

Exiting the Coalition

When Do States Abandon Coalition Partners during War?

Alex Weisiger*

January 28, 2015

Abstract

When do countries abandon coalition partners during war? Prominent arguments about alliance dissolution focus on peacetime, yet the ability of alliances to influence international politics ultimately hinges on their cohesion or dissolution during war. In this paper, I argue that battlefield circumstances heavily influence the likelihood of defection from coalitions. First, countries fighting independently from their partners make attractive candidates for wedge strategies and hence are more likely to defect. Second, coalitions are more likely to collapse when it appears less likely that the coalition will triumph in the war as a whole. I test hypotheses about wartime developments statistically using new time-varying data on both front-level troop contributions and battle deaths. Consistent with theoretical predictions, countries are more likely to abandon coalition partners if they are fighting alone and when the coalition has fared worse in recent fighting.

*Assistant Professor, University of Pennsylvania. Email: weisiger@sas.upenn.edu. I thank Brett Benson, Erik Gartzke, Avery Goldstein, Jesse Johnson, Scott Wolford, and participants at the International Security and Conflict Studies seminar at George Washington University for useful comments and suggestions. A previous version of this paper was prepared for presentation at the 2012 American Political Science Association annual meeting. Data and a Stata .do file replicating analysis will be available upon publication.

Wars are frequently fought by coalitions; indeed, the United States has not fought a war without coalition partners in over a century.¹ Fighting in coalitions, however, entails important challenges. Coordinating coalition military efforts can be difficult, with rival generals seeking preeminence and politicians trying to ensure that their country is not asked to do an undue amount of the fighting. Yet a greater danger to coalitions than military inefficiency is that they might dissolve entirely. From Sparta's withdrawal from the Greek coalition fighting against the Persians to the steady drip of departures from the coalition of the willing in Afghanistan and Iraq, countries have repeatedly withdrawn soldiers from war against the wishes of coalition partners. Why do countries sometimes abandon allies in war?

A good answer to this question will inform our understanding of history, our ability to provide useful policy recommendations to countries contemplating or fighting coalition wars, and our theories of international conflict and cooperation more generally. Why should we care about the departure of countries from war coalitions? Most obviously, participants in wars obviously care about the survival of wartime coalitions. Russia's withdrawal from World War I likely would have allowed Germany to win the war absent American intervention. In World War II, Churchill and Roosevelt worried that Stalin might capitulate or make a separate peace if the British and Americans were too slow in bringing significant pressure to bear on Germany, in which case it likely would have been impossible for the Allies to return to the continent. Moreover, in line with the security-autonomy model of alliance formation (Morrow 1991), powerful states may worry about keeping even relatively minor coalition partners on board. In two wars against Iraq, the United States was dependent on the availability of local bases; indeed, one reason that Saddam Hussein invaded Kuwait was that he doubted that the Saudis would be willing to permit western forces to operate in their territory (Viorst 1991, 67). Even when a coalition partner's material contributions are minimal, presidents benefit from holding the coalition together given the finding that the American public uses the behavior of international actors to gauge the appropriateness and likely success of the use of force, with the result that the withdrawal of international consent may have domestic consequences (e.g. Chapman 2011).

¹Weitsman (2014) discusses the trend toward coalition warfare over time, with a particular focus on the United States.

Indeed, a country's decision to abandon its coalition partners has frequently brought about war termination. Twice in the 1850s—in both the Crimean War and the 1859 War of Italian Independence—a French decision to negotiate compelled alliance partners (Britain in the first case, Sardinia-Piedmont in the second) to agree to end a war that they would have preferred to continue. A century later, British capitulation to American pressure brought an end to the Suez conflict with Egypt at a point when the French would have preferred to continue to fight. It is thus not surprising that leaders facing overwhelming coalitions, such as Adolf Hitler in the later stages of World War II or Saddam Hussein in the Gulf War, seek out ways to divide their enemies, hoping that the collapse of the enemy coalition will allow them to snatch victory from apparent defeat. The conditions under which coalitions survive or collapse is thus of clear policy significance, while understanding the survival and collapse of prominent historical coalitions is of obvious historical interest.

A better understanding of these decisions also has important implications for international relations theory. Most obviously, a significant literature on the formation, duration, and reliability of formal alliances is ultimately predicated on expectations about wartime cooperation. If we were to learn, for example, that democracies, while more likely than autocracies to come to their alliance partner's aid, were also more likely to abandon their partner once fighting had begun, that finding would obviously temper conclusions about democratic reliability. Coalition warfare also provides a natural environment in which to test arguments about the efficacy of formal agreements in security affairs. IR scholars have long recognized that not all security cooperation occurs in the context of formal alliances, but quantitative studies have focused on formal alliances given the difficulty of reliably identifying informal alignments. Countries who are fighting on the same side in war but who are not formally allied provide a natural comparison case, allowing us to ascertain whether formal alliances have historically been associated with a reduced probability of defection.

The limited existing literature on decisions to abandon security partners during war has focused on regime type and leadership turnover. While not arguing against these perspectives, this paper contends that specific battlefield dynamics play a critical and underappreciated role in determining the reliability of wartime coalitions. Countries fighting against multiple opponents have strong

incentives to split opposing coalitions, but doing so is extremely difficult when the coalition has similar aims and is fighting as a unified force. From this perspective, coalitions are more likely to fracture to the extent that members are fighting independently. Coalitions are also more likely to splinter when battlefield developments suggest that the coalition is likely to lose, as coalition members have incentives to strike an early deal with the enemy rather than be the last state left to oppose it. I test these predictions statistically using a dataset of all coalition participants in interstate wars in the 1816-2003 period. Conducting these tests requires the introduction of two extensive new data sources: time-varying figures on troop deployments by front and time-varying battle death data. Results are quite consistent with predictions: under a variety of different specifications, states are more likely to abandon coalition partners when they are fighting on separate fronts from their allies and when recent fighting has favored the enemy.

1 Definitions

Before discussing the determinants of abandonment of coalition partners, it is first important to be explicit about the definition of abandonment. I define abandonment as any case in which a country ceases to engage in organized military efforts against the enemy contrary to the wishes of its coalition partners. This definition requires clarification on several points. First, abandonment requires that the organized military forces stop fighting. The existence of volunteers who continue to fight after the main forces have capitulated, as with the formation of the Polish Army in France after the conquest of Poland on World War II, is not sufficient to code a country as not abandoning its coalition partners. Abandonment does not occur, however, if a country's army is pushed entirely out of its territory but continues to fight, as when the Serbian army retreated in World War I and then regrouped to fight on the Macedonian front. I also do not code abandonment if a country substantially reduces the size of the force that it commits to the military effort without withdrawing it entirely. For example, the Argentine government's decision to withdraw the bulk of its force from the War of the Triple Alliance after the Battle of Curupayty does not constitute abandonment, as the smaller Argentine force continued to fight until the end of the war.

Second, abandonment requires the withdrawal of those forces at a time when coalition partners

preferred that they continue to fight. If a country leaves a war only when all its opponents have been decisively defeated on the fronts on which it has been fighting, it cannot be accused of having abandoned its partners. Thus, Ethiopia is not coded as abandoning its partners in World War II upon the capitulation of the last Italian forces in East Africa, nor is the Soviet Union coded as abandoning its partners when Germany surrendered. That said, by this definition abandonment can occur without a country leaving a war prior to its coalition partners if its unilateral decision to withdraw precipitated war termination. To cite one example, in the Crimean War, the British government wished to continue to fight after the victory at Sevastopol to force greater concessions from the Russians, but when the French made clear their intention to make a separate peace with the Russians, the British were compelled to agree to a general peace. The fact that the British were forced to end the war does not mean that the French did not substantively abandon their coalition partners.²

One additional complication concerns cases in which abandonment was involuntary, in the sense that a country found itself physically incapable of conducting further conventional resistance. Thus, for example, to say that Poland abandoned its alliance partners by ceasing to fight in World War II is arguably misleading, given that its alliance partners stood by while it was overwhelmed by Germany and the Soviet Union. In a number of historical cases, coalition members have stopped contributing militarily to a coalition effort, not because they decided to withdraw their forces, but because they lost the ability to do so effectively (at least in conventional terms).³ In cases of involuntary abandonment, the coalition partner that is exiting the war finds itself with no conventional forces capable of continuing resistance because its entire conventional army has dispersed or been forced to surrender. As Leeds & Savun (2007) observe, the determinants of involuntary withdrawal from an alliance can be quite different from the determinants of voluntary withdrawal; it is thus worth keeping this distinction in mind in the empirical analysis.

