mobilization plans, which specified that at the outbreak of hostilities “reserves would theoretically be used in the same capacity as the actives.” Despite these intelligence warnings, the French high command dismissed the danger of a wide German sweep through Belgium. Moreover, in depending almost wholly on French prewar intelligence sources, the British General Staff came to suffer from the same strategic myopia. On prewar entente intelligence estimates, see Louis Garros, “Préludes Aux Invasions De La Belgique,” *Revue historique de l’armée* Vol. V (1949): 17-37; Snyder, *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914*, pp. 41-43, 81-106; Jan Karl Tanenbum, “French Estimates of Germany’s Operational War Plans,” in Ernest R May, ed., *Knowing One's Enemies* (Princeton: Princeton University Press, 1986), pp. 150-171; Douglas Porch, *The French Secret Services: A History of French Intelligence from the Drefus Affair to the Gulf War* (London: Macmillan, 2003), pp. 49-70; Stephen A.
own low opinion of French reserves, most of the French senior officer corps discounted intelligence warnings that Germany would use active and reserve units on the front line to make a wide sweeping maneuver through Belgium.\(^{341}\) But the Entente made a gross miscalculation; by committing their reserves to action at the outset of the war, the Germans were strong across the whole of the front, and nowhere stronger than on their right wing, where the great mass of maneuver had been assembled to carry them round Paris and deep into the rear of the Allied left wing.\(^{342}\) The French Fifth Army and the British Expeditionary Force was now all that stood in the way of a decisive German victory.

**Balance of Forces**

The overall balance of forces on the Western Front at the outbreak of war was more or less even. The two sides committed nearly two million men each to the opening battles, and numbering 1,077 German infantry battalions to 1,108 French, 48 British and 120 Belgian (Table 5-2).\(^{343}\) Given Germany and the Entente went to war on a more or less equal footing, at least numerically, their respective war plans—Germany’s Schlieffen Plan and France’s Plan XVII—placed a great emphasis on speed, strategic maneuver and the concentration of superior forces at the decisive point of attack. The Germans

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launched their main attack through Belgium with the three right-wing armies—the First, Second and Third Armies—constituting a strike force of 24.5 divisions and 2,164 guns. Opposing them stood the 17.5 divisions and 1,120 guns of the BEF and French Fifth Army. On France’s northern frontier, German numerical superiority was thus significant, but perhaps not in itself decisive.

Table 5-2: Balance of Forces on the Western Front, August 1914

<table>
<thead>
<tr>
<th></th>
<th>Divisions</th>
<th>Manpower</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Germany</strong></td>
<td>7 field armies: 76 ID—Infantry Divisions; 10 CD—Cavalry Divisions</td>
<td>1,700,000</td>
</tr>
<tr>
<td><strong>Allied</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>5 Field Armies: 78 ID; 10 CD</td>
<td>2,100,000</td>
</tr>
<tr>
<td>Great Britain</td>
<td>4 ID; 1 CD</td>
<td>100,000</td>
</tr>
<tr>
<td>Belgium</td>
<td>6 ID; 1 CD</td>
<td>117,000</td>
</tr>
</tbody>
</table>

The Battle of Charleroi-Mons and the Great Retreat, August 1914

By the third week of war, the German right wing had swept aside the Belgian Army and almost completed its wheeling movement towards the Sambre River, putting it on a collision course with the French Fifth Army and the BEF. On 20 August, as the Fifth Army moved forward towards Namur into the angle of the Sambre and Meuse Rivers, the newly arrived BEF completed its concentration some thirty-five miles away in the area between Maubeuge and Le Cateau, near Mons. Still not awakened to the danger to his left flank, Joffre launched his Third and Fourth Armies into the German center in the Ardennes. While the rest of the French Army attacked to the northeast, the Fifth Army with the BEF alongside it was to mount a supporting attack on the German right wing, holding the enemy in place until the hammer struck the main blow. On the evening 20 August, Joffre ordered General Charles Lanrezac, the commander of the French Fifth Army, to attack the enemy on the Sambre around Charleroi and “requested” Sir John French “cooperate in this action” by advancing across the Mons-Condé Canal. What was still unknown to Joffre was that the Fifth Army blocked the primary line of advance of the German Second and Third Armies, while the BEF on its left stood in the way of German First Army.

Early the next morning, on 21 August, the German right-wing armies stumbled into the French and British forces assembled on the banks of the Sambre and Meuse rivers, resulting in the battle of Charleroi-Mons. As advance guards of the Karl von


347 Doughty, Pyrrhic Victory, p. 73.
348 Joffre, Mémoires, I, p. 171.
Bülow’s Second Army reached the Sambre River and won the resulting battle for the bridges against the French defenders, General Max von Hausen’s Third Army advanced pressed on westwards, towards Meuse south of Namur, threatening Lanrezac’s right flank. Over the next two days, the French counterattacked but were repulsed with heavy losses, fighting amongst the tall slag heaps, mining pitheads and narrow cobbled streets of Charleroi. Despite fierce fighting, pressed on the left and center, the French fell back from the river line. The Fifth Army’s position became further imperiled on the evening of 22 August when Hausen’s Third Army bridged the Meuse, north of Givet, and struck the French right flank. The following evening, Lanrezac ordered a general retreat to save his army from annihilation.

Amidst the defeat and withdrawal of the French Fifth Army, the British, further north around Mons, joined the action, colliding with the right wing General Alexander von Kluck’s First Army. The BEF had advanced into Belgium, expecting to join an allied offensive, but the Fifth Army’s defeat changed all that. On the evening of the 22 August, Sir John assembled the senior staff officers of both corps and the cavalry division to his headquarters at Le Cateau and informed them that “owing to the retreat of the French Fifth Army,” the British offensive would not take place and ordered his corps to

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349 The Battle of Belgium effectively ended on 24 August with the capture of Namur, the last of the great eastern Belgian fortresses. With its capture the Germans were free to pursue the Franco-British armies into France. See Herwig, *The Marne, 1914: The Opening of World War I and the Battle That Changed the World*, pp. 128-131.


351 “Enemy threatens my right on the Meuse,” he reported to Joffre. “Onhaye occupied, Givet threatened, Namur carried.” Because of this situation, he declared his intention to retreat. Lanrezac to Joffre, 23 August 1914, *AFGG*, I-1:498. See also Doughty, *Pyrrhic Victory*, p. 74.
hold the Mons-Conde Canal. During the night, British troops hastily entrenched themselves along its length. Overall it was a poor defensive position, full of slag heaps, mining shafts and cottages, making it difficult to organize good fields of fire. Early the next morning, on 23 August, von Kluck’s army stumbled unawares into Smith-Dorrien II Corps, which line the canal to the west of town. British machine guns and rifle fire inflicted heavy casualties on Germans attackers, who had unwittingly launched a frontal assault on a tough, skilled and determined enemy. Realizing the futility of their tactics, the Germans broke up into smaller parties and infiltrated round the flanks of the British defenders, forcing them to fall back from the canal. That evening Sir John gave the order to make a general retreat.

The Great Retreat was underway, but the French and British armies were not yet beaten. They would conduct a fighting retreat, falling back towards the Amiens-Reims-Verdun line, and giving Joffre time to shift forces to the extreme left of the Allied line. Two rearguard battles forced a pause in the German advance. The first of these delaying actions was the Battle of Le Cateau, where Smith-Dorrien made the decision to stand and fight. Since the Battle of Mons the German First Army had been in close pursuit. On 25 August, the retreating British split into its two corps to pass on either side of the Forrest of Mormal, with the II Corps marching to the west and the I Corps to the

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354 The commander of the German First Army had a chance to outflank the British contingent, but, despite the fighting along the canal, still believed the BEF to be at Tournai, some thirty miles west of his line of advance. See Strachan, The First World War: Volume I: To Arms, p. 221.
355 Terraine, Mons: The Retreat to Victory, pp. 86-95.
356 Ibid., pp. 105-107; Gilbert, Challenge of Battle: The First Army’s Baptism of Fire in the First World War p. 79.
357 In falling back towards Paris, the French and British surrendered to the enemy the industrial centers of northern France, and with it critical supplies of steel and iron ore. Herwig, The Marne, 1914, p. 157.
358 Doughty, Pyrrhic Victory, p. 74.
east. By the time the II Corps arrived at Le Cateau in the evening, its troops were scattered, and the men too weary to resume the march. Expecting the enemy to attack at any moment, Smith-Dorrien turned to deliver a sharp blow against the Germans, intending to relieve enemy pressure on his right flank and continue his retreat. The II Corps held back the First Army’s advance for eleven hours, until the cover of darkness allowed it to slip away to safety. The British had taken enormous casualties, losing more than 8,000 men, but this rearguard action had succeeded in frustrating von Kluck’s attempt to envelop and destroy the BEF.

Even more significant was the check the French Fifth Army delivered three days later to Bülow’s Second Army at the Battle of Guise. In a desperate effort to gain more time for Joffre’s reinforcements to join up with the Allied left wing, the Fifth Army halted its retreat and turned to counterattack the enemy north of Guise. The German Second Army had chased Lanrezac and his army from Charleroi south to the vicinity of the Oise River between Guise and Hirson, threatening to outflank the French from the northwest. Joffre called for an immediate strike against Bülow’s flank to slow the German advance. It was a bold and risky stroke. To carry out Joffre’s orders, Lanrezac had to swing his army round, executing a ninety-degree turn of his army from the northwest to west, and in turn inviting attack on his open right flank. Early on the morning of 28 August the French Fifth Army swung round and counterattacked out of the triangle of the Oise, halting the German advance for a day and a half, before resuming the

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retreat. The French and Britain armies had gained precious time in delaying the German advance, but for the time being, they continued to fall back towards the Marne.

Assessing Franco-British Coalition Military Effectiveness in the Battle of Charleroi-Mons and the Great Retreat

At the outbreak of war, the Franco-British coalition lacked institutional mechanisms for common political-military planning, command relations and information sharing. With almost no coalition institutional machinery, realist-institutionalist theory predicts that the French and British armies fought together poorly against the Germans. In fact, the evidence from the Battle of Charleroi-Mons and the Great Retreat is consistent with these predictions, and as such offers some initial support for realist-institutionalist theory. In August of 1914, the French Fifth Army and the neighboring BEF demonstrated very weak coalition military integration and almost no coalition battlefield cohesion or responsiveness. Moreover, close examination of the battle reveals not only that the coalition performed as predicted but also that the French and British performed poorly for reasons largely attributable to a lack of coalition military institutions.

First, the French and British armies displayed very poor coalition battlefield integration. Rather than waging a unified effort to defend against the German invasion, the BEF and French Fifth Army fought a series of parallel but separate battles across Belgium and northern France. Even before first contact with the enemy, the operational objectives of the two armies were at odds—as the British marched forward to take to the offensive, the French Fifth Army halted its advance and shifted to the defensive. After

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185
his initial meeting with Joffre on 16 August, Sir John had reported enthusiastically to Kitchener that he and Joffre had arrived at a “complete understanding as to future plans.” Specifically, the “understanding” between the two allied commanders-in-chief was that the British would participate with the French Fifth Army in initial offensive operations against the German right wing. The plan was for the BEF move forward from Maubeuge to Mons on 21 August in conjunction with the forward movement of the Fifth Army on its right. The French Fifth Army failed to advance, however, adopting a defensive position south of the Sambre, which left British right flank exposed on its advance towards Mons.

The operational intentions of the two armies ended up wholly at odds with one another, owing to a lack of common military planning, absence of unity of command and poor information sharing among allied commanders in the field. Convinced the German right-wing armies were much stronger and Joffre’s plan of attack was therefore dangerous, Lanrezac was reluctant to go on the offensive. As he wrestled with the decision to attack or defend against the enemy, the advance of the Fifth Army came to a halt and committed to fighting a defensive battle. But Lanrezac chose to conceal all of this from his ally. In his initial meeting with the British commander-in-chief, Lanrezac conveyed only his intention attack the enemy as soon as possible. That same evening, however, he raised the possibility of retreat in his report to Joffre, requesting permission to shift the British area of concentration to the rear to allow for his army to retreat into it,

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364 Prete, Strategy and Command, p. 96.
365 Terraine, Mons: The Retreat to Victory, pp. 49-51.

186
Though the French general had already given consideration to a retreat, Sir John came away from his meeting with Lanrezac with the expectation that the Fifth Army would take to the offensive as his forces advanced towards Mons. As the British commander recounted, we “arrived at a mutual understanding which included no idea of ‘retreat.’” Given the atmosphere of distrust and friction it is not surprising that misunderstandings should have arisen. But with no institutional mechanisms to bring these discrepancies to the fore, much less discuss and resolve them, distrust and friction was evident from the start and boded ill for the conduct of the campaign. “If General Lanrezac had a further conversation with Sir John, or had maintained any sort of personal contact with British,” Spears, the British liaison officer with the Fifth Army, contended, these mistakes “would have been swiftly corrected.” The battle, as might be expected, degenerated into a series of uncoordinated actions of two armies not able to act in harmony.

In failing to advance, French Fifth Army placed the British in a dangerously exposed position at Mons. The first to appreciate the situation was Spears, who came learned Lanrezac’s real operational intentions on the afternoon of 21 August, and even then it was only by chance. “I was in the I was in the 2ème Bureau going through the most recent Intelligence reports when General Lanrezac walked in,” Spears recalled. “He had not been speaking long before my interest changed to amazement and my amazement

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366 Lanrezac quoted in ibid., p. 50. See also Prete, *Strategy and Command*, p. 94.
368 Lanrezac’s orders to his army were to “hold itself in readiness to assume the offensive…” But significantly, the orders continued: “As this offensive is dependent on that of neighboring armies, the moment when it will take place cannot at the moment be fixed.” Lanrezac was disposed to wait for results on other friends before launching his own attack. See Terraine, *Mons: The Retreat to Victory*, p. 65.
to incredulity... Pointing to the line held by the Fifth Army south of the Sambre and expatiating on its strength, he was saying that it would be madness for troops in such strong defensive positions to abandon these and attack.”369 With Lanrezac unwilling to attack, the French intended to leave the British right flank exposed on its advance towards Mons the following morning.370

Spears understood the danger at once. “I was aghast as I thought of how this would affect the British,” he wrote, as “a defensive attitude on the part of the Fifth Army would mean one thing and one thing only from Sir John French’s point of view; that the enemy’s corps believed to be slipping across its front would fall with full force on the British…” Spears thought it “essential, in view of what General Lanrezac had said,” for the French general and Sir John to “come to a clear understanding as to each other’s intentions.”371 In the absence of coalition military institutions, however, no such interview was to take place, and none of Sir John’s calls to Lanrezac were ever returned, with such serious, disastrous consequences for whole left of the Allies.372 The British marched forward to Mons, as planned, finding themselves in an exposed position, without the Fifth Army to guard their right flank. Instead of meeting the enemy together, the two armies, as a result of a lack of coalition military institutions, fought two separate and poorly integrated battles.

Franco-British military cooperation got off to a bad start and was brought close to

369 Spears, Liaison, 1914, p. 126.
370 Lanrezac’s orders to his army were to “hold itself in readiness to assume the offensive…” But significantly, the orders continued: “As this offensive is dependent on that of neighboring armies, the moment when it will take place cannot at the moment be fixed.” Lanrezac was disposed to wait for results on other friends before launching his own attack. See Terraine, Mons: The Retreat to Victory, p. 65.
372 The two commanders did not meet again until after the battle was fought and lost, encountering each other on 26 for the second and last time. Wallach, Uneasy Coalition: The Entente Experience in World War I, p.48.
collapse in retreat, as the two armies displayed no coalition battlefield integration, fighting to achieve different operational ends. In the wake of defeat in the Battle of the Frontiers, Joffre gradually developed a new operational strategy that involved the placement of French troops on the British left flank, with the aim to “hold on as long as possible, while trying to wear down the enemy, and to resume the offensive when the time comes.”

In other words, French objectives were to hold out as long as possible by executing a series of delaying actions intended to wear down the Germans and slow their advance, and then return to the offensive to launch a decisive counterstroke against the German right flank. If Joffre’s objectives were to gain time before returning the whole of the French and British armies to the offensive, Sir John French gave precedence to the safety of his forces and the security of the Channel Ports. Writing to Kitchener on 25 August, he announced his intention to retire his army towards Amiens and Le Harvre, rather than fall back with the French towards Paris. Such a course would leave his army in a position to protect the Channel coast and keep open its line of retreat.

Whether the cause was Kitchener’s instructions with their caution against risking the destruction of the BEF in some reckless French attack, or whether he lost his nerves under the stress of battle, or it was simply a strategy of limited liability, Sir John was reluctant to join the counterattack. On the eve of the Battle of Guise, he refused all requests to cooperate with the Fifth Army on an attack on the exposed flank of the German Second Army, even though Haig’s I Corps was still relatively fresh, and its commander was eager to take part in the action. Spears lamented, “The great complaint of the British against General Lanrezac had been that he could not be induced to attack.

374 Philpott, Anglo-French Relations and Strategy on the Western Front, 1914-1918, p. 22.
Now that he was about to do so nothing would persuade the British to co-operate.” 375 The British commander-in-chief, always with one eye on the Channel ports in case of the need for evacuation home, was more intent on saving the remnants of his army from destruction, rather than on seeking opportunities for counterattack. 376 The purposes of Joffre and Sir John thus diverged and with no unity of command, each followed his own inclinations and acted accordingly, ending allied cooperation in the field for the next few days.

During these critical early battles, moreover, the French and British armies lost all coalition battlefield cohesion. Given the relative strength of the German right wing, the Allied retreat was perhaps inevitable; the retreat nearly turned into a rout, however, because the French and British armies fell back in disarray. As Spears concluded, “the retirement would have taken place under far better conditions,” if the allied armies had cooperated together in the field. But coalition battlefield cohesion broke down from the start. Following the defeat at Charleroi, Lanrezac ordered his army to retire without so much as a word of warning to his British ally, opening up a nine-mile gap between the French and British armies. Spears leveled his harshest criticism at the French general for “his profound indifference of what befell” the British in the field, claiming that Lanrezac’s “disregard of that honourable understanding which makes soldiers stand by each other, could have but one result, a complete breakdown in co-operation, which profoundly affected the early stages of the campaign.” 377

To Spears resentment and dismay was added Sir John’s own, which hardened into

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375 Spears, Liaison, 1914, p. 259.
376 Joffre disparaged his British counterpart as “firmly attached to his own ideas and... anxious not to compromise his army in any way.” Joffre, Mémoires, I, p. 161.
377 Spears, Liaison, 1914, p. 181.
a deep distrust and open hostility towards the commander of the Fifth Army. He had been left in the lurch, and his forces put in instant peril, giving him little choice but to begin his own hasty retreat from Mons. Joffre, concerned about the lack of cohesion on the Allied left, moved to encase British forces with French troops under his command. With the Fifth Army positioned on the BEF’s right, he created a new Sixth Army to shore up the BEF’s left flank. But it would take time before these forces could take up their place in the Allied line; for his plan to have a chance of success, the Fifth Army and BEF would have to fall back as slowly as possible, delaying the momentum of the German attack.

At this critical moment in the Great Retreat, Franco-British mutual suspicions and recriminations took hold, with each blaming the other for failing to protect his endangered flank, until the British finally threatened to drop out of the line of battle. In the wake of the fighting at Le Cateau, Sir John’s resolved to retreat as rapidly as possible behind the Oise, placing a major physical barrier between himself and the pursuing Germans. Even though Sir John had promised Joffre that though the BEF would retreat as “slowly and deliberately as possible,” as the French launched a counterattack at Guise, he now withdrew rapidly, abandoning the mission of covering the Fifth Army’s left flank. Lanrezac reportedly cried, “c’est une félonie!” “Suffice it is to say that the French considered the British were running away the critical moment,” Spears observed. Indeed, even while fighting at Guise was still in progress, Sir John resolved to withdraw from the battle line. In a letter to Kitchener on 30 August, he declared his

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380 Ibid., pp. 102-103.
382 Spears, *Liaison, 1914*. 

191
intention to retreat behind the Seine in a southwesterly direction west of Paris, pulling the
“shattered” BEF out of the battle line to rest and refit away from the enemy.\textsuperscript{383} As the
Allied line lost all cohesion, Joffre had to abandon his plan for a general
counteroffensive, withdrawing from Guise to cover the gap in the Allied line.

Finally, the French and British armies displayed consistently poor coalition
military responsiveness. In the week following the Battle of Charleroi-Mons, Joffre
devised a new plan to consolidate his forces along the Amiens-Reims line and then mount
a counterattack.\textsuperscript{384} For this to plan to succeed, however, British participation was
essential. With no supreme allied commander to compel Sir John’s cooperation, much
valuable was lost in trying to gain Sir John’s adherence with the new plan. In an
interview on 26 August Joffre found that Sir John had not even considered his proposal
for a counteroffensive.\textsuperscript{385} Spears concluded, “General Joffre must have felt himself
helpless, unable to adjust differences he could only guess at, fettered by not being able to
issue orders to the British soldiers.”\textsuperscript{386} Neither Joffre’s personal representations nor
indirect pressure through Wilson and the French President, Raymond Poincaré, gained
Sir John’s cooperation.\textsuperscript{387} “I refused,” the British commander explained succinctly in his
memoirs.\textsuperscript{388} As long as the BEF was still in retreat, neither of the French armies on its
flanks could hold along the present line, thus frustrating Joffre’s intentions to renew the
offensive around Amiens.

With German forces now threatening to attack Paris, and Sir John refusing to

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\item Joffre, Mémoires, I, p.300.
\item Philpott, Anglo-French Relations and Strategy on the Western Front, 1914-1918, p. 23.
\item Spears, Liaison, 1914, p. 230.
\item Philpott, Anglo-French Relations and Strategy on the Western Front, 1914-1918, p. 24.
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consider any future action until his army had at least eight days to refit and recognize, 
Poincaré noted desperately in his diary, "Eight days, eight days! Will the Germans not 
be in Paris?" In a fluid and uncertain military situation where no coalition military 
institution existed to coordinate military operations, the coalition decision-making 
process came to a standstill, making it impossible to respond quickly and effectively to 
the German invasion. For the time being, the only course of action for the French and 
British was to continue to fall back.

*The Battle of the Marne: The Franco-British Counteroffensive, September 1914*

The Battle of the Marne offers the first opportunity of the war to observe the 
French and British Armies on the offensive, attacking in concert, as they try to retake 
territory from the enemy. Overall, the battle conforms to the theory. The French and 
British Armies displayed weak coalition battlefield integration and cohesion, and were 
slow to pursue the retreating Germans. The victory on the Marne rescued the French and 
British Armies from a military catastrophe on the scale of 1940, but a complete victory it 
was not. Only a highly fortuitous set of circumstances, specifically a strong 
demonstration of Allied political solidarity and a German mistake—when von Kluck 
wheeled his armies to the east of Paris and in turn exposed his flank to counterattack—
allowed for the realization of the "miracle" of the Marne.

**Background**

At the end of August, the German Army Supreme Command (OHL) had every 
reason to believe that the campaign in the west was on the brink of a final victory. On the

p. 122.
morning of 4 September, advance guards of the Second Army passed a road sign, reading PARIS 121 KM; by afternoon, another sign read, PARIS 85 KM.\textsuperscript{390} With enemy columns approaching the outskirts of the capital, the French government withdrew to Bordeaux, and Joseph Galliéni assumed the military governorship of Paris.\textsuperscript{391} At the moment when Germany stood closest to victory, the commander of the First Army made the fateful decision to change his line of march and pass to the southeast of Paris, thus dangerously exposing his right flank to attack. Thinking that the BEF ceased to exist as a fighting force after Le Cateau, von Kluck set his sights on the destruction of the French Fifth Army. He ordered the First Army to press to southeast, bypassing Paris, in a chance to roll up the left flank of the French Fifth Army, threatening the great bulk of the French field army with destruction. Every mile he marched in pursuit of Fifth Army placed his own army in danger, however, as his forward movement uncovered the First Army’s entire right flank.\textsuperscript{392} The French Fifth Army meanwhile slipped away to the east, thus escaping the danger to its flank, and the BEF was not disabled but had retreated into the French countryside, awaiting the assemblage of Joffre’s new striking force—the Sixth and Ninth Armies—in and around Paris.

Despite the collapse of Plan XVII, Joffre had not abandoned all idea of offensive operations. With the enemy’s turn toward the southeast, the French commander-in-chief seized his opportunity for a counterstroke.\textsuperscript{393} “The enemy,” Moltke admitted, on 4

\textsuperscript{390} Herwig, \textit{The Marne, 1914}, p. 191.
\textsuperscript{392} In his pursuit of the French Fifth Army, Kluck left behind his two weakest units—the IV Reserve, minus a brigade left back at Brussels, and the 4\textsuperscript{th} Cavalry Division, which had suffered heavily in the fighting against the British on 1 September—to guard his right flank. Herwig, \textit{The Marne, 1914}, pp. 195-199, 220-222.
\textsuperscript{393} The Amiens-Reims plan, outlined on 25 August in \textit{Instruction Générale No. 2}, could now be resurrected around Paris. By 30 August, the French Command had begun to formulate a new strategy—later adapted in
September, "has evaded the enveloping attack of First and Second Armies and has succeeded in joining up with a part of his forces those about Paris."\textsuperscript{394} First and Second Armies were therefore to stand on the defensive east of Paris, while the Third, Fourth and Fifth Armies in the center of the line would continue to attack in the south. It was the opposite of what Schlieffen had intended in shifting the German concept of operations from envelopment to breakthrough.\textsuperscript{395} At 10 pm on the evening of 4 September, two hours after Moltke signed the order halting the advance of the German right wing, Joffre issued Instruction Général No. 6, to exploit the enemy’s predicament. "The time has come,” he announced, “to take advantage of the exposed position of the German First Army and concentrate against it the strength of the Allied armies on the extreme left.”\textsuperscript{396} Joffre had made up his mind to counterattack on the Marne.

**Balance of Forces**

At the opening of the battle, Joffre had thirty-six infantry and eight cavalry divisions, including the BEF, strengthened by the arrival of four fresh brigades from England, while the German armies opposing totaled twenty-five infantry and seven cavalry divisions.\textsuperscript{397} Schlieffen’s “strong right wing” was now outnumbered, the result of a general weakening of German combat strength and the rapid reinforcement of the Allied left flank. The German drive across Belgium and northern France had exacted a
heavy toll, as men and horses marched fifteen and twenty miles a day in summer heat, 
exhausted and weary, outrunning their supply lines. In addition to the detachment of 
troops to guard prisoners and supply lines, two Germans had been released to capture the 
fortresses of Antwerp and Maubeuge, while an additional two corps had been dispatched 
to the Eastern Front to contend with the Russians. During that same period, Joffre 
strengthened the Allied left flank, hurriedly transporting combat units west by rail, and 
then grouping these eastern forces into two new armies—the Sixth Army under General 
Michel Maunoury and the Ninth Army under General Ferdinand Foch. For the coming 
battle, the Allies thus had four armies in the field, arrayed from left to right, as the Sixth 
Army, the BEF, Fifth, and Ninth Armies. Opposite them stood the combined strength of 
the German First, Second and Third Armies, though outnumbered by 200 infantry 
battalions and 190 artillery pieces. It was a dramatic reversal from August 1914.

The Battle of the Marne

The Battle of the Marne opened on the afternoon of 5 September, as Maunoury’s 
Sixth Army advance guard moved forward to take up attacking positions northeast of

398 On the logistical challenges facing the German armies, see Martin Van Creveld, *Supplying War: Logistics from Wallenstein to Patton* (Cambridge, UK: Cambridge University Press, 2004), pp. 122-128.
399 The Russians were beaten before the reinforcements had even arrived. Critics have charged and Moltke admitted afterwards that this had been a serious misjudgment, even if Bülow had advised that he could spare the men, and he had trusted his judgment. See Annika Mambauer, "Helmuth Von Moltke: A General in Crisis?," in Matthew Hughes and Matthew Seligmann, ed., *Leadership in Conflict, 1914-1918* (Barnsley, UK: Leo Cooper, 1990), pp. 95-116, especially pp. 104-105.
400 The Sixth Army under General Michel Maunoury consisted of the VII Corps, brought from Alsace, and the 55th and 56th Reserve Divisions from Lorraine, as well as Sordet’s Cavalry Corps and the 45th Division, from Algeria. Sarrail’s IV Corps was on route from the Fourth Army; detraining in Paris, it would be rushed to the front by the famous “taxis of the Marne.” The Ninth Army, originally constituted as the Foch Detachment, comprised the IX and XI Corps transferred from Fourth Army, together with the 52nd and 60th Reserve Divisions and 9th Cavalry Division, the 42nd from Third Army and the 18th Division from Third Army. See Doughty, *Pyrrhic Victory*, pp. 76-78. On the “taxis of the Marne,” see Jean Dutourd, *Les Taxis De La Marne* (Paris: Gallimard, 1956); Jean-Pascal Soudagne, *Les Taxis De La Marne* (Rennes: Ouest-France, 2008).
Meaux, stumbling unexpectedly into a patrol of German cavalry along the Ourcq River.

On the previous evening, 4 September, Joffre had issued orders for a counterstroke against the exposed German right wing: the French Sixth Army was to strike across the Ourcq towards Château-Thierry, falling on the flank and rear of the German First Army, while the BEF and the French Fifth Army were to advance towards Montmirail, striking into the center of von Kluck’s army, while holding in the place the bulk of the German Second Army. To the right Foch’s Ninth Army was to cover the flank of the Fifth Army around Saint-Gond Marshes, as well as fix the left wing of the German Second Army and the entire German Third Army. Joffre fixed the date for the allied counteroffensive for 6 September. The battle opened a day earlier than planned, however, when Maunoury’s Sixth Army ran into the German patrols just north of Meaux. Their commander, General Hans von Gronau’s, perceived at once the danger of a flank attack on the First Army and ordered his IV Reserve Corps to at once attack the French. As Maunoury’s marching columns moved forward towards the Ourcq on the morning of 5 September, they were suddenly brought under heavy enemy artillery fire from the heights north of Meaux. The French went to ground and a fierce firefight ensued, threatening to overwhelm von Kluck’s flank guards. More importantly, the engagement revealed Joffre’s intentions to the enemy.

Thanks to this action, the German high command was altered to danger on its right flank, and von Kluck given the necessary warning to hurry reinforcement from his

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403 As French cavalry had scouted the route of advance and found no German forces, the Sixth Army did not expect to encounter any enemy resistance on the first day of their march. Unknown to Maunoury, the German IV Reserve Corps had moved south that morning to a new position just north of Meaux. Doughty, *Pyrrhic Victory*, pp. 92-94.
405 The German official history notes, “with one bold stroke,” it was apparent that the “German army’s right flank was, in fact, seriously threatened.” Quoted ibid., p. 243.
center to his right to secure his open flank. By the morning of 6 September, von Kluck had transferred his II Corps from south of the Marne to west of the Ourcq, and he would thereafter move northward the IV Corps on 7 September, the III Corps on 8 September and the IX Corps on 9 September.\textsuperscript{406} The rapid reinforcement of his right flank succeeded in halting the French Sixth army advance southeast of the Ourcq River, but in shifting his corps north, he lost contact with von Bülow’s Second Army, an action which opened a gap of almost thirty miles between the two German armies.\textsuperscript{407} The Germans chose to disregard the danger only because they thought the enemy troops opposite, the “repeatedly beaten British” and the French Fifth Army lacked the strength and the determination to “come forward and make a powerful offensive.”\textsuperscript{408} The outcome of the campaign would thus once again turn on the fighting of the BEF and the French Fifth Army, as the way lay open for them to drive deep into the enemy’s position.

The French Fifth Army was now to join the BEF in advancing into the gap in the German line. As they moved northwards, opposed only by enemy reconnaissance elements, they pressed into the gap between the German First and Second Armies. The French Fifth Army and the BEF advanced easily, with both armies well established across the Marne by the evening of 9 September.\textsuperscript{409} To exploit the gap before the German high command reconstituted its line, Joffre directed the BEF and the Fifth Army to drive north, with all haste. But the British advance, in particular, was slow and deliberate. Despite Joffre’s prodding, Allied forces moved too slowly, and the Germans slipped away to the north. Moltke ordered a general retreat, and, by 13 September, the

\textsuperscript{406} Doughty, \textit{Pyrrhic Victory}, p.93.  
\textsuperscript{408} General von Kluck quoted in Edmonds, \textit{Military Operations, France and Belgium, 1914: Mons, the Retreat to the Seine, the Marne and the Aisne, August-October 1914}, p. 315.  
First and Second German Armies had escaped safely back across the Aisne. The Battle of the Marne then came to anticlimax close.

Assessing Franco-British Coalition Military Effectiveness in the Battle of the Marne

The Franco-British coalition gained a strategic victory in the Battle of the Marne, halting the Germans and turning them back, but the German Army withdrew in reasonably good order, battered and bloodied but not beaten. Overall, Franco-British coalition fighting effectiveness was fairly poor, and entirely consistent with the predictions of the theory. First, military integration between the French and British armies in the field was fairly poor. On the eve of battle, the movements of the BEF and the French Army were fundamentally at odds with one another, with British continuing to retire to the south even as the French Fifth and Sixth armies on their flanks prepared to move forward on the attack. These disjointed movements placed the British some fifteen miles back from their intended start line, and so at least a full day's march behind the French on their flanks. "It is simply heartbreaking," wrote Wilson of the British retirement, as it effectively placed the BEF too far back to play its assigned role in the campaign, as a spearhead of the allied counteroffensive, attacking in concert with the French Fifth and Sixth Armies. 

