

Where Have All the Victories Gone? Peacekeeping and War Outcomes

**Virginia Page Fortna
Associate Professor of Political Science
Columbia University**

email: vpf4@columbia.edu

[Version: August 2009]

Prepared for Presentation at the
Annual Meetings of the American Political Science Association,
Toronto, September 6, 2009

ACKNOWLEDGMENTS

Earlier versions of this paper were presented at APSA, ISA, Peace Science, the Georgetown Junior Faculty Workshop on Intervention, the Yale Conference on Order, Conflict, and Violence, UCLA, Duke, Stanford, Columbia, and Dartmouth. I thank the participants of those panels, and especially Mike Brown, Michael Doyle, Matthew Hoddie, Lisa Martin, David Patel, Dani Reiter, Nicholas Sambanis, Ken Scheve, Al Stam, and Peter Thompson for comments. Thanks also to Nisha Fazal, Erik Gartzke, Lise Howard, Barb Koremenos, Alan Kuperman, Ken Schultz, Erin Simpson, Jack Snyder, Monica Toft, and Steve Van Evera, for enlightening discussion and suggestions. I very much appreciate the data provided by Michael Doyle and Nicholas Sambanis, Jim Fearon, Zachary Shirkey, Zeev Maoz, and especially Al Stam.

ABSTRACT

This paper documents and proposes an explanation for a puzzling empirical trend: the number of wars ending in a draw, rather than with a victory for one side, has increased markedly over time. This change in war outcomes occurs for interstate wars after WWII, and for civil wars after the end of the Cold War. I argue that this change, and its timing in the two types of war can best be explained by the development of peacekeeping. For war to end in a draw, two conditions must hold: neither side is able to defeat the other outright, and the belligerents can agree to stop fighting rather than continuing the war in the hope of eventual victory. Using this framework, I outline and test a number of possible explanations for the shift in outcomes. I rule out a number of alternative explanations, including the offense-defense balance, patterns of intervention, terrain, population growth, and issue salience. Only the peacekeeping argument can explain the change in both civil and interstate wars.

Wars have become much more likely than they once were to end in a draw rather than a clear victory for one side and a loss for the other. This is true for both interstate and civil wars, although the timing of the shift is different for the two types of war. Why have draws become more common over time? Where have all the victories gone? I argue that this dramatic change in war outcomes can best be explained as an unintended consequence of the development of peacekeeping as a tool of conflict management.

While war outcomes have attracted considerable scholarly attention, the existing literature neither notices nor explains the sharp decline in victories. This paper documents the empirical trend, and explores a number of possible explanations for it. For war to end in a draw, I argue, two conditions must obtain: that neither side can defeat the other outright; and that belligerents can agree to stop fighting, settling for a draw rather than pushing on for a decisive outcome. Thus the cause of the temporal shift in war outcomes must either be due to something that makes it harder for either side to win outright, that is, that makes military stalemate more likely; or to something that makes it easier for belligerents who have reached a stalemate to settle and end their fighting. Using this framework, I propose and test a number of hypotheses to account for the shifting nature of war outcomes. I rule out a number of possible explanations, including the offense-defense balance, patterns of intervention, terrain, population growth, and issue salience. I find only weak evidence that relative capabilities account for the shift over time. Changes in military strategy may help account for outcomes in civil wars, but not in interstate cases, and the opposite is true for changes in regime type. I find strongest support for the notion that the development of peacekeeping, which allows belligerents to settle for a draw, accounts for the decline of decisive victories. Indeed, the peacekeeping explanation is the only one that can account for the change in both civil and interstate wars, and the separate timing of these shifts.