²Statistical results presented below are however robust to treating these cases as non-abandonment.

³Involuntary abandonment of allies is clearly connected to conquest as a form of war termination, as distinct from negotiated settlement. Game theoretic analyses of bargaining within war almost uniformly allow for the possibility that one side in the conflict will achieve a sufficient military victory to impose its preferred division of the stake unilaterally (e.g. Slantchev 2003, Powell 2004); the possibility of this type of war termination is the primary means by which military capabilities enter most models.

2 Explaining Coalition Defection

Alliances, both formally institutionalized and informal, constitute the most obvious and most heavily studied form of security cooperation. Alliances can aggregate capabilities across countries to balance against power (Waltz 1979) or threat (Walt 1987), or they can allow states to trade unlike goods, as when strong states provide security while weaker allies provide benefits, such as local bases, that increase the stronger state's policy flexibility (Morrow 1991). Ultimately, the utility of these alliances depends on their effectiveness when put to the test. Yet surprisingly little work examines the quality of aid that partners in a war provide to one another. Early work contemplated reasons why alliances might dissolve during both peace and war, albeit without systematic tests (Liska 1968, Holsti, Hopmann & Sullivan 1973). Subsequent work, however, has not followed up on these initial suggestions. A large literature examines the reasons why two countries might end up allied, focusing on variables such as relative capabilities and regime type (e.g. Altfeld 1984, Morrow 1991); these studies do not however examine alliance effectiveness. An important series of articles have examined the determinants of alliance reliability, in particular under what conditions countries come to the aid of allies who are attacked (e.g. Smith 1995, Leeds 2003), while a smaller literature examines the determinants of alliance dissolution statistically (Bennett 1997, Leeds & Savun 2007). Most cases of alliance dissolution in these studies occur outside of war, however, limiting their utility for our understanding of defection from active coalitions. There is also a significant qualitative and theoretical literature on alliance formation and maintenance (e.g. Walt 1987, Snyder 1997); here again examination of alliance dissolution is rarer (Walt 1997). These studies provide a useful starting point; indeed, the theoretical arguments examined below build on the existing literature. As Clausewitz notes, however, war inevitably belies pre-war expectations, raising concerns that findings that hold prior to war onset will not hold thereafter. In this context, it is surprising that a major attempt to construct a general theory of alliance politics (Snyder 1997) might completely neglect decisions taken once a war is underway.⁴

⁴See however Weitsman (2004) for a discussion of alliance cohesion that examines both peace and war, albeit with less ambition to build a general deductive theory.

Of course, not all security cooperation takes place within alliances. Indeed, using the Correlates of War (COW) list of interstate war participants and the Alliance Treaty Obligations and Provisions (ATOP) list of international alliances, only about a third of countries that end up fighting on the same side in a war were allied at the time the war started.⁵ A smaller literature has examined wartime coalitions, focusing however primarily on the military challenges of command and control (e.g. Silkett 1993, Rice 1997). Only recently have scholars begun to examine the specific question of withdrawal from ongoing coalition conflicts. Kober (2002) and Weitsman (2004) both find that the logic of coalition defection in particular cases (the Arab anti-Israel coalitions and European alliances prior to and during World War I, respectively) differed between peace and war. Several other studies have examined the determinants of defections from the US-led coalitions in Iraq and Afghanistan (Tago 2009, Cantir 2011), finding that domestic politics play a major role in decisions to withdraw. Wolford (2012) argues that coalitions of states with diverse preferences will be less likely to cohere over time, though his primary empirical tests focus on third party intervention rather than coalition durability. Only two studies, however, examine coalition defection in a wide range of cases, and even they are preliminary in important respects. Choi (2012) argues and finds that democracies will be less likely to defect from coalition wars, while Pilster, Böhmelt & Tago (2013) find that countries have been more likely to withdraw from ongoing military interventions in the aftermath of leadership turnover. These studies provide a useful starting point, but most examine a limited and unrepresentative set of cases, while the studies that examine a broader range of cases focus overwhelmingly on the role of domestic politics, setting aside other wartime dynamics. In sum, the reliability of alliance partners is a substantively important topic that has received relatively little attention; there is room for significant further investigation.

2.1 Battlefield Circumstances and Coalition Defection

Alliances are useful to the extent that they help states to achieve better outcomes, either in fighting or at the bargaining table, than would be possible without them. In international politics,

⁵The distinction between formal alliances and coalitions or informal alignments is blurred in the qualitative literature (e.g. Walt 1987, Snyder 1997), which does not have to grapple as extensively with developing reliable and valid coding rules that apply to a wide range of cases across time and space.

the battlefield is the ultimate arbiter of disputes, even in cases in which no fighting occurs (von Clausewitz 1976[1832], Fearon 1995). If expectations about how fighting would play out condition international politics in times of peace, there is far more reason to expect that they would influence decisions taken during war. Battlefield events, and expectations about how future battles would play out, influence leaders' war aims and hence the terms on which they are willing to settle with the enemy (Goemans 2000, Reiter 2009). Leaders are similarly likely to make decisions about whether to continue a joint war effort or abandon their coalition partners with battlefield circumstances in mind. In general, we should expect leaders to weigh the costs and benefits of continuing the war effort against the costs and benefits of withdrawal.

These costs and benefits take multiple forms. By continuing to fight, a country increases the probability that its preferred side wins and retains influence over the terms of the final settlement. Even close-knit coalition partners may have important policy differences, as with the divergent views between the Americans and the British in World War II over the disposition of colonies. Continuing to fight allows states to retain influence over the particular issues of greatest importance to them. That said, continuing to fight entails suffering further human and material costs of war, and carries with it the risk that future defeats might force the country to accept terms worse than those the enemy is willing to offer now. At the same time, a country that withdraws, while saving the costs of fighting, forgoes influence over the terms of the general settlement. Russian and Romanian leaders in World War I knew, for example, that their withdrawal both increased the odds that the Central Powers would emerge victorious and meant that even if the Entente won their allies would be unlikely to abide by the terms of earlier territorial agreements. Defecting on alliance partners also has important reputational costs (Gibler 2008, Crescenzi, Kathman, Kleinburg & Wood 2012, Miller 2012). Moreover, for a leader who is interested in retaining power, early exit is risky if it is seen by the public as an acceptance of defeat (Chiozza & Goemans 2011, Croco 2011). In the data analyzed below, only 20% of coalition partners abandon their allies, a figure that is unsurprising given that countries select into wars when issues are important to them.

Yet leaders do consider the possibility of withdrawal, either their own or an ally's, throughout wars. Almost every participant in World War I privately entertained the possibility of seeking out

a separate peace at different stages of the war, while the British and Americans in World War II, despite being completely committed to the final defeat of Germany, recognized that the Soviets had legitimate reasons to worry about that commitment. More importantly, countries that are fighting against coalitions have incentives to divide their enemies—the success of Napoleon Bonaparte in repeatedly fracturing enemy coalitions is far from the only example of a state achieving victory by exploiting disagreement among its enemies. Coalition members face a strategic dilemma in deciding whether to make a separate peace. On the one hand, they typically will be able to achieve their most preferred political settlements only by fighting alongside their coalition partners to a clear victory.⁶ At the same time, however, the enemy’s interest in fracturing the coalition means that it may be willing to give relatively more generous terms to an opponent who makes an early peace than it would to one whose partners have all abandoned it. In this context, if defeat looks likely, a state may face an incentive to jump before its allies do.

In what circumstances are states relatively likely to abandon coalition partners? I argue that two circumstances are particularly pertinent: when the state is fighting relatively independently (i.e. on a separate front from its allies), and when battlefield developments suggest that the coalition is less likely to win than previously thought. The first argument hinges primarily on the strategic behavior of the coalition’s opponent, while the second depends on tensions within the coalition.