When the counteroffensive commenced on 6 September, the BEF moved forward, but its troops were as much as forty miles behind the German lines, covering ground lost

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410 German decision to withdraw from the Marne has long been a subject of debate. Molke authorized his emissary, Hentsch, to visit his field armies and order a general retreat if it was the only way to close the gap between the First and Second Armies. But Billow had already decided to retreat, leaving Kluck with no choice but to retreat in conformity with his movements. On the afternoon of 11 September, Moltke issued the general order for retreat, and, two days later, lost his command to General Erich von Falkenhayn. See Herwig, The Marne, 1914, pp. 304-306.

to further retreat only a day earlier.\textsuperscript{412} The British marched forward but with none of the vigor rapidity that might have been expected for what Joffre called “the battle upon which hangs the fate of France.”\textsuperscript{413} In contrast to Joffre’s exhortations to his troops, Sir John’s operational orders on the first day spoke merely of “an advance eastward with a view to attacking,” conveying none of the urgency or real importance of mounting a vigorous offensive.\textsuperscript{414} The British advance started too late, from too far back, and the forces moved too cautiously even after the enemy was in retreat. In the end, the British contribution to the Battle of the Marne was more as an army in being, to borrow a naval term, than anything like the attacking force intended in Joffre’s plans.\textsuperscript{415}

Importantly, the failure of the BEF to conform to the movements of the French Army was directly attributable to a lack of coalition military institutions. Instead of a single plan of operations, two plans emerged for a counterattack against the German right flank, which, even if similar in military objectives, nevertheless differed significantly in detail. On 4 September, while Galliéni and Maunoury met with the British Chief of Staff, Sir Archibald Murray to discuss British participation with the French in a counteroffensive, the new commander of the French Fifth Army, General Franchet d’Esperey, conferred with Wilson on a similar plan of operations. Unfortunately for allied military cooperation no institutional mechanism existed to forge these alternative schemes into a single plan of operations. Sir John French returned to his headquarters on the evening of 4 September, therefore, to find two competing proposals, each of which asked the British to occupy a different position, one facing north and the other east. He

\textsuperscript{413} GQG, Order general no. 6, 4 September 1914, AFGG, 122-2332, p. 705.
\textsuperscript{415} Herwig, \textit{The Marne, 1914}, p. 254.
also learned that Murray had already issued orders for the BEF to continue its retirement south well beyond either start line. Sir John left these ordered unaltered, though neither plan had suggested the British should retire some ten to fifteen miles towards the Seine, and it is hard to imagine what purpose such a retirement could serve in a counteroffensive.

The British commander in chief may have been puzzled by the inconsistencies in the various schemes for joint Franco-British action worked out between his staff and French army commanders on 4 September, but it is difficult to understand how, in good faith, he could have arrived at so confused an impression of his ally’s intentions as to consider further British retirement in any way consistent with offensive operations. In all likelihood, Sir John, yielding to his lingering reluctance to part in a French counterstroke, took refuge behind the inconsistencies in order to account for the British retirement and render British participation in offensive operations more difficult. Though Kitchener had made a personal visit to Paris on 1 September, much to Sir John’s annoyance, to impress upon him the need to remain in the battle line, the British commander-in-chief remained wary of cooperation with the French Army.

Thereafter there was no more talk of a British withdrawal from the battle line, lending some support for threat theory, but even the very real danger of immediate defeat was not enough to bring about full and close military cooperation in the field. Sir John continued to lack confidence in Joffre’s counterstroke, his reluctance so intense as to

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418 On the morning of 1 September, Kitchener departed for Paris to meet with Sir John French. The results of the meeting are certain. As Kitchener relayed in a telegram to the Cabinet shortly after the meeting: “French’s troops are now engaged in the fighting line, where he will remain conforming to the movements of the French Army, though at the same time acting with caution to avoid being in any way unsupported on his flanks.” Kitchener quoted in Arthur, *Life of Lord Kitchener, Vol. 3,* p. 55; Cassar, *Kitchener's War: British Strategy from 1914-1916*, p. 135.
reduce the French commander-in-chief to begging, imploring Sir John to take part, as “Monseur, le Maréchal, the honour of England is at stake!” 419 The British joined the battle but remained cautious in the attack. In the absence of coalition military institutions for planning, Sir John exploited the confusion over competing operational plans to turn the British role in the counteroffensive into a supporting one, leaving the British continually at odds with French operational intentions in the field.

Second, Franco-British coalition battlefield cohesion remained weak in the Battle of the Marne. Though the French Sixth Army was especially hard pressed in holding its ground against von Kluck’s rapidly reinforced right flank, the British displayed no willingness to come to the aid of their ally. A not unnatural anxiety for the fate of Maunoury’s Sixth Army prompted the French to make repeated calls on the British for haste. Galliéni made the first of many entreaties for British support on the first day of the counteroffensive. “To support our offensive,” he telegraphed Sir John, “…it is essential that VI Army not act alone and that the Germans should not be able bring into action against it the forces now confronting the English Army. In consequence I entreat Field-Marshal French to bring his Army up into line in accordance with General Joffre’s directions…” 420 To Galliéni’s many requests for British assistance were added Joffre’s own increasingly urgent appeals for Sir John to quicken the pace of his forward movement. 421 These appeals won no support from the British commander-in-chief, however, who was more concerned with guarding his own flanks than in lending support

419 Joffre, Mémoires, I, pp. 393-394; Spears, Liaison, 1914, pp. 413-418; Prete, Strategy and Command, p. 112; Philpott, Anglo-French Relations and Strategy on the Western Front, 1914-1918, p. 27.
420 Galliéni quoted in Huguet, Britain and the War: A French Indictment, p. 103.
Sir John advanced slowly to keep his forces behind the French Fifth and Sixth Armies, so as not to risk exposure on his flanks but covering a distance of only twenty-fives miles in the first three days of the counteroffensive, though almost unopposed in their forward march. At every approach to woodland or any reports of small enemy sightings, the British advance came to an immediate halt. John Charteris, Haig’s chief of intelligence, conceded, “our own troops, though the men were very keen, moved absurdly slowly.” The British thus chose caution and moved inordinately slowly at the very moment when the fate of France stood in the balance, adding to serious French apprehensions about the reliability of the BEF.

Finally, the Franco-British coalition lacked coalition battlefield responsiveness, which in turn allowed the Germans to make a successful retreat behind the Marne and Aisne Rivers. Joffre recognized the significance of the gap developing between the German First and Second Armies, spying the chance for the BEF and French Fifth Army to pursue and perhaps finish off the enemy. On the evening of 8 September, he sent a message to Sir John confirming this separation between the German armies and pressing upon the British commander-in-chief that it was “essential” for the BEF and French Fifth Army to advance quickly into the gap before the Germans could bring up infantry and artillery reinforcements. Joffre sought at once to exploit this opportunity, shifting his concept of operations from envelopment to breakthrough. His efforts now concentrated on pushing the BEF and left wing of the French Fifth Army forward from Montrimail in pursuit of an enemy on the run. All that stood in the way of annihilating the better part of 422 Gilbert, Challenge of Battle: The British Army’s Baptism of Fire in the First World War, p. 157. 423 The British outnumbered the opposing German forces in a ratio of almost 10 to 1. See Tyng, The Campaign of the Marne: 1914, p. 255. 424 John Charteris, At Ghq (London: Cassell, 1931), p. 29. 425 Herwig, The Marne, 1914, p. 254.
two German field armies were a thin cavalry screen of four divisions and a mixed brigade of enemy infantry and field artillery. Despite Joffre’s exhortations, however, the British could not be persuaded to advance more quickly. Sir John was not keen to seek a major battle and with no authority to give him orders Joffre could do little to bring about sufficient British cooperation in time to prevent the enemy’s escape from his grasp. In the end, the slow pace of the British advance was fatal to the success of the allied breakthrough. The Germans retreated so far so fast after 9 September, they were able to choose their own ground and settle down to make a stand before the main bodies of the Allies armies could resume contact. The Battle of the Marne ended German hopes of a quick victory in the war, but had the Allies exploited the opportunity laid before them, the German right-wing armies could well have been destroyed, turning the course of the war. The tragedy of the Marne was that it fell short of the victory it might have been. The Miracle occurred despite rather than because of Franco-British coalition military effectiveness, and owed much to German mistakes and failures.

“LOW” COALITION MILITARY INSTITUTIONALIZATION, 1916-MARCH 1918

This section shows that as the western front settled into the bloody stalemate of trench warfare, French and British leaders set about building the institutional machinery for common political-military planning, first in the way of allied conferences held during the winter of 1915-16 and later formalized as the Supreme War Council (SWC). Even as they put in place institutional mechanisms for coalition war planning, solutions to problems of coalition command and information sharing still eluded them. During this

426 Ibid., p. 291.
period, Franco-British coalition military institutionalization was therefore not minimal but low, expected to generate fair or mediocre coalition military effectiveness.

**Coalition Political-Military Planning**

As defeat followed defeat in the autumn of 1915, and French and British leaders confronted the grim reality of a long war of attrition, there was a growing recognition in both countries that the successful prosecution of the war would require them to adopt a more considered and systematic approach to coalition military planning. The first such effort was a hastily organized summit convened at Calais on 6 July 1915, in what was the first formal meeting of the French and British heads of state, Asquith and Viviani, coming eleven months after the start of the war. The following day the French and British convened at Joffre’s headquarters at Chantilly for the first summit conference of the war. Its organization was chaotic, and its conclusions were little more than uncertain compromises and general expressions of goodwill, but its ultimate significance lay in making the first tentative steps towards greater coordination of allied strategy. Asquith concluded such meetings were useful to “obviate friction and grease the sometimes rather creaking wheels of the Entente.” The political and military leadership of the two nations met again in December 1915, in what marked the first concerted efforts to forge a common political-military strategy. The process began with a conference held at

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429 At the same time, a series of proposals made the rounds for the creation of sort of permanent allied council to coordinate political and military strategy. For the time being, however, such proposals came to naught. See Wallach, *Uneasy Coalition: The Entente Experience in World War I*, pp. 75-81; William
Calais on 5 December between French and British premiers and other members of their
governments to grapple with coalition grand strategy, followed by a formal meeting of
the allied general staffs at Chantilly on 6-8 December to formulate a plan of campaign for
the coming year.\footnote{DJ Dutton, "The Calais Conference of December 1915," \textit{Historical Journal} 21, no. 1 (1978): 143-156.} This series of meetings marked the first proper effort to coordinate
strategy among the Allies. The decision reached at Chantilly was for all the Allied
armies—French, British, Russian and Italian—to launch simultaneous combined
offensives in 1916, with the French and British launching a major offensive in mid-

Through close and continuous consultations between the allied general staffs,
Joffre and Sir Douglas Haig, the new British commander-in-chief, agreed to a single plan
of campaign. During this time, Sir Henry Rawlinson, the commander of the British
Fourth Army, charged with carrying out the main British advance, recorded some twenty-
three personal meetings with Foch, then commanding the French Northern Army Group,
and seventeen with General Fayolle, the commander of the adjacent French Sixth Army.
In addition to these planning meetings, there were numerous other written exchanges or
telephone contacts, as well as reciprocal visits between staff and liaison officers from the
respective headquarters.\footnote{Peter Simkins, "For Better or for Worse: Sir Henry Rawlinson and His Allies in 1916 and 1918," in Matthew Hughes and Matthew Seligmann, ed., \textit{Leadership in Conflict} (Barnsley, UK: Pen and Sword, 1990), p. 15.} Whereas in the past the French and British drew up separate
plans and then made some attempt to coordinate them through slow diplomatic channels
or hastily arranged conferences when problems inevitably arose, the Allies had initiated

\footnote{With simultaneous attacks launched on both the Eastern and Western Fronts, the Allies sought to deny the Germans from moving reinforcements from one front to the other, parrying the attacks one at a time. Joffre later referred to this plan as the "charter of the coalition" for the 1916 campaign. See Maréchal Joseph Joffre, \textit{Mémoires, II} (Paris: Plon, 1932), pp. 413-414.}
planning for the 1916 campaign together at Chantilly and continued with frequent meetings and intense collaboration until the eve of battle, nearly seven months in all. In 1917, the French and British drew up a joint plan of campaign, as in the previous year, convening a conference of allied political and military leaders at Chantilly in November 1916, with the details worked out in subsequent meetings between the French and British high commands. What had emerged, however haphazardly, was a coalition planning mechanism—the “conference method.”

At the end of 1917, Paris and London formalized this system of regular conferences into the more permanent machinery of the Supreme War Council (SWC), consisting of the heads of state, civilian advisors and Permanent Military Representatives (PMR) from the member governments. Meeting at Rapallo on 7 November 1917, Allied leaders established the Council “with the mission of watching over the general conduct of the war,” giving it the power to review the campaign plans by the national general staffs and change them if necessary. As the historian David Trask noted, the Council was a “political organization designed to concert inter-Allied strategy.” The SWC was based at Versailles where it met, normally at least one a month, convening in a total of eighteen full sessions until March 1919. Though the new body was imperfect, the SWC gave

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433 See Greenhalgh, Victory through Coalition, pp. 133-162; Philpott, Anglo-French Relations and Strategy on the Western Front, 1914-1918, pp. 87-88; Doughty, Pyrrhic Victory, pp. 326-350.
434 For the text of the Rapallo agreement, see Wallach, Uneasy Coalition, pp. 90-91.
the Franco-British coalition the permanent machinery for planning the conduct of the war. By 1918, the French and British had thus built up from nothing the mechanisms for coalition political-military planning.

Command Relationships

During the same period, the Franco-British command relationship evolved little from the parallel structure put in place at the start of the war. When Sir Douglas Haig assumed command of the British Armies in France at the end of 1915, he received orders almost identical to those issued to his predecessor nearly two years earlier. Kitchener reaffirmed the independence of Haig’s high command, writing to the new commander-in-chief, “I wish you to distinctly to understand that your command is an independent one, and that you will in no case come under the orders of any Allied General further than the necessary co-operation with our Allies.” Haig’s command was to remain independent, although cooperative. Kitchener formal instructions to Haig laid down that the “closest cooperation of French and British as a united Army must be the governing policy.” 437 He cautioned Haig privately to “keep friendly with the French…whatever our personal feelings about the French Army and Its Commanders.” 438 Though intensely wary and mistrustful of his French comrades-in-arms, Haig was in agreement with Kitchener on this point from the start. After nearly two years of war, Haig understood that victory to a great extent depended on cooperation with the French Army, which still carried the main


438 Haig’s Diary, 3 December 1916. Quoted in Philpott, Three Armies on the Somme, p. 67.
burden of fighting the Germans, and that this implied a certain need for deference to Joffre and French military dominance.\textsuperscript{439} Joffre’s loss of command at the end of 1916 saw no immediate change in the extant command arrangements.\textsuperscript{440} In the absence of unity of command, the French and British military commanders attempted to forge a close working relationship but remained solely responsible to their respective governments, each exercising a separate military command.

\textit{Information Exchange}

Like the coalition command mechanism, the institutional machinery for information sharing among the allied armies remained inchoate. By 1916, the exchange of information was more frequent between the French and British high commands, even not better organized. The British and French intelligence staffs responsible for compiling the German order of battle were in almost daily contact on enemy troops movements, and the allied high command shared some information through regular bulletins, letters and urgent telegrams.\textsuperscript{441} Though most of the collection, analysis and dissemination of this information remained compartmentalized along national lines, the most detailed analysis of German casualties was undertaken as a collaboration between the Intelligence Corps at British general headquarters and the Deuxième Bureau of the French War Ministry, using


\textsuperscript{440} A brief experiment in unity of command was attempted in 1917 under Joffre’s success, Robert Nivelle. The failure of Nivelle’s spring offensive provided little incentive to repeat the experience. In its wake, Phillipe Pétain became commander-in-chief of the French Army, a position he would hold until the end of the war. See Greenhalgh, \textit{Victory through Coalition}, pp. 139-154.

paybooks taken from enemy prisoners or rifled from the dead to estimate German losses. At lower levels of the military echelon, however, exchanges of information were almost nonexistent between French and British units fighting alongside each other in the trenches. According to Spears, “It was not unusual during ’15 and ’16 for French battalions to be totally ignorant of the fact that the British army was fighting within a mile of them.” The exchange of information between the allied armies was always selective and incomplete, especially in the field, where the majority of French and British soldiers simply did not come into contact with one another.

Efforts to close the intelligence gap between the French and British sectors of the front, as well as between allied intelligence services, came into immediate conflict with concerns about safeguarding sensitive information. In the exercise of his liaison duties, Spears “lived in a nightmare of secrecy.” “We may have concealed our plans from the enemy,” he caustically observed, “but we certainly befogged our own people. Allies did not communicate their plans to each other: different branches of staff behaved as if each thought the other only wanted information for the sake of passing it onto Berlin.” Owing to such concerns, General George Macdonogh, who led Intelligence Corps in France and was later the Director of Military Intelligence (DMI) at the War Office, dictated that the British command’s *Daily Intelligence Summary* and the *Daily Summary of Information* contain only information on enemy adversaries and

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442 The Soldbücher was the British equivalent of soldiers’ paybooks. Given the Germans allocated consecutive serial numbers to new soldiers within German infantry companies, and annotated these numbers in soldiers’ paybooks, French and British intelligence analysts reasoned that it was possible to estimate German casualties as the difference between the highest and lowest number. Examination of the paybooks also revealed the proportion of each recruit class within units. See Beach, *Haig’s Intelligence*, pp. 177-178.


444 Ibid., pp. 27-28.
nothing about allied forces. 445 Though such secrecy was understandable and perhaps even necessary, it was a significant impediment to the creation of a common intelligence picture. The upshot of so much mutual mistrust and recrimination was a tendency to place utmost secrecy above the obligations of sharing information with allies.

**SUMMARY OF COALITION MILITARY INSTITUTIONS AND THEORY PREDICTIONS, 1916 TO MARCH 1918**

The preceding section showed that Franco-British coalition military institutionalization changed from “minimal” to “low” in the winter of 1915/16, when the French and British put in place mechanisms for common political military planning, first in the way of allied conferences and later formalized into the planning machinery of the SWC. By 1916, the French and British had thus found mechanisms for political-military planning, though institutional solutions to the problems of command relationships and information sharing still eluded them. As a result, realist-institutionalist theory predicts the Franco-British coalition should have performed better from 1916 onwards, demonstrating enhanced coalition battlefield integration, even as coalition battlefield cohesion and responsiveness remained relatively poor. The next section examines two coalition battles fought on the Somme in 1916 and in 1918, so as to assess the validity of these predictions.

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Predictions of Realist Institutional Explanation

- From 1916 onwards, the Franco-British military coalition should have demonstrated better coalition military effectiveness. Their battlefield performance should show improved coalition military integration and to a lesser extent cohesion, though still no capacity for battlefield responsiveness.

Disconfirming Evidence:
- The Franco-British coalition failed to demonstrate better coalition military effectiveness after 1916. Coalition military integration remained poor after 1916, even though coalition military institutions for political-military planning were put in place.

EFFECTS OF MINIMAL COALITION MILITARY INSTITUTIONALIZATION ON FRANCO-BRITISH COALITION MILITARY PERFORMANCE, 1916-MARCH 1918

This section examines two major campaigns—the Battle of the Somme (1916) and Operation MICHAEL (1918)—fought in Picardy between 1916 and March 1918, when Franco-British coalition military institutionalization was low, and the allied armies therefore should have exhibited "fair" coalition military effectiveness. The battlefield evidence for both campaigns is largely consistent with these predictions, with the allied armies displaying better coalition battlefield integration but a consistent lack of coalition battlefield cohesion and responsiveness.

The Battle of the Somme: The Franco-British Offensive Operations, July-November 1916

Coming two years into the war, the Battle of the Somme provides the first opportunity to observe the French and British armies attempting to act in concert, undertaking a major offensive action, in the immediate aftermath of a shift in coalition military institutionalization. It also offers the first and only opportunity of the war to observe nearly equal numbers of French and British forces fighting alongside each in a
single offensive battle. If the realist-institutionalist theory is right, the establishment of procedures for coalition military planning should have led to observable improvements in coalition military effectiveness. In fact, the battle evidence generally confirms these predictions, showing the French and British armies fought better than earlier in the war. French and British forces were fairly well integrated and somewhat more cohesive, even if not more responsive. It is important not to overstate the extent of these changes, and also to acknowledge the Somme was a terrible and perhaps futile human slaughter. But for all the suffering caused the battle was a major turning point in Franco-British military cooperation.446

Background

By 1916, all hopes for obtaining a quick and decisive victory had all but disappeared on both sides. The battlefield had turned to stalemate at the end of 1914, when the opposing armies had settled down to dig a more or less unbroken line of trenches, mines and barbed wire defenses from Switzerland to the Channel Coast. Trench warfare heavily favored the defense, machine guns mowing down attackers as they charged into no man’s land. Following the retreat from the Marne, the Germans had chosen a deliberate strategy of entrenchment in order to shift their main effort from the west to the east, where they drove back the Russians from Silesia and East Prussia and shored up the struggling Austrians to the south.447 Faced with the grim reality of fighting

446 During the four-and-a-half month battle, from June to November 1916, the human toll exceeded 600,000 Allied casualties, including some 146,000 dead, and inflicted approximately equal losses on the enemy. Lawrence Sondhaus, World War One: The Global Revolution (Cambridge, UK: Cambridge University Press, 2011), p. 216.

a two-front war, German military leaders sought to gain a decision over the Russians, before they concerned themselves with their western enemies.\textsuperscript{448} Whereas Germany aimed to turn the Western Front into a passive sector, France and Britain were impatient to regain some lost territory and therefore made several determined efforts to breakthrough the German line in 1915.\textsuperscript{449} These offensives were costly failures, living up to Churchill’s prediction that the French and British armies would “chew barbed wire,” wasted in futile attacks.\textsuperscript{450}

Come the start of 1916, the nature of the war was better understood, and both the Allies and the Central Powers were better mobilized for total war.\textsuperscript{451} On the German side, it was a time of frustration. Despite a succession of military victories in the east, the German strategy of bludgeoning the Russians to the negotiating table had come to no end. Recognizing that time was not on Germany’s side, the military leadership concluded it had only one card to play, to seek a decision in the west. The strength of allied entrenchments meant a breakthrough was not feasible, but the army could inflict such casualties that the French would sue for peace and, in the process, knock Britain’s

\textsuperscript{448} The debate within the German military leadership over war strategy was deep and divisive. See Robert T Foley, \textit{German Strategy and the Path to Verdun: Erich Von Falkenhayn and the Development of Attrition, 1870-1916} (Cambridge, UK: Cambridge University Press, 2005), especially Chapter Five, pp. 109-126.

\textsuperscript{449} The key battles were in Flanders and Artois in the north, and Champagne further south, with the British fighting at Neuve-Chapelle and Loos, and the French attacking in Artois and Champagne. See Keegan, \textit{The First World War}, pp. 192-203.

\textsuperscript{450} Martin Gilbert and Winston S Churchill, \textit{The Challenge of War 1914-1916} (Boston: Houghton Mifflin, 1971), pp. 344-345. Each of these attacks followed the same tragic course: a massive artillery bombardment followed by a massive infantry assault led to moderate initial progress but soon bogged down in the muddy, shell-torn earth against enemy machine gun fire. The Germans would then counterattack, forcing the Allies to concede most of the ground gained.

“best sword” out of its hands. 452 They chose Verdun to deliver the main blow. Mirroring the evolution of strategic thinking on the German side, the Allies decided at the Chantilly Conference at the end of 1915 to continue with a strategy of attrition in the coming year. To this end the French and British agreed to mount a major offensive astride the Somme in the summer of 1916.453

Before the Allies could attack, however, the German army launched its assault on Verdun. The German offensive, begun on 21 February, almost succeeded in “bleeding the French army white.”454 With the fate of France, many thought, hanging in the balance, Joffre pleaded with the British government to bring forward the attack on the Somme to relieve pressure on Verdun. Britain’s leaders were obliged to come to terms with the fact that the French were exhausted and with the future of the wartime alliance at stake, they would need to pull their full weight in the Somme attack.455 The offensive on the Somme would go ahead as planned, but with French participation reduced to 22 divisions, on par with the British contribution in the field.456

Balance of Forces

By 1916, France and Britain had gained a small superiority in matériel and manpower on the Western Front. The British had finally arrived on the Continent in

453 The original planning called for the French to attack with 40 divisions south of the river, the British with 25 to the north. “Plan of Action Proposed by France to the Coalition,” Memorandum Laid Before the Second Allied Military Conference, 6 December 1915, in Wilfred Miles, Military Operations France and Belgium (London: MacMillon, 1932), Appendix 1. See also Philpott, Anglo-French Relations and Strategy on the Western Front, 1914-1918, p. 121.
454 Falkenhayn’s stated goal was to “bleed the French Army white.”
455 French, British Strategy and War Aims, 1914-1916, p. 159.
large numbers, as more than a million men volunteered to join Kitchener’s New
Armies. The Allies armies now numbered 133 divisions—38 British and 95 French
divisions—against the strength of 117 German divisions.

At the point of attack, the French and British concentrated superior numbers in
men and artillery against the enemy (Table 5-3). The British Fourth Army together with
the French Sixth Army occupied a twenty-two mile sector of front astride the River
Somme, opposed by the forces of the German Second Army. The British army held
the line north of the River, where the main part of the attack fell to eighteen divisions of
the British Fourth Army, eleven in the first line and the rest in reserve, placed under the
command of General Sir Henry Rawlinson. To the right of Rawlinson’s Fourth Army,
astride and to the south of the river, the French Sixth Army was roughly equal to the
British strength, consisting of eighteen divisions under the command of General Marie-
Émile Fayolle. Eight of these divisions constituted the first line of the initial French
assault with the others held back in reserve. The Allies also brought to the battle an
impressive concentration of artillery power, which included more than 1,500 artillery
pieces, and substantial supplies of ammunition. Opposite them were eight divisions,
along with three other divisions in reserve, and some 600 field guns and 250 howitzers

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from General von Below’s Second Army.462

Table 5-3: Balance of Forces on the Somme, 1 July 1916463

<table>
<thead>
<tr>
<th></th>
<th>Divisions</th>
<th>Artillery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Germany</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Army</td>
<td>8 ID</td>
<td>598 field guns; 246 howitzers</td>
</tr>
<tr>
<td><strong>Allied</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>37 ID; 5 CD</td>
<td>1,537 guns and howitzers</td>
</tr>
<tr>
<td>Sixth Army</td>
<td>17 ID; 1 CD</td>
<td>972 field guns; 528 heavy guns; 61 extra heavy guns; 24 long guns; 16 howitzers</td>
</tr>
<tr>
<td>Great Britain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Army</td>
<td>17 ID; 1 CD</td>
<td>1010 field guns; 182 heavy guns; 245 heavy howitzers</td>
</tr>
<tr>
<td>Reserve Army</td>
<td>3ID; 3CD</td>
<td></td>
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</tbody>
</table>

The Battle of the Somme

The Franco-British campaign opened on 24 June with an artillery barrage, the infantry assault followed on 1 July, with the fighting to last for four-and-a-half months, ending on 19 November. The plan was for a simple infantry attack and, if they were able to break through the German lines, for British cavalry to pass through the gap and seize Bapaume, achieving a war of movement in the open country behind the lines towards Arras. Rawlinson’s Fourth Army to advance north of the Somme, creating a breach between Arras and Bapaume so the cavalry could then pass through and exploit it. The French were to support the larger British attack, holding the right flank of the British line

and guarding it against a German counterattack.464

The Somme Offensive consisted of three main phases: the first phase in the opening weeks of July, when the French and British attempted to breach the German front; the second phase between mid-July and mid-September, when some ninety small, costly and hurried attacks occurred on narrow fronts for little gain in territory; and finally, the drift during mid-September and November as the weather finally put a stop to further action. The first phase of operations began on 24 June with a seven-day artillery barrage, which fired more than one-million-and-a-half shells into German positions. The aim of the artillery bombardment was to destroy enemy barbed wire, artillery batteries and trench fortifications, but the effect was uneven.465 Heavy guns were still too few and the quality of ammunition, particularly British, was poor; far too many shells failed to explode or merely churned up the ground, causing less damage than hoped to German defenses.466

Allied infantry paid the price, as they went over the top on the morning of 1 July. The Germans quickly made it clear that the shelling had not destroyed their machine guns and dugouts, mowing down wave after wave of attacking soldiers. At the end of the first day, the British had not managed to take any of their initial objectives, except in the south, where the XIII Corps captured the first line of enemy trenches between Fricourt

464 Greenhalgh, Foch in Command, pp. 151-152.
465 Originally conceived as a five-day barrage, it became a seven-day operation because bad weather in the middle prevented proper observation. As a result, Foch and Rawlinson agreed to a forty-eight hour postponement to compensate. Ibid., p. 169.
466 One estimate put the number of duds as high as one third. Germans defenses were strong, with their dugouts often thirty to forty feet deep, and often reinforced with concrete. See Martin Middlebrook, The First Day on the Somme (Barnsley, UK: Pen and Sword, 2006), p. 88; John Ellis, Eye-Deep in Hell: Trench Warfare in World War I (Baltimore: John Hopkins University 1989), pp. 18-19; Hart, The Somme: The Darkest Hour on the Western Front, pp. 212-213.
and Montauban. The French assault was more successful, the attacking infantry covered by a creeping artillery barrage. The French XX Corps, fighting alongside the British XIII Corps, overran the entire German first line defenses, while, south of the river, the French I Colonial Corps and XXXV Corps had advanced to the German second position. By the end of the week, though the British advance had stalled, the French had advanced to within one mile of Péronne, opening up a breach of almost five-miles wide south of the river. The opportunity to exploit the success was lost, however, as French troops waited for the British to catch up with their forward position, giving the enemy a much-needed reprieve.

During the second phase of the campaign the French and British sought to gain the high ground on either side of the river, with the fighting breaking up into numerous small-scale local actions. During the months of August and September, the Franco-British progress was slow and resulted in very little territorial gain. In an effort to return to the strategy of simultaneous attacks on a broad front, the Allies launched a British Push in mid-September, attacking with a total 23 Allied divisions astride the river. The French once more had the most success, capturing the village of Bouchavesnes. Foch put the cavalry on alert to exploit what he thought would be the imminent collapse of the German line. The French went on to seize the villages of Combles and Rancourt,

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468 Philpott, *Three Armies on the Somme*, p. 117.
472 The attack marked the British Army’s first use of tanks. Philpott, *Three Armies on the Somme*, p. 326.
just as the British finally gained Thiepval Ridge, but no decisive breakthrough ever came.\textsuperscript{473}

In the third and final phase of the battle, the French and British armies fought the enemy as well as the autumn rains and mud, the poor weather finally bringing the offensive to a halt. Before the fighting came to an end for the winter, the British had made their way up the Albert-Bapaume road and along the Ancre River to take Le Sars, while the French captured Sailly-Sallisel.\textsuperscript{474} As the wet and cold rains turned the chalky soil into glutinous mud, the Allies had no choice but to halt operations. The Battle of the Somme thus came to an anticlimactic end.\textsuperscript{475}

\textit{Assessing Franco-British Coalition Military Effectiveness in the Battle of the Somme}

The French and British showed improved coalition military effectiveness in the Battle of the Somme, particularly in comparison with their performance earlier in the war. Consistent with the predictions of the theory, the establishment of institutional mechanisms for coalition military planning led to better coalition battlefield integration and greater but uneven cohesion, albeit with still no capacity for coalition battlefield responsiveness. First, the French and British armies were fairly well integrated on Somme, fighting in ways consistent with the achievement of common operational objectives. As decided at the Chantilly conference, the Somme Offensive was a continuation of the policy of offensive attrition to gradually bring about “the destruction

\footnotesize{\textsuperscript{473} Ibid., pp. 344-347.\textsuperscript{474} Prior and Wilson, \textit{The Somme}, pp. 289-299.\textsuperscript{475} The total number of Allied dead on the Somme was 146,404, but the German death toll was even larger with the loss of 164,055 men. Alan Kramer, \textit{Dynamic of Destruction: Culture and Mass Killing in the First World War: Culture and Mass Killing in the First World War} (Oxford, UK: Oxford University Press, 2007), p. 270.}
of the German and Austrian armies." Only once the Germans had been sufficiently
weakened from the attrition struggle, drained of reserves and demoralized, would the
Allies seek a decisive breakthrough to end the war. Although most leaders thought a
breakthrough unlikely in 1916, France and Britain agreed to mount a joint action on the
Somme in the summer of 1916 in order to intensify the process of attrition, as well as to
relieve pressure on the French at Verdun.

Neither Haig nor Joffre expected the Somme Offensive to win the war, even if
both men harbored hopes the fighting could lead to a break in the German line. The
distinction between a campaign to inflict greater losses on the Germans and one to
achieve a breakthrough in the German line was more ambiguous in practice, for French
and British commanders alike. During the planning for the Somme, Haig’s chief
intelligence officer dismissed talk of breakthrough and attrition warfare as “a distinction
in terms.” The plan for the Somme Offensive reflected these conceptual difficulties, as
both Haig and Joffre harbored hopes that the German army was near to breaking point,
such that a major allied push could well break through the enemy’s front. Both Joffre
and Haig’s final instructions to their respective armies advanced a similar concept of
operations, reflecting these ambiguities. In his final briefing to French field commanders
Joffre saw two courses for the coming battle—a quick, sudden rupture of the German line

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476 "Plan of Action Proposed by France to the Coalition," Memorandum Laid Before the Second Allied
Military Conference, Chantilly Conference, 6 December 1915, in Miles, Military Operations France and
Belgium, Appendix 1.
478 The purpose of the offensive shifted slightly with the German attack on Verdun. As Haig told the
British government in May, the main objective of the coming offensive was to “dégager [or relieve] the
French army.” Haig quoted in Philpott, Three Armies on the Somme, p. 82. See also Elizabeth Greenhalgh,
the British Were Really on the Somme: A Reply to Elizabeth Greenhalgh," ibid.9, no. 4 (2002): 446-471;
Elizabeth Greenhalgh, "Flames over the Somme: A Retort to William Philpott," ibid.10, no. 3 (2003): 335-
342.
479 Charteris, At Ghq, p. 137.
or "a hard and long battle" of attrition. Similarly, Haig advised Rawlinson that it was "better to prepare to advance beyond the enemy's last line of trenches, because we are then in a position to take advantage of any breakdown in the enemy's defense," but acknowledged "if there is a stubborn resistance put up, the matter settles itself! On the other hand, if no preparations for an advance are made till next morning, we might lose a golden opportunity." Though the allied high commands conceived the Somme Offensive as an attritional battle, the hope of achieving a breakthrough thus persisted for the British, as well as the French. The final Franco-British campaign plan sought to achieve these ends, with the allied armies integrated as to the place of attack, the timing of the initial assault, and the method of attack.