THE RISING TIE: THE EMPIRICAL TREND

The last fifteen years have seen a burst of scholarship on war termination. While studies of how wars end are still vastly outnumbered by studies of the onset or causes of war, considerable analytic and empirical rigor has been applied to studying the processes by which fighting stops and the politics of the aftermath of war. Some of this scholarship has focused on interstate wars (e.g., Fortna 2004b; Goemans 2000; Weisiger 2007; Wittman 1979), some on civil wars (e.g., King 1997; Mason and Fett 1996; Walter 2001); some has limited its empirical domain to the post-WWII era, some has examined a longer historical sweep. But most of this work takes the problem of war termination as something that has not evolved much over time (an exception is Holsti 1991). Yet the ways in which wars end, and in particular war outcomes, appear to have changed dramatically.

Both interstate and civil wars are much less likely to end with a clear victor than they once were. For interstate wars this change takes place after World War II. It appears in several standard data sets on war. The Militarized Interstate Dispute (MID) project (which included data on wars as well as lower-level disputes) codes four possible outcomes: victory, yield, compromise, or stalemate.¹ There is a significant shift over time in the number of wars ending in stalemate or compromise as opposed to victory or yield (see Figure 1). Fewer than six percent of

¹ Victory is “the favorable alteration of the status quo.... It denotes the attainment of a tangible piece of territory, the significant change in an adversary’s foreign policy, or the successful downfall of another state’s political regime by force.” MID codes the outcome as a “yield” if there is “coerced submission by one state to the demands made by another but short of any clear alteration of the status quo directly attributable to the threat, display, or use of military force.” Stalemates are “defined by the lack of any decisive changes in the pre-dispute status quo” or when changes occur but the “net balance results in a draw.” Compromise outcomes refer to agreements to divide the spoils or to settle differences (Jones, Bremer, and Singer 1996, p. 180).

the dyads fighting in wars before 1946 are coded as stalemates or compromises, while almost half of those after World War II end in such indecisive outcomes (Table 1).² Stam's coding of war outcomes differs slightly, but in a data set of dyads in interstate wars from 1816 to 1999, fewer than eight percent end in a draw before 1946, compared to thirty-five percent of the dyads since World War II (see Table 2 and Figure 1).³ Using the Correlates of War (COW) measure of war outcomes, the difference is even more dramatic (Table 3 and Figure 1).⁴ Only one war (France and Turkey in 1919-1921) before 1946, representing half a percent of the dyads, is coded by COW as having no clear winner, while over forty-four percent of the dyads after World War II end in a tie.⁵ In all three comparisons, the difference between time periods is extremely unlikely to be the artifact of chance.⁶ Once quite rare, military contests with no clear winner, such as the Korean War, or the Second Sino-Vietnamese war, have become much more common.

[Figure 1 and Tables 1-3 about here]

² If one considers "yields" as draws rather than as victories, the figures are 6.4% with no victor before 1946, and 50% after.

³ Like MID, Stam considers as victors states that successfully change the status quo, particularly the territorial status quo, but Stam counts as losers (and therefore their opponents as victors) states that attempt to challenge the status quo but fail to do so. He codes as draws those wars in which no victor is apparent (Stam 1996, pp.75-76).

⁴ COW gives no specific criteria for its coding, relying simply on the "consensus" of historians (Small and Singer 1982, p. 182). COW seems to have attempted to minimize the number of wars coded as a tie.

⁵ The COW and MID figures reported here are affected by counting even minor participants in each war, including, for example, all 16 belligerents in the Korean war. But the same trend is apparent in Stam's data which counts only major participants in each war, and in the WIT data on principal belligerents (see below).

⁶ Pearson's χ^2 tests the null hypothesis that the rows and columns in the table are independent. Mann-Whitney tests the null hypothesis that two samples (in this case pre-1945 wars and post-1945 wars) are from populations with the same distribution. In all three tables, we can reject both null hypotheses with great confidence ($P < 0.000$).