There are several reasons why a coalition member who is fighting independently of its partners will be more likely to defect. First, they make more attractive targets for opponents interested in splitting the coalition, for several reasons. Crawford (2011) notes that wedge strategies are frequently successful, especially when the coalition’s opponent adopts selective accommodation on secondary political issues toward a member of the opposing coalition. Crawford’s case studies focus on prewar efforts to disrupt opposing coalitions, but we know historically that countries fighting coalitions have adopted a variety of tactics to disrupt them, such as the efforts by high-level Nazi figures in the later stages of World War II to entice the British and Americans into a joint war

⁶This point elides the classical realist dictum that today’s ally may be tomorrow’s enemy, and vice versa, and thus that optimal strategy may entail abandoning one’s partners prior to total victory (e.g. Kaplan 1957). In practice, while coalitions frequently fracture after the war is over, it is rare that the break occurs prior to jointly agreed war termination. In the dataset examined here, only Prussia’s abandonment of Italy in the Seven Weeks War clearly fits the description of a victorious state abandoning its ally to partner with the enemy.

against communism or Saddam Hussein's attempts during the Gulf War to provoke Israel into intervening and thereby drive the Arab coalition members to defect.

For several reasons, wedge strategies will be particularly attractive for countries that are fighting a coalition across multiple fronts. Dividing forces across multiple fronts is militarily disadvantageous—in both World Wars, German leaders took significant risks in an attempt to avoid having to fight simultaneously in the East and the West. The strategic benefit associated with splitting the enemy coalition is thus greatest if it allows you to transfer forces away from a previous active front, as when Germany moved the army that had defeated Russia to the Western Front in World War I.⁷ By contrast, a separate peace with an opponent who is fighting alongside others on a single front will not permit a comparable consolidation of forces.

Moreover, countries that fight on a separate front typically have interests that differ in important areas from their allies. In territorial wars, countries care far more about the territory they are contesting than territory desired by their coalition partners. Even in non-territorial conflicts, countries that are fighting on a common front are more likely to share specific interests. In the Suez Crisis, for example, Britain and France, who fought in the canal zone, were primarily motivated by the desire to undo the Egyptian nationalization of the canal, whereas the Israelis who fought on the Sinai Peninsula worried about the Egyptian threat to Israeli survival and sought to prevent Egypt from integrating imported weapons. Given diverse interests among its opponents, a country fighting against a coalition can target political offers to try to reach a minimally costly separate peace. Because a country fighting on a separate front is more likely to have interests that are not shared by its coalition partners, it has more reason to worry that its interests will be neglected in a final peace agreement. An offer from its opponent to make concessions on those interests as part of a separate peace agreement will thus be more attractive than it would be to a country that mostly shares interests with its allies and thus has less reason to worry about winning the war but losing the peace.

In addition to these incentives for the opponent of a coalition to make relatively attractive proposals to an isolated opponent, the coalition's opponent can also more easily target an isolated

⁷Farrar (1978) emphasizes the central importance of consolidating forces across fronts in German attempts to split the enemy coalition in World War I.

opponent with greater military force, increasing its costs of fighting and raising the possibility of total military defeat. The 1915 Austro-German conquest of Serbia, whose allies were unable to provide direct military assistance, clearly fits with this logic, though in this case the Serbian Army retreated out of the country and returned to fight in the Balkans. In an earlier conflict, the short-lived Roman Republic threw almost all of its army into a fight on a southern front against forces from the Kingdom of Naples, successfully driving them from the coalition seeking to restore the Pope as ruler of the Papal States. The combination of the carrot of relatively attractive political proposals with the stick of possible military escalation means that geographically isolated countries will be more likely to abandon their partners.⁸

Hypothesis 1 *Countries that are fighting in areas geographically removed from their coalition partners will be more likely to abandon their allies.*

Not all countries that abandon coalition partners are fighting independently, however. An alternate logic of abandonment hinges on the tension between the desire to sustain a common effort to defeat the enemy and the desire to cut losses and get the best terms possible if defeat appears likely.⁹ Because of the benefits of splitting enemy coalitions, war participants will frequently be willing to give relatively generous terms to initial defectors, whose departure will make defeating their former partners easier. For example, in the Israeli War of Independence, Israel tacitly conceded strategically significant territory in the West Bank to Jordan so that it could focus its energy on defeating Egypt. Coalition members will be unlikely to accept these deals at a time when the coalition is likely to win. One unusual feature of coalition warfare is that it is possible for a country

⁸Arguments about free riding in alliances (e.g. Olson & Zeckhauser 1966) imply the opposite prediction that states will be more likely to defect when fighting on a common front, as they can expect to benefit from their partners' victory without having to pay the costs of war. There are several reasons why this sort of free riding is unlikely in this context, however. Most simply, the easiest way to free ride on another's war effort is not to enter the war in the first place; the set of states who select into coalition war efforts are thus relatively unlikely to free ride. Moreover, as previously noted, the greater overlap of interests among countries fighting on a common front does not imply unity of interest, and a country that abandons the coalition must expect its former allies to make concessions on issues of relative importance to it to gain concessions on issues of greater importance to them. Defection also has potential reputational costs, and, to the extent that there are demonstration effects, risks encouraging further defections that result in the collapse of the coalition. Goldstein (1995) has a useful discussion of why free riding is unlikely when security concerns are high.

⁹Walt (1997) and Resnick (2013) both discuss the possibility that anticipated defeat might promote fragmentation, though both ultimately endorse the prediction that increased external threat will increase cohesion. This argument, however, neglects Waltz's (1979, 127) caveat that states flock to the weaker side only so long as the resultant alliance is strong enough to provide security.

to suffer significant military defeats and yet emerge politically victorious if its coalition ultimately triumphs. In these circumstances, local defeats, as when Belgium and Serbia were mostly or entirely overrun by enemy forces in World War I, may not induce abandonment, as the country's leaders may prefer to continue to make a limited military contribution in the hope that their allies will ultimately bail them out. Indeed, Serbia's willingness to withdraw and keep fighting after its defeat at the end of 1915 was one reason why the Serbs were granted substantial territorial cessions after the war.

The logic for continuing to fight no longer holds, however, if it becomes apparent that the coalition as a whole is going to suffer defeat. The end of World War I conforms in many ways to this dynamic: with defeat looking likely, Bulgaria, the Ottoman Empire, and Austria-Hungary each progressively abandoned its partners, leaving the allies in a position to impose a decisive defeat on Germany. Indeed, in this situation in which the coalition's ultimate defeat appears likely, the incentive to strike a deal before being abandoned by one's allies can potentially lead to the disintegration of the remaining coalition. From this perspective, battlefield events that suggest that the coalition is headed for defeat will likely be associated with abandonment, though this relationship will be weaker or even non-existent for the country's own battlefield experience, as local defeats may be offset by coalition successes elsewhere.

Hypothesis 2 *Countries will be more likely to abandon coalition partners when the probability of ultimate coalition victory declines.*

3 Methods and Data

Some cases of coalition abandonment occur quite quickly in wars, as with Prussia's decision for an early settlement of the Seven Weeks War, at a point when Italy had been unable to seize Venetia, while others occur only after years of fighting, as with the American decision to withdraw from Vietnam in 1973. Moreover, some coalitions might have fractured had the war continued longer. Had the Bush administration continued the Persian Gulf War after the liberation of Kuwait, it is very probable that the anti-Iraq coalition would have fractured. In another case, the British

apparently feared that the Israelis would have withdrawn from the joint effort against Egypt in the Suez Crisis of 1956 had the British not withdrawn their forces first (Neustadt 1970, 27). Knowing that a coalition partner stuck with its allies until the war ended is thus no guarantee that they would have continued to do so had the war dragged on interminably. Duration analysis is thus appropriate for this project, both because it permits us to account for the difference between quick abandonment and abandonment only after years of fighting, and because it allows us to treat observations in which the coalition member was still fighting when the war ended as censored, rather than having to assume that the coalition member would never have abandoned its partners. An additional advantage of duration analysis is that it allows for the inclusion of time-varying covariates. The dependent variable is thus the time that it takes for a country to abandon its coalition partners. I make use of the conventional Cox proportional hazard model.¹⁰ In all regressions, negative coefficients are associated with a reduced probability that a country withdraws from a war at any given time, and hence with an increased duration until such withdrawal.

The first step in the analysis is to identify all cases in which a country fought as part of a coalition. I start with a list of all coalition participants in interstate wars in the post-Napoleonic period, as identified by the Correlates of War project. A country is a member of a given coalition so long as it is fighting against at least one state that another coalition member is also fighting against.¹¹ Thus, Germany and Japan were coalition partners after Pearl Harbor but not before, as prior to the expansion of the war in Asia they had no shared foes. The requirement that there be two states fighting common enemies means that the beginning and end of observations do not necessarily match the beginning and end of wars, although they often do. To cite some examples, in the Korean War, a coalition emerged on the UN side within days of the North Korean invasion, as the United States rushed soldiers to the peninsula; a coalition emerged on the communist side of the conflict only with China's intervention several months later. In World War II, observations for the Axis powers cease with Germany's surrender in May 1945, as after that point Japan was

¹⁰Tests of the proportional hazard assumption revealed no evidence of violations.