On the basic idea of the operation—a combined Franco-British attack launched along a broad front—there was a fundamental convergence between the allied high commands. By attacking on a sufficiently broad front, the allied armies sought to better protect the infantry from enemy flanking fire and also to achieve multiple breakthroughs so as to further confuse the enemy. To this end French and British troops attacked simultaneously along a twenty-two-mile sector of front along the Somme, with French and British troops attacking shoulder-to-shoulder at the junction of the allied armies. The allied armies achieved closer coordination and integration of their movements than

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482 Haig gave way on the place and timing of the attack, while Joffre conceded the method of attack. The main outlines of the Franco-British campaign plan emerged from a series of agreements reached between Joffre and Haig in a series of meetings in January and February 1916. See Philpott, Three Armies on the Somme, pp. 77-80.
484 Gilbert, The Somme: Herosim and Horror in the First World War, p. 49.
had hitherto been achieved in the field, the commanding officer of the 17th Battalion, King’s Liverpool Regiment, advancing over the top army in arm with Commandant le Petit, the neighboring battalion commander of the French 153rd Infantry Regiment at zero hour. “It was a magnificent spectacle,” recounted one French signaler attached to the British headquarters. They “went across it at a brisk pace, in well-formed line, with fixed bayonets,” as French artillery kept up a steady barrage south of the river to prevent the enemy from enfilading the attack to the north.\(^ {485}\) They not only managed to stay together, but their men moved with speed and purpose, quickly capturing the enemy’s first defensive position.\(^ {486}\) Franco-British military planning had produced a single concept of operations, a joint attack on a wide front, which the allied armies executed for the first time in battle.

Even in the trying months of August and September thereafter, as the fight turned into a costly wearing down, the allied high commands made a concerted effort to return to the original concept of broad-front operations, albeit to modest success.\(^ {487}\) Though the allied high commands were in total agreement on the principle of concerted attacks on a wide front, neither Rawlinson nor Fayolle were able to put a halt to small-scale local actions. Joffre intervened with a letter to Haig on 18 October, claiming, “public opinion would find it hard to understand that this offensive... should slow down and stop.” He insisted therefore on a return to broad-front operations no later than 25 or 26 October on the Fourth Army front.\(^ {488}\) Joffre attempted to impose his will on the British high command, but this awkward attempt to “order” Haig drew a fierce assertion of British

\(^ {486}\) Quoted in ibid., p. 171.
\(^ {488}\) Joffre to Haig, 18 October 1916, *AFGG*, 4-3, annex 1094.
independence. The British commander-in-chief sent a stiff response, repudiating the implication that he had slackened his efforts and reminding Joffre that he alone was the judge of "what I can undertake and when I can undertake it."\(^{489}\) Whereas planning mechanisms resulted in a similar concept of operations, the absence of unity of command prevented adherence to the original concept, thus weakening coalition battlefield cohesion over the course of the campaign.

Second, the French and British armies on the Somme displayed greater but uneven coalition battlefield cohesion. At the start of the offensive, French and British troops had enough cohesion and resolve to mount an attack against determined German resistance. Despite heavy losses in the first day of the infantry assault, the British Fourth Army remained in the line for the next four-and-half months. Though the British suffered 57,470 casualties, including 19,240 dead, in the first day of the infantry attack— the single deadliest day in British military history—there was no talk of the British breaking off the offensive or withdrawing from the Allied line, as Sir John French had threatened in 1914.\(^{490}\) To the end, Haig never lost his enthusiasm for the fight. In a letter to the Cabinet on 9 October, Haig made clear his intention continue operations, possibly through the winter, contending that "our offensive must be continued without intermission as long as possible."\(^{491}\) For their part the French remained committed to fighting on the Somme in support of their ally. When Madame Foch asked her husband on 18 October whether the Somme campaign was to continue, he replied that so long as

\(^{489}\) Haig quoted in Greenhalgh, *Victory through Coalition*, p.68.
\(^{490}\) Hart, *The Somme: The Darkest Hour on the Western Front*, p. 11.
the British wished it, the French would conform to their intentions. The high commands maintained military cohesion, as neither ally left the other in the lurch.

Beyond the higher levels of command, however, allied corps and divisional commanders, those responsible for carrying out the attacks, found it more difficult to sustain the strong coalition battlefield cohesion so necessary for the success of the attack. After the first two weeks of operations, the cohesion of French and British troops fighting alongside each other slowly weakened and operational momentum was lost against the enemy. As German defenses regrouped and strengthened, French and British commanders alike grew more reluctant to attack, all the more so when the action had no other purpose than lending support to their ally. General Congreve, the commander of the British XIII Corps, adjoined with the French XX Corps, concluded the situation was “hopeless,” as one or the other ally pulled out or postponed attacks. In November, at Foch’s request, Haig ordered Rawlinson at Fourth Army to attack Transloy Ridge in support of a French attack towards Sailly-Saillisel, to begin on 5 November. Lord Caravan, the commander of the XIV Corps, ordered to attack the position, submitted a written protest. “I assert my readiness to sacrifice the British right rather than jeopardize the French… I feel bound to ask if this is the intention, for a sacrifice it must be. It does not appear that a failure would much assist the French, and there is a danger of this attack shaking the confidence of the men, and the officers in their commanders.” The unusually strong protest convinced Rawlinson and Haig, and so when Foch met with both

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on 4 November, the day before the infantry attack was due to start, Foch was “rather stuffy” and “came to words” with Haig about such a late abandonment of an agreed joint operation.\(^{495}\) The French attacked as planned on 5 November, leaving their left flank, which the British should have been covered by attacking Le Transloy woods, exposed to the many machine German machine guns nests hidden in the trees, and so the final joint action on the Somme lost all cohesion.\(^{496}\)

Finally, the French and British armies showed almost no capacity for coalition military responsiveness. After the initial allied infantry assault on 1 July, the German defenses, though not broken, had all but collapsed on a large section of front astride the Somme. In the first days, the Allies created a broad breach in the German line, with the French carrying the front forward through three lines of German defenses to within a mile of Péronne.\(^{497}\) The Allies now had the chance to exploit their initial success south of the river. The breach was on the section of the front where it had not been anticipated, however, so exploiting it would be a matter of improvisation. In other words, British lack of success north of the river, but relatively greater success further south on the French front, obliged a rapid rethink of the combined operation.

The Allied commanders met on 3 July to discuss future operational plans, but Joffre and Haig could not agree on how to follow up the success south of the river. Joffre insisted that the British resume the attack on the northern sector, that where they had failed so spectacularly, so the French could exploit their gains in the south. As long as the enemy held the high ground on the northern bank, the French could not press their

\(^{495}\) Rawlinson diary, 4 November 1916, quoted in Greenhalgh, *Foch in Command*, p. 186.
\(^{497}\) Philpott, *Three Armies on the Somme*, p. 203.
attack forward without exposing themselves to enfilading fire. Haig wanted to abandon
the failed northern sector, however, to exploit the greater success on his right and attack
towards Longueval. Joffre was furious, said he would not “approve” the change, and
“ordered” his British counterpart to attack in the British left and center. When Joffre had
finished, Haig asserted the independence of his command, telling Joffre, “I am solely
responsible to the British government for the action of the British Army; and I had
approved the plan, and must modify it to suit the changing situation as the fight
progresses.” 498

The French and British had a brief window of opportunity to take advantage of
their hard-won gains before the German defenses consolidated, but the lack of agreement
between Joffre and Haig about how to exploit the success robbed them of the chance to
push on rapidly, and in turn gave the enemy time to bring up reinforcements. 499 With no
mechanism in the command arrangements to reach agreements quickly, the fleeting
opportunity to exploit the breach in the German lines was lost.

*German Spring Offensive: Operation MICHAEL and Franco-British Defensive Operations, March 21-25 1918*

As Germany had not conducted an offensive in the west since 1916, the German
Spring Offensive of 1918, codenamed Operation MICHAEL, offers the first opportunity
to observe the French and British armies on the defensive, after they had put in place
mechanisms for political-military planning. Consistent with the predictions of the theory,
the French and British armies displayed “fair” or “mediocre” coalition military

499 The meeting was so heated that for some weeks thereafter Joffre had no contact with Haig, and left it to
Foch to coordinate the action of the French and British armies on the Somme. See Philpott, Three Armies
on the Somme, p. 211.
effectiveness. The allied armies were fairly well integrated in the field but weakly cohesive and minimally responsive.

Background

After three and a half years of war, all combatants were near the edge of exhaustion. The fighting of 1916 and 1917 had bled the German defenders as badly as it bled the French and British armies at Verdun the Somme, Arras and Aisne. To be sure the American entry into the war in April 1917 promised eventual relief of the Entente powers, but staggering losses among the armies of these powers threatened to end the conflict before the Americans could arrive in strength, which was still not expected until late in 1918. German military leaders were aware that time was running out for Germany to win the war. With the abdication of Tsar Nicholas II and the collapse of the Russian army in the winter of 1917-18, however, Germany gained a brief window of opportunity to knock the French and British armies out of the war before American resources and manpower tilted the balance. After Russia withdrew from the war late in 1917, Germany shifted most of its troops from the east to the west for one last war-winning offensive in the spring of 1918. At Mons on 11 November 1917, the German high command decided to play its “last card.” As General Erich Ludendorff, the Chief of the General Staff, said, if it failed, “Germany must either triumph or go under.” Germany’s strategic goal was to split the Allies apart—physically in the case, as well as politically—and compel them to sue for peace. It was a desperate gamble.

For much of the spring and summer of 1918, the German Army was on the

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offensive. Between March and July 1918, the Germans launched five major assaults against the Allied line. The first of the German drives, codenamed Operation MICHAEL, smashed into the British line, at the point of junction between the Allied armies along the Somme. The object was to “punch a hole” in the Allied line, separating the French and British armies, and then pivoting to the north to roll up the BEF against the sea. The Germans directed the main attack against the southern wing of the British line, on the grounds that the British were the comparatively weaker enemy, both in the size of its armies and the resolve of its government. Ludendorff had chosen better than he even intended in selecting the Somme as his principal assault front. At the start of the year, Haig had agreed to take over a portion of the French line precisely in the sector, extending the weakest of his four armies, and one that had suffered heavily in the Passchendaele offensive, across the Somme into the notoriously neglected French trench lines. By attacking in Picardy, around Saint-Quentin and towards the Somme, Germans sought to separate the French and British armies, intending to roll up each in turn.

The German spring attack was not unexpected, for it was the subject of much discussion and anticipation within the coalition throughout the winter of 1917-18. To

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501 Between March and July 1918, German launched five offensives on the Western Front: the first (codenamed ‘Michael’), from 21 March to 5 April; the Battle of Lys (‘Georgette’) from 9 to 29 April; the Battle of Chemin des Dames (‘Blücher-Yorck’) from 27 May to 4 June; the Battle of Matz (‘Gneisenau’) from 9 to 14 June; and an assault east and west of Reims (‘Marneschütz-Reims’ or ‘Fredenssturm’) from 15 to 17 July.

502 When asked to explain objectives for 1918 Offensive, Ludendorff famously remarked, “I object to the word ‘operation.’ We will punch a hole into [their line]. For the rest, we shall see.” Ludendorff quoted in Keegan, The First World War, p. 424.

503 Fredrich von der Schulenberg, the Chief of Staff to Crown Prince Wilhelm, favored an attack against the French, but Ludendorff remained unconvinced. In his opinion, the French army’s morale remained adequate for defensive operations, and it had both a larger strategic reserve than the BEF, whereas success against the BEF would it falling back on the Channel ports, likely knocking the British out of the war. Stevenson, With Our Backs to the Wall: Victory and Defeat in 1918, pp. 38-39.

meet the German onslaught in the west, the Allies coordinated plans for mutual assistance. As neither Haig nor Petain could predict exactly where or when initial German blow would fall, they agreed to a detailed scheme to meet all contingencies. The plan was for the British to extend their right to relieve the French Third Army, so the latter could move into reserve. If the main German thrust fell on Gough’s Fifth Army, the Third Army would be reconstituted and intervene either by relieving a portion the British right or placing French units under Haig’s command. Alternative, Third Army could concentrate behind the British line, in anticipation of mounting a counterattack. All the transport and supply arrangements were settled for French troops to concentrate in one of three possible sectors—west of Arras, around Amiens, and near Montdidier-Noyon—before intervening in the British sector. Accordingly, Pétain moved some of his reserves to the Oise region, near the boundary between the French and British forces, so they could intervene quickly and in time should the British sector come under attack. The allied staffs worked out a similar scheme whereby the British would concentrate south of Soissons in order relieve Sixth Army or mount a counteroffensive in event of a German attack on the French front. The French anticipated sending as many as twenty divisions to support the British sector, while the British committed to sending as many as eight divisions to aid the French sector. 505 With only eight divisions in his reserve, Haig disposed his forces so as to move quickly to a threatened sector, placing two divisions behind each British army. 506 Both commanders-in-chief thought these plans for mutual support would suffice to counter the anticipated German offensive.

Balance of Forces

Following the collapse of the Russian armies, Germany transported some forty-four divisions from the east to the west, giving it a temporary numerical advantage in the west. By March 1918, Germany had massed a total of 191 divisions against a total of 175 Allied divisions, including some ninety-nine French divisions, grouped into three army groups, and fifty-eight British divisions, organized into four armies.\textsuperscript{507} The Germans had more divisions than the Allies, but because the numerical strength of those units was lower, the total number of men was roughly equivalent.\textsuperscript{508} At the point of attack in Picardy, however, the French and British enjoyed a local superiority of men and artillery (Table 5-4). Deploying a total of sixty-seven divisions to the attack, the Germans designated forty-seven of them as special attack divisions, of which twenty-one would make the initial assault.\textsuperscript{509} Opposite them were the British Third and Fifth Armies had a total of twenty-six infantry and three cavalry divisions. The Fifth Army was thinly held, with just five divisions facing the German Second Army, and seven divisions to hold the line against the German Eighteenth Army.\textsuperscript{510} The Germans also brought to the battle an impressive array of artillery power, including 6,609 guns and 3,534 trench mortars, to which the British deployed 2,686 guns and about 1,400 trench mortars.\textsuperscript{511}

\textsuperscript{507} The Americans had seven divisions in France by March 1918, but only one was ready for combat. Zabecki, \textit{The German 1918 Offensives: A Case Study in the Operational Level of War}, p. 91.
\textsuperscript{508} The Allies outnumbered the Germans with 4,500 to 3,675 aircraft of all types and possessed some 800 tanks and more than 100,000 lorries, while the Germans had a few dozen tanks and some 30,000 trucks. Ibid., pp. 82-91.
\textsuperscript{509} The German high command distinguished between special “attack” units and “trench” units. The former were better trained and better equipped to mount offensive operations, the most elite of which were stormtroopers. In contrast, trench divisions were less mobile and armed with heavier weapons to hold ground. See Bruce I. Gudmundsson, \textit{Stormtroop tactics: Innovation in the German Army, 1914-1918} (Westport, CT: Praeger, 1989).
\textsuperscript{510} Martin Middlebrook, \textit{The Kaiser's Battle} (Barnsley, UK: Pen and Sword, 2007), p. 71.
\textsuperscript{511} Zabecki, \textit{The German 1918 Offensives: A Case Study in the Operational Level of War}, pp. 135-138; Prior and Wilson, \textit{The Somme}, p. 69.
These dispositions favored the Germans more than the Allies, but the margin of superiority was much less than previous Allied offensives against Germans in the worst failures of the past three years.\textsuperscript{512}

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|}
\hline
 & Divisions & Total Artillery (Heavy Guns) \\
\hline
\textbf{Germany} & & \\
\textit{Seventeenth Army} & 17 Attack/4 Trench & 2,234 (802) \\
\textit{Second Army} & 12 Attack/7 Trench & 1,741 (704) \\
\textit{Eighteenth Army} & 21 Attack/6 Trench & 2,623 (1,028) \\
\textbf{Total} & 50 Attack/17 Trench & 6,608 guns (2,533 heavy) \\
\hline
\textbf{British} & & \\
\textit{Third Army} & 14 Infantry & 1,120 (461) \\
\textit{Fifth Army} & 12 Infantry/3 Cavalry & 1,566 (515) \\
\textbf{Total} & 26 Infantry; 3 Cavalry & 2,686 guns (976 heavy) \\
\hline
\end{tabular}
\caption{Balance of Force in the MICHAEL Sector, 21 March 1918\textsuperscript{513}}
\end{table}

German MICHAEL Offensive and Franco-British Defensive Operations

The German MICHAEL Offensive opened on 21 March with a five-hour artillery bombardment, the Germans firing 1,600,000 shells into the defensive positions of the British Fifth and Third Armies. At 9.40 am, German infantry emerged from its trenches, passing into No Man’s Land behind a low-lying fog thickened with the use of gas, chlorine and phosgene, and lachrymatory shell.\textsuperscript{514} The plan was for the German Seventeenth and Second Armies to attack south of Arras, advancing towards Péronne and Bapaume and across the old Somme battlefield before swinging northwest in a great left

\textsuperscript{512} Basil H Liddell Hart, \textit{Foch: The Man of Orleans} (London: Eyre & Spottiswoode, 1931), Chapter XVI.
\textsuperscript{513} Zabecki, \textit{The German 1918 Offensives: A Case Study in the Operational Level of War}, pp. 134-136; Prior and Wilson, \textit{The Somme}, p.69.
hook to roll up the BEF and drive it back against the sea, enveloping Arras in the process. On their left, the German Eighteenth Army was to advance across the River Somme and the Crozat Canal to protect the flank of the offensive, separating the British from French and holding back any French reinforcements.\textsuperscript{515} German tactical success on the first day was impressive: only an hour after German infantry had left their trenches, almost all the British Fifth Army’s first line of defenses, twelve miles wide, had been overrun. By nightfall, the German Eighteenth Army had pushed forward about eight miles, within reach of the river.\textsuperscript{516}

The worst days of the German offensive for Allies were still to come, however, as the danger grew of a separation between French and British armies. With the Eighteenth Army advancing rapidly, Ludendorff opted to reinforce success.\textsuperscript{517} Instead of trying to break through and then push northwest to roll up the British line around Arras as planned, he shifted his main effort to the south. He strengthened the Eighteenth Army and shifted the axis of advance to the southwest—a ninety-degree change in direction—towards Amiens. The German objective was now to sever the connection between the French and British armies, which meant a drive against the French as well as the British. To this end the Seventeenth Army was now to turn northwest towards St Pol, and the Second Army was to advance westwards towards Amiens, pushing back the British, while the Eighteenth Army, crossing the Somme, was to attack the French in a southwesterly

\textsuperscript{515} Simkins, From the Somme to Victory: The British Army's Experience on the Western Front 1916-1918, p. 124.
\textsuperscript{517} In two day’s fighting, Below’s troops had opened a gap in the center of Third Army’s line and advanced about six miles. On the evening of 22 March, however, the British counterattacked with twenty-five tanks. Though the British lost sixteen of the tanks, they had plugged the gap in their line, at least for the time being. See Randal Gray, Kaiserschlacht 1918: The Final German Offensive (London: Osprey, 1991), p. 45.
direction. All along the Somme, French and British rearguards tried to hold back the Germans long enough for their comrades to retreat over the bridges. The Allied line fell apart, as commanders looked to their lines of retreat: the British fell back northwards to guard the Channel ports, while the French withdrew southwards to cover Paris. In two days of fighting, the Germans had made a forty-mile breach in the Allied line. Open field lay ahead. The Allies were close to defeat.

Assessing Franco-British Coalition Military Effectiveness during the German MICHAEL Offensive

Fighting on the defensive in the spring of 1918, the French and British armies demonstrated mediocre coalition military effectiveness on the Somme. Allied troops displayed fairly good coalition battlefield integration, particularly in comparison with the performance earlier in the war, but they still showed poor coalition battlefield cohesion and responsiveness. First, the French and British armies were fairly well integrated in the field, as both armies assumed defensive military postures and fought to hold their ground. Importantly, the alignment of French and British operational intentions stemmed from the adoption of institutional mechanisms for common political-military planning, namely the establishment of the Supreme War Council. As a forum for airing of plans, the SWC brought to the fore differences in strategy between the French and British high commands. After the collapse of the Russian front, allied political and military leaders debated at length whether to wait for the enemy attack or launch a preemptive strike. Though Haig’s views eventually changed, in the autumn of 1917 he favored an offensive

519 Doughty, Pyrrhic Victory, pp. 434-437; Stevenson, With Our Backs to the Wall, p. 56.
520 Philpott, Anglo-French Relations and Strategy on the Western Front, 1914-1918, pp. 151-152.
strategy for 1918 while Pétain favored a defensive strategy. The British commander-in-
chief had argued that the best way to counter any increase in German strength in the west
was to adopt his preferred strategy of resuming the Flanders offensive. It would be
“unsound” to leave the initiative to the enemy, for only the “vigorous prosecution of the
offensive” could bring about final victory, perhaps even before the end of the year. In
contrast, Pétain proposed a strictly defensive strategy until the arrival of American troops
in strength. “The Entente will not recover numerical superiority until the Americans
enter the line in force,” he cautioned, “Until then, unless we wish to use up our forces
irretrievably, we must assume a waiting attitude, with the express purpose of taking the
offensive as soon as we can.” With Haig and Pétain advancing fundamentally different
strategic concepts, the question was referred to the SWC for decision. With the
Permanent Military Representatives recommending defensive strategy to the Supreme
War Council, Haig finally abandoned his plans for an offensive. After a long debate,
the Supreme War Council brought a common defensive posture in the West.

The allied crisis in the spring of 1918 resulted not so much from fighting at cross
purposes as much as a lack of coalition battlefield cohesion and responsiveness. During
the first days of the fighting, the French and British maintained the cohesion of the allied
armies in the field, but thereafter coalition battlefield cohesion broke down. Initial
German successes on 21 and 22 March compelled the British to ask for all available
assistance from the French. Shortly after midnight on that first day, Haig invoked the

521 Haig quoted in Greenhalgh, The French Army and the First World War, p. 268. See also George H
Cassar, Lloyd George at War, 1916-1918 (London: Anthem Press, 2009), pp. 120-126; French, The
523 Permanent Military Representatives, Joint Note No. 12: 1918 Campaign, 21 January 1918 in French,
The Strategy of the Lloyd George Coalition, 1916-1918, pp. 169-172. See also Philpott, Anglo-French
agreed provisions for mutual support, sending word to Pétain. The French commander-in-chief honored these arrangements, promptly ordering six divisions of the Third Army to move to the north. By the following afternoon, three French divisions had arrived in the British sector and one of them was already engaged in the fighting in support of Gough's hard-pressed army. Early on the 23rd, Haig asked the French to take over the British line up to Péronne, an extension of the front some twelve miles beyond what had been envisioned in their cooperation agreement. Pétain nevertheless agreed without hesitation to take over a much longer sector of the front, it being understood that the remnants of the British Fifth Army and the French Third and First Armies would come under the command of General Marie-Emile Fayolle's Reserve Army Group. By the evening of the 23rd Pétain had sent nine infantry and five cavalry divisions to Haig and had set in motion twenty-one of his forty reserve divisions, rushing them into action. Down to the 24th Pétain displayed no inclination to leave the British in the lurch.

The crisis point came the following day, when these reinforcements turned out to be insufficient to check the enemy's progress. As the British continued to fall back, Haig's appeals became more pressing. On the afternoon of the 23rd, when he asked for twenty more French divisions to cover Amiens, Pétain refused to send yet further units. The French were taken in by a German deception campaign using false wireless signals to create a phantom army on the French front, and feared a possible enemy attack in Champagne. On 24 March, when both commanders realized that the Germans had

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525 French intelligence had numerous indications of an impending attack near Champagne, where the Germans bombarded the line every night, and Germans prisoners suggested an attack was set for 26 March. The French were misled by a German deception campaign, which used wireless signals to create a phantom army on the French front. See David French, "Failures of Intelligence: Retreat to the Hindenburg Line and
succeeded in driving apart the French and British armies, each decided to place national objectives above the preservation of coalition military cohesion. Pétain ordered French units at Montdidier to fall back southwestwards towards Paris, instructing his commanders to “above all maintain the cohesion of the body of the French armies; in particular do not let the GAR [Fayolle’s reserve army group] be cut off from the rest of our force. *Then, if possible, conserve liaison with the British forces.*” In Pétain’s view, he had stretched out his left hand to the British but their commander “refused the hand I was holding out to him.” His priority was now to cover Paris, even if it meant sacrificing his ally.

Haig, who feared the French were about to abandon him, acted to cover his line of communications with Great Britain, ordering the Third Army to fight its way back towards the Channel ports instead of maintaining contact with Gough’s Fifth Army, and the French to the south. At this moment of supreme crisis, neither Pétain nor Haig was willing to sacrifice his own national interests to maintain coalition battlefield cohesion. Lloyd George came to such a conclusion, arguing the problem was that “each general was interested mainly in his own front.” As no command mechanism existed to compel them to keep in contact, coalition battlefield cohesion was poor.

Finally, the French and British armies displayed almost no capacity for coalition

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528 After the war Haig claimed Clemenceau had ordered Pétain to “cover Paris at all costs,” but the historical record disputes this claim. See Doughty, *Pyrrhic Victory*, pp. 435-437; Greenhalgh, *Victory through Coalition*, p. 274.


battlefield responsiveness. Once Franco-British arrangements mutual assistance failed to halt the German advance, it was crucial for the Allies to adapt and improvise an effective response. But existing coalition military institutions proved unequal to the task. Beyond the continued piecemeal commitment of French units to the battle line in response to increasingly urgent British pleas for assistance, the two allied commanders-in-chief operated without a plan of campaign. With each commander-in-chief concerned primarily with his own narrow sector of the front, no mechanism existed to shift priorities and strategy in response to the unfolding battlefield. “Someone must catch hold or we shall be beaten,” Foch warned.\textsuperscript{531} In a Memorandum for the Supreme War Council in January 1918, he had argued, “There needed to a high organ of command… to take rapid decisions and get them carried out without any loss of time.”\textsuperscript{532} Recognizing the failure of their armies to respond effectively to the German assault, French and British leaders met at Doullens on 26 March to plot a course of action. They agreed that the “best solution” was to place Foch in a position to coordinate the allied response, appointing him as the allied supreme commander.\textsuperscript{533} By the end of the month Foch’s energetic coordination had succeeded in patching up the holes in the front where and when they appeared, contributing to the enemy’s decision to put a halt to offensive operations on 5 April.\textsuperscript{534}

\textsuperscript{531} Foch quoted in Greenhalgh, \textit{Foch in Command}, p. 299.
\textsuperscript{533} Wilson diary, 25 March 1918, quoted in Greenhalgh, \textit{Foch in Command}, p. 305.
\textsuperscript{534} Greenhalgh, \textit{The French Army and the First World War}, p. 277.
This section shows that in the final year of the war the French and British put in place institutional mechanisms for command relations. With the appointment General Foch as supreme allied commander on the Western Front, the Allies finally had unity of command. After four years of war the Allies had found institutional solutions for coalition military planning and command relationships, though the institutional machinery information sharing remained inchoate. In the six months of the war, Franco-British coalition military institutionalization thus achieved intermediate levels, which should have generated good coalition military effectiveness.

Political-Military Planning

The Allies had the machinery for political-military planning in place. While the Supreme War Council formulated high policy and concerted plans for the 1919 campaign, much of the operational and tactical planning occurred under the direction of General Foch, the newly appointed supreme allied commander, and his staff. The French and British relied on a system of regular conferences and personal meetings to work out operational strategy and battle plans. In a seminal conference on 24 July, Foch met with the national commanders-in-chief at his headquarters to plan a series of counterattacks against the enemy. In a memorandum read aloud to Haig, Pétain, and Pershing as well as their respective chiefs of staff, Foch proposed attacks “executed with such rapidity as to inflict on the enemy a succession of blows.” The first of these attacks would take place around Amiens, where General Sir Henry Rawlison’s Fourth Army held the front.

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535 Foch Memorandum, 24 July 1918, AFGG, 7-1: annex 276.
alongside General Eugène Debeney’s Army. All expressed general agreement with Foch’s scheme, and Foch and Haig agreed that Rawlinson and Debeney should meet the next day to coordinate their plans. Foch provided the strategic approach, but allied military strategy was not purely a French prerogative. Rawlinson’s plans for an attack in the Amiens sector had been in the works for some time since the German attack in March. Much of the detailed planning for the Amiens operation was therefore Rawlinson’s own. Foch had the strategic idea but Rawlinson it into action on the Somme. The final plan was an amalgamation of French and British military concepts, only possible because of their machinery for planning.

Command Relationships

In the last months of the war the Allies fought with unity of command. Following a hastily convened gathering of the politicians and generals at the town of Doullens, on 26 March 1918, the French and British agreed to place Foch in position to coordinate the action of the Allied armies on the Western Front. He was the obvious choice for the role, as Lord Milner, the British Sectary for War, suggested, “whatever might be his other merits and demerits as a soldier, Foch possessed in a quite exceptional degree promptitude, energy and resources necessary.” To this point, with a small staff of French officers, and a quickly organized British liaison mission, he set to work immediately visiting all the commanders and translating his ideas into action. As mere coordinator, however, his authority was imprecise and weak. His position was nothing like that of General Eisenhower as Supreme Commander of the Allied Armies in Western

537 Lord Milner quoted in Greenhalgh, Foch in Command, p. 305.
538 Greenhalgh, Victory through Coalition, p. 198.
Europe, who possessed a large and integrated general staff, during the Second World War.  

Not surprisingly, Foch sought to have his powers increased to allow him to “direct operations,” to issue “directives” and to ensure that they were carried out.  

A fortnight later, at a conference of allied leaders at Beauvais, Foch had his remit changed to include “strategic direction of military operations” and conferred upon him the “all the powers necessary for its effective realization.” While Foch would take charge of planning and give overall strategic direction, the national commanders retained tactical direction, as well as the right of appeal to their respective government if they believed that Foch’s orders would endanger their army. The final adjustment to the command relationship came over the settlement of Foch’s title, when, on 14 April, Paris and London agreed to the “Général en chef des armées allies.” More than a mere formality, the new title gave Foch something from which to sign of orders, as well as a place in the allied command hierarchy. On these new command arrangements, Sir Henry Rawlinson acknowledged begrudgingly, “Foch is now generalissimo and we must therefore obey his orders.” In the exercise of his supreme command, however, Foch appreciated better than anyone else that his power to command derived more from

539 Foch small command staff of less than a brigade was entirely French, with the exception of the allied liaison officers. Unlike Eisenhower, he never had a multi-national staff, with the shared work of intelligence, planning and operational direction. On this point, see Kennedy, "Military Coalitions and Coalition Warfare over the Past Century," p. 14.

540 Greenhalgh, Victory through Coalition, pp. 198-199.


542 Telegram, Lloyd George to Clemenceau, 12 April 1918 and Telegram, Clemenceau to Foch, 14 April 1918, quoted in Greenhalgh, Victory through Coalition, p. 202.

543 On this point, see Greenhalgh, Foch in Command, pp. 316-318.

544 Rawlinson diary entry, 10 April 1918, quoted in Simkins, From the Somme to Victory, p. 136.
persuasion than any formal authority to issue orders. He liked his command to that of the “leader of an orchestra,” explaining, “Here are the English basses, here the American baritones, and there the French tenors. When I raise my baton, every man must play or else he must not come to my concert.” After nearly four years of war, however imperfectly, the French and British armies had finally found the institutions for unity of command.

**Information Exchange**

By the end of the war, the French and British had established some machinery for intelligence sharing, but it was never more than a rudimentary system. Allied intelligence conferences occurred periodically over the final year of the war to give the allied intelligence chiefs a mechanism for sharing information and establishing a common understanding of enemy intentions. In addition, the French and British exchanged liaison officers between neighboring army group headquarters to facilitate the exchange of information. But much of the collection, analysis and dissemination of this information remained compartmentalized along national lines, subject to restrictions on secrecy. After serving as a liaison officer for nearly four years, Spears found his access to sources of French documents and information carefully regulated at Foch’s headquarters. The latter suspected Spears had gotten hold of documents that he ought not to see and thereafter placed limits on his access to sources of information. Spears responded indignantly, even threatening to complain to French political leaders if his

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547 Finnegan, *Shooting the Front*, p. 37; Beach, *Haig’s Intelligence*, p. 136.
548 Beach, *Haig’s Intelligence*, p. 34.
“sources of information were not at once made available again.”

Relations became so strained by the last weeks of the war that Clemenceau attempted to have him recalled, but the British refused to bend to French demands. The episode demonstrates the profound tendencies towards secrecy and concealment between the French and British high commands, even at this late stage in the war. The requirements of wartime cooperation thus never translated into a real candor or openness in the relationship between the two armies or their respective commanders.

SUMMARY OF COALITION MILITARY INSTITUTIONS AND THEORY PREDICTIONS, FROM APRIL 1918

The preceding section showed that Franco-British coalition military institutionalization changed from “low” to “intermediate” at the end of March 1918, when the French and British adopted unity of command. The combination of the Supreme War Council and a “generalissimo, in the person of Foch, should have brought about observably better coalition battlefield integration and cohesion, as well as some limited capacity for coalition battlefield responsiveness, particularly when compared with their performance earlier in the war. According to realist-institutionalist theory, Franco-British coalition military effectiveness should have reached its zenith after April 1918. The next section examines two coalition battles fought in Flanders and on the Somme after April 1918, so as to assess the validity of these predictions.

Predictions of Realist Institutional Explanation

- From April 1918 onwards, the Franco-British military coalition military effectiveness should have improved, achieving its highest levels of the war. Coalition forces should have been consistently integrated and cohesive, and capable of at least some responsiveness in the field, particularly in comparison with the performance earlier in the war.

Disconfirming Evidence:
- The Franco-British coalition failed to demonstrate coalition military integration and cohesion after April 1918, still fighting poorly, even though coalition military institutions were put in place.