It is possible that interstate wars were much more likely to end in draws during the Cold War, but that the pattern will now return to its earlier norm. Though there have been too few recent interstate wars to be certain, this does not seem to be the case. The First Gulf War was a rout, as was the period of “major combat operations” in the Second Gulf War, but once US and allied forces got bogged down in Iraq, the clarity of an American victory was clouded. How historians judge the outcome of this war will depend on what happens in Iraq after US forces complete their withdrawal, but the war has not been the easy military victory one might expect from the world’s only superpower. The first round of fighting in the Armenia-Azerbaijan war (up to the cease-fire in 1992) ended in stalemate, but the fighting from 1992 to 1994 ended with Armenia occupying the disputed territory of Nagorno-Karabakh (Fortna 2004b).⁷ The 1999 Kargil war between India and Pakistan is coded as a stalemate by MID, and the Ethiopia-Eritrean war ended in compromise.⁸ The early indications suggest that the increase in ties has outlived the Cold War. In short, something has changed, making interstate war less decisive than it used to be.

It can be difficult to define victory and code war outcomes, and this is reflected in the remarkably inconsistent way outcomes for specific wars are coded in existing data sets.⁹ Perhaps, then, this trend is just an artifact of the way victories are coded? Researchers coding data may have had more information about the nuances of the military outcomes in more recent

⁷ In the analyses below, data is missing for this case as it is “ongoing” in COW and “unclear” in MID.

⁸ The fighting between Russia and Georgia in 2008 does not meet the COW criteria (used as well by MID and Stam) for an interstate war, because fewer than 1,000 died in the fighting.

⁹ The correlation between the Stam and COW codings of war outcomes is only 0.45, between Stam and MID, 0.55. The correlation between COW ties and MID stalemates is 0.72, even though these data were generated from the same project.

wars than in long ago conflicts. The historical consensus that emerges over time might make military outcomes seem more clear than they were at the time. If ambiguous outcomes are coded as ties, then the state of information about recent wars might result in more of them coded as draws. Because interest in and research on civil wars increased significantly with the end of the Cold War, this effect might explain why we see an increase in ties in civil wars at that point rather than earlier as we do in interstate wars. However, the coding hindsight explanation does not account for the marked increase in interstate draws after World War II rather than a steady increase over time. Furthermore, we should expect to see less of an effect of coding hindsight in the COW data relative to other data sets, because it relies in part on relatively contemporary historical records (Small and Singer 1982, Appendix A). But as we have seen the effect is most pronounced in the COW data.

It is also possible that other more fundamental changes in war termination have affected the coding of outcomes. The decline of territorial changes as a result of war (Zacher 2001) may have made it harder for researchers to assess winners and losers. When a major territorial change takes place, the war is fairly clearly a victory for the beneficiary of this change. It is more straightforward to code wars that do change the territorial status quo than those that fail to do so. Similarly, There has been a dearth in recent decades of political settlements at the end of interstate wars, that is, of agreements that explicitly settle the issues over which the war was fought (Fortna 2004b, ch.6). Military outcomes no longer necessarily decide political issues. This may also lead to more ambiguity and therefore more wars coded as ties.

However, the dramatic increase in the number of draws is apparent regardless of the coding one uses. Notably, it persists in a new data set on War Initiation and Termination (WIT)

that Tanisha Fazal and I have put together to study historical changes in the ways wars begin and end. These data distinguish military outcomes from political outcomes, so the trend cannot be driven by the decline of territorial changes as a result of war, or by a change in the relationship between military and political outcomes. Moreover, the coding process allowed for more nuance in the assessment of military outcomes, coding along a 4-point scale from ties through extreme victories.¹⁰ In these data fewer than 4% of warring dyads between 1816 and 1945 end their fighting at a military draw, while this figure rises to 44% after World War II. Wars ending with a slight military victory, in which fighting was fairly even but one side had a bit of an edge, have also become slightly more common. Meanwhile wars ending with a clear victory for one side, or extreme victories, in which one side completely clobbers the other, have become much less likely. Extreme victories fall from 33% of all cases before 1946 to only 6% after, while clear victories short of this fall from 44% to 26%.¹¹

In short, any way you slice the data, clear military outcomes, with an obvious winner and loser, have become much less common in interstate wars since World War II, while draws or ties have become more prevalent.¹²

A similar trend is apparent in civil wars, except that the shift occurs half a century later, after the end of the Cold War. Of the 168 intrastate wars ending before 1989, COW lists only

¹⁰ These data remain somewhat provisional as we are still cleaning up the data set. I therefore use the more established data sets on interstate war for statistical analyses below, presenting these figures here only to make the point that the change in war outcomes over time is not an artifact of coding problems.