¹¹A stricter standard would also require that the countries in a coalition make an effort to coordinate policy with each. In practice, this standard would exclude only the Russo-German coalition in the War of Latvian Liberation that emerged after Germany switched from fighting alongside to fighting against the Latvians. Results below are robust to excluding this case.

fighting alone and hence no longer at risk of abandoning its coalition partners. The specific unit of analysis is the day of country membership in a coalition.

Per the definition discussed earlier, a country is coded as abandoning its coalition partners if it ceases to fight against the enemy at a time when its partners preferred that it continue. I code a country as withdrawing if its forces cease to take an active role in the conflict at a time when coalition partners would like for them to continue to fight. Thus, the Bolivian decision to withdraw all soldiers from the front in the War of the Pacific, leaving Peru with the responsibility to fight Chile alone, constitutes withdrawal, as does the French decision to reach an armistice with Germany in June 1940. I also code withdrawal when a country unilaterally informs its partners that it intends to withdraw when its ally would continue to fight, even if that decision then forces the ally to agree to peace, as with the British decision to pull out of the Suez campaign in 1956. I do not, however, code withdrawal when the country's exit from the war occurs because there is no one left for it to fight, as with the temporary Soviet departure from World War II after Germany's capitulation. By this definition, 41 of the 208 coalition members withdrew from the war prematurely.

In some cases, however, the end to fighting is not voluntary, at least from the perspective of the departing government. When Polish resistance crumbled in the face of German and Soviet attacks, the Polish government was left with no means to continue resistance despite its wish to do so. While this form of abandonment is consistent with the strategy of targeting isolated opponents, it clearly has a different character from cases like the withdrawal from Vietnam in which military forces were obviously able to continue to fight. As discussions of abandonment typically focus on cases in which the withdrawal was voluntary, it makes sense to have an additional dependent variable that consists only of voluntary withdrawals. I code a withdrawal as involuntary if the end of fighting came with the capitulation of all military forces at a time when the territory of the country was entirely occupied. By this standard, 32 coalition members are coded as withdrawing voluntarily.

3.1 Independent Variables

The key independent variables here relate to the degree to which countries are fighting independently from their allies and the way in which fighting is going. Part of the reason that these

hypotheses have been neglected in existing literature is that good data to test them do not exist. One of the central contributions of this paper thus is to introduce new data. I begin by discussing the data about fronts and then review battle death data.

Measuring the degree to which a country is fighting independently requires data organized by fronts. I start by identifying relevant fronts for the war. I code an area in which fighting is occurring as constituting a separate front if the following conditions hold: it is not possible for ground forces to travel to an existing front without crossing enemy-held territory, large bodies of water, or at least 100 miles; the separation from existing fronts lasts over a month (to avoid having to code new fronts in response to temporary enemy breakthroughs); and the forces involved constitute at least 10% of the military contribution of at least one coalition member fighting on the front (to avoid necessitating tracking minor engagements).¹² In the majority of wars, including cases like the Korean War or the 2003 invasion of Iraq, there was a single coded front on which coalition activity took place. In over 40% of wars, including the World Wars and several of the Arab-Israeli conflicts, however, coalitions fought along multiple fronts.

The next step was to gather data on military contributions by front, measured as total soldiers from a given country available to fight on the front in question. Both the list of fronts and the degree to which states are fighting independently can change over the course of a war. In World War I, for example, the Entente opened new fronts in Italy, Gallipoli, and the Balkans, while the departure of Russia and Romania meant that the Eastern Front ceased to exist. Similarly, while Britain had minimal assistance from its allies after the fall of France in 1940, the entry of new allies meant that the British were carrying much less of the burden by the time the war ended. A good measure thus will vary over time to take these developments into account. I therefore develop a time-varying measure that is based on the total number of soldiers deployed on every active front in the war. The data consists of 830 observations of troop commitments by a country to a particular front on a particular date, which are then interpolated to generate estimates of force commitments for dates between those for which there are specific observations.¹³ Using this data, I generate

¹²In the Kosovo War, the coalition did not deploy ground forces; for this conflict, I coded a single front, consistent with the observation that NATO forces coordinated closely and had common interests.

¹³Information on soldiers was drawn from Clodfelter (2008) and secondary sources. Soldiers are counted if they are able to directly engage in fighting: for example, during the Phony War and the German invasion of France, British

a variable that captures the extent to which a country is fighting independently of its partners. Formally, for a given actor i with a set of allies A who are fighting a war on a set of fronts F , with s_{ik} representing the total number of soldiers actor i contributes for fighting on front k and s_{Ak} equal to the total number of soldiers contributed by all of i 's allies on front k , the measure of the extent to which i 's military effort overlaps with that of its allies is $\frac{\sum_F s_{ik}s_{Ak}}{\sum_F s_{ik} \sum_F s_{Ak}}$.

The variable ranges between zero, which is the case for a country that is the only member of its coalition that is fighting on any front on which it is active, and one, when a country's military effort on each front is exactly proportional to that of its allies. In wars with a single front, the variable necessarily is equal to one, but in multiple-front wars it can vary over time as coalition partners enter or leave and as countries shift their effort levels across fronts. Figure 1 illustrates how the measure evolves for key participants in the World Wars. In World War I, Germany's score begins low, reflecting its primary focus on defeating France, and rises as it shifts soldiers to the joint war effort on the Eastern Front. The departure of the large Russian army in 1917 marks a clear break, with the Entente powers overlapping to a greater degree with their remaining coalition partners while Germany returns its focus to the Western Front. By contrast, because initial American troop commitments were smaller, US entry had no obvious effect, though the rise in the score for Britain in the final months of the war reflects the arrival of a large American force on the Western Front. In World War II, several important breaks occur. The low overlap scores for the Allies for most of the conflict reflects the fact that most of the war effort was carried out by the Soviets, who fought unaided until Germany's Eastern European satellites switched sides late in the war.

Hypothesis 2 predicts that countries will be more likely to abandon coalition partners when the coalition's probability of victory worsens. Because this argument hinges on battlefield developments,

soldiers on the continent were included in Britain's contribution on the Western Front, but not soldiers stationed in Britain. In some cases, especially shorter wars, minor fronts, or countries whose war effort remained relatively constant throughout the war, I have a single observation for force sizes on the front, which is used for the entire period that the front is active. In other cases, values varied substantially as reinforcements arrived or soldiers were shifted from one front to another. In cases in which specific quantitative information about the size of the force was unavailable but historical sources noted the dispatch of certain units, I estimated force size based on standard unit sizes for the army at the time. For example, knowledge that Austria-Hungary sent four divisions to the Western Front in 1918 was used to estimate a total of 50,000 soldiers on the front, based on reports that Austro-Hungarian divisions were by this point typically several thousand men short of the standard contingent of roughly 15,000 men. This approach, although imperfect, ensured that available information about force transfers was reflected in the data.

it cannot be tested over the full dataset with existing data.¹⁴ I thus make use of novel participant-level monthly estimates of battle deaths. These data were generated from a variety of sources, using official government statistics in the rare cases where they were available and otherwise allocating deaths temporally on the basis of available information about battles, campaigns, or deaths over particular time periods. This process typically accounted for a portion of total deaths, with the remainder allocated proportionally over the war. While the data are not perfect, they do capture substantial variation in deaths over the course of wars. For more information on the collection of this data, see (Weisiger 2015).