EFFECTS OF MINIMAL COALITION MILITARY INSTITUTIONALIZATION ON FRANCO-BRITISH COALITION MILITARY PERFORMANCE, APRIL-NOVEMBER 1918

This section examines two major campaigns—Operation GEORGETTE (April-May 1918) and the counteroffensive at Amiens-Montdidier (August 1918)—when Franco-British coalition military institutionalization was intermediate, and the allied armies therefore should have exhibited “good” coalition military effectiveness. The battlefield evidence for both campaigns is largely consistent with these predictions, as the allied armies displayed better coalition battlefield integration and cohesion even if little coalition battlefield responsiveness. Importantly, these gains in coalition military effectiveness were directly attributable to the adoption of coalition military institutions, particularly unity of command.

German Spring Offensive: Operation GEORGETTE and Franco-British Defensive Operations, April-May 1918

On 9 April the Germans resumed the offensive against the British front, this time further north in Flanders. Given the numerous similarities and short period of time
between this attack and the MICHAEL Offensive, the GEORGETTE Offensive—more commonly known as the Battle of Lys to the British, and the Third Battle of Flanders to the French—offers a useful opportunity to observe what effect, if any, the adoption of allied unity of command had on coalition military effectiveness. As the evidence of the battle shows, the French and British displayed good coalition military effectiveness, with observably better coalition battlefield integration and cohesion, even if responsiveness remained more limited.

Background

Despite the failure of the MICHAEL Offensive, Ludendorff resolved to try again, striking the British front further north in Flanders. In this second offensive, the German objective was to capture the Channel coast behind Ypres, which lay only sixty miles beyond the point of assault. With British reserves drawn southwards to halt the March offensive, the Germans expected to have an easier time of it. But the front before Ypres, on whose defenses the British had labored since October 1914, was perhaps stronger than any other part of the front, and the British defenders knew the terrain well.\textsuperscript{550} Undeterred, Ludendorff hoped a second attack, this time against the British left of the Allied line, would break the British army and drive it into the sea, or at least weaken it sufficiently to allow him to shift back to the south to deliver a final knockout blow to the French. According to the plan, the German Fourth and Sixth Armies were to attack the British line just south of Ypres on both sides of the east-west running river Lys River and then drive towards the Channel ports. Still reeling from the German attack in March, the French and British had little time to prepare themselves to meet a fresh enemy attack.

\textsuperscript{550} Keegan, \textit{The First World War}, p. 405.
Though the Germans had lost the element of strategic surprise, the precise timing and place of the next attack was an open question.\(^{551}\)

The Balance of Forces

The Germans massed for Operation GEORGETTE a total of fifty-two divisions, including eleven divisions that had participation in the fighting on the Somme.\(^{552}\) The German Sixth Army was to lead the main attack with forty-four divisions and supported with eight divisions from the German Fourth Army. In contrast to MICHAEL, however, the majority of these divisions were trench divisions with their more limited mobility, rather than attack divisions. On the other hand, the German Sixth Army had the support of some 30 tanks. The two attacking German armies together had 2,210 guns, of which almost half were heavy caliber. Opposing them were the British First Army, disposed from the Lys River north to the sea, and the British Second Army, holding the front south of the Lys to the canal of La Bassée. The British had a total of twelve divisions—including one Portuguese division—and 511 guns. Nearly half of the British divisions had seen action on the Somme. The British First Army was spread especially thin, each division pressed to cover about four miles of front.\(^{553}\) The Germans thus started the offensive with impressive advantages in both men and guns, outnumbering enemy soldiers in a ratio of nearly five to one and enemy artillery in a ratio of three to one (Table 5-5).

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\(^{551}\) On the intelligence debate, see French, "Failures of Intelligence the Retreat to the Hindenburg Line and the March 1918 Offensive," pp. 82-94; Beach, Haig's Intelligence, pp. 273-302.


\(^{553}\) Zabecki, The German 1918 Offensives: A Case Study in the Operational Level of War, p. 186; Stevenson, With Our Backs to the Wall, p. 228.
Table 5-5: Balance of Force in the GEORGETTE Sector, 9 and 10 April 1918

<table>
<thead>
<tr>
<th></th>
<th>Divisions</th>
<th>Total Artillery (Heavy Guns)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Germany</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Army</td>
<td>3 Attack/5 Trench</td>
<td>571 (253)</td>
</tr>
<tr>
<td>Sixth Army</td>
<td>21 Attack/23 Trench</td>
<td>1,686 (765)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24 Attack/28 Trench</td>
<td>2,210 guns (971 heavy)</td>
</tr>
<tr>
<td><strong>British</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Army</td>
<td>5 Infantry; 1 Reserve</td>
<td>—</td>
</tr>
<tr>
<td>First Army</td>
<td>4 Infantry; 2 Reserve</td>
<td>511 (200)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12 Infantry</td>
<td>511 guns (200 heavy)</td>
</tr>
</tbody>
</table>

German GEORGETTE Offensive and Franco-British Defensive Operations

The German attack opened on 9 April after a heavy bombardment of gas shells, with the German Sixth Army attacking the weakest part of the British front in Flanders, where a single Portuguese division held six miles of the Allied line. The Sixth Army attacked the British First Army along the heights of the Flanders hills, sweeping across the River Lys and driving towards the important railway junction of Hazebrouck, behind which lay the ports of Calais and Dunkirk. The Germans quickly infiltrated British positions and made large gains against the Portuguese, whom fled to the rear and failed to blow up the bridges behind them. By evening, German infantrymen had advanced six miles and established bridgeheads across the Lys. The next day, 10 April, the German Fourth Army joined the attack to the north, mounting a secondary assault against the British Second Army in the Ypres Salient. The Fourth Army succeeded in capturing the

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555 Portugal entered the war in 1916 as a way to gained allied sympathies for the survival of its African empire, sending an expeditionary force to fight as part of the British line on the Western Front. Sir Henry Horne, the commander of the British First Army, had warned that the Portuguese—poorly led and suffering from poor morale—were unfit to meet an attack, but Haig kept them in the line. British manpower shortages made it difficult to replace them. See Stevenson, *With Our Backs to the Wall*, p. 70.
Ploegsteert Wood and the higher ground towards Messines Ridge, while the Sixth Army pushed forward to take Estaires and cross the river. The Germans now threatened Armentières on both sides, forcing the British to evacuate so as to avoid encirclement.\footnote{Zabecki, \textit{The German 1918 Offensives: A Case Study in the Operational Level of War}, pp. 180-181.} By the evening of 12 April the Germans had captured some 11,000 prisoners and 146 guns and were within six miles of Hazebrouck.\footnote{Stevenson, \textit{With Our Backs to the Wall}, p. 72.}

But the Germans were to be disappointed—they gained ground but could not broken through. The British fought hard to keep possession of the railway center, just as French reinforcements arrived to close the gap that had opened between the two British armies. Having failed to take Hazebrouck, Ludendorff shifted his operational focus to the capture of Mount Kemmel, rising some 300-350 feet above the Flanders plain. If the Germans could take hold of its commanding heights, they might just force the British to abandon the Ypres Salient if not all of Flanders.\footnote{Ibid., p. 76.} After a lull between 19 and 24 April, the Germans therefore renewed their efforts against Kemmel, which the French had just taken over from the British. The Germans Alpine Corps overran the French positions and were on the summit of Mount Kemmel in short order. A four-mile gap opened in the Allied line, but once again the Germans failed to achieve the desired break through to the coast. The Allies organized a scratch defense, sending in French and British reserves to close the gap. The Germans launched their final \textit{Georgette} effort on 29 April suspended operations after meeting with heavy allied resistance.\footnote{Ibid., \textit{The German 1918 Offensives: A Case Study in the Operational Level of War}, pp. 197-198.} The Allies had thwarted Ludendorff's schemes for the second time.
Assessing Franco-British Coalition Military Effectiveness during the German GEORGETTE Offensive

During the Flanders defense, Franco-British coalition military effectiveness was relatively good. In parrying the German attacks, the French and British demonstrated fairly good coalition battlefield integration and cohesion, as well as some emerging capacity for coalition battlefield responsiveness. Importantly, this enhancement in coalition fighting performance was directly attributable to the adoption of coalition military institutions for military planning and unity of command. First, the movements and actions of the French and British armies were fairly well integrated in the field. The primordial imperative for the Allies was to “maintain the integrity of the front,” keeping the two national armies in contact, lest they risk being defeated in detail. Even with the Germans threatening the safety of the Channel ports, the integrity of the line took precedence. Foch refused to permit the British to fall back on the Channel ports but sent French reinforcements to sustain them. His task was to make sure Pétain in the south and Haig in the north “held, sustained, and maintained.”

Though Haig became “desperately anxious” as this second German offensive fell against the British lines and spoke “two or three times” of making peace, Foch refused to countenance any withdrawal and was parsimonious with reserves, sending to the north only what was absolutely necessary to keep the Germans from breaking through. As the allied supreme commander, he had to consider the allied position on the Western Front as a whole, including continued threat to Amiens and fears of an attack round Arras, all of which argued for holding back some reserves from Flanders. Foch was parsimonious in

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561 Ducane report to CIGS, 16 April 1918, quoted in Greenhalgh, Foch in Command, p. 320.
562 Foch quoted in ibid., p. 319.
his use of reserves but his decisions had strategic logic, aimed at maintaining a 
continuous front.

Second, the French and British armies fought with good coalition battlefield 
cohesion. The French moved reinforcements to the north and took over sections of the 
British line in Flanders. Even as Haig issued his famous “backs to the wall” order, 
French troops moved north to assist the British and take part in the fighting. Even before 
receiving Haig’s request for support, Foch ordered Pétain on 7 April to place four 
infantry and three cavalry divisions in the British zone west of Amiens, well placed to 
intervene on either the British or French front. Three days later, he sent the Fifth and 
Tenth armies north of the Somme and formed the Army Detachment of the North, with 
four of its divisions sent immediately to the frontlines to defend Mount Kemmel, north of 
Hazebrouck.563 Despite Haig’s view that Foch was being “most selfish and obstinate,” 
asserting Foch was afraid to push French divisions in the line because they would not 
fight, the new allied supreme commander took several further steps on 12 April to 
support the British, including placing French divisions under the orders of a British 
general.564 By 1 May twenty-nine French reserve infantry divisions were north of the 
River Oise while only sixteen were left to cover Paris and the east between Oise and 
Switzerland. Foch eventually ran considerable risks to support the British, which even the 
enemy acknowledged in now referring to Flanders as an “Entente Front.”565

Importantly, the capacity of the French and British armies to maintain coalition 
battlefield cohesion was directly attributable to the establishment of allied unity of 
command. Indeed, in the absence of Foch’s appointment as allied supreme commander,

563 Greenhalgh, Victory through Coalition, p. 206; Doughty, Pyrrhic Victory, pp. 433-434. 
564 Greenhalgh, Victory through Coalition, pp. 208-209. 
565 Stevenson, With Our Backs to the Wall, p. 77.
it seems doubtful that Pétain would have responded with the same vigor to Haig’s pleas for assistance. Despite the threat to the Channel ports, Pétain objected forcefully to having his divisions sent north to Flanders. He wrote to Foch in protest, reminding the supreme allied commander that he had made available forty-seven divisions to support the British front over the last month, despite the risk of enemy attacks against his own front. In receiving Foch’s order to send still more troops, he “wanted to be sure that the British Army and Empire, like the French army and France, had made up their minds to make the maximum effort.”566 Pétain’s wariness betrayed a traditional mistrust of Britain; his chief of staff thought the British should be “left to stew in their own juices.”567 As the French commander-in-chief, Pétain thought only of the threat to his own front. Similarly, Haig could only appreciate the danger to the British sector, always pleading for still more French troops to come north in support. Given Haig complained that the French had done too little, and insisted the French had done too much, it argues for Foch having got it about right. As Clive commented, “Thank goodness we have got a central authority to fight the battle as a whole.”568 Certainly the Germans thought the Allies displayed impressive coalition battlefield cohesion. Hindenburg later commented that “Twice had England been saved by France at a moment of extreme crisis.”569

Finally, the Franco-British coalition demonstrated improved battlefield responsiveness. Even as Foch shifted French reserves towards the north, he positioned them for more than one course of action. Allied Intelligence estimated that there were 202 German divisions on the Western front, the whereabouts of which only 18 divisions

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566 Pétain to Foch, 24 April 1918, AFGG, 6-1: annex 1906.
567 Quoted in Greenhalgh, Victory through Coalition, p. 212.
568 Clive diary entry for 18 April 1918, quoted in ibid.
were known. In responding to the German offensive, Foch had the whole front to consider, and it was not yet known or understood whether the Germans would mount an offensive against the French sector. By the end of April he was down to sixteen reserves, of which only seven were fresh, to cover the entire remaining front from Oise to Switzerland. Foch’s intention was to hold onto enough reserves to maintain the integrity of the battle line at the junction of the French and British armies, where the Germans might still resume their attack in force. As the allied supreme commander, he attempted to retain a balance between offering the minimum support necessary to sustain the British in Flanders, so as to retain fresh troops in reserve, and preserving his options on other fronts.

*Hundred Days Offensive: The Battle of Amiens-Montdidier, August 1918*

By the end of August the defensive battle had been won. The French and British armies had withstood the repeated hammer blows of the German spring offensives and now launched the first of the allied counteroffensives that over the summer and autumn would force the Germans to fall back to the Siegfried Line, close to the borders, before concluding a general armistice. Starting with the Battle of Amiens-Montdidier on 8 August, the Allies achieved a rapid succession of victories in the last Hundred Days. In this final campaign of the war, French and British forces displayed good coalition battlefield integration and cohesion, as well as some capacity for responding to battlefield events, particularly when compared with their performance earlier in the war. The battlefield evidence thus confirms the predictions of realist-institutionalist theory.

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570 Greenhalgh, *Victory through Coalition*, p. 207.
Background

Although it had been a close-run thing, the French and British had resisted five successive German offensives in the spring of 1918 and now prepared to pass to the offense. With German offensive potential now exhausted, its armies holding a much longer front and exposed in a weaker defensive position, Foch saw a chance to strike back. The Allies “had arrived at the turning point of the road” and must take to the offensive, even if decisive action would not come until at least 1919, following the arrival of more American forces. As part of that allied offensive strategy, Foch proposed mounting a succession of limited offensives to secure railway lines between Paris and eastern France and, in turn, open the way for the general allied offensive in the coming year. In the first instance, the French and British armies would launch a counterattack to free the main railway line from Amiens to Paris from enemy bombardment. The proposed operation became the Battle of Amiens of 8-12 August.

The allied plan of attack was simple: the Franco-British armies would converge—with the British Fourth Army attacking from the northwest and the French First Army striking from the southwest—to pinch out the salient and push the enemy back across the Somme, thereby freeing the main Paris-Amiens railway. The spearhead of the assault force was the Australian and Canadian Corps, both of which were respected by friend and foe alike as highly skilled and battle-experienced “shock” troops, but which were still relatively fresh, having escaped the brunt of the fighting during the German spring

572 Foch memorandum, 24 July 1918. AFGG, 7-1: annex 276.
573 See Doughty, Pyrrhic Victory, p. 475; James L McWilliams and R James Steel, Amiens: Dawn of Victory (Toronto: Dundurn, 2001), pp. 20-21; Stevenson, With Our Backs to the Wall, pp. 346-347.
offensives. The two Dominion corps, as part of the British Fourth Army, under the command of Rawlinson, would advance under a creeping barrage to push the enemy back to the southward bend on the Somme between Ham and Péronne, where the flat, open countryside was then ideal for mobile exploitation. On the right the British Fourth Army, the French First Army would protect the southern flank of Canadian Corps and advance as far south as Montdidier. The French would launch a two-pronged attack, with Debeney striking first on his army’s left with his XXXI and IX Corps driving southeast to capture the high ground, before striking on his right with X and XXXV Corps on the second day. The French First Army would advance from the southwest and converge with the British Fourth Army attacking from the northwest, with two armies together driving the enemy back across the Somme and thus clearing the Amiens-Paris railway line.

Balance of Forces

By August the French and British armies had gained numerical parity with the

574 The Germans had long regarded the appearance of the Canadian Corps—which they called “magnificently equipped and highly trained in storm tactics”—as a signal of an attack. Quoted in Tim Cook, “Bloody Victory: The Canadian Corps in the Hundred Days Campaign,” in Ashley Ekins, 1918 Year of Victory: The End of the Great War and the Shaping of History (Auckland: Exisle Publishing, 2010), pp. 166-167. To retain the element of surprise, the movement of the Canadian Corps to the Somme was made with every effort to preserve secrecy and deception measures such as use of dummy tanks, false radio traffic and the movement of some Canadian units to the Second Army front in the Kemmel area to persuade the Germans the coming attack would occur in Flanders. See Robbins, British Generalship on the Western Front 1914-1918: Defeat into Victory, p. 80; J Paul Harris and Niall Barr, Amiens to the Armistice: The Bef in the Hundred Days’ Campaign, 8 August-11, November 1918 (London: Brassey’s, 1998), p. 71; McWilliams and Steel, Amiens: Dawn of Victory, pp. 42-45.
576 On the left of the Australian Corps the Lieutenant-General Sir Richard Butler’s III Corps, positioned between the Somme and Ancre, was to keep peace with the Australian advance on the south side of the Somme to gain the high ground on the north bank. If the III Corps fell behind in this difficult terrain, however, the Australians would find their flank exposed and particularly vulnerable to enemy fire. McWilliams and Steel, Amiens: Dawn of Victory, pp. 24-25.
577 Doughty, Pyrrhic Victory, pp. 476-477.
Germans. At the point of attack on the Somme, the British Fourth and French First Armies fielded together a total of twenty-nine infantry and six cavalry divisions against the twenty-nine enemy infantry divisions of the German Second and Eighteenth Armies (Table 5-6). After strengthening with the firepower of the British Fourth and French First Armies with artillery support from divisions disbanded or being reconstituted elsewhere, the Allies amassed more 3,100 guns—some half of which were heavy artillery—along the attack front. The battle also saw the largest concentration of tanks ever assembled to date—324 heavy Mark V tanks and 96 of the new lighter Whippet tanks on the British sector, as well as 72 light Renault FT-17 tanks on the French sector. In support, the British deployed 120 supply tanks and twenty-two gun-carrier tanks, intended to provide motor transport for field artillery guns.\textsuperscript{578} The Allies also gained a significant initial advantage in airpower with a force of 800 British and 1,104 French aircraft against only 365 German ones, but with more enemy fighters located in nearby Champagne, where the bulk of the German air force had been deployed since mid-July.\textsuperscript{579} For the coming battle, the allied margin of superiority was overall very small.

\textsuperscript{578} McWilliams and Steel, \textit{Amiens: Dawn of Victory}, pp. 25-27.
\textsuperscript{579} Stevenson, \textit{With Our Backs to the Wall}, p. 197.
Table 5-6: Balance of Forces at the Battle of Amiens-Montdidier, 8 August 1918

<table>
<thead>
<tr>
<th></th>
<th>Divisions</th>
<th>Guns, Tanks and Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>British Fourth Army</strong></td>
<td>14 Infantry Divisions; 3 Cavalry Divisions</td>
<td>2,070 guns: 684 heavy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>324 heavy Mark V tanks;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>96 light Whippet tanks;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>120 supply tanks; 22 gun-carrier tanks</td>
</tr>
<tr>
<td><strong>French First and Third Armies</strong></td>
<td>22 Infantry Divisions; 3 Cavalry Divisions</td>
<td>1,066 guns: 826 heavy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>72 FT17 light tanks</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>29 ID; 6 CD</td>
<td>3,136 guns: 1,510 heavy; 324 heavy tanks;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>168 light tanks</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Second and Eighteenth Army</strong></td>
<td>29 Infantry</td>
<td>749 guns</td>
</tr>
</tbody>
</table>

The Battle of Amiens-Montdidier

The Battle of Amiens-Montdidier opened at 4.20 a.m. on 8 August. At zero hour, Rawlinson’s Fourth Army moved forward under a protective artillery barrage, while the French First Army launched an intense preliminary bombardment, with its infantry set to attack forty-five minutes later. The Canadians and Australians met little during the first hour as thousands of Germans surrendered, and quickly overran the German first line before it could communicate with headquarters or the field guns behind it. As Whippet tanks and armored cars harassed the retreating troops of the German Second Army, British cavalry charged them, taking over 1,000 prisoners in what was its most successful day of the war. By noon, the Australians and Canadians had advanced nine miles to

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the rear of the German front and achieved nearly all their objectives along the old Amiens Defense Line. On the Allied right, where the Germans put up a strong resistance, the French still advanced quickly, ending the day two miles to the south of the Canadians. Overall, the first day of battle had been a stunning success: Except on the allied left, where the British III Corps made only modest advances against stiff German resistance, the French and British armies had gained significant ground, forcing the enemy into a rapid retreat.\textsuperscript{582}

Although the Allies took more ground the next day, they failed to press the attack vigorously against the enemy. The Allies had lost the element of surprise and most of their tanks, and were ahead of their artillery and telephone lines, such that the Franco-British attacks were less well organized and synchronized in the field.\textsuperscript{583} Although the Canadians advanced another three miles and the French captured Montdidier, the Germans were rapidly strengthening their defenses, moving both aircraft and infantry from other sectors to the Somme. On 11 and 12 August the French and British armies inched forward, and the French extended the line of operations to the south, with Mangin’s Tenth Army joining the battle, but the attack ground to a halt against heavy

\textsuperscript{582} The Germans had suffered 27,700 casualties, of which over 15,000 were prisoners of war. The Allies also captured some 400 guns and large numbers of mortars and machine guns. All of this had been achieved at the cost of some 9,000 British casualties and relatively light French losses. Hart, p. 342. On the Allied left the attack of the British III Corps stalled before the Chipilly Spur, where the attackers were utterly exposed to enemy machine gun fire. Other reasons for the lack of relative success in this sector were weakened divisions, the availability of fewer tanks and reduced surprise. The divisions of the III Corps were relatively weak and battered from the spring fighting, and now made up, in large part, of recent conscripts. Moreover, the Germans had counterattacked near Morlancourt (in response to an Australian raid) and were correspondingly more alert along this sector of the front. See Harris and Barr, \textit{Amiens to the Armistice: The Bef in the Hundred Days’ Campaign, 8 August-11, November 1918}, pp. 84-85, 97-98.

\textsuperscript{583} A delay in issuing orders for that day (the result of time lost in toasting the success of the 8\textsuperscript{th}) resulted in allied units attacking at different start times. McWilliams and Steel, \textit{Amiens: Dawn of Victory}, pp. 192-193, 204-205.
German resistance. The Allies launched new offensives on each flank, with the British First and Third Armies, and the French Third and Tenth Armies pressing forward against the German line. The Allied Armies maintained the initiative and continued to drive the Germans back in a series of offensives, in what has become known as the last victorious Hundred Days.

The Amiens offensive had thus come to an end. Over four days of fighting the Allied armies had captured 29,873 German prisoners and 499 guns at the cost of 20,000 British and 24,000 French casualties, respectively. The effect on the German high command was even more significant. In a much-cited passage of his memoirs, Ludendorff declared 8 August the “black day of the German army” and the period after it as the worst he experienced until the final defeat. Three days later, Kaiser Wilhelm II concluded, “We are the limit of our powers. The war must be brought to an end.” Some hard fighting remained, however, before Germany made peace on allied terms.

584 The Germans moved five divisions on 8 August and three more the following morning. They would soon outnumber the Allies in divisions in this attack sector. See Stevenson, With Our Backs to the Wall, p. 123; McWilliams and Steel, Amiens: Dawn of Victory, p. 254.
585 On 21 August the British Third Army opened the Battle of Albert with the British First and Fourth Armies joining the attack a few days later. By 1 September the British had captured Bapaume and Péronne. The French made similar progress in the south. Mangin’s Tenth Army moved forward northwards from Soissons, capturing the enemy’s main line of resistance between the Oise and Aisne. On 27 and 28 August the French First and Third Armies, profiting from the Tenth Army’s attack, pushed forward and seized Noyon. Over the course of about ten days, the Allies had advanced some half a dozen miles along a seventy-mile front.
587 Doughty, Pyrrhic Victory, p. 478.
589 Kaiser Wilhelm II quoted in McWilliams and Steel, Amiens: Dawn of Victory, p. 256.
Assessing Franco-British Coalition Military Effectiveness during the Battle of Amiens-Montdidier and the final Hundred Days

In the Battle of Amiens-Montdidier, French and British forces displayed good coalition battlefield integration and cohesion, as well as some capacity for responding to battlefield events, particularly when compared with their performance earlier in the war. First, the French and British attacks were well integrated, with both armies fighting in ways consistent with the achievement of common operational objectives—the elimination of the Amiens Salient, the liberation of Montdidier, and the reopening of the vital Paris-Amiens-Calais railway line. This harmony of Franco-British objectives was the result of close allied military planning, begun with the meeting of the allied and three national commanders-in-chief on 24 July. All expressed agreement with Foch’s strategic principle of lateral exploitation, which he conceived as a coordinated series of allied attacks—or advancing waves, as he termed them—to destabilize and drive back the enemy. In this way he sought to combine operational and tactical successes on different sectors of the front into a coherent strategic concept. As the Allied supreme commander, Foch was thus able to impose a coherent strategic vision on the national army commanders, who tended not to see beyond their own fronts. Even the enemy recognized Foch’s contribution as critical to allied success in 1918: “The entente has to thank general Foch for successfully subordinating the divergent interests of the allies to a higher, unified purpose.”

The closer integration of the French and British armies was also evident in the

591 “In this way Foch was the principal strategist of the mobile warfare that developed after Amiens and until the end of the war,” concludes Tim Travers. See Travers, How the War Was Won, p. 132.
592 Quoted in George, War Memoirs of David Lloyd George, p. 1836.
field, where they executed a complex pincer movement. The British Fourth Army’s attack on the northern side of the salient well coordinated in time, space and purpose with the Debeney’s French First Army attack on its southern face. The Allies took the enemy wholly by surprise. To achieve this result the British synchronized their infantry assault with the opening of the French artillery bombardment. The delayed start of the French infantry surprised the enemy who was fully preoccupied with the advance of the Canadian Corps, and the French were able to make steady progress. Sequencing the start of the infantry assaults thus succeeded in keeping the enemy off balance. Once French infantry came into action forty-five minutes later, the two armies advanced in parallel, with the French 42nd Division, adjacent to the Fourth Army’s XXXI Corps, visible to the rearmost Canadian battalion. “We had a grandstand view of the First French Army on our immediate right,” recalled Private Gad Neale of the 46th South Saskatchewan Battalion. The French and British efforts thus came together in the field under a common plan and unified command structure, giving them the close cooperation necessary to break German trench defenses.

Second, the French and British armies demonstrated good coalition battlefield cohesion. Along the boundary between the French First Army and the British Fourth Army on the Amiens-Roye Road, the French 42nd Division protected the flank of the

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593 Though the British Fourth Army was able to use tanks in lieu of a preliminary artillery bombardment, the French lacked sufficient tanks to forgo the initial bombardment. In order to balance the need to preserve the element of surprise with the asymmetry in allied capabilities, the French and British synchronized the British infantry assault with the opening of the French artillery bombardment, with the French artillery advance begun forty-five minutes later. See J Paul Harris and Niall Barr, Amiens to the Armistice, p. 84; McWilliams and Steel, Amiens: Dawn of Victory, pp. 35-36.


595 Quoted in McWilliams and Steel, Amiens: Dawn of Victory, p. 157.
Canadian Corps, with Brutinel’s Canadian Independent Force in close support.596 When French troops ran into stiff resistance around the village of Mézières on the first day, the Canadian Independent Force rushed to ferry machine guns and Canadian infantry forward in their lightly armored, open-top trucks in order to support the French advance.597 Brutinel attributed the strong coalition battlefield cohesion to the belated adoption of unity of command among the allied armies. “One is impressed by the efforts made by Marshal Foch on his assumption to command, to break down the tendencies to particularism of the allied Armies.” He further concluded, “the results to be obtained by creating under the stress of battles the feeling of the unity of front and command… [were] so great that it was good policy to subordinate everything to that ideal.”598 With the allied command-and-control problems of previous years largely overcome, Haig ordered the British 3rd Cavalry Division into action to “facilitate the advance of the French First Army.”599 Foch intervened directly on the 9 August to order Debeney to keep up with the Canadian Corps on his left and push on to Roye “without losing a minute” and “with drums beating.”600 Even as the French and British attackers grew tired over the coming days and came up against much stiffer German resistance, they continued to fight hard and advance further. The decision to bring the offensive to a close came only once the Allies reached the old 1916 Somme battlefield, a veritable wasteland of shell-holes and masses of old wire.

Finally, the French and British armies displayed some capacity for coalition

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596 On the role of the Canadian Independent Force, see Bruce I Gudmundsson, On Armor (Westport, CT: Greenwood Publishing Group, 2004), pp. 11-15.
597 McWilliams and Steel, Amiens: Dawn of Victory, pp. 178, 261-162.
598 Travers, How the War Was Won, p. 132.
599 McWilliams and Steel, Amiens: Dawn of Victory, p. 228.
600 Foch’s letters to Debeney on 9 August in AFGG, 7-1: annexes 571, 572. See also Greenhalgh, Foch in Command, p. 423.
battlefield responsiveness, even if they failed to exploit their success to the full. With the greater than anticipated success of the initial assaults, the Allies had an opportunity to turn their breakthrough into a breakout. Though the Germans were in full retreat, the Allies could not sustain the momentum of the attack to exploit that advantage. Though Foch and Haig were impatient to keep pushing the Germans while they were on the run, and the resumption of attacks as soon as possible, army commanders in the field were now operating without a predetermined plan. They had captured the outer defenses of Amiens, so the second stage of the offensive—the pursuit—required improvisation. Haig set the capture of Ham as the distant objective, but left considerable latitude to subordinates and delegated execution of the battle and the control of key assets, such as artillery, to corps and divisional commanders. Some divisions and brigades lacked the initiative required by the situation, however, advancing too slowly and pausing on intermediate objectives for too long. The method of forward exploitation thus still eluded them.

Foch’s solution to this problem, however, was to extend the front of attack with prepared assaults on both flanks. In Foch’s concept of operations, allied tanks and infantry broke into the front position and then extended the penetration beyond the range of guns; once the enemy resistance stiffened, exploitation of that success would take place laterally, outflanking enemy resistance and cutting off any retreat. Hence Foch declared, the Allied armies must give the Germans no opportunity for rest and recovery,

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and instead “light fires everywhere, widen the battle and continue without let up.”

Thus while maintaining the eastwards pressure of the attacks carried out by the British Fourth and French First armies, he turned to both Third Armies to exploit the success on the flanks.

As early as 10 August Foch ordered the French Third Army into action and directed Haig to exploit the enemy’s retreat by having the British Third Army advance on Bapaume and Péronne. When German resistance stiffened considerably on 11 and 12 August, he advised both Haig and Pétain continue to press the attack on the flanks. As Byng’s Third Army, to the north of Albert, pushed to the line of the Somme, the French Tenth Army would extend the battle to the right in conjunction with the advance of the French Third Army, south of the River Oise. On 21 August The British Third Army attacked German positions on the Albert-Arras front, with operations extended to British First and Fourth Armies a few days later. Meanwhile the French attacked south of the Somme towards Oise, with Mangin’s Tenth Army moving forward northwards from Soissons, capturing the enemy’s main line of resistance between the Oise and Aisne. By 1 September the British had captured Bapaume and Péronne, and the French First and Third Armies, profiting from the French Tenth Army’s attack, pushed forward to seize Noyon. Over the course of about ten days, the Allies had advanced some half a dozen miles along a seventy-mile front, forcing the Germans to withdraw to the Hindenburg

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602 Poincaré, p. 326. For these reasons Foch also requested that Haig move the date of the Amiens-Montdidier offensive forward from 10 to 8 August. With the enemy occupied in withdrawing from the Marne Salient, the Germans would be even less prepared for the new attack. So Foch acted to respond to the changing battlefront to accentuate the element of surprise. See Greenhalgh, Foch in Command, p. 420.

603 In his memoirs, Haig claimed to have imposed on Foch an end to the Battle of Amiens, having to remind the French general, not for the first time, that he alone was responsible to the British Government for the handling of his troops, proposed instead an extension of the operation on the flanks, but these claims find little support in the historical record, as Foch’s fundamental concept of operations was lateral exploitation. See Greenhalgh, Foch in Command, p. 425; Travers, How the War Was Won, pp. 130-133.
line. After four years of war the French and British armies had finally learned to fight together as integrated and cohesive whole, even if limited responsiveness in the field. Foch could report optimistically to his wife that the Boches were "dans la purée." 605

CONCLUSION

This chapter sought to test the validity of the predictions generated from realist-institutionalist theory. The evidence from the battles shows that, in general, much of the variation observed in Franco-British coalition military effectiveness was directly attributable to the degree and form coalition military institutionalization. When Great Britain and France went to war in August 1914, they lacked institutional mechanisms for effective cooperation on the battlefield. As a result, most early campaigns of the war were both costly and ineffective. Despite these early challenges, the coalition endured, adapted and improved on the field of battle. The turning point came in 1916 at the Battle of the Somme. In advance of the 1916 campaign, the coalition set up institutional procedures for common political-military planning through coalition conferences. A common political-military plan paid dividends on the field of battle, as shown by the enhanced integration and cohesion of coalition troops, even if responding and exploiting initial success remained elusive. It was not until the final year of the war, however, that the coalition would put in place many institutional mechanisms to overcome obstacles to effective military collaboration. The combination of the Supreme War Council and a generalissimo, in the person of French General Ferdinand Foch, brought about a closer and more effective working relationship on the field of battle, which led the coalition to

604 Simkins, *From the Somme to Victory*, pp. 158-163.
605 Foch quoted in Greenhalgh, *Foch in Command*, p. 441.
battlefield successes and ultimately victory. In general, then, the battlefield evidence from the war offers strong support for the predictions needed to confirm the realist-institutionalist theory. The timing, nature and direction of the observed variation in coalition battlefield performance stemmed from changes in the degree and form of coalition military institutions.
CHAPTER SIX: FRANCO-BRITISH COALITION MILITARY EFFICACENESS, FALL OF FRANCE, 1940

INTRODUCTION

In May 1940, France and Britain found themselves once again at war with Germany, their troops fighting side by side against the same enemy on the same battlefields for the second time in a generation. Only twenty years earlier, in the ill-named “war to end all wars,” the French and British had painfully learned the importance of joint institutional machinery for waging coalition warfare. The experience of 1914-1918 was not forgotten, however, as many senior staff officers had fought as junior commanders on the Western Front in the last war. When war came again in 1939, the two governments moved quickly to recreate the machinery of allied military cooperation, setting up from the outset the very institutions that had taken them over three years to attain in the previous war.