¹¹ All of these figures include only principal belligerents (the difference is much larger if all participants in multilateral wars are used), and only states that actually fought one another directly.

¹² For the purposes of this paper, I use the terms *tie*, *draw*, *compromise outcome*, and *indecisive outcome* interchangeably.

one, the Mexico-Yucatan Maya war of 1847-1855 as ending in a tie. Seven of thirty-seven (19%) ending in or after 1989 end in a tie (see Table 4).¹³ The COW civil war data set has often been criticized, but it is the only I know of that extends back before World War II, covering the period from 1816-1997.¹⁴ A data set adapted from Doyle and Sambanis' (2000) data on civil wars from 1944 to 1997 codes more cases as ending with no clear victor, but the change at the end of the Cold War remains apparent (see Figure 2).¹⁵ Of 61 cases during the Cold War, 13 (20%) end in a tie (defined as a truce or settlement, as opposed to victory by either the government or the rebels). After the Cold War, 38 of 54 (70%) end in a tie (see Table 5).¹⁶ This last figure is particularly striking. The conventional wisdom is that civil wars are usually fought to the finish, to the complete defeat of one side. This is the premise motivating Walter's (2001) theory explaining why negotiated settlements are so difficult to reach in internal wars. This premise held for most of the period she examined, but it is no longer true. The truces or settlements reached in wars in Georgia, the Philippines, El Salvador, and Mozambique, or more recently in Liberia and the Sudan, have become the norm.

[Figure 2 and Tables 4-5 about here]

¹³ Again, both the Pearson's χ^2 and Mann-Whitney tests indicate that this difference is extremely unlikely to be the artifact of chance. None of the civil wars during the Cold War are coded by COW as ties.

¹⁴ The aforementioned WIT data, that Fazal and I are putting together, will cover civil wars from 1816 to the present, but we have not yet completed the civil war coding.

¹⁵ The same pattern is evident in Toft's (2007, p.12) data.

¹⁶ Notably, both truces and formal treaties become more common, about equally so. In other words, it is not just an increase in formal negotiated settlements that is occurring, but an increase in all indecisive outcomes. Also note that this is not an artifact of wars that accumulated during the Cold War but were settled after the superpower confrontation ended in 1989. The rate of draws is the same for civil wars that both start and end after the Cold War as for those that started before but ended after 1989.

In any data set examined, we see a dramatic change in war outcomes, with clear victories becoming much less common after World War II for interstate wars, and after the Cold War for civil wars.

WHY IT MATTERS

Historically, the shape of the international system has been determined in large part by the outcome of wars. If the way wars end is changing, this will have important consequences for international relations.¹⁷ The general conception of war as a decision mechanism is one in which the war will end with a winner and a loser.¹⁸ While this conception does not rule out the possibility of a tie, draws are generally thought of as a default, and relatively rare category.¹⁹ If draws have become more prevalent, perhaps war is becoming less effective as a decision mechanism.

The outcome of war also affects the duration of the peace that follows. If, as most studies indicate, decisive military outcomes yield more stable peace than do draws (see Fortna 2004b; King 1997; Licklider 1995; Maoz 1984; Walter 1997; Werner 1999; and especially Toft

¹⁷ On the other hand, if the trend described above turns out to be a temporary change caused by the Cold War and its end, then studies of war termination based on the last half century are likely to yield misleading conclusions. In either case, we need to know whether, when, and how war outcomes change over time.