Because countries may expect to suffer greater deaths than their opponents and yet still win, either because they have greater manpower (the Soviet Union in World War II) or because they believe that they are more resolved than their opponents (North Vietnam in the Vietnam War), simply knowing that a coalition is suffering higher deaths than its opponent does not necessarily indicate that it believes that the war is going poorly. A worsening loss exchange ratio, however, suggests that the probability of victory is declining: if a country that has been suffering 50% of battle deaths begins to suffer 70% of deaths, that development indicates a shift in the nature of fighting that suggests that victory is less likely than previously believed. The measure of battlefield trends (*War Worsening*) thus is constructed by comparing the coalition’s share of battle deaths in recent fighting (in primary analysis the last 60 days, though I also examine shorter and longer windows) with its share of battle deaths in fighting through the current day of the war. Formally, if d_{it} is country i ’s deaths and d_{et} is the enemy’s deaths through day t of the war, the trend variable (*War Worsening*) is equal to $\frac{\sum_{t-60}^t d_{it}}{\sum_{t-60}^t d_{it} + d_{et}} - \frac{\sum_1^t d_{it}}{\sum_1^t d_{it} + d_{et}}$. Higher values for this variable indicate that the coalition has suffered a higher share of deaths in recent fighting than was the case earlier, and hence that the war is worsening from its perspective. An alternate formulation substitutes the country’s own deaths for coalition deaths to capture recent trends from the country’s perspective.

Some readers may worry that, rather than picking up a deteriorating military situation suggestive of approaching defeat, this measure merely captures the occurrence of military offensives, which

¹⁴The only available dataset that provides information on events within wars is the CBD90/HERO data on historical battles that was produced by the US Army. This dataset, however, has unrepresentative historical coverage—the vast majority of battles it covers involved the United States, Germany, or Israel, in a relatively small set of high-salience but often unrepresentative wars—and unclear coding rules (Biddle & Long 2004).

may impose particularly heavy casualties on the side carrying out the attack. I am unworried about this possibility for several reasons. Highly costly *failed* offensives should suggest that the coalition is less likely to triumph than was previously thought. By contrast, the ultimate measure of successful offensives is the ability to impose significant costs on the opponent after breaking through. Figure 2 uses data for the United States to illustrate how these points play out at critical junctures of the World Wars. Recall that higher values of *War Worsening* imply that losses relative to the enemy have been higher in recent fighting than earlier in the war. In both periods, the country trend starts near zero and rises slightly over time as the Americans assumed greater responsibility for the coalition war effort. The coalition trend follows a different path, however. At the start of 1918, recent trends were poor (reflecting the scale of Russian losses in the final months of 1917), but fighting shifted in the Allies' favor as Germany suffered higher losses in its unsuccessful spring offensive. The Allies shifted to the offensive in August, but the success of their offensive meant that trends continued to be favorable from their perspective. Similarly, the increase in American deaths following D-Day was offset by greater German losses in the West, amplified by major defeats on the Eastern Front in August that precipitated the defection of several German satellites. In general, failed offensives result in an increase in *War Worsening* (measured at the coalition level) for the attacker, while successful offensives result in an increase for the defender.

The analysis also includes a number of statistical controls, which are enumerated below:

- Military power clearly influences the outcome of war, and hence can be expected to influence decisions about whether to continue to fight. The analysis contains two variables to capture the effects of power, with capabilities measured in both cases using the standard National Military Capabilities dataset from the Correlates of War. The first, *Relative Strength*, captures the coalition's strength relative to its opponent. Formally, if country i has allies A and enemies E , all of whom have capabilities cap_j , $Relative\ Strength = \frac{cap_i + \sum_{j \in A} cap_j}{cap_i + \sum_{j \in A} cap_j + \sum_{j \in E} cap_j}$. Higher values for this variable reflect a greater share of total capabilities on country i 's side of the war. Second, I also control for country i 's *Importance* to its coalition, measured as its share of total coalition capabilities. Formally, $Importance = \frac{cap_i}{cap_i + \sum_{j \in A} cap_j}$. Both of these variables update when coalition membership changes and when entering a new calendar year.

- A number of studies have found that democracies are more reliable alliance partners both in general (Bennett 1997, Leeds 2003, Leeds & Savun 2007) and in the context of war (Choi 2012).¹⁵ I use Polity data to measure democracy, adopting a dichotomous variable that takes a value of one if the regime has a combined Polity score of seven or above and zero otherwise.
- Leadership turnover is frequently associated with major changes in foreign policy, including in alliance politics (Siverson & Starr 1994, Leeds, Mattes & Vogel 2009) and in the conduct of war (Croco 2011). Indeed, this argument has been applied specifically to the analysis of coalition abandonment (Tago 2009, Pilster, Böhmelt & Tago 2013). Working from the Archigos dataset and from Croco (2011), I thus code a dichotomous variable called *New Leader* that takes a value of zero if the current leader was in power when her country entered the war and one otherwise.
- Formal institutions such as military alliances can help to coordinate expectations among members, decreasing the probability of defection. I thus control for the existence of formal alliance agreements, using the Alliance Treaty Obligations and Provisions dataset. Bearing in mind Leeds's (2003) observation that studies that fail to consider the specific commitments that states make in their agreements may reach misleading conclusions, I use a dummy variable (*No Separate Peace*) that captures whether a state has at least one active alliance with a coalition partner that prohibits separate agreements with the enemy. In robustness checks, I substitute a dummy variable *Integrated Command* that takes a value of one if the country has an alliance agreement with at least one other coalition member in which participants agree to subordinate military forces under a common commander. As with power variables, alliance variables update when other coalition members enter or exit the war or when new alliance agreements are reached.
- There is the potential for significant demonstration effects, with coalitions progressively unraveling in response to an initial defection. *Recent Exit* takes a value of one in the day following a coalition partner's defection and then decreases at a constant rate over the following three

¹⁵Resnick (2013, pg. 678) argues that systemic variables will drive alliance cohesion, but that under conditions that favor fragmentation autocracies will be more likely than democracies to entirely defect.

months until it returns to zero.

- Finally, in robustness checks I control for the country’s preexisting relationship with other coalition members, using the COW Militarized Interstate Dispute dataset to capture prior interactions. *Coalition History*, which varies between 0 and 1, captures the relative frequency of cooperation in comparison to conflict with other coalition members. Formally, if c_j is the number of times in the previous ten years in which i and j have been on the same side of a dispute and d_j is the number of times that they have been on opposing sides, then $Coalition\ History = \frac{\sum_{j \in A} c_j}{\sum_{j \in A} c_j + d_j}$. Coalition history is set to .5 when a country has no recent incidents of conflict or cooperation with coalition partners.

4 Statistical Results

I begin the analysis by examining minimalist models with no controls, as reported in table 1. Several baseline results emerge from this analysis. First, countries that are fighting entirely or mostly on the same front as their coalition partners are substantially less likely to abandon them than are countries that are fighting independently. This result holds both in models 1 and 2 for any kind of withdrawal and in models 3 and 4 when focusing only on voluntary withdrawal (i.e. not coding countries that lose the capacity to continue conventional resistance as abandoning coalition partners). Based on these results, we would expect one third of countries fighting entirely independently to abandon their coalition partners within one year, whereas only about 5% of countries fighting on a common front with their allies would do so; the instantaneous hazard rate that a country will abandon a coalition partner is almost eight times higher when the country is fighting entirely independently than when it is fighting entirely alongside its allies.

Second, the results indicate that countries are more likely to abandon their coalition partners when the coalition’s battlefield position worsens. When the coalition’s loss exchange ratio has worsened in recent months, individual members are more likely to withdraw, a result that holds under either measure of the dependent variable. Interestingly, however, this result does not hold when examining calculations at the level of the individual country. A country whose share of

battlefield deaths has increased recently is not comparably more likely to abandon its allies. The hazard rate for a country for whom the *War Worsening* variable takes a value at the 95th percentile is three times higher than for a country at the 50th percentile. This result, which is robust to examining a range of different windows for comparing recent battlefield events to the war as a whole, and which also holds in the presence of a broad set of controls, is consistent with the argument that because outcomes in a multilateral war ultimately depend on how the coalition fares, leaders will focus more on overall coalition success or failure than on their own losses when deciding whether or not to withdraw.

These results, of course, do not address potential omitted variable bias. Table 2 thus extends the analysis by examining the results when including a range of controls. As before, battlefield circumstances have a robust relationship with abandonment of coalition partners. To provide a comparison, model 1 presents the results for the control variables, with the battlefield variables omitted. Model 2 then introduces the battlefield variables. As in the absence of controls, both the primary battlefield variables are statistically and substantively significant. Model 3 limits the dependent variable to voluntary withdrawal; again, both fighting independently and recent coalition defeats are associated with an increased probability that a country abandons its coalition partners. The substantive effect of the battlefield variables is attenuated in the full model but still substantial. Figure 3 graphs predicted survival curves for countries fighting independently and on a common front, based on model 2 and holding control variables at median values. Countries that fight independently are roughly four times more likely to abandon their partners at any given time than are countries fighting entirely alongside allies; a year into a war, only 4% of countries fighting on a common front would be expected to have abandoned their partners, compared to 30% of countries fighting entirely independently. As for the worsening war variable, a shift from the 50th to the 95th percentile is associated with slightly more than a doubling in the instantaneous hazard of defection. By comparison, a shift from democracy to non-democracy is associated with roughly a doubling in the predicted hazard rate of withdrawal, while the hazard arising from a new leader's arrival is a little more than 2.5 times larger than the baseline.