To all appearances allied military cooperation was more complete and better organized than in 1914. But when the German attack in the West finally came on 10 May 1940, the Franco-British coalition suffered one of the most stunning and rapid defeats in all of military history. In six short weeks, the German Army achieved what it had previously failed to accomplish in four years of fighting from 1914 to 1918: the collapse of the French Army and the expulsion of the British from the Continent. On the evening of 22 June 1940, the French government capitulated at the exact spot in the Forest of Compiègne, in the same railway carriage where General Foch had dictated to the vanquished Germans the terms of armistice in 1918. The defeat was so unexpected, so swift and so catastrophic that the distinguished French historian, March Bloch, who was
in uniform in 1940 and was later executed as a resistance fighter, called it the "strange
defeat."606

Like other catastrophes it elicited a search for its causes that continues long after
the event. 607 Early accounts alleged that France and Britain had lacked sufficient matériel
to stop the German invasion. They also censured the French and British for cowardice
and failure of morale.608 Over the decades, however, historians have proven otherwise.
Despite some shortfalls in planes and antiaircraft weapons, France and Britain were more
than a match for the Germans in numbers of men and tanks.609 They also demonstrated
the will to fight, inflicting on the enemy over 47,000 dead or missing and 110,000
wounded. The Allies suffered even more heavily: French sustained 92,000 men dead and
200,000 wounded, Britain 68,000 dead or wounded.610 There is no doubt that many
Allied soldiers, in particularly many Frenchmen, fought bravely and hard in the 1940
campaign. The search for causes to explain the puzzle of the "strange defeat" has thus
shifted to the battle itself—to French military doctrine, the strategy of the High

606 Marc Bloch, L'étrange Défaite (Paris: Michel, 1957). In English translation, Marc Bloch, Strange
Company, 1999). See also Carole Fink, Marc Bloch: A Life in History (Cambridge, UK: Cambridge
607 On the trauma of the defeat, see Stanley Hoffmann, "The Trauma of 1940: A Disaster and Its Traces,"
608 A useful review of these early understandings of the defeat is John C Cairns, "Along the Road Back to
France 1940," The American Historical Review (1959): 583-603. See also Cairns, "Some Recent
Historians and the 'Strange Defeat' of 1940," 60-85.
609 The seminal study is Russel HS Stolfi, "Equipment for Victory in France in 1940," History 55, no. 183
(Annapolis: Naval Institute Press, 2013). British casualties come from Lionel Frederic Ellis, The War in
the subject of debate. Most historians accept the French official estimate of 92,000 killed and 200,000
wounded. More recently, however, research has suggested that a lower figure of 55,000 deaths, a further
9,000 who later died from their wounds or went missing, and 123,000 wounded. Even at the lower end of
estimates, these are still significant numbers. See Pierre Le Goyet, La Défaite, 10 Mai-25 Juin 1940 (Paris:
in Christine Levisse-Touzé, ed., La Campagne De 1940: Actes Du Colloque, 16 Au 18 Novembre 2000 (Paris:
Command, and the conduct of military operations. My argument falls into this category, casting the analytical focus on relations between France and Britain: the allied institutional machinery put in place for the coming battle, the way they cooperated during the fighting, and the condition of allied political and military relations.

What explains the dramatic failure of the French and British armies to stop the German invasion in May 1940? Why were they not able to bring about a Second Miracle of the Marne? After expending so much blood and treasure to learn how to fight as a military coalition from 1914 to 1918, why did the two nations not fight together more effectively in 1940? Perhaps, most puzzling of all, having put in place allied military institutions for political-military planning and command relationships, why did the Franco-British coalition still perform so poorly on the battlefield in 1940? In answer to these questions, I argue that coalition military institutions made the critical difference for whether the French and British armies fought together effectively on the battlefield.

In May and June 1940, Franco-British coalition military performance was fairly good, but not good enough to withstand the speed and ferocity of the German attack against the West. At the outbreak of war, unlike in 1914, the French and British set up the Supreme War Council on the lines of that created in 1917 and placed the British Army in France under the orders of the French high command, giving them allied unity

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of command. In other words, they were at least able to begin the war with coalition military institutions for political-military planning and unity of command, which had not been established until the final year of the last war. So stunning was the allied defeat in 1940 that it is easy to condemn the French and British armies, to malign the fighting qualities of their soldiers and cooperation between them in the field. A more careful examination of the battlefield evidence, however, demonstrates that the French and British fought with relatively good coalition battlefield integration and cohesion, owing to institutional mechanisms for coalition military planning and unified command.

This cooperative machinery was not enough to alter the end result, however, as the allied armies were too slow to respond to the unfolding disaster at Sedan and could not adapt to the rapid pace of German mobile operations. The speed of the German assault was the key to victory. By the time the Allies recognized what was happening at Sedan, it was too late. As with the Great War, the exchange of information between the allied armies was limited and often quite haphazard; however effective such systems might have been in the static conditions of 1914-1918, they proved a fatal impediment to any last chance to mount a counterattack against the exposed flanks of the advancing Panzers. In the end, the breakdown of communications and liaison between the allied armies, combined with delays and confusion within the allied command structure, hampered the Allies from responding quickly to the German offensive and contributed significantly to the catastrophic defeat.

To be sure the defeat of 1940 cannot be attributed solely to failures in coalition military effectiveness. However well or poorly the coalition fought, nothing could compensate for the fact that in 1940 the French high command made a series of critical
mistakes with its reckless advance into Belgium. Despite the best efforts of Allied political and military leaders to re-create the institutional machinery of the last war, the Allied command structure suffered from the same pathologies as the French high command that proved insuperable. In other words, the lack of coalition battlefield responsiveness was an important part of the problem, as was the very late start the French and British had in setting up institutions for coalition battlefield cooperation. But when all is said and done, the magnitude of the defeat is more the consequence of a series of decisions made by the French high command.

This chapter proceeds in five main parts. The first section provides background, reviewing allied efforts to manage the German resurgence and the basic course of Franco-British relations in the interwar period. The second section presents an overview of the campaign, and discusses the selection criteria for the battles examined in this chapter. The third section examines Franco-British military institutionalization at the start of the Second World War, applying the coding questions outlined in Chapter Three to Franco-British political-military planning, command relations and information exchange. I find that coalition military institutionalization achieved the “intermediate” levels reached only at the end of First World War. The next section generates a series of predictions about how Franco-British coalition should have performed on the battlefield according to realist-institutionalist theory and the other competing theories presented in Chapter Three. The chapter then examines the battlefield evidence to assess the explanatory power of coalition military institutions relative to other competing explanations, before concluding with a summary of the main findings.
BACKGROUND

The Franco-British coalition emerged victorious from the First World War, but the wartime partnership between the two nations did not long survive the peace. Already in 1919, old rivalries and mutual suspicions reasserted themselves, leading to major discord during the Paris Peace Conference and long afterwards. As the French premier Georges Clemenceau remarked to the British Prime Minister David Lloyd George in June 1921: “I have to tell you that from the very day of the Armistice I found you an enemy of France.” To which the British prime minister replied, only half jokingly, “well was it not always our traditional policy?” So far as there was a consistent pattern to Franco-British relations in the interwar years, it was the continuous struggle between the French efforts to resurrect the military alliance with Britain and extreme British reluctance to make a security commitment to France. The two nations were in broad agreement on the need to preserve the European balance of power and thus contain German ambitions, but their common interests did not extend much further. France was first and foremost a continental power and its security concerns naturally centered on a revival of German strength and hegemonic ambitions, while Britain, physically separated from the European mainland, saw itself as an imperial and world power with less to fear from defeated Germany.

As a consequence the two nations had markedly different visions of the postwar peace. Nothing better illustrated this than Franco-British divisions during the peace conference and thereafter over the future of the Rhineland. At the peace conference in 1919 France was only too aware that war had exacerbated its relative demographic and industrial weaknesses and sought to redress the balance by permanently separating the

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Rhineland and the natural resources of the Ruhr from Germany. This proposal foundered in the face of Anglo-American opposition, however, as it raised old suspicions of French hegemonic ambitions. In the end, the French chose to accept a compromise peace rather than risk a break with the British and the Americans. They had to be content with the demilitarization and fifteen-year occupation of the Rhineland in exchange for a promise of Anglo-American support in case of German aggression. But even this proved illusory: At the end of 1919 and again in early 1920 the US Senate rejected the Treaty of Versailles and with it the American security guarantee to France. The British took the opportunity to let the guarantee lapse as well, leaving the French bitter and disillusioned with both the peace and their former ally. The episode was to cast a long shadow over Franco-British relations for the next twenty years.

Indeed this difference in approach to the German question drove France and Britain still further apart in peacetime, reducing the possibilities for treaty enforcement. The chief priority for successive French governments was to maintain the favorable balance of power established at Versailles, and strict treaty enforcement and close relations with Britain seemed to offer the only sure way to achieve that end. Hence

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613 The British were anxious to find a counterweight to French power and anxious to promote German economic recovery in the interest of trade. See Alan Sharp, The Versailles Settlement: Peacemaking after the First World War, 1919-1923 (New York: Palgrave Macmillan, 2008), pp. 109-129.
615 Foch had warned that the guarantee was an illusion, for without the Rhine frontier the treaty would be nothing more than a twenty-year armistice. Sharp, The Versailles Settlement: Peacemaking after the First World War, 1919-1923, p. 200.
616 These strategic differences reflected the different geostrategic positions of France and Britain. France was first and foremost a continental power and its security concerns naturally centered on fears of a renewed German attempt to gain hegemony in Europe. By contrast, Britain was physically separated from the Continent and therefore did not share the same security concerns as France. On the consequences of their geopolitical differences, see Arnold Wolfers, Britain and France between Two Wars: Conflicting Strategies of Peace since Versailles (New York: Harcourt Brace, 1940); Posen, Sources of Military Doctrine: France, Britain and Germany between the World Wars.
the French occupation of Ruhr in 1923 and ill-fated efforts to foster Rhineland separatism, both intended to guarantee security against German aggression. But France's hard line towards Germany undermined French efforts to revive the wartime alliance with Britain. British leaders, haunted by the specter of Napoleon, consistently mistook the French struggle for security for vindictiveness or hegemonic ambitions. "I am seriously afraid that the great power from whom we may have the most to fear in the future is France," the Foreign Secretary, Lord Curzon, told Cabinet colleagues in 1919. Sir William Fisher, the senior British civil servant, shared Curzon's fears, writing, "... while I admit the French between 1870 and 1914 had their tails well down and therefore assumed a veneer of moderation, during the rest of the centuries-old existence, they have played the part of bullies... and they are doing it now." The British refused to support the French over the question of reparations and denounced the Ruhr occupation as immoral as well as illegal. France eventually bowed to intense British pressure to withdraw from the Ruhr and scaled back its demands for German reparation payments.


618 As the veteran French Ambassador to Great Britain, Paul Cambon, lamented to his successor, "The misfortune is that the English are not yet aware that Napoleon is dead." Quoted in Comte de St Aulaire, *Confession D'un Vieux Diplomate* (Paris: Flammarion, 1953), p. 536.


620 Fisher quoted in ibid., p. 1.

In Paris, the failure of the occupation had only underscored the urgent need for Franco-British cooperation. 622

For the next decade and a half, France sought to construct an alliance system to contain German power. Imperial Russia was long gone, the victim of defeat and revolution, so the French looked to the successor states, formed from the collapse of the Habsburg and Romanov Empires, lying between Germany and the Soviet Union. But the alliances binding France to Poland (1921) and to the Little Entente—Czecho-Slovakia (1924), Romania (1926), and Yugoslavia (1927)—were not a credible substitute for Russia as an Eastern counterweight to Germany. 623 All of this only underscored the central importance of Britain to French security. If France was to deter and, if necessary, defeat inevitable German revision, it would need to forge a close military alliance with Britain.

French interwar leaders never doubted that British wartime potential was anything less than indispensible to the security of France. 624 "More than ever," the Chief of the French General Staff, Maurice Gamelin, warned the government in March 1938,

624 The only other potential great-power ally was the Soviet Union, but the French were wary of placing their trust in a Bolshevik state. French ideological opposition to Bolshevism was by no means the only reason for the failure to conclude an alliance but it was one of the most important. See Barry R Posen, "Competing Images of the Soviet Union," World Politics 39, no. 4 (1987): 579-597; Alexander, The Republic in Danger, pp. 290-305; Young, In Command of France, pp. 145-150; Michael Jabara Carley, 1939: The Alliance That Never Was and the Coming of World War II (Chicago: Ivan R. Dee, 2009).
"it is essential that we have Britain with us."625 The already weakened French alliance system had suffered a further blow in 1936 when Belgium returned to a policy of strict neutrality.626 The government of Edourd Daladier summed up the strategic situation in the following stark terms: "France can only defeat Germany in a war if it is assured, in every possible respect, of total British assistance."627 The problem was that a firm British commitment was not forthcoming, even as the Germany grew stronger and more menacing.

The British resisted a tight defensive alliance with France until March 1939, because they feared entrapment in another war on the Continent. The Foreign Secretary, Austen Chamberlain, expressed this view in a minute of 27 August 1924, warning: "Whatever the French may say, they wish... to forge iron chains which will encircle Germany and keep her captive; whatever we may say, we wish while aiming at general pacification and disarmament, to avoid committing ourselves to intervention in Europe."628 The British preferred mainly to buck-pass to France, which it judged still had the most powerful army in Europe in the mid-1930s.629 Instead of forming a counterbalancing alliance, Great Britain chose to distance itself from France and adopted a policy of appeasement toward Nazi Germany.630 In October 1935, the British extended

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626 Brian Bond, Britain, France, and Belgium, 1939-1940 (London: Brassey's, 1990), pp. 21-34.
629 On buck-passing, see Christensen and Snyder, "Chain Gangs and Passed Bucks: Predicting Alliance Patterns in Multipolarity," 127-168; Mearsheimer, Conventional Deterrence, pp. 305-322. For a critique of the buck-passing explanation, see Schweller, Deadly Imbalances: Tripolarity and Hitler's Strategy of World Conquest, pp. 121-140.
630 The historiography of British appeasement policy is extensive. Useful reviews are Paul M Kennedy, "Appeasement'and British Defence Policy in the Inter-War Years," British Journal of International Studies 4, no. 2 (1978): 161-177; James L Richardson, "New Perspectives on Appeasement: Some Implications for International Relations," World Politics 40, no. 3 (1988): 289-316; Robert Powell,
a political guarantee of the Franco-German frontier and the demilitarized zone with the signing of the Locarno Accords. But there was always a question of how, if at all, Britain would fulfill these commitments. London showed no inclination to give the guarantee any military meaning, always refusing to hold Franco-British staff conversations.

As late as November 1938 the British Chiefs of Staff opposed comprehensive staff talks with the French, for fear they would draw Britain into another continental war to safeguard French interests. This position found broad support within the British Cabinet, which had no intention of allowing France to maneuver Britain into a war against Germany. Indeed, the government decided to starve the army of funds for most...
of the interwar years. Despite the dangerous threat environment and the urgent pleas of French leaders, Britain was unmoved.

Not until March 1939 did France attain the British military commitment it had sought since 1919, and along with it comprehensive Franco-British staff talks and the first peacetime conscription in Britain. By then, Nazi Germany had grown in both armed strength and ambition. Hitler had remilitarized the Rhineland and conquered Austria, the Sudeten region of Czechoslovakia and the rest of that beleaguered nation, all without war. France and Britain had pursued a policy of appeasement; that time and again, they had bowed to threats of war rather than the French and British bowed to Germans threats of war rather than confront Hitler. Only in the weeks following Hitler's march into Prague, did British foreign and defense policy finally awaken to the Nazi threat and move to strengthen the entente with France. In April 1939 France gained the British continental commitment it had sought since 1919, and along with it comprehensive Franco-British staff talks and the first peacetime conscription in

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636 The French Premier Eduoard Daladier had returned from Munich realizing that only a strengthened Franco-British military relationship could compensate for loss of the alliance with Czechoslovakia. British leaders feared the French might retreat inwards, leaving them to confront Hitler alone, unless they strengthened the Entente. At the same time rumors of an impending German attack on Holland hardened British perceptions of Germany's aggressive intentions. Evidence suggests that the British General Staff collaborated with their French counterparts to encourage closer Franco-British military relations. See Adamthwaite, *France and the Coming of the Second World War, 1936-1939*, pp. 86-87; 229-230; Talbot Imlay, "The Making of the Anglo-French Alliance, 1938-1939," in Martin Alexander and William Philpott, ed., *Anglo-French Defence Relations between the Wars* (New York: Palgrave Macmillan, 2002), pp. 102-111.
Britain. Britain also joined with France in extending a guarantee to Poland, which led in due course to, Paris could take comfort in the state of Franco-British relations, at last the two nations were “perfectly in agreement” on the need to prevent or resist future “coups de force” in Europe.638 It came too late to contain Hitler’s Germany, however, as war broke out five months later in September 1939. The British raced to build an army to fight alongside France on the Continent, but it would take time to raise a field force of thirty-two fully equipped and trained divisions for war.639 Once again, in May 1940, Britain sent a small army to the Continent but expected France to bear the brunt of the early fighting.

The German Invasion of Western Europe and the Selection of Campaign Battles, 1940

This chapter examines the wartime military collaboration of the French and British armies through a close study of the major coalition battles fought over the course of the six weeks that were the Battle of France in May-June 1940. Specifically, the chapter analyzes two major battles from the campaign: 1) the defense of Belgian frontier from the advance to the River Dyle (10-16 May) to the retreat to the River Escaut (16-21 May); and 2) the Franco-British counterstroke at Arras and Cambrai, what was the only joint allied counterattack mounted after the German breakthrough (21-23 May).

Of all the fighting on the Western Front, this chapter examines these battles for three main reasons. First, they were all coalition battles, in which both French and

British troops fought alongside each other in the field against the Germans. For this same reason, battles fought with predominately French or mainly British forces, most importantly the German attack of the French Second and Ninth Armies along the Meuse River, around at Sedan, Monthermé and Dinant, were excluded from the analysis.\footnote{On the German breakthrough at Sedan, see Doughty, The Breaking Point: Sedan and the Fall of France, 1940; Florian K Rothbrust, Guderian's Xix Panzer Corps and the Battle of France: Breakthrough in the Ardennes, May 1940 (Westport, CT: Praeger, 1990); Frieser, The Blitzkrieg Legend.} The German breakthrough at Sedan was the decisive action of the war, but the fighting engaged only the French army against the German attackers. Rather than examine this battle in detail, because it fails to capture allied cooperation in the field, the study focuses more on the consequences of the disaster at the Sedan for the allied armies in Belgium and northeastern France.

Second, the study examines only those battles in which other allies of France and Britain either did not participate directly or played a minimal role in the fighting. The Breda variant of the Franco-British military plan sent some thirty French and British divisions rushing headlong into Belgium, all the way to the Dyle River, towards the Dutch border to link up with Belgian and Dutch forces when the Germans attacked on 10 May.\footnote{The seminal study is Don W Alexander, "Repercussions of the Breda Variant," \textit{French Historical Studies} (1974): 459-488.} The objective was to establish a continuous defensive line against the German invasion. But the Belgian and Dutch defense did not last as long as expected, the Dutch surrendering just after five days and the Belgian line collapsing and the army in retreat. Because Dutch and then Belgian resistance collapsed so quickly, the chapter focuses primarily on the fighting of French and British forces.\footnote{See Pieter Lodewijk Gerard Doorman, \textit{Military Operations of the Dutch Army, 10th-17th May 1940} (West Midlands, UK: Helion & Company, 2005); Hermanus Amersfoort and Piet H. Kamphuis, \textit{May 1940: The Battle for the Netherlands} (Leiden: Brill, 2010); Édouard De Fabrebecks, \textit{La Campagne De L'armée Belge En 1940} (Bruxelles: Rossel, 1978); Luc De Vos, \textit{La Belgique Et La Seconde Guerre} 279}
fighting effectiveness of Dutch and Belgian armies contradicts the prediction of the realist institutionalist theory, only that the extensive participation of these forces would likely confound the analysis, given that only Britain and France fought together in the war from start to end. The study therefore focuses on what were substantively the important combined battles of the French and British armies fought over the course of the war.

Finally, this series of battles includes both offensive and defensive coalition operations, thus accounting for the effects of offensive-defensive advantages.\textsuperscript{643} In examining French and British forces both on the attack and holding their ground, it allows for an examination of Franco-British coalition military effectiveness, even when coalition forces adopted different operational-tactical orientations at different times in the war. In other words, it mitigates important sources of exogenous variation in coalition military performance, thus making the findings more robust.


Table 5-1: Selection of Coalition Battles for Analysis

<table>
<thead>
<tr>
<th>1940: Intermediate Coalition Military Institutionalization</th>
<th>Offensive Operations</th>
<th>Defensive Operations</th>
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<tbody>
<tr>
<td></td>
<td>• Counterattacks at Arras and Cambrai, 21-23 May</td>
<td>• Advance to the Dyle River, 10-16 May</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fighting withdrawal to the Escaut River, 16-21 May</td>
</tr>
</tbody>
</table>

The remainder of this chapter provides evidence about the level of coalition military institutionalization in the three key areas of political-military planning, command relations and information exchange, generates a series of predictions about how Franco-British should have performed on the field according to the competing theories presented in Chapter Three. It then assesses the empirical evidence of the coalition’s battlefield performance, coding the dependent variable based on the set of coding questions presented in Chapter Two. Each battle thus offers the opportunity to evaluate the validity of competing predictions. The analysis generally confirms the predictions of realist-institutionalist theory, suggesting that coalition military institutions accounted for both the relative strengths and weaknesses of the Franco-British coalition battlefield performance in 1940.

“INTERMEDIATE” FRANCO-BRITISH COALITION MILITARY INSTITUTIONALIZATION, PREWAR TO MAY-JUNE 1940

This section shows that at the outbreak of hostilities, France and Great Britain resurrected the institutional machinery of allied military cooperation that took them nearly four years to find in the last war, setting up a Supreme War Council to coordinated allied political-military strategy and adopting allied unity of command right from the start. Coalition military institutionalization was intermediate, based on the set of coding
questions adopted in Chapter Three. Although the French and British managed to set up institutions for allied political-military planning and command relations, they lacked institutional mechanisms for the exchange of information. To the extent information sharing occurred at all, it was through an ad hoc system of liaison officers and irregular communications. Coalition military institutionalization was thus intermediate, expected to generate fairly good coalition military effectiveness.

**Coalition Political-Military Planning**

At the outbreak of war coalition political-military planning was extensive, even if it took a long time in coming. In addition to adopting a shared set of war aims, France and Britain worked out a common military strategy and established allied planning machinery to achieve those aims on the battlefield. For most of the interwar period, however, military staff talks and joint military planning fell into abeyance. Indeed, the absence of any prearranged military plans or standing military committee among the Locarno powers was recognized to limit the effectiveness of the Treaty, even at the time of its signing.644 During the 1920s, the French and British general staffs were in close contact, as both armies maintained significant occupying forces in the Rhineland, enforcing the Versailles Treaty. With the departure of the last Allied troops in June 1930, however, the main incentive and opportunity for Franco-British military collaboration was lost. Thereafter, relations between the two armies grew more distant as the two nations abandoned joint military planning. During this period, the two armies exchanged routine technical information through military attachés and senior officers made

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occasional visits across the Channel. But there was an almost complete lack of planning between the French and British chiefs of staff.645

To the extent joint planning occurred at all before 1939, it was limited to the exchange of technical and logistical information related to the possible movement of a British field force to France in the event of war. The two military staffs met in London from mid-December 1935 to discuss defense coordination in the Mediterranean as a result of the Abyssinian crisis; the meetings resumed the following year after the German reoccupation of the Rhineland, with French officers coming to London for talks on 15 and 16 April 1936. These talks were strictly limited, on British insistence, to exchanges of information about troop movements, orders of battle and logistical facilities.646 For the next two months such contacts continued through the offices of military attachés in Paris and London. By the end of June 1936 the British were in possession of detailed information about French ports, railways and roads, telephone and radio communications, access to airfields, and future barrack facilities on the continent.647 In return, they furnished the French with a “detailed order of battle for the British Expeditionary Force,” which was to consist of two infantry divisions available for deployment fourteen days after mobilization, subject to the final decision of the government.648 The British chiefs

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648 General Schweisguth, head of the French military delegation at the staff talks, quoted in Young, In Command of France, p. 127.
of staff refused to discuss more substantive matters, however, such as possible deployment zones or military operations against Germany in the event of war.  

As such the practical results of the talks were, as the French grumbled, "slight."  

According to one British officer who participated in the discussions, the senior French delegate, General Victor-Henri Scweiguth, likened them to "a football match with the referee continually blow for offside."  

Of course the British had meant to restrict the scope of the talks. The chief of the British air staff admitted that the "policy of the Air Ministry had been to confine discussion... to generalities."  

Major-General Sir Henry Pownall, later to become DMO in 1938, dismissed the resumption of staff talks "as more a political gesture to please the France than as of any real practical value."  

Formal staff conversations lapsed thereafter, with no further progress made towards joint war planning or military coordination. Although contacts continued through the offices of the military attachés for the next three years, such exchanges were sporadic and carefully limited to technical questions.  

More importantly, they made little progress towards aligning French demands for a small but powerful mechanized force with the expeditionary force on offer from London. Without giving any indication of their war plans, senior French officers and diplomats pressed the British to prepare a mechanized corps for the continent. The French army and air general staffs were well aware of their own shortfalls in mechanized  

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650 Schweiguth quoted in Adamthwaite, France and the Coming of the Second World War, 1936-1939, p. 40.  
651 Quoted in Alexander, The Republic in Danger, p. 263.  
652 Quoted in Dockrill, British Establishment Perspectives on France, 1936-40, p. 38.  
653 Bond, Chief of Staff, p. 107. The British General Staff were reluctant to resume staff talks with the French. In short, there was no Henry Wilson driving the process forward, as existed before 1914. See Philpott, "The General Staff and the Paradoxes of Continental War," pp. 85-89.  
654 Young, In Command of France, p. 120.
formations and combat aircraft and looked to the British to make up for France's military shortcomings. In a meeting of the two foreign ministers in 1937, Yvon Delbos stated to Anthony Eden that the "most useful" British contribution "apart from the Navy was a large and imposing Air Force as a deterrent" and "a small but powerful and mechanized force even if there were only two divisions of it." French entreaties encountered fierce political and army opposition from London, however, as British defense planners favored the creation of a traditional infantry-based army for "general purposes" rather than a continental commitment. Moreover, British rearmament priorities placed the air defense of Britain first, followed by the protection of seaborne trade and empire second, and the dispatch of an expeditionary force to France a long way last. In the absence of joint planning with the French, British military authorities remained woefully ignorant of the strategy as well as the shortcomings of the French army, thus prompting no change in Britain's rearmament policies. Nor did a greater sense of urgency sweep over Britain's military planners, although by 1939 the British had been forced to prepare the detailed

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The turning point came in the spring of 1939, when France and Britain finally began to prepare together in earnest for war against Germany. At the end of January 1939 the British government proposed an "entirely new and frank phase" of joint defense conversations.\footnote{Committee on Imperial Defence, Chiefs of Staff Sub-Committee Report, 6 March 1939. FO 371/22923. See also Young, \textit{In Command of France}, pp. 221-222; Imlay, \textit{Facing the Second World War}, pp. 91-92.} Franco-British military planning progressed rapidly thereafter through a series of comprehensive staff talks held from 29 March to 5 April 1939, followed by a second round at the end of April and beginning of May, and a third and final conference between 28 to 31 August 1939. These formal meetings occurred at the level of the French and British general staffs, rather than through the service attachés, and their scope was extended to include discussions of military plans.\footnote{PN Buckley et al., "Anglo-French Staff Conversations, 1938-1939 ", \textit{Les Relations Franco-Britanniques De 1935 À 1939} (Paris: Éditions du Centre National de la Recherche Scientifique, 1975), pp. 91-118; Alexander and Philpott, "The Entente Cordiale and the Next War: Anglo-French Views on Future Military Cooperation, 1928-1939," p. 62.} The first round of talks led to the preparation of a common war strategy in the event of war against Germany. Specifically, the French and British both agreed that they lacked the means to offer direct military support to the Poles if the Germans attacked eastwards whilst maintaining a defensive pressure against Germany's western borders. Their military staffs reluctantly ruled out preemptive allied action against the Germans, concluding there should be no "dash off against the Germans... merely to relieve the Poles."\footnote{Halifax's Principal Private Secretary, Oliver Harvey, diary entry, September 11, 1939 in Oliver Harvey and John Harvey, \textit{The Diplomatic Diaries of Oliver Harvey, 1937-1940} (London: HarperCollins, 1970), p.} Instead French and
British military planners decided on a long-war strategy, in which they would adopt a
defensive strategy at first, gaining time in which to mobilize their superior industrial
resources, including those of their empires, and only moving to an offensive strategy
once the balance of power had shifted decisively in their favor.\footnote{663} This grand strategy
was outlined in a joint memorandum on "broad strategic policy for the conduct of the
war," which concluded in March 1939, "We should be faced by enemies who would be
more fully prepared than ourselves for war on a national scale, would have superiority in
air and land forces, but would be inferior at sea and in general economic strength. In the
circumstances, we must be prepared to face a major offensive directed at either France or
Great Britain or against both. To defeat such an offensive we should have to concentrate
all out initial efforts and urging this time our major strategy will be defensive.\footnote{664}

To this primary objective of averting early defeat, French strategists and their
British counterparts developed a wide range of detailed planning arrangements. From a
wide range of ministries and departments, representatives and delegates now regularly
crossed the Channel to confer with their opposite numbers.\footnote{665} The two navies delineated
their respective operational jurisdictions in the Mediterranean, Channel and the Atlantic,
while the French and British air staffs worked out details of common aircraft recognition

\footnote{318. See also Eleanor M Gates, \textit{End of the Affair: The Collapse of the Anglo-French Alliance, 1939-40}

\footnote{663 See Robert J Young, "La Guerre De Longue Durée: Some Reflections on French Strategy and
Diplomacy in the 1930s," in Adrian Preston, ed., \textit{General Staffs and Diplomacy before the Second World
War} (London: Croom Helm, 1978), pp. 41-64. More recently, Talbot Imlay has argued that because the
French and British lacked the necessary economic intelligence to assess the balance of power with any
confidence during the Phony War, they tended to assume the worst, prompting them to abandon the long-
war strategy in favor of some way to win a short war. The expedition to Scandinavia was one possibility.
He offers no evidence, however, that the search for an alternative strategy affected allied operational
planning on the Western Front, particularly in the decision to advance into Belgium. See Talbot Imlay,
"Allied Economic Intelligence and Strategy During the 'Phoney War'," \textit{Intelligence and National Security} 13, no. 4 (1998): 107-132.}

\footnote{664 Anglo-French Staff Conversations- UK Delegation: Report on Stage One, Chiefs of Staff Paper, 11-13
April 1939, PRO, CAB 53/47/COS 877.}

\footnote{665 Young, \textit{In Command of France}, p. 242.}
and signals communications, as well as arrangements to permit the landing and refueling of British fighters at French air force bases after chasing German raiders across the Channel. 666 Senior French and British army officers worked out detailed preparations for the movement of an initial British expeditionary force of four divisions (later expanded to ten divisions) to northern France within two weeks after the outbreak of war. 667 After disembarkation at the French ports of Nantes, St. Nazaire and Brest, the BEF would then advance a concentration area in northern France. 668 The French had gained a firm British military commitment, even if that British land contribution remained primarily infantry-based and therefore not the mechanized force which Gamelin had sought since 1937. 669

In addition to the carefully laid technical plans for dispatching British troops across the Channel, vital questions of military strategy and operational planning were addressed for the first time. The Chief of the Imperial General Staff (CIGS), General the Viscount Gort, who would later served as commander-in-chief of the BEF in France, and his successor, General Sir Edmund Ironside, made more visits to Paris, consulting Gamelin on joint war plans and inspecting French fortifications on a tour of the Maginot Line. 670 The British learned for the first time such information as the number of divisions the French army could put in the field, the French strategy for meeting a German offensive, and France's plans for the employment of a British military contingent. The

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667 By May 1940, the British contingent had expanded to thirteen divisions, though three of them were still in training. See Basil Henry Liddell Hart, This Expanding War (London: Faber and Faber ltd., 1942), p. 196.


two staffs agreed that the British would take up a position on the left of the Allied line, with their flank on the sea, unless French forces joined the Belgians on the British left. French forces would hold the northeastern and southeastern frontiers from behind the Maginot Line while French and British troops would move into central and western Belgium to establish a forward defense. The depth of their advance would depend on whether the Belgians appealed for assistance prior to a German attack, in which case the allied armies might advance to the River Escaut (Plan E) or all the way to River Dyle (Plan D). By September 1939 the broad outlines of allied military strategy were thus in place and, as the detail increased, so did the pace of British rearmament and scale of Britain's continental commitment.