¹⁸ As Holsti (1991, p. xvi) puts it, “Men do not go to war for the sake of battle, but to resolve issues that cannot be reconciled by other means.”

¹⁹ Some studies (for example, Bueno de Mesquita 1981), simply treat ambiguous outcomes such as draws as missing data. Stam (1996, esp. ch.2), argues for the importance of thinking about war outcomes as falling into three categories, win, lose, or draw, as opposed to just victory and loss. Maoz (1983) codes all three categories in interstate disputes but treats draws simply as an intermediate outcome between victory and loss rather than an outcome requiring its own explanation. Diehl and Goertz (2002) is one of the only studies to treat stalemate as a category worth exploring in its own right.

2007), then the empirical trend documented above is potentially quite worrisome. It means that the job of maintaining peace has gotten harder. The fact that wars have become less likely to end in a decisive outcome rather than a draw is thus of profound significance for stability and the international system.

The implications of the trend for human welfare may thus be somewhat mixed: if war is declining in its usefulness as a decision mechanism, this may contribute to war's obsolescence as a means of settling disputes (Mueller 1989). On the other hand, if indecisive wars leave issues to fester, erupting in repeated fighting, the change in war outcomes may lead to more rather than less violence.

Finally, this topic has obvious policy implications. Decision makers contemplating war hope to emerge victorious. They should be interested to know whether and why victory has become less common than it once was.

EXPLAINING THE CHANGE

How might we explain the decline of victories in both interstate and civil wars? Despite the importance of war outcomes for international relations, no existing studies have noticed, let alone explained the temporal shift in war outcomes.²⁰ Nonetheless, hypotheses and findings from previous studies of war outcomes tell us when we are most likely to observe draws, and might therefore help explain the decline in wins and losses and the rise of draws over time (DeRouen and Sobek 2004; Enterline and Balch-Lindsay 2002; Maoz 1983; Mason, Weingarten, and Fett

²⁰ Diehl and Goertz (2002) explore the possibility of change over the course of an enduring rivalry, but not the change over historical periods.

1999; Stam 1996). Studies of the duration of war, both civil and interstate, may also be a proposal (e.g., Bennett and Stam 1996; Fearon 2004; Regan 2002; Soderbom, Collier, and Hoeffler 2002). The concepts of war's outcome and the speed with which it is reached are often closely linked, if not conflated – decisive wars are quick, while long, drawn out conflicts are indecisive. “Civil wars tend to last a long time when neither side can disarm the other, causing a military stalemate. They are relatively quick when conditions favor a decisive victory” (Fearon 2004, p. 276).²¹ Findings about the duration of war may therefore give us some leverage in explaining the trend toward more draws.

In the most common conception, draws or ties occur if neither side can win the fighting outright. Note, however, that Walter's (1997; 2001) argument about civil war outcomes suggests almost the opposite. In her conception, parties to a civil war attempt to find a settlement, but are often unable credibly to commit to it, so fighting continues to a decisive outcome – the parties fight to the finish if they are unable to reach a compromise outcome.²²

Both of these conceptions are right, but tell only part of the story. On the one hand, draws occur when neither side can win decisively and stalemate occurs. On the other hand, draws only occur when the parties can credibly commit to a settlement; otherwise, they continue fighting. For a war to end in a draw, therefore, **both** conditions must hold: that is, draws are the

²¹ Stam (1996, p. 108) puts the causal arrows the other way, arguing that longer wars are more likely to end in a draw. On duration and outcomes, see also Enterline and Balch-Lindsay (2002, p. 24) and Mason, Weingarten, and Fett (1999, p. 247). The relationship between duration and indecisiveness may be reciprocal.

²² In the first conception, since it often takes a long time to determine whether either side can win, draws tend to occur in long wars. The second conception, however, suggests that indecisive outcomes (truces and negotiated settlements) are reached earlier than decisive ones.

result of the inability of either side to win outright (that is, stalemate), combined with their ability to agree to stop fighting (settlement). The existing literature on war outcomes focuses more on the former condition than the latter, while the literature on duration and termination focuses on the commitment problem (e.g. Weisiger 2007). Together they form a useful framework for analysis of why war outcomes might change over time.