These results are quite representative, and are stable across a range of robustness checks. One

potential concern is that the window for recent fighting used when constructing *War Worsening* might be unrepresentative. The baseline analysis uses a 60-day window, but there is no obvious reason to favor this timespan to possible alternatives. Rerunning the analysis using different windows produces substantively identical results, however. Figure 4 graphs point estimates and 95% confidence intervals for the *War Worsening* variable for windows ranging from 15 to 120 days. The point estimates remain remarkably stable over this range, while the confidence intervals gradually widen; only when approaching a four-month window of recent fighting does the variable narrowly miss conventional ($p < .05$) significance levels.

Another possible concern is that the observed effects for *Common Front* may reflect selection effects rather than the incentives that fighting separately creates for reaching a separate peace. In particular, skeptics might argue that coalition partners who are unlikely to defect on each other ex ante are also more likely to fight alongside one another. One might imagine, for example, that countries that have cooperated in prior coalitions are both more likely to fight alongside one another and less likely to defect on each other. Similarly, allies who manage to establish an integrated military command might be more likely to deploy soldiers to common fronts and less likely to defect on one another. From a different perspective, states that fight on different fronts may be primarily concerned about different enemies, leading them to depart the coalition when their primary opponent is defeated, even if their coalition partners have not yet achieved victory.

The remaining models in table 2 assess these alternate explanations for the findings for *Common Front*. Model 4 introduces additional controls for an integrated command structure and the existence of prior cooperative or conflictual relations with the country's coalition partners. The results for *Common Front* (and *War Worsening*) remain robust, while the control variables are both insignificant and in the opposite direction from that predicted by the selection argument.¹⁶ Alternatively, if the findings for *Common Front* are driven by cases in which coalition partners fight on different fronts against different enemies, then results should weaken or disappear when dropping wars in which coalitions fought against other coalitions. The primary examples of such conflicts are the World Wars. Model 5 thus reports results when dropping the World Wars. The

¹⁶I drop *No Separate Peace* to avoid including multiple variables that capture the effects of alliance ties, though results are robust to retaining the variable.

battlefield variables retain similar coefficients and levels of statistical significance, indicating that this concern is likely not driving the results.

Indeed, results are robust to a range of additional robustness checks, which are reported in the supplemental appendix. Findings for both *Common Front* and *War Worsening* remain both substantively and statistically significant when making any of the following changes to the analysis: dropping minor war participants (those who contribute less than 10% of their coalition’s soldiers); substituting alternate measures for control variables such as democracy, alliance ties, and recent war exit; recoding cases in which withdrawal precipitated war termination as non-withdrawal; dropping the one case in which there is no evidence of coordination among coalition members; and introducing additional controls for the timing of entry into the war, participant war aims, or the country’s total battle deaths.

Results for control variables are largely consistent with expectations based on existing literature. Democracies are less likely to abandon coalition partners in general (Choi 2012), while countries that have experienced leadership turnover are more likely to do so (Pilster, Böhmelt & Tago 2013), though these findings do appear to rely on the inclusion of the World Wars. Countries who have signed alliances with no separate peace clauses have been less likely to defect, though this relationship is weak and depends on the inclusion of battlefield variables—closer examination reveals that coalition partners historically have been more likely to sign these agreements when fighting on separate fronts, presumably because they recognize the increased threat of defection. There is also evidence that countries are more likely to abandon coalition partners when another coalition member has recently defected. By contrast, there is no clear effect of variation in the baseline probability of coalition success (as opposed to *changes* in that probability, as captured by *War Worsening*), nor are militarily unimportant coalition members more likely to free ride through defection.

5 Conclusions

At a time when wars are increasingly being fought multilaterally, holding coalitions of states with differing interests together is an important challenge. While existing work sheds some light on

the domestic political determinants of defection from wartime coalitions, there are good reasons to believe that wartime dynamics play a more significant role. This paper thus identifies two battlefield variables that I argue affect decisions about whether or not coalitions hold together. First, countries that fight independently are more likely targets of wedge strategies by opponents who use selective accommodation and targeted escalation to encourage them to withdraw from the war. Second, countries are more likely to abandon their coalition partners when battlefield developments suggest that the coalition is likely to lose, as the coalition's opponent has incentives to offer better terms to early defectors than to later ones.

At one level, an argument that battlefield circumstances affect coalition durability is hardly shocking. Yet multiple plausible arguments exist about the nature of this relationship. Realists have argued that coalitions are likely to be particularly cohesive when the war is going poorly (Walt 1997, Resnick 2013); collective action theory (Olson & Zeckhauser 1966) implies that defection will be more likely when a state is fighting alongside allies rather than alone; and some work on casualties and public opinion implies that withdrawal decisions would be driven by a state's particular wartime experience rather than the success of the coalition more generally (e.g. Mueller 1973; see however Gelpi et al. 2009). My argument and findings are inconsistent with all of these predictions. Adjudicating among plausible but incompatible hypotheses requires careful theorizing and—a bigger hurdle—new data. I use two sources of novel data to test the central hypotheses. The first uses time-varying information about allocations of soldiers across fronts to calculate the extent to which states are fighting in common with their coalition partners at any given point in time. The second uses monthly estimates of battle deaths to build a measure that captures the extent to which loss exchange ratios have worsened in recent fighting. Duration analysis determines that these variables are strongly associated with decisions about whether to defect from coalitions. Indeed, these variables turn out to be more robust than the domestic politics variables emphasized in existing research.

In addition to shedding light on historical cases, these findings have implications for policy. In recent wars, the United States has had particular difficulty in relations with (potential) coalition partners such as Turkey and Pakistan that are in a position to operate independently of the main

coalition forces. At the same time, my results suggest that the gradual disintegration of the Coalition of the Willing in Iraq was driven more by pessimism about the direction of the mission as a whole than the individual costs suffered by coalition members. Understanding these relationships should help policymakers anticipate and respond to the likely drivers of withdrawal, improving prospects for holding coalitions together.

Table 1: Battlefield Situation and Abandonment of Allies

	(1)	(2)	(3)	(4)
	Coalition Trend	Own Trend	Coalition Trend	Own Trend
Common Front	-2.16** (0.63)	-2.00** (0.69)	-2.11** (0.64)	-1.86** (0.68)
War Worsening	10.5** (2.47)	-1.53 (5.45)	10.2** (2.95)	-1.96 (5.89)
Observations	97393	97393	97393	97393
Countries	205	205	205	205
Failures	41	41	32	32

Standard errors clustered by coalition. [†] $p < .1$, * $p < 0.05$, ** $p < 0.01$

Table 2: Determinants of Defection from War Coalitions

	(1)	(2)	(3)	(4)	(5)
	Controls	Full Model	Voluntary Exit	No World Wars	No Enemy Coalitions
Common Front		-2.15** (0.80)	-2.21** (0.80)	-2.11* (0.92)	-4.41** (1.25)
War Worsening		6.74** (2.46)	6.52* (2.91)	7.35* (2.87)	10.5* (5.02)
Recent Ally Exit	2.63** (0.62)	2.28** (0.68)	2.32** (0.79)	2.31** (0.70)	2.82 (2.06)
Relative Capabilities	-1.19 (0.85)	0.24 (1.13)	1.04 (0.95)	-0.089 (1.38)	1.34 (1.45)
Importance	0.42 (0.46)	0.71 (0.48)	1.26* (0.54)	0.37 (0.69)	0.35 (0.86)
New Leader	1.34** (0.48)	0.99* (0.45)	0.89† (0.46)	0.89† (0.49)	0.64 (0.85)
Democracy	-1.02* (0.42)	-0.75† (0.42)	-1.11* (0.46)	-0.74† (0.43)	-0.44 (0.65)
No Separate Peace	-0.32 (0.41)	-0.69† (0.40)	-0.70 (0.45)		0.31 (0.67)
Integrated Command				0.49 (1.26)	
Coalition History				0.67 (0.50)	
Observations	96850	96850	96850	94508	50535
Countries	204	204	204	202	155
Failures	40	40	32	38	22