To be sure the allied plan of campaign was French in its conception. General Gamelin took the lead in operational planning, but his military proposals were subject to detailed analysis and discussion with British generals. Initially, the latter expressed reservations about any move into Belgium, wishing to avoid above all "encounter battles"

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671 Colville, Man of Valour, pp. 129-130. See also Buckley et al., "Anglo-French Staff Conversations, 1938-1939 ", pp. 111-112.
672 Belgium's return to neutrality after 1936 prevented the development of detailed military plans with the Belgian general staff. Nevertheless, secret conversations and intelligence sharing continued between the Belgian and Anglo-French general staffs even after the return to Belgian neutrality. See Bond, Britain, France, and Belgium, 1939-1940, pp. 21-54; Martin S Alexander, "In Lieu of Alliance: The French General Staff's Secret Co-Operation with Neutral Belgium, 1936-1940," Journal of Strategic Studies 14, no. 4 (1991): 413-427.
673 There were two main plans for the Franco-British move into Belgium. The first, known as Plan D, or the Dyle Plan, was the farthest forward. It called for the French and British to take up a defensive position on the River Dyle, and in a later variant, the Breda-variant, still further north towards the Dutch town of Breda. The alternative, known as Plan E, or the Escaut Plan, was to defend along the River Scheldt (Escaut) through Gent to Antwerp. On French planning, see Alexander, "Repercussions of the Breda Variant."; John C Cairns, "Some Recent Historians and the" Strange Defeat" of 1940," The Journal of Modern History (1974); Gunsburg, Divided and Conquered: The French High Command and the Defeat of the West, 1940, especially Chapter 6; Posen, Sources of Military Doctrine, Chapter 4; Nicole Jordan, "Strategy and Scapegoatism: Reflections on the French National Catastrophe, 1940," in Joel Blatt, ed., The French Defeat of 1940: Reassessments (New York: Berghahn Books, 1998), pp. 13-38.
where the allied armies came upon the enemy without having prepared their positions. Ironside protested that he thought it “absolutely impossible” for the British commander-in-chief to move up to the Escaut, “leaving behind him only an area of forty kilometers separating him from the sea.”675 Responding to these concerns, Gamelin arranged for the French First Army Group to take over the left of the front line, with one of its motorized corps given the task of moving up to the Escaut. On the basis of this plan, Ironside withdrew his objections and later endorsed the more ambitious proposal to advance to the Dyle line, saying that he was “entirely in agreement” with the French high command.676 Sir Henry Pownall, the BEF’s Chief of staff, also thought it a marked improvement on Plan E, concluding the Dyle line was “a better position... with good wad of territory behind it,” and even General Alan Brooke, then a corps commander, thought it was “without doubt the right strategy...It is the shortest line through Belgium saves half that country...”677 Gamelin also gained strong political support for his plan, with Chamberlain in particular “urging the importance of saving as much as possible of Belgium from German occupation.”678 In short, British political and military leaders approved of what Gamelin proposed and accepted their part in Plan D with enthusiasm, or at any rate thought it a marked improvement on an advance to the Escuat. By November 1939, the French and British had settled on Plan D, because it was in both of their interests to meet the Germans in Belgium, for France to keep the fighting away from French soil and also

676 Ibid.; Smart, British Strategy and Politics During the Phoney War, pp. 87-88.
protect raw materials and vital industrial on the northern frontier, and for Britain to secure the ports and airfields located much closer than those in Germany. 679

With the French and British staffs meeting regularly, the two governments reinstituted the planning machinery of Supreme War Council (SWC) to coordinate political-military strategy. The SWC, comprising the highest civilian and military leaders of the two countries, held its first session at Abbeville on 2 September 1939. There were a further eleven meetings of the Council over the next eight months, the final session held only days before the French capitulation on 17 June 1940. French and British military representatives to the Inter-Allied Military Committee met daily to discuss the most pressing strategic matters, aid to Poland, military intervention in Norway, and joint war plans. 680 By October 1939 an Anglo-French Co-ordinating Committee and six executive sub-committees were set up to address economic collaboration. By the end of 1939 the French and British had set up a complex multi-level committee organization and settled administrative procedures. 681 The British Minister for Co-Ordination of Defence, Admiral of the Fleet Lord Chatfield, was able to claim:

Further, we have the closest cooperation with our great Ally. Here again in the months before the war was organized the closest and most complete understanding. Not only had we at the outbreak of war a Supreme War Council, but Anglo-French staffs in all sections are completely organized and sit together daily to study the problems of war. It is true to say that


never have allies started fighting with such a complete mechanism, such complete plans and such identify of spirit.\textsuperscript{682}

In the field, allied commanders visited adjacent headquarters and met fairly regularly to coordinate action. Franco-British military planning was thus more substantial than most accounts have allowed, even if it was very much a hurried effort to make up for lost time. By the time the German invasion started in May 1940, the institutional machinery for allied political-military planning was extensive.

\textit{Command Relationships}

Even before the outbreak of war France and Britain had agreed in principle to adopt a unified command structure (Figure 6-1). Accordingly, the BEF was not sent to France to fight as an independent force, as in 1914, but made subject to the operational orders of the Commander-in-Chief French Northeast Theatre of Operations, General Alphonse Georges, who was himself under the orders of the Commander-in-Chief of Allied Forces, General Gamelin. When Lord Gort assumed command of the British Expeditionary Force in September 1939, he carried with him to France instructions from the Secretary of State for War, Leslie Hore-Belisha, establishing in no uncertain terms his place in the allied chain of command. “You will be under the command of the French Commander-in-Chief ‘North-east Theatre of Operations,’” Hore-Belisha wrote, “In the pursuit of the common object, the defeat of the enemy, you will carry out loyally any

instructions issued by him.” Gort’s subordinate role was hardly surprising given that the small size of the British Field Force, barely 160,000 men at the end of September, compared to the French army of over two million men. To this point Gort’s main task was to “co-operate with our Allies in the defeat of the common enemy,” though he still retained, the traditional right of “appeal to the British Government’ any order given to him that seemed likely to “imperil the British Field Force.” Those orders came from the Supreme Allied Commander, General Gamelin, who was not only the French commander-in-Chief but made responsible to both governments on the Supreme War Council. Thus, as the Chief of Staff, Pownall, enthused:

We shall get unity of command in the field from the outset, instead of wasting 3 ½ years trying to get there. It may be a bold step but I’m sure it’s right. Independent commands like that of [Sir John] French are all very well when times are good, fair or indifferent. But when times are bad they are most dangerous.

The experiment of independent command had been tried in 1914; of all the lessons learned from the last war, the principle of unity of command was undisputable.

But the resulting allied chain of command was both cumbersome and complex in the extreme. The ultimate responsibility for operations rested with the overall allied commander-in-chief, Gamelin, but he exercised his command through the intermediary of Georges, as the commander for the northeast front. In this arrangement, the British commander-in-chief answered operationally to Georges but politically to the War Cabinet in London. But Gamelin, who was responsible to his own government, preferred to

685 Ellis, *The War in France and Flanders*, pp. 11-12.
686 Sir Henry Pownall, diary entry for 3 July 1939 in Bond, *Chief of Staff*, pp. 210-211.
bypass the chain of command, dealing directly with Gort rather than through Georges.687 Gamelin attached his own Intelligence and Operations officers at the British headquarters and accepted a permanent British liaison mission at his personal headquarters in Vincennes, thus establishing direct relations between the two staffs.688 The British had proposed in July 1939 the creation of a permanent inter-allied joint staff in London, but Gamelin opposed the idea and continue to employ his own personal staff and a small number of British liaison officers attached to his headquarters.689 In the end, the resultant allied command structure reproduced the same divisions within the French high command over war plans—the reorganization a way for Gamelin to reduce Georges’ influence on military planning and reaffirm his own authority to direct Allied strategy—but after many tedious meetings over what Pownall dismissed “largely a storm in a teacup,” the British were perfectly content to accept this arrangement.690

To add further complexity to what was already a long chain of command, Georges appointed General Gaston Billotte the coordinator of Allied forces in the north on 12 May, one day after the battle started, after deciding his headquarters was too far away for

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687 In February 1940, Gamelin agreed, without consulting with Georges, that two British territorial divisions earmarked for France could remain in Britain, pending a decision on whether to send them instead to Scandinavia. He had also failed to confer with Georges before agreeing to release one of the five regular divisions with the BEF in France to take part in allied military operations in Norway or Sweden, if required. The relations between Gamelin and Georges became very strained, namely because the latter thought Gamelin’s strategy was dangerous but had little choice but to carry it out as a subordinate commander. Gamelin saw Georges as a rival and therefore sought to minimize his role in staff planning. Pownall, observing the strained relations between Georges and Gamelin, concluded the latter “wants to get direct control over the BEF.” Ironside, who was of the same opinion, made a special visit to Gamelin’s headquarters to resolve the matter. After length discussions, the two sides reached a compromise agreement, which acknowledged that the BEF was under Gamelin’s supreme authority but would, merely as a matter of delegation, receive orders from Georges. Nevertheless, Gamelin was permitted to maintain his own personal representatives at the British headquarters, thus giving him direct access to Gort. Episode recorded in Pownall’s diary, entry for 22 February 1940 in ibid., pp. 284-286. See also Günsburg, Divided and Conquered: The French High Command and the Defeat of the West, 1940, pp. 133-136.

688 Colville, Man of Valour, pp. 169-170; Bond, Britain, France, and Belgium, 1939-1940, p. 47.

689 Bond, British Military Policy between the Two World Wars, p. 320.

690 Bond, Chief of Staff, pp. 277, 285-288.
him to exercise personal control over the French First Army Group and the BEF on the Belgian frontier, and coordinate operations with the Belgian Army.\(^{691}\) Billotte, as Commander of the First Army Group, was the logical choice to assume the coordinator role. But appointment came after the invasion had already started, and he lacked the staff suddenly to liaise at short notice with five armies. Furthermore, the fact that he was only an Army Group Commander placed him in a potentially difficult position should it become necessary to impose his authority on the British or Belgian high commands.\(^{692}\) The British, for their part, accepted the new command arrangement without dissension. Gort sent the vice chief of General Staff, General Major General Eastwood, to Billotte the next day to relay that he was not only willing to accept him as coordinator, but would be glad to receive orders from him.\(^{693}\) This change added a third link in the chain of command, with Gort now responsible to Billotte, who reported to Georges, who reported to Gamelin, who remained at his headquarters in Vincennes. In this weakened command structure, there was a very real danger of conflicting orders and confusion amid the strain of battle.

\(^{691}\) Belgian neutrality had made it impossible to settle the place of the Belgian Army in the Allied command structure prior to the German invasion. King Leopold III, who as the Belgian sovereign was also the commander-in-chief of the Belgian Army, refused to subordinate himself to the French high command. Billotte’s appointment as a “coordinator” was a compromise solution. See Gunsburg, *Divided and Conquered*, pp. 131, 177-178.

\(^{692}\) See Jackson, *The Fall of France: The Nazi Invasion of 1940*, p. 85.

Figure 6-1: Chart of the organization of allied command structure

Information Exchange

Information exchange both before and after the outbreak of war was sporadic and selective, owing to a general reticence to share sensitive information and engage in intelligence collaboration. Before 1939, France and Britain exchanged intelligence periodically over German military capabilities and Italian activities in the Mediterranean but revealed little else. Such information as the French and British obtained in those years came through the normal diplomatic channels—the military attachés in London and Paris—supplemented by occasional high-level military visits and informal, personal contacts between senior French and British officers. But close contacts between senior French and British army officers were the exception rather than the rule and such
exchanges were primarily to promote camaraderie rather than achieve cooperation between the two armies.\textsuperscript{694}

For much of the interwar period the absence of a firm British military commitment to France strictly limited exchanges of information to technical questions about military orders-of-battle and logistical details, through channels of the military attachés in Paris and London. The French kept a close watch on British political and military affairs, with the military attaché in London from 1929 to 1936, General Robert Voruz, reporting assiduously on the British army, troop morale, recruitment problems and changes in the high command. The reports of his successor, General Albert Lelong, and their deputy, Lieutenant-Colonel Cuny, were no less comprehensive.\textsuperscript{695} Every conversation with a senior British officer or civil servant at the War Office was quickly relayed to the corresponding authorities in Paris. In a widely circulated report in November of 1938, Lelong warned that Britain was in no state to intervene effectively on the Continent nor would it be able to field sizeable and well-equipped armed forces for several years. “As a result,” Lelong concluded, “it is upon us that the largest part of the effort of resistance will rest.”\textsuperscript{696} As the War Office and French general staff exchanged views but intermittently, such reports conditioned French expectations of British military support, raising doubts about whether Britain could or would furnish the desired mechanized divisions. In addition to these regular dispatches, the French diplomatic and military envoys in London prepared lengthy annual reports, often more than two hundred


pages long, about all British matters political, economic and military. The French thus compiled a detailed and accurate assessment of the British army, even if that information was acquired through an ad hoc system of personal contacts with British generals.

The British military attaché in Paris played a similar role in the opposite direction. But from what survives in the public record it would appear that the British attachés were less industrious, reporting neither as comprehensively nor as often as their French counterparts. Before staff talks such little information as was received in London came through annual staff visits and personal contacts. For example, senior British army officers attended special courses with officers of the French army and obtained better access to annual French maneuvers than other foreign observers. The CIGS, Sir Archibald Montgomery-Massingberd, visited France in both 1931 and 1933 to see the construction of French fortifications, and participated in the French army’s staff ride in 1934. These visits, he informed his successor Field-Marshall Sir Cyril Deverell, “have been of great value in keeping me ‘au fait’ with what the French army are doing as regards fortifications, equipment and mechanization… enabling me to get a good idea as regards French plans and ideas in the event of a war with Germany…” The CIGS and Hore-Belisha, after observing French army exercises in Normandy, received a tour of the

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Maginot Line fortifications in 1937. More often than not, however, British officers saw what the French wanted them to see because, as Martin Alexander has shown, Gamelin and the rest of the French high command sought to shape British perceptions of French power. Moreover, the French purposefully withheld the details of troop concentrations and dispositions, and of battle plans, in hopes of drawing the British into comprehensive staff conversations.

Indeed, the British grew were well aware of how seriously incomplete and impressionistic a lot of their information was about the French army. In April 1938, Major C.A. de Linde, the assistant military attaché in Paris, admitted to London that he and the military attaché “had not the same means” of gathering information on the French armed forces as the Germans and Italians, and instead had to rely on “surmise.” General Ismay wrote in a written report to the Committee of Imperial Defence (CID), that it was “intolerable” to be ignorant of the “exact position” of the French with respect to “what they can and intend to do with their army.” The British thus lacked critical information about the French army, including the quality of its training and weapons, as well as detailed knowledge of its wartime operational plans.

The two nations also resisted close intelligence cooperation prior to the outbreak of war. British intelligence services cooperated with the French only sporadically and

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703 Jackson and Maiolo refer to it as the “intelligence trap” which characterized Franco-British relations. For the French, the hope was that intelligence exchanges were an initial step towards a formal military alliance with the British. Of course this was precisely what the British wanted to avoid for most of the interwar period. As a result British political and military leaders were reluctant to exchange information with the French, even much needed intelligence about French capabilities and intentions. See Jackson and Maiolo, “Intelligence in Anglo-French Relations before the Outbreak of the Second World War,” p. 122.
705 Ibid.
over specific issues related to German military rearmament and the threat of left-wing subversion in France.\textsuperscript{706} Overall, however, the British were extremely reluctant to pool intelligence about Nazi Germany with the French, for fear that the latter would invariably leak sensitive information to the press. Chamberlain was not alone in thinking that the French "never can keep a secret for more than half an hour."\textsuperscript{707} For this reason, the sharing of information with France was subject to strict regulations from a mistrial committee responsible for foreign intelligence liaison.\textsuperscript{708} Not surprisingly, before staff talks opened in 1939, the archives of Deuxième Bureau contain few references to information obtained from British intelligence.\textsuperscript{709}

For their part, the French carefully managed the sharing of intelligence with Great Britain, using it as a way to influence British perceptions of the Nazi threat. To this end the French were not above misleading the British or passing along to them deliberately false intelligence, as long as it served French interests. In January 1939, for instance, French staff officers deliberately encouraged London's fears of an imminent German attack on the Low Countries and a possible preemptive bombing strike against London.\textsuperscript{710} This scare campaign aimed to awaken the British to the growing danger of

\textsuperscript{706} Jackson, France and the Nazi Menace: Intelligence and Policy Making, 1933-1939, pp. 28-29.
\textsuperscript{707} Quoted in Iain Macleod, Neville Chamberlain (London: F. Muller, 1961), p. 207.
Nazi revisionism and the related need for closer military relations between France and Britain.\textsuperscript{711} This scare campaign had its desired effects, in contributing to British decisions to open staff talks with the French, build up a continental army, and then to introduce peacetime conscription.\textsuperscript{712} Despite the growing Nazi threat, France and British intelligence cooperation was always selective and intermittent.

The flow of information back and forth across the Channel increased with the threat of war, but these exchanged never translated into regular and systematic exchanges of information. After staff conversations began in the spring of 1939, the two nations shared a great deal of information about their respective military capabilities, strategies and tactics in planning for imminent war. They also exchanged some sensitive information about weapons systems and technological advances. In March 1939, for example, Britain revealed its radar system—the British technology was superior to the latest French model—and agreed to sell this sensitive technology to their ally.\textsuperscript{713} Though still more information was shared with outbreak of war in September 1939, it was hardly better organized. The two nations continued to rely on ad hoc network of personal contacts, ministerial meetings and official correspondence, much of which dealt in rumor and innuendos.\textsuperscript{714}


\textsuperscript{714} See, for example, the experiences of Edward Spears, \textit{Assignment to Catastrophe: The Fall of France June 1940}, 2 vols. (New York: William Heinemann, 1954); Christopher Baxter, "'A Very Great Clerk': Sir Ronald Campbell and the Fall of France, May–June 1940 1," \textit{Diplomacy and Statecraft} 17, no. 4 (2006): 821-834.
To this system was added a network of liaison officers established at the various French and British military headquarters. The British military attached military “Missions,” led by a Major General or Lieutenant General, to Gamelin’s headquarters at Vincennes and Georges’ headquarters at La Ferté-sous-Jouarre, as well as to the headquarters of the French First Army Group and French First and Seventh Armies, fighting adjacent to the BEF. The task of these military missions was to “act as the channel of communication” between the British and the French high command. Likewise, the French established a military mission at the British headquarters under General Voruz, who had served previously as the French military attaché in London. In addition, liaison was established at lower levels of the military hierarchy, with French officers, often from the reserves or called from retirement, attached to British units in the field, although in this case their role was primarily to provide language and cultural understanding between the British and the local population. All too often liaison officers, who took to the roads, travelling regularly by motorcycle, to deliver messages and orders from headquarters, met with accidents, resulting in endless delays and much lost information.

More importantly, these arrangements were no substitute for comprehensive information sharing, in part, because it was often difficult for liaison officers to gain

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715 Howard-Vyse’s orders, cited in Martin Allen, *Hidden Agenda: How the Duke of Windsor Betrayed the Allies* (New York: M. Evans, 2002), pp. 110-112. Of note, the Duke of Windsor was also a member of the Howard-Vyse mission until recalled, owing to fears of his capture by the enemy.


717 As the Allies limited radio communications (due to security fears), liaison officers were the primary means of communication in the field. See Bond, *Britain, France, and Belgium, 1939-1940*, p. 61; May, *Strange Victory: Hitler’s Conquest of France*, pp. 252-253; Martin S Alexander, "Radio-Intercepts, Reconnaissance and Raids: French Operational Intelligence and Communications in 1940," *Intelligence and National Security* 28, no. 3 (2013): 337-376.
access to sensitive information. “To much secrecy,” grumbled one RAF intelligence liaison officer, “‘in matters where secrecy must give place to immediacy.’”\textsuperscript{718} Similarly, Edward Spears, appointed as Churchill’s personal liaison officer to the French government in May 1940, concluded: “liaison with the French was extremely unsatisfactory… the main liaison organization at Vincennes with GQG… had broken down as far as rendering any useful service was concerned. The French were giving them no news, and they were not organized to collect it.”\textsuperscript{719} As a result neither the Howard-Vyse Mission with Gamelin nor the Swayne Mission with Georges ever managed to discover that the French strategic reserve existed mostly on paper before the start of the invasion.\textsuperscript{720} The liaison mechanism thus permitted some information sharing to occur between the commands, but in the absence of other allied machinery, it was insufficient for establishing close and regular communications.

Intelligence collaboration was likewise more frequent but little better organized after the outbreak of war. The head of French secret intelligence, Lieutenant Colonel Louis Rivet, recorded some twenty-three separate meetings with representatives from British intelligence between June 1936 and January 1939.\textsuperscript{721} The British secret serviced shared with its French counterpart some information on covert methods, reports and plans, including aerial photographs, and even espionage networks in Holland.\textsuperscript{722} But such intelligence cooperation was ad hoc. With the exception of liaison officers and

\textsuperscript{718} Quoted in Alexander, "Radio-Intercepts, Reconnaissance and Raids: French Operational Intelligence and Communications in 1940," p. 348.
\textsuperscript{719} Spears, Assignment to Catastrophe: The Fall of France June 1940, pp. 159-160.
\textsuperscript{720} Colville, Man of Valour, p. 187.
\textsuperscript{721} Cited in Jackson and Maiolo, "Intelligence in Anglo-French Relations before the Outbreak of the Second World War," pp. 133-134. See also Louis Rivet et al., Carnets Du Chef De Services Secrets, 1936-1944 (Paris: Nouveau monde, 2010).
some procedures for pooling signals intelligence, France and British never put in place the machinery for comprehensive intelligence cooperation. The French had proposed establishing permanent mechanisms and standing procedures for information sharing, but the British balked at the suggestion. The British Joint Intelligence Committee (JIC), after studying the best means to exchange information with France, warned in April 1939, “no revelation should take place of secret methods of obtaining information and in particular of cryptography.”\(^\text{723}\) As late as July 1939, the JIC remained opposed to anything like an “intelligence alliance,” concluding, “it is advisable to hand over as little as possible [to the French], provided that the maintenance of good relations is not prejudiced.”\(^\text{724}\) Consequently, even in the area of their closest collaboration, success against the Enigma machine, the French and British held back much information about their methods, successes and work in cipher breaking.\(^\text{725}\) Undoubtedly Franco-British intelligence cooperation was nothing like the Anglo-American intelligence relationship later in the war. What it meant in 1940 was that the coalition lacked institutional mechanisms for collecting, assimilating and rapidly distributing information in battle.

**SUMMARY OF COALITION MILITARY INSTITUTIONS AND THEORY PREDICTIONS**

The preceding section showed that Franco-British coalition military institutionalization had achieved “intermediate” levels by May 1940. The French and British had put in place allied military institutions for political-military planning and

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\(^{723}\) “Note on the subject of the exchange of service intelligence between French and British staffs,” JIC Minutes, 21 April 1939, quoted in Jackson and Maiolo, "Intelligence in Anglo-French Relations before the Outbreak of the Second World War," p. 145.

\(^{724}\) Minutes of the 30\(^{\text{th}}\) meeting of the JIC, 7 July 1939, quoted in ibid., p. 148.

command relationships. The combination of the Supreme War Council and allied unity of command should have resulted in fairly good coalition military effectiveness.

According to realist-institutional theory, Franco-British forces should have demonstrated a consistent capacity for coalition battlefield integration and cohesion. They were unlikely, however, to have much capacity to respond and adapt to battlefield events, however, owing to institutional deficiencies in information sharing. The next section examines a series of coalition battles fought in May-June 1940, so as to assess the validity of these predictions.

Predictions of Realist Institutional Explanation

- The Franco-British military coalition military effectiveness should have fought with fairly good coalition military effectiveness. Coalition forces should have been consistently integrated and cohesive, even if not especially responsive in the field.
  
  Confirming Evidence:
  - Franco-British coalition military effectiveness should be fairly good, with units displaying a consistent capacity for coalition military integration and cohesion.
  
  Disconfirming Evidence:
  - The Franco-British coalition failed to demonstrate coalition military integration and cohesion, fighting poorly, even though coalition military institutions were put in place.

Predictions of Alternative Explanations for Coalition Military Power and Effectiveness:

- **Material Preponderance:** As the two sides were fairly evenly matched, both the Germans and Franco-British coalition should generate similar levels of military power.

- **Regime Type:** As France and Britain were both democracies, the coalition should have fought effectively on the battlefield from the outset.

- **External Threat:** External threat was relatively high, predicting that coalition military effectiveness was fairly good from the outset.

- **Coalition Political Cohesion:** As the Franco-British coalition confronted a high level of external threat, and a mid-to-high level of internal threat, a consequence of both the interwar estrangement and a centuries-long historical enmity, it should have suffered from poor coalition political cohesion, which generated, in turn, poor coalition military effectiveness.
 EFFECTS OF MINIMAL COALITION MILITARY INSTITUTIONALIZATION ON FRANCO-BRITISH COALITION MILITARY PERFORMANCE, MAY-JUNE 1940

This section examines two major battles—the defense of the Belgian frontier (10-21 May), including the move to the Dyle and the subsequent withdrawal to the Escaut line, and the Allied counterattacks at Arras and Cambrai (21-23 May)—when Franco-British coalition military institutionalization was intermediate, and coalition military effectiveness therefore should have been relatively good. For each of engagement, the section presents the background and the forces employed on both sides, as well as a summary of the main battle events. It then assesses Franco-British coalition military effectiveness, answering the set of coding questions posed in Chapter Two. For both battles, the evidence demonstrates that the French and British armies fought fairly well, consistent with the predictions of realist-institutionalist theory. In the fighting, the allied armies displayed a consistent capacity for coalition battlefield integration and cohesion, but very limited responsiveness, and for reasons directly attributable to the degree and form of coalition military institutions.

German Invasion and the Defense of the Belgian Frontier: The Dyle-Breda Plan and Franco-British Defensive Operations, 10-21 May 1940

The German invasion of Belgium provides the first critical test of Franco-British coalition military effectiveness. The BEF fought alongside the French First and Seventh Armies in Belgium, engaging the enemy first on the River Dyle, and then executing a series of delaying actions from one river-line to the next. The battle evidence generally confirms the predictions of realist-institutionalist theory, showing that the French and
British armies fought more effectively than traditional accounts would have us believe. The Battle of France ended in the bitter agony of defeat and mutual recriminations. But this sad conclusion should not obscure the fact that from a coalition perspective, the French and British armies fought more effectively and displayed better coalition battlefield integration and cohesion than traditional accounts allow. While the French and British put up stubborn resistance in Belgium, over a hundred miles away to the east, Panzer Group Kleist broke through the Ardennes and pushed rapidly into France. The disaster unfolding near Sedan was the greatest test and also the greatest failure of the Franco-British coalition in May of 1940, for the French and British armies were all too slow to react and improvise a response to the German advance.

Background

The German offensive plan took the Allies unawares. As winter turned to spring in 1940, French and British generals anticipated the main German attack would come through Belgium, as in 1914. The Maginot Line, a strongly defended line of concrete fortifications, running from the Swiss frontier in the south to Luxembourg border in the north, guarded the route of direct invasion into France.726 The Germans would surely want to avoid this formidable obstacle, leaving open the region facing Belgium. This area included a long stretch of frontier along the Ardennes and across Flanders to the English Channel. Allied military planners dismissed the possibility of Germans crossing through the Ardennes, concluding the heavily forested and rolling hills were wholly

726 The French ruled out extending the Maginot Line from Luxembourg to the coast for reasons: 1) prohibitive cost; 2) technical difficulties of construction on waterlogged terrain and 3) at least before 1936, reluctance to exclude Belgium from an alliance with France. See Bond, "Introduction: Preparing the British Field Force, February 1939-May 1940," pp. 14-17; Jackson, The Fall of France: The Nazi Invasion of 1940, p. 27.
unsuitable for mechanized warfare.\textsuperscript{727} Even if enemy came through the Ardennes, he still had to force a crossing of the wide, swift running Meuse. “The experience of past wars,” Gamelin argued, in 1937, showed that the “Ardennes has never favored large operations.”\textsuperscript{728} Accordingly the French, as well as the British, concluded the most likely path of attack was across the plains of Belgium, in a rerun of the Schlieffen Plan.\textsuperscript{729} The French and British thus prepared to meet the German invasion with a rush of troops and armor into Belgium.

Before February 1940, the German plan of attack conformed almost exactly to Allied expectations. When in October 1939 Hitler ordered his generals to prepare for an immediate offensive against France, they indeed came up with a modified Schlieffen Plan, codenamed \textit{Fall Gelb} (Case Yellow). The original plan called for the right wing of the German Army to deliver the main weight of the attack in the west, through Belgium, and then into northern France, as in 1914. The operational objectives were more modest, however, envisaging not the annihilation of the allied armies but merely beating them back to the Channel and then southward to the Somme. The General Staff was content to simply secure air and naval bases in Belgium and northern France for future operations against Great Britain. Hitler, unsurprisingly, was less than enthusiastic about the plan’s relative lack of ambition.\textsuperscript{730}

\textsuperscript{727} Though the Ardennes was not thought impenetrable, most senior French and British officers thought it constituted a formidable obstacle to the rapid movement of armored formations, giving the Allies enough time to send reinforcements to the area, if necessary. A few senior allied officers speculated the main attack could come through the Ardennes. See Gunsburg, \textit{Divided and Conquered}, p. 120; Alexander, \textit{Fighting to the Last Frenchman? Reflections on the Bef Deployment to France and the Strains in the Franco-British Alliance, 1939-1940}, pp. 314-315.


\textsuperscript{730} The single best study of the development of Fall Gelb is Frieser, \textit{The Blitzkrieg Legend}. It was first published in 1995 as the official German history of the 1940 campaign.
While *Fall Gelb* originated with the German General Staff, some senior officers, including Lieutenant General Erich von Manstein, opposed the plan and proposed an alternative. Mainstein argued that the main effort should be shifted farther to the south, where the Allies would least expect it, that is the Ardennes, striking with Panzers. But the General Staff resisted his operational concepts, refusing to present them to Hitler. Not until February 1940 did the German high command come around to Manstein’s way of thinking, due in no small part to the capture of German war plans, passed onto the French and British, after a German plane, carrying them, crash landed on Belgian soil in January 1940. Mainstein seized this opportunity to press his ideas for the offensive in the west, finally gaining an interview with Hitler on 17 February. Hitler liked what the general proposed, adopting his operational concepts as inspiration for a fundamental revision of the German military strategy.\textsuperscript{731} The new plan, sometimes referred to as the “Manstein Plan,” called for Army Group A, under General Gerd von Rundstedt, to launch the main thrust through the Ardennes, across the Meuse and to the coast, cutting through the allied armies like a sickle. Meanwhile, Army Group B, under General Fedor von Bock, would advance into northern Belgium, waving “a matador’s cloak,” in the words of Basil Liddell Hart, luring the allied armies northwards while distracting them from the real threat further south.\textsuperscript{732} It was as bold gamble, a clockwise inversion of the Schlieffen Plan, that depended on the Allied armored bull rushing headlong into Belgium against


von Bock’s armies, sufficiently engaged so as not to
“gore” the exposed right flank of Rundstedt thrust.\textsuperscript{733}

The Allies fell into the trap set for them. In November 1939, senior French and
British commanders meeting at Vincennes agreed to advance into Belgium in case of a
German attack. The Supreme War Council ratified that decision on 17 November 1939.
On that same day, Gamelin issued the “Plan D” directive for the French First Army, the
French mechanized cavalry corps and XVI corps, along with the BEF, to move up to the
Dyle Line in the event of a German attack.\textsuperscript{734} The glimpse of German operational plans,
which had fallen into Allied hands after the German plane crash of 10 January, appeared
to confirm allied expectations. Gamelin was now convinced the main enemy threat
would indeed come through Belgium, and prepared to concentrate his best formations on
the left wing. On 20 March, he issued a new directive, adding the Breda Variant to the
original Dyle Plan.\textsuperscript{735}

In addition to the advance into the Belgium, the Allies would now advance further
north, toward the town of Breda, so as to link up with the Dutch Army. To accomplish
this more ambitious scheme, Gamelin strengthened the left wing of the First Army
Group, giving the Seventh Army the task of racing up to Breda.\textsuperscript{736} Hitherto the Seventh
Army had constituted a significant part of the French strategic reserve behind the allied
advance into Belgium. Instead of the ten French and four British divisions previously
earmarked for Belgian operations, now some thirty divisions, among them the most

\textsuperscript{733} Herwig, "War in the West, 1914-16," p. 160.
\textsuperscript{734} Robert A Doughty, "The Illusion of French Security: France, 1919-1940," in Williamson Murray and
Alvin Bernstein, ed., The Making of Strategy: Rulers, States, and War (Cambridge, UK: Cambridge
\textsuperscript{735} British military leaders supported the Breda Variant. See May, Strange Victory, pp. 299, 312-313.
\textsuperscript{736} Jackson, The Fall of France, pp. 28-34.
mobile and heavily-armored allied formations, would advance into Belgium and Holland to meet the German onslaught when it came on 10 May 1940.\textsuperscript{737} The main striking power of the Franco-British Armies would thus march northwards into a well-laid German trap.

**Balance of Forces**

On the eve of the German attack the overall balance of forces was more or less even (Table 6-2). Some four million Allied soldiers took to the field against an attack force of nearly three million Germans, including reserves. The Allies fielded 104 French and 10 British divisions, as well as 22 Belgian and eight Dutch divisions, for a total of 144 divisions. They opposed 136 German divisions, including 42 divisions held in reserve.\textsuperscript{738} On the northern attack front, Allied numerical superiority was more marked. Germany’s Army Group B invaded Holland and Belgium with two field armies and a total of 29 divisions. Opposing them were a total of 59 Allied divisions, which included the French Seventh and First Armies (17 divisions) and three mechanized divisions of the Prioux Cavalry Corps, the British Expeditionary Force, and the Belgian and Dutch Armies.\textsuperscript{739} In May 1940, the Allies thus had a slight but not significant advantage in manpower.

\textsuperscript{737} Doughty, *The Breaking Point: Sedan and the Fall of France, 1940*, pp. 11-12.