I argue that while there have been some changes that make arrival at stalemate more likely, the major change that has occurred, and the only one that can explain the change in outcomes in both types of war, and the timing of those shifts, is a change in the ability of the parties to reach a settlement – namely the invention of peacekeeping and its application first to interstate wars after WWII, and then to civil wars after the end of the Cold War.

Peacekeeping and War Outcomes

If warring parties have reached a military stalemate such that both sides know a decisive victory is elusive, why would they continue to fight? Why is settlement not relatively automatic at that point? Belligerents may be reluctant to cease fire if they worry that the war will soon resume, possibly leaving them worse off than if they never stopped fighting in the first place. Demobilizing forces can leave belligerents vulnerable if the other side reneges on a cease-fire and attacks once again (Fearon 2004, p. 290; Walter 2001). Walter argues that this commitment problem is particularly acute for combatants in civil wars, and that this explains why civil wars are fought to the finish rather than ending in negotiated settlement. However, maintaining peace can also be problematic for states (Fortna 2004b). While the problem may not be as acute in interstate wars, this credibility problem can also make states reluctant to settle.

In other words, for war to end in a draw, it is not enough that neither side can defeat the other outright. The parties must also decide to stop fighting, otherwise while neither side would win immediately, the fighting would simply continue. Mechanisms that allow parties credibly to commit to maintaining peace will thus make it easier for them to stop the war at a draw, rather than fight on to the finish. Walter (2001) argues that civil war combatants require credible intervention by third parties to reach a settlement. Several studies have shown that international peacekeeping helps maintain peace in both civil (Doyle and Sambanis 2000; 2006; Fortna 2008) and interstate wars (Fortna 2004b; 2004c). I argue that the availability of peacekeepers makes draws more likely by allowing belligerents who have hit a stalemate to reach agreements they would otherwise reject as untenable.

Peacekeeping was developed as a practice for interstate conflicts largely after World War II with the creation of the United Nations, but was then extended to civil wars after the Cold War as the norm against international community involvement in the internal affairs of states was relaxed (see below). This explanation thus fits nicely with the timing of the change in interstate and civil war outcomes.

Note that studies of peacekeeping usually put the causal arrow the other way – with peacekeepers more likely deployed when a war has ended without a clear victor (Fortna 2004a; 2008). But anticipation of peacekeeping can make it easier for parties to reach such a compromise outcome. The causal relationship is likely a complicated one. If one side can win outright, then peacekeepers will probably not deploy – they are not needed, nor will the winner accept them. But if neither side can win outright (that is, the first condition for a draw is met) then whether or not peacekeepers are available may affect whether belligerents settle or continue

to fight (the second condition).

The central hypothesis of this paper is thus that the development of peacekeeping can account for the increase in both interstate and civil wars ending in a draw or tie. But of course this is not the only possible explanation.

ALTERNATIVE ARGUMENTS

_____ Perhaps a more intuitive explanation for the change in war outcomes is that it has become harder for either side to defeat the other outright; that is, that wars are more likely to hit a stalemate (the first condition for a draw, outlined above). What might explain such a shift?

Reaching Stalemate

If draws occur when neither side can win decisively, when the fighting hits a stalemate, then factors such as relative power, strategy, the offense/defense balance, whether other states intervene, and terrain provide alternative arguments. If these variables change over time, they may explain the temporal trends in interstate and civil war outcomes.