Standard errors clustered by coalition. † $p < .1$, * $p < 0.05$, ** $p < 0.01$

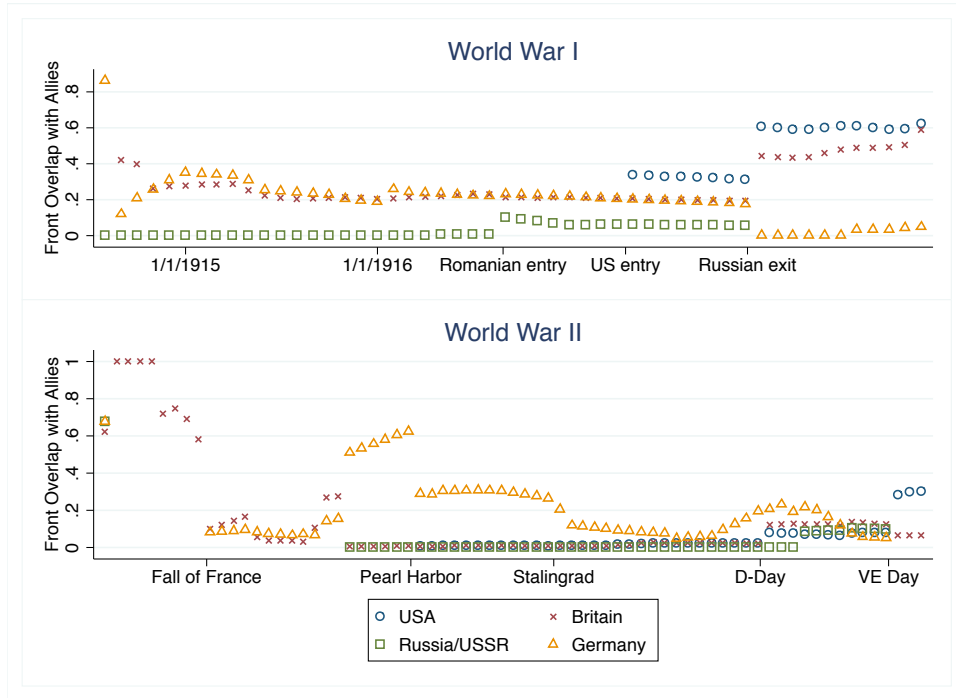


Figure 1: Front Overlap Figures for Major Participants in the World Wars

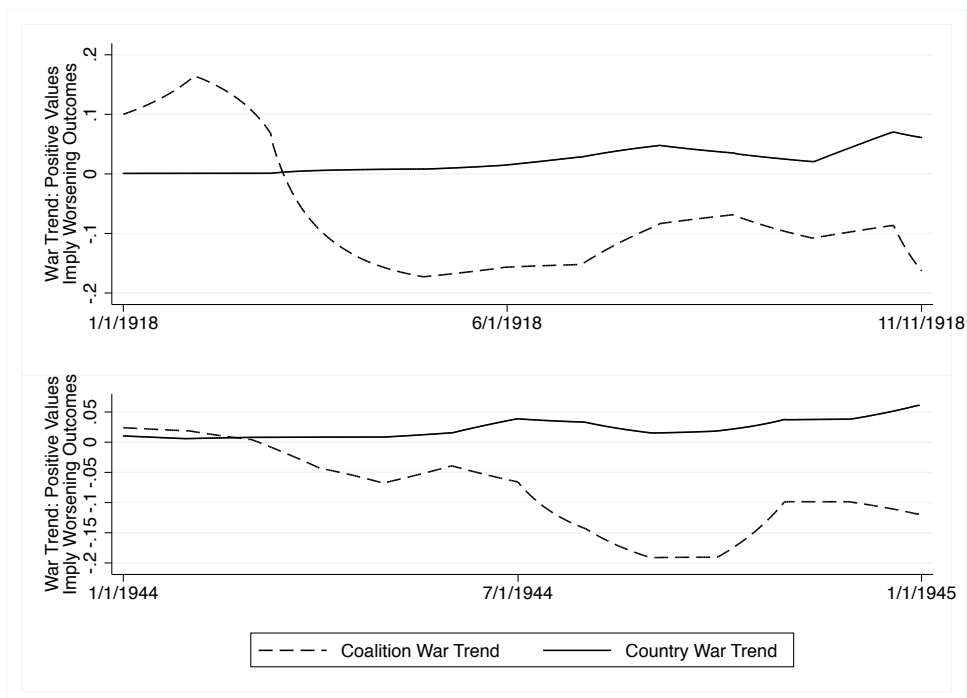


Figure 2: War Trend Variables for the United States at Critical Junctures of the World Wars

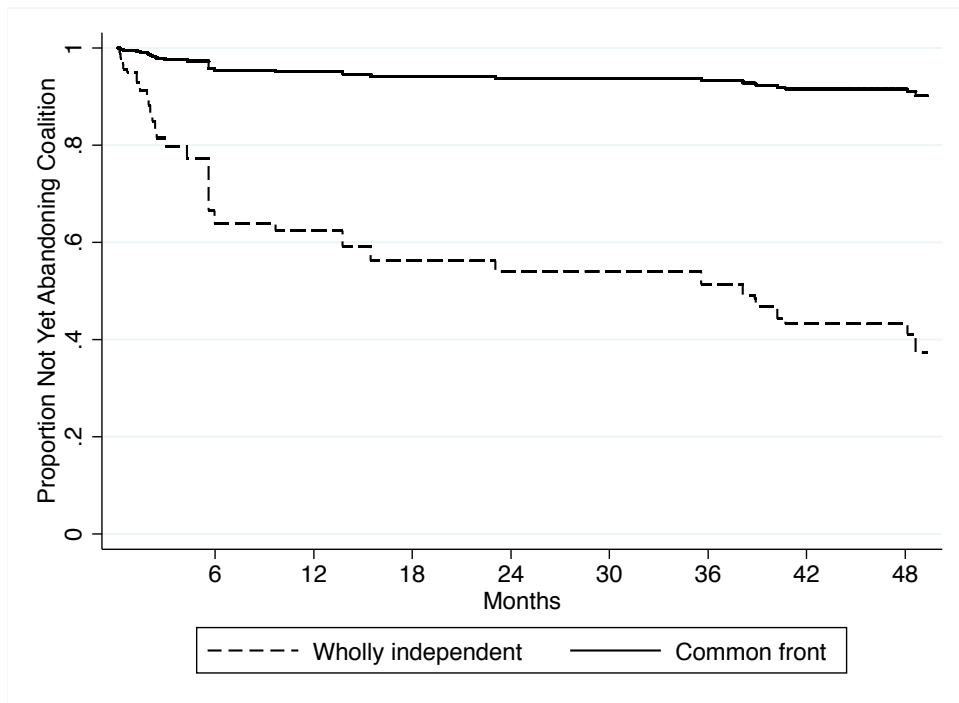


Figure 3: Predicted Duration until Defection if Fighting Alone or on a Common Front

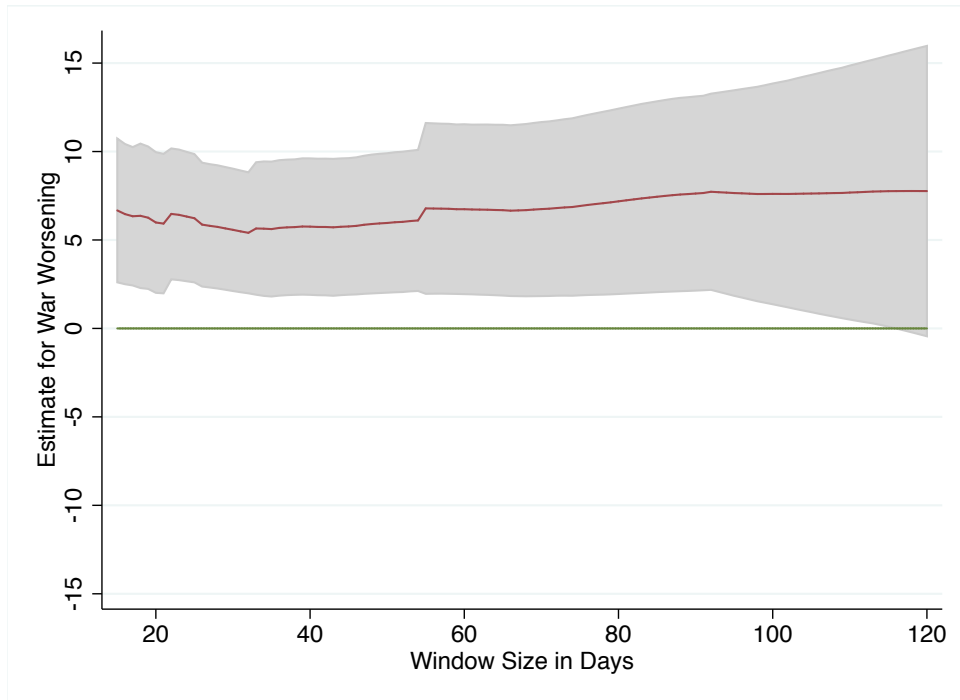


Figure 4: Point Estimates and Confidence Intervals for *War Worsening* using Different Windows of Time for Recent Fighting