\textsuperscript{739} Jackson, *The Fall of France*, pp. 33-34.
### Table 6-2: Balance of Forces in the German Invasion of the West, 10 May 1940

<table>
<thead>
<tr>
<th></th>
<th>Divisions</th>
<th>Manpower</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Germany Allied</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>104</td>
<td>2,240,000</td>
</tr>
<tr>
<td>Great Britain</td>
<td>10</td>
<td>500,000</td>
</tr>
<tr>
<td>Belgium</td>
<td>22</td>
<td>650,000</td>
</tr>
<tr>
<td>Netherlands</td>
<td>8</td>
<td>400,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>144</strong></td>
<td><strong>~4,000,000</strong></td>
</tr>
</tbody>
</table>

The Allies were also more than a match for the Germans in artillery, aircraft and tanks (Table 6-3). French and British artillery significantly outnumbered the Germans—11,980 guns to 7,378—and contained a higher portion of large-caliber heavy guns. The Allies could call on more guns to support the frontline troops, except for antitank guns and antiaircraft guns. The Luftwaffe was superior in the air, but the size of the German air force has often been exaggerated. The Germans had 3,864 combat aircraft (bombers, dive-bombers, ground-attack aircraft, fighters). Of that number, however, only 2,589 were available for the invasion of the Low Countries and France, with rest of the air fleet employed against Norway. Against the Luftwaffe, the French air force had 3,562 combat aircraft (2,402 fighters and 1,160 bombers) at the start of the campaign in the west. But only 879 French aircraft were employed at the front, apparently because the French command held back aircraft on the assumption that the assumption that the war would be long and France would need to preserve some of its combat aircraft for future battles. Of course it was the first battle that brought the decision.

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740 Stein and Fairbank, Field Marshal Von Manstein: The Janushead-a Portrait, p. 77.
743 Estimates of Allied and German aircraft employed in the Battle of France vary widely depending on differing calculations of the strength of the Luftwaffe. The Luftwaffe had an overall strength of 5,466
In addition to the French air force, the British had about 500 aircraft (including 224 bombers and 160 fighters) stationed in France at the start of the invasion. After 10 May 1940, however, the British high command sent an additional sixteen fighter squadrons to France, flying some of them from airfields in England.\(^\text{744}\) In addition to the British squadrons deployed in France, the RAF committed around 1,870 aircraft (including reconnaissance) to the fight.\(^\text{745}\) In short, the Luftwaffe was formidable, but the number of allied aircraft made sure it was not a complexly one-sided battle in the air.

| Table 6-3: Balance of Artillery, Aircraft and Tanks, 10 May 1940\(^\text{746}\) |
|-------------------|-----------------|-----------------|
|                   | Artillery       | Aircraft        | Tanks            |
| Germany           | 7,378           | 3,864           | 2,439           |
| Allies            |                 |                 |                 |
| France            | 10,700          | 3,562           | 4,111           |
| Britain           | 1,280           | 1,870           | 310             |
| Total             | 11,980          | 5,432           | 4,421           |

If the French and British had the advantage in artillery, and the Germans in the air, they were more or less equally well matched with the Germans in tank numbers. At the start of the campaign the French army alone had a total of 4,111 tanks and the British Army 310 tanks. In addition, the British 1\(^{st}\) Armored Division was in the process of crossing the English Channel and arrived by the end of May with a force of 300 combat vehicles. For its part, Germany fielded a total of 2,439 battle tanks in the Panzer and motorized divisions.\(^\text{747}\)

Qualitatively the Allied tanks were either equivalent to or superior to the German Panzer models. The German lights tanks were unfit for engaging enemy tanks, the Panzer I equipped only with machine guns and the Panzer II with rather weak 2-cm guns, and were kept back a respectable distance from the action. In medium and heavy tanks, the combination of firepower and the armor protection made the allied models superior to their German equivalents, the Panzer III and IV. The French SOMUA S35 and French Char B had more lethal guns and armor twice as thick their German equivalents, while the British Matilda Infantry tank British Matilda Infantry tank was even more better protected, at 78 mm thick, and armed with a 40 mm main gun.  

Though numerically and qualitatively superior, French and British mostly spread their tanks out in battalions accompanying infantry divisions across the entire front. It was not the number of tanks that decided the battle in May 1940, but how the Germans massed their tanks into ten armored panzer divisions and concentrated seven of them against the thinly held Ardennes sector. In other words, the Allies had more than enough tanks and guns to be able to halt the German invasion when it came in May 1940; the German victory was not attributable to overwhelming numerical strength.

Defense of the Belgian Frontier

In the early morning of 10 May 1940, German armies invaded Belgium, Luxembourg and the Netherlands in a campaign that would, within weeks, carry German tanks to the shores of the English Channel. At the German invasion of the Low Countries Gamelin ordered the immediate execution of the Breda-Dyle Plan. French and British

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troops swung forward from prepared positions on the frontier into Belgium to meet the German onslaught. On the extreme left wing of the Allied front, Giraud’s Seventh Army swiftly advanced into Holland and reached Breda the following afternoon. But German airborne troops had seized the bridges over the Moerdijk causeway, twenty mile to the south of Rotterdam, cutting Holland in two, and foiling the allied attempt to link up with the Dutch army. By the time French troops reached Breda, the Dutch army had already withdrawn north towards Amsterdam and Rotterdam. Beyond it, they encountered not the Dutch army but the lead tanks of the Ninth Panzer Division. Giraud’s army, heavily hit by both Stukas and German armor, and running short of ammunition, quickly withdrew into Belgium. The Breda variant, thirty-six hours into battle, had already proven a serious mistake.

In Belgium, French and British troops moved north to the line of the River Dyle. With Giraud’s Seventh Army falling back on Antwerp, the Belgian army on its right withdrew to cover the front between Antwerp and Louvain. The BEF marched forward to the right of the main Belgian Army, advancing past Brussels, all the way to the Dyle, and occupying the sector between Louvain and Wavre, a distance of about seventeen miles. At the head of the British advance were the armored cars of the 12th Lancers and the light tanks and carriers of three divisional cavalry regiments. German

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753 After the Seventh Army fell back to Antwerp, it received orders to withdraw around the rear of the BEF to fill the gap in the French line further south. Lord Gort’s Second Despatch, 25 July May 1940 in John Grehan and Martin Mace, *The BEF in France 1939-1940*, p. 36.
air interference was deliberately minimal, drawing the allied armies forward into a trap.

“A surprisingly quiet day here,” Pownall recorded in his diary, “There has been a certain amount of bombing… but on a very light scale and with very few casualties.” By the late evening of 10 May, the 12th Lancers had covered more than eighty miles to reach the Dyle. The next day, 11 May, British infantry arrived and dug in along the river line.

On their right flank, The French First Army rushed forward to occupy the Gembloux Gap—the plain extending between the Dyle and the Meuse Rivers—where the French expected the Germans to main their main effort. Blanchard’s First Army was to defend this twenty-five miles sector of open, rolling plain between Wavre and Namur, which contained few natural antitank obstacles. General René Prioux’s mechanized Cavalry Corps rushed ahead of the main body of the First Army to gain time for the infantry to set up defensive positions along the river and in front of the Gembloux Gap. Meanwhile the Germans had seized the Belgian fortress of Eben Emael and the bridges it guarded over the Albert Canal, opening the way for the German Sixth Army to race to the Dyle.

With the collapse of the Belgian army in front of him and still waiting the arrival of the French First Army, Prioux found himself in a dangerously exposed position on the Gembloux Gap. On 12 May, Prioux’s Corps came under heavy armor attack from

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756 Pownall, diary entry for 10 May 1940 in Bond, *Chief of Staff*, p. 308.
760 In the early hours of 10 May, German gliders landed on the fort’s roof and captured the garrison. The Germans then seized the two northernmost bridges over the Albert Canal intact, but the Belgians managed to blow up the one nearest the Eben-Emael before retreating to the west. Having breached Belgium’s strongest fortress, the Germans were now free to advance deep into Belgium. See James E Mrazek, *The Fall of Eben Emael* (Novato, CA: Presidio Press, 1991); Simon Dunstan, *Fort Eben Emael: The Key to Hitler's Victory in the West* (Oxford, UK: Osprey Publishing, 2005); Chris McNab et al., *The Fall of Eben Emael-Belgium 1940* (Oxford, UK: Osprey Publishing, 2013).
General Hoeppner’s XVI Panzer Corps near the village of Hannut, a few miles forward of the Gembloux gap. The first day’s fighting was indecisive, but Prioux’s two DLMs held back the 3rd and 4th Panzer Divisions for the next day and a half, giving the French First Army and the BEF time to arrive and establish defensive positions on the Dyle.\(^{761}\) On the afternoon of 14 May, Prioux’s Corps as well as the 12th Lancers and the other cavalry units in front of the British sector were finally able to fall back behind the main French and British armies defending the river line.\(^{762}\)

The next day, 15 May, the Germans made contact with both the BEF and French First Army, and despite heavy fighting, the French and British repulsed all enemy attacks. To the west the British 3rd Division under General Bernard Montgomery defended Louvain from German attacks. Soon after the British blew the bridges over the Dyle on the afternoon of 14 May, the first German reconnaissance units appeared in the open beyond the river, promptly mowed down by British artillery fire. The Germans, undeterred, twice fought their way across the river and penetrated the outskirts of Louvain. But the British immediately bombarded and counterattacked the German attackers, pushing them back from the city.\(^{763}\) Farther to the south the French First Army saw the heaviest fighting of the day. From the early morning the 2nd and 3rd Panzer Divisions assailed the newly arrived divisions of the French First Army, the brunt of the attack falling on the 1st North African (Moroccan) Division and the 1st Motorized Division near Gembloux. The German tanks moved forward under a heavy Stuka and


\(^{762}\) Ellis, *The War in France and Flanders*, p. 46.

artillery barrage, but the French and North African infantry stood their ground. They drove the German attackers back and inflicted heavy losses with a heavy defensive artillery barrage. So far the BEF and the French First Army had blocked the German advance in Belgium.

But while the French and British were holding out on the Dyle, the Germans were breaking through on the Meuse; the Franco-British tactical success in Belgium now threatened to turn into a strategic disaster. The main thrust of the German advance came in the Ardennes, where the French Second and Ninth Armies could offer only weak resistance. The Germans established multiple bridgeheads across the Meuse on the 13th, and by 15 May, all three Panzer Corps had broken out to the west, driving for the Channel to cut the Allied armies in two. The collapse of the French Ninth Army immediately exposed the right wing of Blanchard's First army, forcing him to pull back to Charleroi. The British followed the French in retreat so as to prevent the uncovering of their own right flank in turn. Lord Gort warned the War Office in London that "a prolonged defense of the Dyle was impracticable" and described the overall military situation "grave." The French high command shared his opinions.

On 16 May, General Billotte ordered the BEF and French First Army to draw back towards the French frontier. Over the following days, the French and British armies

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in Belgium withdrew successively to the Senne, the Dendre and the Escaut Rivers. With the enemy in close pursuit, the BEF and French First Army reached their new defensive line in the early hours of 20 May.\textsuperscript{769} The armies dug in and prepared for combat, but the strategic situation grew still worse. The 2\textsuperscript{nd} German Panzer Division reached the Channel at Abbeville in the evening, 20 May, cutting allied lines of communications and competing the encirclement of the Allied armies in Belgium.\textsuperscript{770} The only way to avert a disaster now was to carry out an immediate counterattack or evacuation of allied forces from the Channel ports.

\textit{Assessing Franco-British Coalition Military Effectiveness in the Defense of Belgian Frontier}

When the German invasion opened on 10 May, the Franco-British coalition had in place institutional mechanisms for common political-military planning and command relations, whilst the institutional machinery for information sharing was strictly limited and still inchoate. Accordingly, realist-institutionalist theory predicts that such “intermediate” levels of military institutionalization should generated fairly good coalition military performance in the field. The evidence from the Franco-British advance into Belgium and its subsequent withdrawal to the Escaut Line is in fact consistent with these claims. Allied forces in Belgium demonstrated fairly good coalition battlefield integration and cohesion but lacked a capacity for coalition battlefield responsiveness. Moreover, close examination of the fighting reveals not only that the coalition performed as predicted but also that the fighting strengths and weaknesses of

\textsuperscript{769} Ellis, \textit{The War in France and Flanders}, pp. 60-76.
allied armies in Belgium were largely attributable to both the degree and form of coalition military institutionalization.

First, the French and British armies of the First Army Group were fairly well integrated in the field, fighting in ways consistent with achievement of common operational objectives. When the Germans finally attacked on 10 May, French and British troops advanced quickly into Belgium and southern Holland, taking up defensive positions along the River Dyle. This forward movement of the allied armies into foreign territory proceeded almost flawlessly, as a result of meticulous staff planning and detailed logistical arrangements over the winter. The move forward into Belgium and southern Holland had a certain military logic, even if tragically flawed, with the French and British armies integrated as to the place, timing and defensive methods for fighting a successful defensive engagement against the enemy. In short, the French and British went to war with a common plan, thanks to the political decision taken at the Supreme War Council in November 1939 to adopt the Breda-Dyle maneuver.

They were then able to execute this common plan quickly and relatively seamlessly, owing to both extensive coalition military planning and allied unity of command. At 5.30 am on 10 May, Lord Gort received a message from General Georges implementing “Alertes 1, 2 and 3,” namely preparations for an imminent move into Belgium. A 6.45 am, General Gamelin ordered the execution of the Breda-Dyle Plan, and the French and British armies moved at once into action. “Everything so far as been running like clockwork,” recorded the commander of II Corps, Lieutenant-General

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Alan Brooke, after the first day of operations. By the afternoon of 14 May, just four days into battle, the French and British armies had established a continuous defensive line from Antwerp in the north to Namur in the south. The BEF and French First Army met the enemy together the next morning, the two armies, as a result of coalition military institutions, fighting separate engagements within a single battle or the River Dyle. Thereafter the BEF and French First Army fought as an integrated fighting force in retreat to the Escaut line. General Bilotte, exercising his authority as “coordinator” of the allied armies in Belgium, ordered a phased withdrawal, over three consecutive nights, first to the River Senne, then to the River Dendre, and finally to the Escaut. In the most difficult of circumstances—the enemy in close pursuit, the roads clogged with civilian refugees, and attacks from Stuka dive-bombers—French and British troops fought during the day to hold the river lines and retired at night, exploiting German reluctance to fight at night. By 20 May, the BEF and French First Army had reached the Escaut, and hurriedly prepared to defend the line of that river. The Allied armies thus successfully executed one of the most difficult of all military maneuvers—a closely coordinated fighting retreat under constant enemy fire.

Second, the French and British armies in Belgium fought with good coalition battlefield cohesion. Along the boundary between the BEF and the French First Army, the British 2nd Division adjoined the French 2nd North African Division (DINA). These formations kept in close contact, protected each other’s flanks, each willing to support the other with artillery fire and infantry reinforcements. The French 2nd DINA found itself in

773 Brooke, entry for 10 May 1940 in Alanbrooke et al., War Diaries 1939-1945, pp. 59-60.
774 Ellis, The War in France and Flanders, p. 59.
heavy fighting with the German 31st Infantry Division in the evening of 15 May and appealed for assistance from the BEF on its left flank. Answering the call, the British 2nd Infantry Division delivered a powerful artillery bombardment and a limited counterattack, which generated panic in the enemy and allowed the French to escape to fight another day.777 Thereafter the French and British armies retreated back to the Escaut as a cohesive fighting force. French and British troops had an anxious and exhausting four days of hard fighting during the day and marching all through the night, but they retreated in good order.778

It was a fighting retreat, not a rout, because the Allies held together in the field. The French First Army, though it bore the brunt of the fighting during the retreat, made every effort effort to protect the British right flank. Lord Gort was duly impressed, admitting the French Moroccans "on our right were good and tough."779 Fearing rumors of collapse of the French First Army, Gort formed "Macforce," a scratch collection of fighting units under the command of Brigadier General Mason Macfarlane, his Director of Military Intelligence, to protect the British right flank.780 Its creation proved unnecessary, however, because the French First Army held together and guarded his flank. In a letter to his wife on 18 May, Gort admitted, "for one moment, for about 12 hours, I was afraid the Huns would push a large hold round my right and then attempt to turn me northwards... but the French have a wonderful aptitude for pulling themselves

778 Ellis, The War in France and Flanders, pp. 59-74.
779 Lord Gort quoted in Colville, Man of Valour, p. 201.
780 Macforce consisted of the 127th Infantry Brigade from the 42nd Division; two regiments of field artillery and an anti-tank battery; the Hopkins Mission, a ground reconnaissance force mounted on armor trucks and cars; engineers, signals and elements of the Royal Army Medical Corps (RAMC) and Royal Army Service Corps. The 1st Army Tank Brigade was to join later. See Thompson, Dunkirk: Retreat to Victory, p. 48.
together and rallying..." 781

More to his credit the British commander-in-chief went to great lengths to support his ally in the field. On 17 May, when Georges ordered the British 23rd Division to defend the line of the Canal du Nord, south of Arleux, he immediately authorized their deployment. 782 The British 23rd Division was one of the three territorial divisions, half-trained and understrength, which had been sent to France to dig defenses and repair roads. Gort could have reasonably refused to send these undertrained "digging" divisions into combat, but he was a soldier who obeyed orders loyally. In this moment, allied unity of command provided the basis for earnest cooperation, the British territorials committed in support of their ally. 783 Neither the French nor the British could rightfully claim that they had been left in the lurch.

Finally, the coalition suffered not so much from fighting at cross-purposes and a lack of battlefield cohesion but from a critical absence of responsiveness. Gamelin had committed the mistake of placing his best formations in the wrong sector, in Belgium, when the real danger lay in the Ardennes front, in the east, not the north. Having made his plans and his troop dispositions, Gamelin and other allied commanders were slow to appreciate and respond to the cut of the German sickle. Five critical days passed before the French and British armies in Belgium began to pull back from the Dyle line in a bid to avoid encirclement. But already on 11 May, General Prioux, noting the weak and incomplete state of Belgian defenses, warned that his Cavalry Corps could not hold the Gembloux Gap for long and asked if the Allies should not halt the advance toward the

781 Lord Gort quoted in Colville, Man of Valour, p. 201.
782 Blaxland, Destination Dunkirk: The Story of Gort’s Army, pp. 112-113.
783 Ellis, The War in France and Flanders, p. 65. See also Tim Lynch, Dunkirk 1940: Whereabouts Unknown: How Untrained Troops of the Labour Divisions Were Sacrificed to Save an Army (Stroud, UK: Spellmount, 2015).
Dyle and take up positions instead on the Escaut Line. The British also voiced disquiet over the apparent ease of the Allied advance into Belgium. Major General Harold Alexander, commander of the British 1st Division concluded “the willingness of the Germans to tolerate this forward movement... was highly suspicious.” Rather than take this last opportunity to rearrange allied deployments, the Allies decided to forge ahead with the Dyle-Breda plan. Billotte delivered the news to Prioux in person that evening, stating emphatically that it was too late for a change in plan: “We have to play it out to the end.” More than anything, it was this failure to respond and adapt to events that spelled disaster for the coalition.

Even once the Allied high command grasped the significance of the German thrust through the Ardennes, Gamelin and other senior allied commanders were slow to devise a new plan of operations. By 14 May, Billotte had definitive information about the collapse of the French Ninth Army so that the danger of the Allied forces in Belgium being cut off from the main French forces in the south must have occurred to him. Yet two more days passed before he issued orders for the allied armies to retreat, and even then Lord Gort had to seek such orders from Billotte. “Very early on the 16th,” he reported, “I sent a representative to General Billotte... I asked that, if he intended to withdraw, he should let me know the policy and the timings at once, especially as the first

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784 The Belgians had set up their anti-tank defenses (le barrage de cointet) several miles east of the Dyle, where the French had expected them; furthermore, they were still incomplete. See Bond, Britain, France, and Belgium, 1939-1940, pp. 59-64; May, Strange Victory, pp. 382-383.
785 Earl Harold Rupert Leofric George Alexander, The Alexander Memoirs: 1940-1945 (London: Cassell, 1962), p. 75. The Luftwaffe failed to bomb allied columns even though 10 May was a clear spring day. Colonel de Villelume, Paul Reynaud's military advisor, raised with Gamelin his fear that the Luftwaffe's restraint was deliberate, drawing the Allied armies into a trap. Gamelin's only reply was that perhaps the Luftwaffe was occupied elsewhere. See Gunsburg, Divided and Conquered, p. 184.
786 Frieser, The Blitzkrieg Legend, p. 106. In view of reports of the French Seventh Army retreating from Breda, Belgian troops falling back from the Albert Canal and increasing numbers of German Panzer columns in the Ardennes, Georges and Gamelin had many warnings that events were not meshing with their plans. See May, Strange Victory, pp. 410-413.
787 Billotte quoted in May, Strange Victory, p. 384.
bound back to the Senne Canals involved a march of some fifteen to twenty hours.\textsuperscript{788} Billotte had decided the preceding evening, 15 May, to order a pull back from the Dyle, and had notified Blanchard at once. But he waited to inform the British of his intentions until the next morning, 15 May, after Gort’s personal emissary arrived at his headquarters. The allied system of communicating critical information and orders was almost anachronistic in view of the tempo of German operations.

With German Panzers racing west of the Meuse and threatening cut off the allied armies in the north, the BEF and French First Army still retired at a leisurely pace and stopped on the on the line of the Escaut River, which still placed allied troops forward in Belgium.\textsuperscript{789} What the military situation required, however, was a rapid withdrawal the allied armies in Belgium to the French frontier, first to avoid encirclement and second to prepare a counteroffensive to interrupt the German thrust. Unfortunately the breakdown of communications and liaison between the allied armies, combined with delays and confusion within the allied command structure, imperiled the coalition’s capacity to respond and act in the field.

In a campaign where every hour counted, the situation required timely improvisation and a rapid rethinking of the allied plan. But Billotte was hesitant and indecisive in the exercise of his “coordinator” role in these critical days. Faced with disaster in the south his reaction was to move French reserves toward his threatened right flank. But British forces were much closer, meaning they could have been put into action sooner and perhaps have made a decisive difference in stabilizing the front. He might have requested, for example, the motorized British 50\textsuperscript{th} Infantry Division and the tank

\textsuperscript{788} Gort, Second Despatch, 25 July May 1940 in Grehan and Mace, \textit{The Bef in France 1939-1940}, p. 38.
\textsuperscript{789} Bond, \textit{Britain, France, and Belgium, 1939-1940}, p. 64.
brigade, as well as conventional British infantry formations. But Billotte made very little effort to keep the British informed of events in the south or to weld together their efforts into a coherent plan of action. Pownall complained of receiving contradictory orders from Georges and Billotte, depicted Billotte in his diary as “weak” and his army as “badly shaken” and added that “Billotte will not co-ordinate, although nominated.”

Still worse, the British knowledge of the events in the south was “generally obscure” until 17 May, when a British liaison officer with the French First Army happened to overhear that a serious gap had occurred in the French line and efforts to close it had so far failed. In his dispatch to the War Office in London, Gort recalled, “During the whole of this period, communications with my liaison officer at General Georges’ Headquarters was maintained to keep in touch with events as they developed. However, I received no information through this channel of any steps it was proposed to take to close the gap, which might have affected my own command.” By the time his army had arrived on the Escaut, the British commander-in-chief still knew little more than that the Germans had breached the line of the Ninth and Second Armies.

Finally, on the late evening of 18-19 May, Billotte paid his first visit to British headquarters since the start of the invasion. According to Gort, Billotte briefed him on the full extent of the crisis and “the measures which were being taken to restore the situation on the front of the French Ninth Army, though clearly he had little hope that they would be effective…” Despite this interview, Gort still had only a vague idea of the

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790 Gunsburg, Divided and Conquered, p. 204.
791 Pownall, diary entry for 17 May 1940 in Bond, Chief of Staff, p. 319.
reserves available to the French to close the gap, charging, "I was unable to verify that the French had enough reserves at their disposal south of the gap to enable them to stage counter-attacks sufficiently strong to warrant the expectation that the gap would be closed." Still worse, the meeting revealed that Billotte had no plan of any kind to improvise and act to save allied armies in the north from destruction. On the drive back to his headquarters, Billotte told Major Archdale, the British liaison officer, "I am shattered and I can do nothing against the Panzers." No allied plans or even talk of a counterattack arose from this meeting. The panzers meanwhile continued their journey westwards.

*The Franco-British Counterattacks at Arras and Cambrai, 21-23 May 1940*

The Franco-British counterattacks at Arras and Cambrai (21-23 May) offers the first and only opportunity of the war to observe the French and British Armies on the offensive, attacking in concert, as they tried to deliver a blow to the enemy. Overall, the battle conforms to the theory. The French and British Armies displayed good coalition battlefield integration and cohesion, even if they lacked the capacity to respond to battlefield events and exploit their success to the full. The battlefield evidence thus largely confirms the predictions of realist-institutionalist theory.

**Background**

On 20 May, only ten days after the start of the invasion, the German 2nd Panzer Division of Rundstedt’s Army Group A reached the Channel coast near Abbeville,

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794 Gort, Second Despatch, 25 July May 1940 in ibid., p. 45.
795 To Archdale, Billotte repeatedly uttered, “Je suis crevé de fatigue, crevé de fatigue... et contre ces panzers je ne peux rien faire.” Quoted in Bond, *Britain, France, and Belgium, 1939-1940*, p. 67.
thereby cutting the Allied armies in two and entrapping some half a million French and British soldiers in Belgium. General Erwin Rommel’s 7th Panzer Division had an equally successful few days, capturing the town of Cambrai and then rolling on towards Arras.\(^7\)

The German trap was sprung. Now the second phase of the German campaign was set to begin—that of closing the ring around the Allied armies, trapped with their backs to the sea. The Panzers now wheeled north and northwest from the coast deep into the rear of the BEF and French First Army, while Bock’s Army Group B pressed down from the north and east against the British and Blanchard’s First Army. The Germans now threatened French and British troops with almost certain annihilation.

The only hope for the Allies lay in a counterattack to the south to try to link up with the main French armies. As early as 16 May Churchill had recognized the need to launch a concerted action against the German corridor. At the Supreme War Council meeting in Paris on 16 May, after receiving a report on the German breakthrough at Sedan, he asked Gamelin where and when he proposed to launch a counterattack against the flanks of the German advance. The German tanks had broken through on a fifty-to-sixty-mile front north and south of Sedan. The French Second Army in front of them had collapsed, and the Germans were in the process of rolling up the French Ninth Army, as their armor advanced towards the coast via Amiens and Arras. Behind the armor, eight or ten German divisions, all motorized, raced forward, leaving their flanks exposed against the two separated Franco-British armies on either side. “Where is the strategic reserve,” Churchill inquired, and breaking into French, “Où est la masse de manoeuvre?” Gamelin turned to him and, “with a shake of the head and a shrug,” replied: “Aucune”—

There is none.\footnote{Winston S. Churchill, \textit{The Second World War: Their Finest Hour}, vol. 2 (Boston, MA: Houghton Mifflin Harcourt, 1986), p. 42.} Now too Churchill was convinced of the seriousness of the situation. But he still had hope his ally would rise to the occasion. Gamelin proposed to withdraw some eight or nine divisions from the Maginot Line and bring in another eight or nine divisions from Africa in order to mount a counterattack on the flanks of the German penetration, or bulge, as he called it, in the weeks ahead.\footnote{Thompson, \textit{Dunkirk: Retreat to Victory}, pp. 41-42.}

In the field, the French and British armies regrouped in preparation for a counterattack against the flanks of the German corridor. The BEF occupied a position on the Escaut as far as Maule on the French frontier. On the morning of 20 May Gort ordered the 1\textsuperscript{st} Army Tank Brigade and Major General Franklyn’s 5\textsuperscript{th} Division to join the British 50\textsuperscript{th} Division on the Vimy area, north of Arras, to prepare for offensive action south of town.\footnote{Sir General Martin Farndale and Basil Perronet Hughes, \textit{History of the Royal Regiment of Artillery: The Years of Defeat: Europe and North Africa, 1939-1941} (London: Brassey’s, 1996), p. 52.} To the south Blanchard’s First Army held the frontier with Valenciennes, Bouchain and Cambrai, placing his troops directly in the path of the German XV Panzer Corps streaming to the west.\footnote{Alistair Horne, \textit{To Lose a Battle: France 1940} (Boston: Little, Brown, 1969), p. 545.} For the Allied high command 20 May was a critical and confusing day, as General Maurice Weygand, chief of staff to Foch in the last war, arrived to assume command from Gamelin.\footnote{Philip Charles Farwell Bankwitz, \textit{Maxime Weygand and Civil-Military Relations in Modern France} (Cambridge, MA: Harvard University Press, 1967), pp. 290-292.} The new supreme allied commander arrived at the same conclusion as his predecessor—the only chance for the Allies was to launch a counterattack from the north and south against the flanks in the area of Arras, to slice through the Panzer Corridor before German infantry closed up
behind the armor. As Churchill more colorfully phrased it, “the tortoise having protruded its head from its shell – it was now ready to have it nipped off.”

Sir Edmund Ironside, the CIGS, visiting from London seized the initiative and pressed on with his own plan for a joint Franco-British counterattack south of Arras. He arrived at Gort’s headquarters in the early morning of 20 May carrying a message from the War Cabinet that the BEF was to fight southwest towards Amiens to reestablish contact with the main French armies south of the narrow Panzer corridor. Gort objected forcefully, claiming “that withdrawal to the south-westwards, however desirable in principle, was not in the circumstances practicable.” Seven of his nine divisions were in close contact with the enemy on the Escaut, and even if they could be easily disengaged, which he doubted, would have to attack into an area already strongly occupied by the enemy. After considerable pressure from Ironside, Gort relented to the extent of proposing to mount a limited offensive the following day south of Arras. Even if not altogether satisfactory, this operation might at least narrow the gap between the northern and southern armies. With this commitment in hand, Ironside hurried off to see Billotte, whom he finally found at Frist Army Headquarters in Lends with Blanchard, “all in a state of depression.” Eventually he persuaded the two French generals to accept a counterattack the next day: Two French divisions would attack east of Arras towards Cambria with two divisions, while the British struck southwest of Arras with two

805 Gort, Second Despatch, 25 July 1940 in ibid., pp. 48-49.
divisions. What had started as an operation to disengage Arras was now regarded as the first blow in a concerted Allied effort to break through to the Somme.

**Balance of Forces**

In the event, the joint four-division Allied counterattack planned for 21 May was reduced to an attack force two tank and two infantry battalions of the BEF and detachments of the French 3rd DLM. The British action at Arras came under the command of Major General Franklyn, who had at his nominal disposal two infantry divisions and a tank brigade. This counterattack group, known as Frankforce, consisted of his own 5th Infantry Division and the British 50th Infantry Division together with the 1st Tank Brigade. Franklyn was the equivalent of a corps commander, although the infantry divisions had between them only four brigades, not the usually three apiece. Franklyn deployed one of the brigades of the 5th Infantry Division on the Scarpe, partly to relieve French cavalry so Prioux’s 3rd DLM could join in the attack, and held back the other brigade (the 17th) in reserve.

From Major General G. le Q. Martel Martel’s 50th Division, Franklyn sent one of its brigades to bolster the defense of the Arras garrison and to hold the river line immediately east of the city. The spearhead of the attack on Arras was thus two infantry battalions (the 151st Brigade, 50th Division). They had the support of the 1st British Tank Brigade, reduced from fighting and mechanical breakdowns from one hundred

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807 Ironside found Billotte and Blanchard in a state of complete despair. In a rage, he lost his temper, and "shook Billotte by the button of his tunic. The man is completely beaten." Ironside, diary entry for 20 May 1940 in ibid. See also Gates, *End of the Affair*, pp. 86-87.
808 Ellis, *The War in France and Flanders*, p. 87.
809 Thompson, *Dunkirk: Retreat to Victory*, pp. 83-84.
810 Ellis, *The War in France and Flanders*, p. 89.
tanks to a total strength of fifty-eight Mark I and sixteen Mark II tanks, and the French 3rd DLM, which deployed some sixty Somua tanks. The French push to Cambrai came the next day, 22 May. Instead of the First Army’s V Corps, reinforced with the tanks of two light armored divisions, the French could only muster one infantry regiment and two smaller tank battalions.

Opposing them were Rommel’s 7th Panzer Division, consisting of the 25th Panzer Regiment, two rifle regiments, an artillery regiment, three battalions strong and a battalion each of reconnaissance vehicles, machine-gunners and engineers. Although much diminished from its original strength of 218 tanks because of mechanical breakdowns and combat losses, the 25th Panzer Regiment still had some 180 tanks in action. The 7th Panzer Division also had a battery of 88mm anti-tank guns, which Rommel found effective as anti-tank weapons. In the coming battle, the Germans thus heavily outnumbered the French and British attackers.

Franco-British Counterattacks at Arras and Cambrai

On the afternoon of 21 May the Allied counterattack opened with General Martel, commander of the British 50th Infantry Division, striking in two columns round to the west and south of Arras before driving east towards the River Sensée. Each column consisted of a tank battalion and an infantry battalion (6th and 8th Durham Light Infantry), plus a battery each of field artillery and antitank guns, guarded on their right flank by the

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812 Bond, *Britain, France, and Belgium, 1939-1940*, p. 79.
The object of the attack was to "support the garrison in Arras and to block the roads south of Arras, thus cutting off German communications from the east." To this end the British aimed to advance on the first day to the River Cojeul, a tributary of the Sensée, located six miles to the southwest of the city, and establish touch with the French.

The British attack opened just as the Rommel's Panzer Division was on the move, overextended, and separated from its panzer regiment. Expecting to force his way into Arras on 21 May, Rommel pressed forward with his Panzer Regiment, advancing with the 5th Panzer Division on his right flank, north of Arras, and the SS Motorized Infantry Division "Totenkopf" on his left. Half a mile to the east of Wailly, Martel's right-hand column ran headlong into the motorized German infantry belonging to the SS Totenkopf Division, trailing a few miles behind Rommel's advancing Panzers. Unable to stop the advancing British and French tanks, the SS troops fled in panic. "It was," Rommel admitted, "an extremely tight spot." He watched while "the crew of howitzer battery, some distance away, now left their guns, swept along by the retreating infantry." Had Rommel not intervened personally in the battle, taking charge of artillery and firing lines and arranging Luftwaffe support, the German retreat might well have turned into a rout.