Relative Capabilities

Relative capabilities presumably affect the ability to prevail in war. Intuitively, we might expect a relatively even balance of military capabilities to make draws more likely.²³ Existing studies are somewhat contradictory on this point (Diehl and Goertz 2002; Maoz 1983; Stam 1996). But one striking characteristic of the post-World War II interstate system is the virtual absence of wars among major powers. (The Korean War is a notable exception.) Meanwhile,

²³ There is considerable debate about whether a balance or a preponderance of power makes war more likely in the first place (Bremer 1992; Claude 1962; Organski 1968). If relative capabilities affect war initiation, its effects on outcome may be muted by a selection effect.

wars between minor powers have become more common. If this shift in who is fighting whom has systematically changed the relative power of warring states, this might help explain the rise in draws in interstate wars.

Civil wars are almost by definition asymmetric conflicts, with governments and rebels bringing very different resources to bear. Michael Doyle has suggested two reasons to think that the relative balance of power between governments and rebels might have shifted with the end of the Cold War (discussion with the author, ISA, Montreal, March 20, 2004). The first is that many states had a superpower patron willing to prop them up against internal threats, but this support fell away with the end of the Cold War, leaving governments more vulnerable to rebels. Of course, many rebel groups also enjoyed superpower patronage, so the net effect of the end of the US-Soviet conflict on relative capabilities is not entirely clear, but it is possible that the Cold War helped governments more than rebels, on average. The second is the proliferation of small arms that occurred with the collapse of the Soviet Union and its client states. The widespread availability of AK-47s and other light weapons has made it easier for rebel groups to arm themselves cheaply. For one or both of these reasons we might expect a general tilt in favor of rebel groups after the Cold War. Given the lopsided nature of power in civil wars, a decrease in the government's military advantage may increase draws.²⁴

Kalyvas and Balcells (2009a) make a related but rather different argument – that the Cold War bolstered both rebels (through a combination of radical leftist ideas, the organizing principles of revolutionary guerilla warfare, and material aid from the Soviets), and governments

²⁴ For many guerilla groups, not to lose is to win; some groups may be fighting to force a settlement with no real prospect of outright victory. So some outcomes coded as draws might better be thought of as rebel victories.

(as the US responded with material aid and the technology of counter-insurgency). The end of the Cold War stripped away this support, leaving states and rebels to their own devices, their “residual capacity” as Kalyvas and Balcells put it. Where the state is sufficiently strong, this has led to a decrease in the onset of civil wars (as rebellion cannot get off the ground). But where states are weaker, it has led to more symmetrical conflicts – either to conventional warfighting between rebels and governments who face off against each other directly, both using heavy weaponry, as in Nagorno-Karabakh; or, where the state is very weak (as in Somalia or the Central African Republic), to what they refer to as “symmetrical non-conventional” civil wars, where neither side can muster heavy weaponry or armor, and fighting is closer to something from a pre-modern era. If, as Kalyvas and Balcells argue, asymmetric guerilla wars have become less common, and more symmetric forms of civil war, whether conventional or non-conventional, have become more common, then perhaps more symmetric outcomes, that is draws and stalemates, have followed.

War Fighting Strategy

War fighting strategies have also been used to explain war outcomes. Stam’s (1996) work suggests that, all else equal, the use of attrition strategies which “seek to destroy or capture opposing forces, making them incapable of continuing to fight,” by both sides make draws more likely. Fearon (2004, pp. 277, 289) makes a related argument about civil wars, distinguishing between rebels who attempt to take power in a coup or revolution and insurgencies that aim to impose costs and undermine the government’s ability to fight. Coups and revolutions work via a tipping mechanism, so they either succeed or fail very quickly. They are thus much like Stam’s maneuver strategies, while insurgencies rely on punishment and attrition. Perhaps attrition

strategies have become more common in interstate wars since World War II, and insurgent civil wars have become more common relative to coup and revolution attempts since 1989? If so, this might explain the decrease in decisive outcomes. Note, however, that this argument runs directly counter to that proposed by Kalyvas and Balcells (2009a); as just described, they argue that insurgencies, have become less common with the end of the Cold War.