References

- Altfeld, Michael F. 1984. "The Decision to Ally: A Theory and Test." *Western Political Quarterly* 37(4):523–544.
- Bennett, D. Scott. 1997. "Testing Alternative Models of Alliance Duration." *American Journal of Political Science* 41(3):846–878.
- Biddle, Stephen & Stephen Long. 2004. "Democracy and Military Effectiveness: A Deeper Look." *Journal of Conflict Resolution* 48(4):525–546.
- Cantir, Cristian. 2011. "Coalition of the Leaving: What Caused the Disintegration of the Multi-National Force in Iraq (2003-2009)." Ph.D. dissertation, University of Kansas.
- Chapman, Terrence L. 2011. *Securing Approval: Domestic Politics and Multilateral Authorization for War*. Chicago: University of Chicago Press.
- Chiozza, Giacomo & H. E. Goemans. 2011. *Leaders and International Conflict*. New York: Cambridge University Press.
- Choi, Ajin. 2012. "Fighting to the Finish: Democracy and Commitment in Coalition War." *Security Studies* 21(4):624–653.
- Clodfelter, Micheal. 2008. *Warfare and Armed Conflicts: A Statistical Reference to Casualty and Other Figures, 1500-2000*. Jefferson, NC: McFarland & Company, Inc.
- Crawford, Timothy. 2011. "Preventing Enemy Coalitions: How Wedge Strategies Shape Power Politics." *International Security* 35(3):155–189.
- Crescenzi, Marc J. C., Jacob D. Kathman, Katja B. Kleinburg & Reed M. Wood. 2012. "Reputation, Reliability, and Alliance Formation." *International Studies Quarterly* 56(2):259–274.
- Croco, Sarah E. 2011. "The Decider's Dilemma: Leader Culpability, War Outcomes, and Domestic Punishment." *American Political Science Review* 105(3):457–477.

- Farrar, L. L., Jr. 1978. *Divide and Conquer: German Efforts to Conclude a Separate Peace, 1914-1918*. Boulder, CO: East European Quarterly.
- Fearon, James D. 1995. "Rationalist Explanations for War." *International Organization* 49(3):379–414.
- Gelpi, Christopher, Peter Feaver & Jason Aaron Reifler. 2009. *Paying the Human Costs of War: American Public Opinion and Casualties in Military Conflicts*. Princeton: Princeton University Press.
- Gibler, Douglas M. 2008. "The Cost of Reneging: Reputation and Alliance Formation." *Journal of Conflict Resolution* 52(3):425–454.
- Goemans, Hein E. 2000. *War and Punishment: The Causes of War Termination and the First World War*. Princeton: Princeton University Press.
- Goldstein, Avery. 1995. "Discounting the Free Ride: Alliances and Security in the Postwar World." *International Organization* 49(1):39–71.
- Holsti, Ole R., P. Terrence Hopmann & John D. Sullivan. 1973. *Unity and Disintegration in International Alliances: Comparative Studies*. New York: Wiley.
- Kaplan, Morton A. 1957. *System and Process in International Politics*. New York: Wiley.
- Kober, Avi. 2002. *Coalition Defection: The Dissolution of Arab Anti-Israel Coalitions in War and Peace*. Westport, CT: Praeger.
- Leeds, Brett Ashley. 2003. "Alliance Reliability in Times of War: Explaining State Decisions to Violate Treaties." *International Organization* 57(4):801–827.
- Leeds, Brett Ashley & Burcu Savun. 2007. "Terminating Alliances: Why Do States Abrogate Agreements?" *Journal of Politics* 69(4):1118–1132.
- Leeds, Brett Ashley, Michaela Mattes & Jeremy S. Vogel. 2009. "Interests, Institutions, and the Reliability of International Commitments." *American Journal of Political Science* 53(2):461–476.

- Liska, George. 1968. *Nations in Alliance: The Limits of Interdependence*. Baltimore: Johns Hopkins Press.
- Miller, Gregory D. 2012. *The Shadow of the Past: Reputation and Military Alliances before the First World War*. Ithaca: Cornell University Press.
- Morrow, James D. 1991. "Alliances and Asymmetry: An Alternative to the Capability Aggregation Model of Alliances." *American Journal of Political Science* 35(4):904–933.
- Mueller, John E. 1973. *War, Presidents, and Public Opinion*. New York: Wiley.
- Neustadt, Richard E. 1970. *Alliance Politics*. New York: Columbia University Press.
- Olson, Mancur & Richard Zeckhauser. 1966. "An Economic Theory of Alliances." *The Review of Economics and Statistics* 48(3):266–279.
- Pilster, Ulrich, Tobias Böhmelt & Atsushi Tago. 2013. "Political Leadership Changes and the Withdrawal from Military Coalition Operations, 1946-2001." *International Studies Perspectives* 14(1):1–21.
- Powell, Robert. 2004. "Bargaining and Learning While Fighting." *American Journal of Political Science* 48(2):344–361.
- Reiter, Dan. 2009. *How Wars End*. Princeton: Princeton University Press.
- Resnick, Evan N. 2013. "Hang Together or Hang Separately? Evaluating Rival Theories of Wartime Alliance Cohesion." *Security Studies* 22(4):672–706.
- Rice, Anthony J. 1997. "Command and Control: The Essence of Coalition Warfare." *Parameters* 27(1):152–167.
- Silkett, Wayne A. 1993. "Alliance and Coalition Warfare." *Parameters* 23(2):74–83.
- Siverson, Randolph M. & Harvey Starr. 1994. "Regime Change and the Restructuring of Alliances." *American Journal of Political Science* 38(1):145–161.

- Slantchev, Branislav L. 2003. "The Principle of Convergence in Wartime Negotiations." *American Political Science Review* 97(4):621–632.
- Smith, Alastair. 1995. "Alliance Formation and War." *International Studies Quarterly* 39(4):405–425.
- Snyder, Glenn H. 1997. *Alliance Politics*. Ithaca: Cornell University Press.
- Tago, Atsushi. 2009. "When Are Democratic Friends Unreliable? The Unilateral Withdrawal of Troops from the 'Coalition of the Willing'." *Journal of Peace Research* 46(2):219–234.
- Viorst, Milton. 1991. "Report from Baghdad." *The New Yorker* 24:55–73.
- von Clausewitz, Carl. 1976[1832]. *On War*. Princeton: Princeton University Press.
- Walt, Stephen M. 1987. *The Origins of Alliances*. Ithaca: Cornell University Press.
- Walt, Stephen M. 1997. "Why Alliances Endure or Collapse." *Survival* 39(1):156–179.
- Waltz, Kenneth N. 1979. *Theory of International Politics*. New York: McGraw-Hill.
- Weisiger, Alex. 2015. "Monthly Battle Death Estimates for the Correlates of War Interstate Wars." unpublished manuscript, University of Pennsylvania.
- Weitsman, Patricia. 2004. *Dangerous Alliances: Proponents of Peace, Weapons of War*. Stanford: Stanford University Press.
- Weitsman, Patricia. 2014. *Waging War: Alliances, Coalitions, and Institutions of Interstate Violence*. Stanford: Stanford University Press.
- Wolford, Scott. 2012. "Power, Preferences, and Balancing: The Durability of Coalitions and the Expansion of Conflict." *International Studies Quarterly* 58(1):146–157.