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817 Gort's orders to Franklyn on 20 May, cited in Ellis, The War in France and Flanders, p. 89. See also Geoffrey Stewart, Dunkirk and the Fall of France (Barnsley, UK: Pen & Sword, 2008), p. 75.
820 Hart, The Rommel Papers, p. 32.
After heavy and costly fighting, Rommel threw back the attack, forcing French and British forces to withdraw under the cover of darkness. While the wing of General Martel’s attack halted near Wailly, his left column managed to penetrate more deeply into the German flank, advancing as far as Wancourt, on the Cojeul River. The attack made such an impression on Rommel that he reported having been attacked by five divisions and hundreds of tanks. While the Allied counterattack had come to a halt, it had succeeded in penetrating the German Panzer corridor to a depth of ten miles, destroyed about twenty panzers and captured more than 400 enemy prisoners. The price of this operation was the lost of all but two British Mark IIs and twenty-six British Mark I tanks, as well as some twenty French tanks.

On the second day of the battle, 22 May, while Frankforce held up the German advance west of Arras, the French mounted the previously postponed attack towards Cambria. The spearhead of the French attack was the 121st Infantry Regiment (25th Motorized Division), supported by two smaller tank battalions. General Moline, who led the operation, held back the other two divisional regiments in Arleux-Bouchain sector along the Sensée canal, pending the success of the initial assault. The plan was for the 121st Infantry Regiment to establish a bridgehead two-and-a-half miles deep south of the Sensée, at which point the remainder of the 25th Division would be sent forward to consolidate the bridgehead for a drive southwards to Cambrai.

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Striking east of Douai towards Cambrai, initial French assault delivered a hard blow to the German 32nd Infantry Division. French light tanks quickly made their way to the outskirts of Cambrai, where they came under heavy attack from the Luftwaffe and German 88mm antitank guns. Twelve hours after the beginning of the attack, French tanks and infantry halted their advance and withdrew back to the north. But if these counterattacks seemed no more than tactical failures from the Allied point of view, they were a strategic and operational success. Hitler and his high command grew anxious, increasingly worried about their dangerously exposed flanks, deciding to halt the tanks with the famous halt order of 24 May. The French and British thereby gained precious time to reach Dunkirk and withdraw their troops from the port.

Assessing Franco-British Coalition Military Effectiveness in the Counterattacks at Arras and Cambrai

French and British forces counterattacking at Arras and Cambrai demonstrated relatively good coalition battlefield integration and cohesion, even if they were not particularly responsive. Overall, the battle evidence is consistent with the predictions of the theory. First, French and British attacks were fairly well integrated, with both armies fighting in ways consistent with the achievement of common operational objectives—penetrating through the German Panzer corridor and closing the gap between the northern and southern Allied armies. This harmony of Franco-British objectives was the direct result of close allied military planning, extending from the Supreme War Council to continuous contacts among allied military commanders. Indeed, Churchill and other

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826 On the German decision to issue the halt order, and the consequences of the decision for the Allied escape from Dunkirk, see John Lukacs, Five Days in London, May 1940 (New Haven, CT: Yale University Press, 2001), pp. 39-45.
allied leaders recognized the need for a strategic response to the German breakthrough as early as the Supreme War Council meeting of 16 May, but it required several conferences of senior allied commanders to translate the operational idea into action. Ironside, as CIGS, initiated the process of planning for a joint counteroffensive, meeting on 20 May with both Gort, as the commander in chief of British forces, and his French superior, Billotte, the commander in chief of the First Army Group, together with Blanchard, commanding the French First Army. As a result of this series of conferences, the French and British committed to a joint plan of action.

Later that same day, the French and British commanders responsible for carrying out the attack—Generals Franklyn, Prioux, Blanchard, Altmayer and Billotte—held a conference to work out cooperation in the field. The discussed the possibility of an attack southward towards Bapaume and Cambrai the next day, but the British lacked the tanks and troops to push as far forward as Bapaume, and Almayer’s V Corps was too tired and disorganized from three days of heavy fighting to mount an attack the next day. With the French obliged to postpone their attack towards Cambrai, the decision was to proceed with the attack south of Arras the next day, with the French prepared to offer several detachments of Prioux’s 3rd DLM as flank guard and expected to launch a follow-on attack in the direction of Cambrai on 22 May. The final Franco-British plan of attack was all together less ambitious than its original conception and lacked synchronization. But harsh military realities dictated a reduction in its scale. The French and British implemented this revised plan in the field, thus coming together to attack the German corridor at Arras and Cambrai.

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827 Ellis, The War in France and Flanders, p. 71.
Second, the French and British armies demonstrated good coalition battlefield cohesion. The much-battered French 3rd DLM provided considerable support to the right wing of the British attack south of Arras. When British troops ran into stiff resistance around the village of Warlus, French tanks covered their withdrawal north to Vimy Ridge.\(^8\)\(^2\)\(^9\) Earlier in the day, Prioux had also sent a few detachments of the 2nd DLM to fight off attack east of Arras, and deployed tanks from the 1st DLM west of the city to protect the British open flank.\(^8\)\(^3\)\(^0\) On 20 May the British liaison officer with the French First Army Group, Major Osmund Archdale, found there was no need to try to “put heart into” General Prioux who, despite heavy losses to his Cavalry Corps, was eager to join the battle.\(^8\)\(^3\)\(^1\) The following day, 22 May, French infantry and tanks struck towards Cambrai. Admittedly the French had to postpone this assault a day, after General Altmayer, whom Billotte and Blanchard had undertaken would lead the attack, reported back that “the troops had buggered off, that he was ready to accept all the consequences of his refusal and go and get himself killed at the head of battalion, but he could no longer continue to sacrifice the army corps of which he had already lost nearly half.”\(^8\)\(^3\)\(^2\) Notwithstanding his initial refusal, Altmayer mounted an attack on the morning of the 22nd. Though the French First Army had suffered heavy losses, Billotte and Blanchard, after promising Ironside they would make the attack, did all they could to fulfill that commitment, determined not to let down their ally on the battlefield.

Likewise, even though the Allied situation north of the Somme was growing more desperate by the hour, the British remained committed to fighting alongside their ally.

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\(^8\)\(^2\)\(^9\) Stewart, *Dunkirk and the Fall of France*, p. 77.
\(^8\)\(^3\)\(^0\) Gunsburg, *Divided and Conquered*, p. 255.
\(^8\)\(^3\)\(^1\) Archdale quoted in Bond, *Britain, France, and Belgium, 1939-1940*, fn. 28, p. 71.
\(^8\)\(^3\)\(^2\) Quoted in Horne, *To Lose a Battle: France 1940*, p. 575.
Rather than fight their way back towards the Channel ports, the British resolved to move southwestwards to link up with the main French armies. There was a growing danger that they would be cut off from escape, and their lines of communications and supply had already been severed, but the British held firm and pushed for a counterattack, from north and south, to cut across the narrow German corridor. Billotte’s midnight visit on 18-19 May so alarmed the British that Gort had his Chief of Staff, Pownall, telephone the War Office in London to warn for the first time of the possibility that the BEF would need to retreat to the Channel ports for evacuation. General Ironside replied at once “this proposal could not be accepted at all.” Indeed the suggestion aroused such concern in London that the War Office dispatched Ironside to France to convey its hostility to any idea of withdrawal. The British attack at Arras was an attempt to conform to the Cabinet’s orders. As late as 24 May, even after the British garrison withdrew from Arras, Gort and Blanchard were still discussing the details of their joint offensive southwards, now projected for 26 May. Neither of them had any faith in Weygand’s Plan, but they were still prepared to fulfill their part in it to the end.

Finally, what the French and British armies lacked above all else was a critical capacity to respond quickly to the speed of the German advance. Ironside experienced the state of allied military paralysis first hand on 20 May in his visits to the BEF and

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835 As a precautionary measure, however, the War Cabinet ordered the Admiralty on 20 May to assemble a large number of small boats in the event of evacuation. See Bond, *Britain, France, and Belgium, 1939-1940*, pp. 67-68.
837 The Weygand Plan called for the British and French in the north to attack southwards while the new army of General Frère assembled to the south of the Somme struck simultaneously northwards. Weygand tried to shift responsibility for the cancellation of the operation onto Gort, blaming the British withdrawal from Arras. But the historical record shows that Gort and Blanchard continued to plan for their joint counterattack until Weygand cancelled the operation on the afternoon of 24 May. See Jackson, *The Fall of France*, pp. 89-92.
French First Army headquarters. He was particularly dismayed to find Billotte and Blanchard "in a state of complete depression. No plan, no thought of a plan. Ready to be slaughtered..." The Supreme War Council had discussed, on 16 May, the need to mount a counterattack against the German corridor, but nothing had yet to come of it.

Not until 19 May—the very day on which he heard that Weygand was to replace him—did Gamelin issue orders for such a counterattack. In the early morning, he travelled to the headquarters of General Georges, the commander for the northeast front, and handed him a set of instructions, written in pencil, proposing a simultaneous counterthrust from the north and south to cut off the advancing Panzer divisions from their supporting infantry. Though Gamelin rightly concluded "it was a matter of hours," his sense of urgency had come all too late.

Weygand, who arrived to take command on 20 May, had no better appreciation of the speed with which it was necessary to act than his predecessor, whose offensive scheme he cancelled, wishing to make his own appreciation of the situation. This "swapping of horses in mid-stream" lost the Allies two more days. On 21 May, Weygand presented his own plan for retrieving the situation to a conference of senior allied commanders. It was in fact little different from Gamelin’s operational concept, calling for a concerted attack from north and south to pinch out the German corridor along the Somme. The earliest day for the attack was 26 May, as the allied field

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841 Spears, *Assignment to Catastrophe: The Fall of France June 1940*, p. 149.
842 Bond, *Britain, France, and Belgium, 1939-1940*, pp. 73-74.
commanders required time to free sufficient forces for the operation. So another five
days were set to pass before the Allies even mounted the proposed counterattack.

By then it was all too late, as the French and British armies were tired and barely
capable of defensive action, let alone a major attack. The counterattacks at Arras and
Cambrai had shown that a concerted allied counteroffensive could well have achieved
some measure of success. The vulnerability of the German flanks was no less obvious to
Hitler and his senior field commanders. “A certain air of panic dominated the staff. We
remembered well the ‘Miracle of the Marne’…” General Franz Halder, Chief of Staff of
the German Army, noted in his diary after the fighting at Arras. But the Allies
struggled to keep up with events, never mind act and affect the outcome of the Battle of
France.

CONCLUSION

This chapter sought to test the validity of the predictions generated from realist-
institutionalist theory. The evidence from the battles shows that, in general, the French
and British fought with relatively good coalition battlefield integration and cohesion,
owing to institutional mechanisms for coalition military planning and unified command.
This cooperative machinery was not enough to save the Allied armies from defeat and
France from four years of Nazi occupation. In the main, the French and British armies
were too slow to respond to the unfolding disaster at Sedan and to improvise a response.
The breakdown of communications and liaison between the allied armies, combined with

843 Gort had committed the last of his reserves to the counterattack at Arras and could not hold the Escaut
much longer. See Jackson, The Fall of France, pp. 61-62.
844 Quoted in Gunsburg, Divided and Conquered, p. 256. See also Shirer, The Rise and Fall of the Third
Reich: A History of Nazi Germany, pp. 726-728.
delays and confusion within the allied command structure, proved a fatal impediment to any last chance to mount a counterattack against the exposed flanks of the advancing Panzers, and perhaps even alter the entire course of the campaign. This lack of coalition battlefield responsiveness was critical to the defeat of France and Britain in the campaign, even if ultimately the débâcle of 1940 has its origins in the strategic blunders and military miscalculations of the French high command. Despite the best efforts of Allied political and military leaders to come together to face the Nazi threat, and the fighting of brave soldiers, it could not compensate for grave mistakes in military strategy. While it is often said that victory has many fathers, but defeat is an orphan, in this instance, defeat too has many fathers.
CONCLUSION

Fighting a coalition war is difficult and complex, fraught with problems and frustrations. Napoleon Bonaparte alluded to the many challenges of coalition warfare when he asserted, “If I must make war, I prefer it to be against a coalition.” A century later the commanders who led victorious coalitions in the two world wars came to similar judgments. “Now that I know about coalitions,” Marshal Ferdinand Foch once remarked, “I respect Napoleon rather less!” His successor, General Dwight D. Eisenhower, summed up his views on the subject of coalition wars, noting in his memoirs, “Even Napoleon's reputation as a brilliant military leader suffered when students in staff colleges came to realize that he always fought against coalitions—and therefore against divided counsels and diverse political, economic, and military interests.” Coalitions are marriages of convenience, the warring nations bound together by common interests and common dangers. But those interests are never identical, and even the closest of allies invariably find themselves in disagreements over war aims and political-military strategy. Such problems are endemic to military coalitions, and at the operational tactical levels in the field, friction is inevitable among armies speaking different languages, using different equipment, and with vastly different doctrinal practices. The fighting strength of a coalition is always less than the sum of its parts.

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845 Quoted in Holsti et al., Unity and Disintegration in International Alliances, p. 22.
846 A similar comment is also attributed to General Maurice Sarrail, the commander of Allied forces at Salonika: “Since I have seen Alliances at war, I have lost something of my admiration for Napoleon.” Sarrail quoted in Neilson and Prete, eds., Coalition Warfare: An Uneasy Accord, p. vii. Foch quoted in Alistair Horne, Napoleon: Master of Europe (London: Morrow, 1979), p. 9.
847 Eisenhower, Crusade in Europe, p.4.
848 On this point, see Waltz, Theory of International Politics, p. 166.
Although the defense debate has increasingly focused on the issue of coalition military effectiveness, and some scholars and practitioners have suggested the importance of coalition military institutions for coalition battlefield performance, they have heretofore not offered a comprehensive theory of coalition military effectiveness. Hence the aim of this study was to present the first such theory of coalition military effectiveness while providing an initial empirical test of the theory's explanatory power. The theory and evidence presented in this study emphasize that coalition military institutions systematically affect the process of capability aggregation within military coalitions and in turn coalition battlefield performance.\footnote{Time and time again, military coalitions with extensive institutional arrangements for military cooperation are better able to turn their national resources into actual coalition combat power than those with absent or minimal institutional machinery.}

The remainder of the chapter summarizes the principal findings of this dissertation. It proceeds in four sections. The first and second sections summarize the theory and the findings of both the medium-n analysis and the two Franco-British case studies. The remaining sections consider the implications of these findings for the study of international relations and contemporary policy debates.

SUMMARY OF THE THEORY

Why are some military coalitions likely to generate integrated, cohesive and responsive coalition military forces, while others field coalition troops incapable of

\footnote{The aggregation function of military coalitions and alliances is central to the realist literature. For a review of capability aggregation model, see Weitsman, \textit{Dangerous Alliances: Proponents of Peace, Weapons of War}, pp. 14-18. See also Morrow, "Alliances and Asymmetry: An Alternative to the Capability Aggregation Model of Alliances."}
performing these essential military activities? In other words, why are some military coalitions more militarily effectively on the battlefield than others? This study has argued that the key to effective capability aggregation is coalition military institutionalization. The fundamental challenge for all military coalitions is to fight as if a single military by transforming their national military capabilities and material resources into coalition military capabilities. This process of capability aggregation has become increasingly complex and more demanding over time, as the modern battlefield came to require greater speed, maneuver, and combined arms tactics. In turn, effective capability aggregation within military coalitions has come to demand a high level of coalition military institutionalization.

The study has posited that variation in the design of three sets of institutional processes significantly affects the generation of coalition forces capable of coalition military integration, cohesion and responsiveness. First, common political-military planning facilitates the adoption of a common political-military strategy, which confers to commanders a common understanding to link together military operations, makes the abandonment of allies on the battlefield more costly, and ensures that when opportunities present themselves on the battlefield, coalition military forces will make the most of them, or at least not let them slip by unnoticed.

Second, command relationships, or who has the authority and responsibility to direct the action of coalition military forces, critically influence the capacity of the military coalition to meld and coordinate every element of combat power. It ensures that the coalition military forces fight in ways consistent with the achievement of the coalition’s political-military objectives, fosters norms of cooperation and mutual respect,
which inspire among soldiers a willingness to sacrifice oneself for the common cause, and promotes a more effective response to the changing present, by both delegating tasks quickly and efficiently and resolving competing demands for resources speedily and wisely.

Finally, the *exchange of information* among allies is vital to coalition military performance. Although allies have private information about their own military capabilities as well intelligence about the military capabilities of enemies, nations are often reticent to share such information even with allies, often for fear that such knowledge could later be used against them. Nevertheless, allies have an interest in maximizing the availability of such information to create more effective operational plans, which take account of national differences in skills, technology and doctrine in the allocation of military missions, build greater trust and confidence among allied militaries, assuaging concerns of abandonment, that, once bullets fly, allied troops will quickly fold and retreat from the battle, and create a shared situational awareness, which improves the coalition’s ability to respond to events of an unfolding battlefield.

The most effective military coalitions thus adopt joint political-military coalition planning, unity of command with an integrated command staff, and the fluid exchange of information among coalition nations. They display the capacity to link together their military activities, allies are willing to sacrifice their lives for each other, and when opportunities present themselves on the battlefield, they try to make the most of them.

By contrast, military coalitions with absent or minimal coalition military institutionalization are utterly ineffective on the battlefield, with allies fighting at cross-purposes of one another, leaving one another in the lurch, and lacking any capacity to
respond to events on the battlefield.

**SUMMARY OF THE EVIDENCE**

The study tested these arguments through a medium-$n$ statistical analysis and two case studies of military coalitions at war. This mixed-methods approach had the advantage of countering the limitations of each approach with the comparative strengths of the other. The quantitative analysis provided an opportunity to study a large number of cases for patterns and correlations, whereas the case studies offered the detailed process tracing needed to explore the possible causal mechanisms behind the correlations or patterns observed in statistical studies. The main finding is that variation in the design of coalition military institutions accounts for differences in coalition battlefield effectiveness both across and within coalitions over time.

The results from the medium-$n$ statistical analysis were consistent with proposition that more highly institutionalized military coalitions generate higher levels of coalition fighting power from their material resources. For all wartime military coalitions since 1817, the evidence indicates that military coalitions with a unified command structure are significantly more likely to fight effectively in wars. Importantly, these findings are statically robust across a wide range of controls and alternative approaches to coding the data. The analysis also provides good empirical support for the material preponderance hypothesis, indicating that the relative balance of material capabilities positively affects coalition military power. Alternatively, the findings provide weak and mixed statistical support for the regime-type and external-threat explanations for why military coalitions are more or less successful at fighting wars.
The qualitative analysis offers further evidence in support of realist-institutionalist theory. In two detailed case studies of Franco-British military collaboration, differences in coalition military institutionalization accounted for substantial variation in coalition military effectiveness between 1914 and 1918, and in comparison with 1940. The study selected these particular cases because they offered the strongest possible controls for alternative explanations and therefore a good laboratory for testing the argument. These alternative explanatory variables included material preponderance, regime type, the external threat environment and coalition political cohesion. The two Franco-British cases were closely matched along these dimensions, specifically both coalitions fought as democracies against the same enemy and on the same battlefields, waging war with similar levels of material resources, and both confronted high external threat environments. According to existing theories of coalition military power and effectiveness, the Franco-British coalition should have displayed very little variation in its fighting performance across these wars or even across time, within the same war. Still, there was significant variation in coalition military effectiveness over the course of these wars, both between 1914 and 1918, and the German invasion of 1940 as compared with 1914.

The evidence from the two cases showed that differences in coalition military institutionalization accounted for significant variation in coalition military effectiveness between the invasions of 1914 and 1940, as well as over course of the fighting between 1914 and 1918. In the First World War case, France and Britain lacked at the outbreak of war, and well into the first years of the conflict, institutional mechanisms for political-military planning, command relations and information exchange. The consequences of
these institutional deficiencies were disastrous for coalition military performance, as two armies fought a series of costly and poorly fought campaigns early in the war.

Importantly, when the French and British finally found institutional solutions for political-military planning and command relationships, coalition battlefield effectiveness improved significantly. The combination of the Supreme War Council and a generalissimo, in the person of French General Ferdinand Foch, brought about a closer and more effective working relationship in the field, with observably better coalition battlefield integration and cohesion, as well as some limited capacity for coalition battlefield responsiveness, particularly when compared with their performance earlier in the war. These findings—both the wide variation in coalition military performance observed between 1914 and 1918, and the timing nature and direction of such changes—provides strong support for realist institutionalist theory.

In the May 1940 case, Franco-British military cooperation was more complete and better organized than in 1914. At the outbreak of the war, the two governments established the Supreme War Council on the lines of that created in 1917 and placed the British Army in France under the orders of the French high command, giving them allied unity of command. In other words, they were able to start the war with coalition military institutions for political-military planning and unity of command, the very institutions which had taken them over three years to attain in the previous war. This institutional machinery resulted in fairly good coalition battlefield integration and cohesion in 1940, unlike in 1914. Indeed, Franco-British coalition military performance was fairly good, even if not good enough to withstand the speed and ferocity of the German blitzkrieg in the west. As with the Great War, the exchange of information between the allied armies
was limited and often quite haphazard; these institutional deficiencies seriously hindered the capacity of the allied armies to respond quickly and effectively to the German invasion. Put simply, the French and British performed poorly in the one critical area—responsiveness—for which coalition military institutions were largely absent.

In sum, both the quantitative and qualitative analyses provide confirmation of realist-institutionalist theory. The two cases of Franco-British military cooperation examined in this study demonstrate the power of coalition military institutions in explaining coalition battlefield effectiveness, while the results of the statistical analysis argue for the generalizability of these findings.
Table 7-1: Summary of Variation Observed in Coalition Military Institutionalization and Coalition Battlefield Effectiveness

<table>
<thead>
<tr>
<th>Case</th>
<th>Coalition Military Institutionalization</th>
<th>Coalition Battlefield Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WORLD WAR I</strong></td>
<td></td>
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<tr>
<td>1914-1916</td>
<td><strong>Minimal</strong></td>
<td><strong>Poor</strong></td>
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<tr>
<td></td>
<td>Political-Military Planning:</td>
<td>Integration: Not integrated</td>
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<tr>
<td></td>
<td>Minimal</td>
<td>Cohesion: Not cohesive</td>
</tr>
<tr>
<td></td>
<td>Lack routines and channels for planning</td>
<td>Responsiveness: Not responsive</td>
</tr>
<tr>
<td></td>
<td>Command Relationships:</td>
<td></td>
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<tr>
<td></td>
<td>Parallel command structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Information Exchange:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Withhold sensitive information</td>
<td></td>
</tr>
<tr>
<td>1916-1918</td>
<td><strong>Minimal → Low</strong></td>
<td><strong>Fair</strong></td>
</tr>
<tr>
<td></td>
<td>Political-Military Planning:</td>
<td>Integration: Somewhat integrated</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Cohesion: Minimally cohesive</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Responsiveness: Not responsive</td>
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<tr>
<td></td>
<td>Joint political-military planning;</td>
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<tr>
<td></td>
<td>Supreme War Council</td>
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<td></td>
<td>Command Relationships:</td>
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<td></td>
<td>Parallel command structure</td>
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<td></td>
<td>Information Exchange:</td>
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<td></td>
<td>Still inclined to withhold sensitive</td>
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<tr>
<td></td>
<td>military information</td>
<td></td>
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<tr>
<td>1918</td>
<td><strong>Low → Intermediate</strong></td>
<td><strong>Good</strong></td>
</tr>
<tr>
<td></td>
<td>Political-Military Planning:</td>
<td>Integration: Relatively well</td>
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<tr>
<td></td>
<td>Intermediate</td>
<td>integrated</td>
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<tr>
<td></td>
<td>Extensive Joint political-military</td>
<td>Cohesion: Fairly cohesive</td>
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<tr>
<td></td>
<td>planning; Supreme War Council</td>
<td>Responsiveness: Not responsive</td>
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<td></td>
<td>Command Relationships:</td>
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<tr>
<td></td>
<td>Unity of Command</td>
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<td></td>
<td>Information Exchange:</td>
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<tr>
<td></td>
<td>Still limited information sharing</td>
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<td><strong>WORLD WAR II</strong></td>
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<tr>
<td>May 1940</td>
<td><strong>Intermediate</strong></td>
<td><strong>Good</strong></td>
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<tr>
<td></td>
<td>Political-Military Planning:</td>
<td>Integration: Relatively well</td>
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<tr>
<td></td>
<td>Intermediate</td>
<td>integrated</td>
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<td></td>
<td>Extensive Joint political-military</td>
<td>Cohesion: Fairly cohesive</td>
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<td>Command Relationships:</td>
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<td>Unity of Command</td>
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<td>Information Exchange:</td>
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<td></td>
<td>Limited information sharing</td>
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</table>
IMPLICATIONS FOR THE STUDY OF INTERNATIONAL RELATIONS

The study makes three major contributions to the extant literatures on alliances, balance-of-power theory, international institutions and military effectiveness. First, whereas most studies of alliances end with the outbreak of hostilities, this dissertation opens up the “black box” of war in order to understand the process of capability aggregation within military coalitions and its implications for coalition military effectiveness.\(^{850}\) The cases presented in this study suggest that it is particularly important to look beyond material factors alone to explain coalition military performance. Though material resources clearly matter for coalition military effectiveness, the empirical evidence showed that not all military coalitions are equally adept at marshaling those resources into coalition fighting power, because not all military coalitions institutionalize their military cooperation.

These findings are particularly important for realist theories of international relations, with their emphasis on alliances and balancing of power among states. In balance-of-power theory, military coalitions are the primary means to check rising hegemons, as a way both to deter potential troublemakers and defeat them should deterrence fail.\(^{851}\) Theorists usually focus on the formation of countervailing coalitions or decisions allies made about war and peace, rather than the process of balancing power, of nations organizing security and defense cooperation to ensure their survival and uphold the balance of power. This study contributes to a better understanding of the


balancing mechanism, positing that coalition military institutions play a critical, but heretofore underappreciated, role in preserving the balance of power.

Second, this study moves beyond early scholarly debates about whether institutions matter and turns to the problem of how they matter for coalition fighting effectiveness. To this point, the study explores—theoretically and empirically—how variation in the institutional design of military coalitions and alliances affects coalition military performance. Do allied nations need institutions at all to organize their wartime military cooperation? If so, what institutional capacities are needed for success? Would a simple agreement suffice? Should the institution serve mainly as a forum for periodic bargaining over war aims and strategy, or should actors meet regularly and centralize their efforts? Should all actors be given equal voice and vote? Should they fight separately under national commanders, or should they unite under a common command structure? What about the rules for information sharing, should they be extensive and formal, or should they be more flexible and pragmatic, allowing states to opt out for reasons of national interests? This study has identified theoretically important variations in coalition institutional designs and offered a way to empirically measure that variation in specific cases. The approach highlights three key dimensions: coalition political-military planning, command relationships and information exchanges. That is not to say that other dimensions of coalition institutions are not important, but it is the approach of this study to mark out the dimensions of institutions thought to be most important for turning national assets into coalition fighting power.


Finally, the findings of this study challenge recent scholarship on the sources of military effectiveness. This research focuses on largely static variables, such as material power or regime type in explaining military effectiveness. But the evidence here shows that military coalitions display much more variation in their battlefield effectiveness than analysis of these large structural factors would suggest. One of the most important findings of this literature, and hence also the most vigorously contested, is that democratic military coalitions, whether because they have bigger economies, form stronger alliances, make better decisions, have higher levels of public support, or garner greater effort from their soldiers, display superior military effectiveness than autocratic coalitions. But France and Britain were democracies in both world wars, and still there was wide variation in their coalition military performance both over the course of the First World War, and between the battles of 1914 and 1940.

This study does not suggest that these factors are not important but argues that to account for the full range of variation in coalition battlefield effectiveness it is necessary to examine differences in the institutional machinery of coalitions. Moreover, much of the extant literature focuses solely on the sources of national military effectiveness. Even military historiography tends to recount military campaigns and battles from different national military perspectives, with limited attention to the coalition contribution on the battlefield. In expanding beyond national military effectiveness to consider the coalition military effectiveness, and by developing an explanation for significant across-time, within-case variation in coalition military effectiveness at the operational level of war, this dissertation offers important corrections to the literature.

IMPLICATIONS FOR FOREIGN AND DEFENSE POLICY

This dissertation has significant implications for American foreign policy and military planning. With the norm of coalition warfare deeply entrenched in the American military tradition, the United States (US) will almost certainly wage coalition warfare in any future wars or military interventions. What is far less certain, however, is whether the US will be more likely achieve its strategic objectives in the future by waging such wars through highly institutionalized, longstanding military alliances, such as the North Atlantic Treaty Organization (NATO), or through ad-hoc coalitions of states that come together temporarily to pursue common aims. The theoretical and empirical findings presented in this study indicate that highly institutionalized coalitions have the advantage in battle. Because these coalitions have extensive routines and procedures for joint political-military planning, command relationships and information sharing, they can generate higher levels of coalition fighting effectiveness than ad hoc coalitions.

NATO’s military structures, however imperfect, still constitute the most complete and highly developed form of security cooperation for the United States to act in concert with others. From its beginnings in 1949 to the present, NATO’s history could be written in terms of a series of complaints and mutual recriminations between the United States and its European allies. Because the institution prioritizes consensus, individual NATO members can opt out of risky operations, make voluntary combat contributions, and impose national caveats that restrict the use of their forces. The effects on NATO operations are doubtless detrimental. In Afghanistan, the combination of troop

855 For a comprehensive history of NATO and its institutional development, see Gustav Schmidt, A History of Nato—the First Fifth Years: Three Volumes (Basingstoke: Palgrave, 2001).
limitations, equipment shortages and caveats hampered NATO operations against the
Taliban-led insurgency, and forced the US to double the number of its troops in
Afghanistan in 2009 and then surge even more in 2010. But they are problems the
alliance to overcome through reforms to existing structures, rather than let whither.

Of course the United States may still at times chose to act through ad hoc,
American-led military coalitions. In these instances, the US will need to find a way
forward to manage security cooperation and build effective relationships with foreign
partners. The findings of this study suggest that the preferred approach will be to build
institutions for coalition political-military planning, unity of command and the fluid
exchange of information. The Libyan intervention in 2011 offers a possible model for
the future: American, British and French airpower spearheaded the campaign, in
partnership with several Arab countries, but with NATO providing the institutional
structures used to prosecute the Libyan operation. The ability to borrow these well-
established institutional frameworks, and modify them to include the participation of non-
member states aimed to allow the coalition to quickly realize its objectives in the
campaign. In practice, the operation exposed some flaws in NATO’s standing
command-and-control structures, as Joint Force Command Naples (JFC-Naples), in

856 Najibulah Lafraie, "Nato in Afghanistan: Perilous Mission, Dire Ramifications," *International Politics*
46, no. 5 (2009); Stephen M Saideman and David P Auerswald, "Comparing Caveats: Understanding the
Sources of National Restrictions Upon Nato's Mission in Afghanistan1," *International Studies Quarterly*
56, no. 1 (2012); David P Auerswald and Stephen M Saideman, *Nato in Afghanistan: Fighting Together,
857 On this point, see Weitsman, *Waging War*, pp. 164-187. See also Kjell Engelbrekt et al., *The Nato
Intervention in Libya: Lessons Learned from the Campaign* (New York: Routledge, 2013).
858 NATO stated its primary goals as to enforce the no-fly zone over Libya, to impose the arms embargo on
Gadhafi’s government, and to protect the civilian population from government and rebel violence. But as
Alan Kuperman has suggested, the operation sought mainly not to protect civilians but to overthrow
Qaddafi’s regime. See Jeremiah Gertler, "Operation Odyssey Dawn (Libya): Background and Issues for
Congress" (Washington, DC: Congressional Research Service, 28 March 2011), p. 1; Alan J Kuperman,
charge of the operation, initially lacked the necessary staff and equipment to run the operation.⁸⁵⁹ If NATO can address these challenges as part of its ongoing command structure reforms, the alliance could offer a more deployable, multinational, command and control capability for future operations.⁸⁶⁰ Most importantly, the findings of this study indicate that coalition military institutions will have to be in place before American-led coalitions can be expected to function well in combat. In the famous words of Winston Churchill, there is only one thing worse than fighting with allied military institutions, and that is fighting without them.⁸⁶¹

⁸⁶¹ Winston Churchill, as quoted in the diary of General Alan Brooke, “There is only one thing worse than fighting with allies, and that is fighting without them.” Diary entry for 1 April 1945 in Alanbrooke et al., War Diaries 1939-1945, p. 680.
MAPS & FIGURES

Source: British Cartoon Archive, Reference Number WH010, Templeman Library, University of Kent, Canterbury, Kent, Great Britain. Reproduced with permission from Mirropix.
MAP 1: The Schlieffen Plan

MAP 2: Battle of Charleroi-Mons, July-August 1914

MAP 3: Allied Retreat, 30 August - 5 September 1914

MAP 4: Battle of the Marne, Situation on 9 September 1914

MAP 5: German Withdrawal to the Aisne and Stabilization of the Front, September 1914

MAP 6: Battle of the Somme, 1 July – 19 November 1916

MAP 7: First and Second German Spring Offensives, Operations MICHAEL (Somme Offensive) and GEORGETTE (Lys Offensive), March-April 1918

MAP 8: Battle of Amiens, Situation on 8 August 1918

MAP 9: Battle of Amiens, 9-19 August 1918

FIGURE 2: French and Canadian Troops Rest Behind German Field Gun, Battle of Amiens, August 1918

Source: Canadian Expeditionary Force Military Life Photographs, MIKAN no. 3396816, Canadian Department of National Defence/Library and Archives Canada.
MAP 10: German Territorial Expansion, 1936-1939

MAP 11: Maginot Line and Possible Defensive Positions in Belgium – Escaut versus Dyle-Breda Plans

MAP 12: Frontier Defenses and the Dyle Line

MAP 13: Disposition of Opposing Forces, 10 May 1940

MAP 14: German Invasion and Allied Defense of the Low Countries and France, 10-16 May 1940

MAP 15: French and British Armies on the River Dyle, Situation 13 May 1940

MAP 16: German Breakthrough and Advance to the Channel, 16-20 May 1940

MAP 17: Allied Withdrawal to the Escaut, 16-21 May 1940

MAP 18: Allied Counterattack at Arras, 21 May 1940

MAP 19: Failure of the Weygand Plan and the Allied Retreat to Dunkirk

FIGURE 3: Dunkirk Evacuation, French and British Troops on board ships berthing at Dover, 31 May 1940

Source: Imperial War Museum, Second World War Official Collection (H 1621).