Military Technology: Offense-Defense Balance

Large systemic changes in war and its consequences are often explained by changes in military technology. The literature on the offense-defense balance has mostly focused on its effects on the likelihood of war (Jervis 1978; Van Evera 1998). However, one link in the causal chain between this balance and the probability of war is the effect of military technology on the decisiveness of victory. In an offense-dominant world, “attackers are more likely to win quick and decisive victories,” exacerbating the security dilemma and making war more likely (Lieber 2000, p. 71). Conversely, when military technology favors the defense, we should expect more wars to end in draws.

The development of nuclear weapons, which in the counterintuitive logic of mutually assured destruction favor the defense, might therefore explain the increase in draws in interstate wars. On the other hand, there is reason to doubt a direct link between nuclear weapons and the observed trend in military outcomes. With the exception of the Kargil war in 1999 between India and Pakistan, the wars of the nuclear age have thankfully involved non-nuclear dyads, while the taboo against nuclear use mutes any effect on military outcomes between a nuclear and a non-nuclear power (Paul 1995; Price and Tannenwald 1996). Nor can nuclear weapons explain the trend in civil wars. If, however, the superpowers’ fear of nuclear escalation led them to prevent

decisive outcomes in wars among or even within other states, then nuclear weapons might indirectly explain the increase in military stalemates. This suggests yet another possible explanation. . . .

Balancing and Intervention

Draws may be the result of intervention by states that join an ongoing war not necessarily to win outright but to prevent the defeat of an ally.²⁵ The Cold War may have made such balancing by great powers more likely. While the logic of this argument ought to apply equally to civil wars, the decline of decisive outcomes takes place after the end of the Cold War rather than during it.²⁶ Competing interventions, in which aid for one side promotes aid from someone else for the other, have been found to decrease the likelihood of civil war ending in a compromise (Enterline and Balch-Lindsay 2002). The end of the superpower rivalry that likely fueled such competitive interventions might thus explain the shift in civil war outcomes. But, again, the same logic should apply to interstate wars, so the fact that draws became more likely in interstate conflict during the Cold War and in civil wars after the Cold War remains puzzling. (Note that this type of intervention to help one side is distinguished from international intervention after, rather than during, the fighting, to keep peace.)

Terrain

Rough terrain is widely thought to make it harder for either side decisively to defeat its opponent (Bennett and Stam 1996; DeRouen and Sobek 2004; Fearon and Laitin 1999; 2003;

²⁵ This idea was first suggested to me by Steve Van Evera (conversation with the author, APSA, Philadelphia, August 2003).

²⁶ On intervention and civil war duration and outcomes, see Elbadawi and Sambanis (2000; Mason, Weingarten, and Fett (1999, p. 264); and Regan (2002).

Soderbom, Collier, and Hoeffler 2002; Stam 1996). If interstate wars are more likely to be fought on rough terrain after World War II than before, this would help explain the decrease in decisive outcomes. The geographic shift in war from the plains of Europe to other continents may thus help provide an answer to our puzzle.²⁷ If a similar but later shift in the location of civil wars occurred at the end of the Cold War, this might also explain the pattern of internal wars.

Settling for a Draw

All of the foregoing alternative explanations focus on the first condition for wars ending in a draw, that is, they all relate to factors that affect one side's ability to defeat the other outright. But, as noted above, for war to end in a draw, both sides also have to decide to stop fighting, to reach a settlement. Peacekeeping is not the only thing that might affect this second condition. There are several alternative explanations for changes in the prevalence of ties that, like peacekeeping, are best thought of as affecting the prospects for settlement, given a stalemate. These include population growth, issue salience, and regime type.

Population

Stam (1996, pp. 98-100) finds draws more likely in more populous states, arguing that this is because as population increases, "the expected benefits that any individual in the population can expect to receive from victory" are diluted, undermining willingness to press on with the fight rather than settle for a draw. DeRouen and Sobek (2004) find that population increases the likelihood of a truce in civil wars. Population growth over time might thus explain

²⁷ Over half of the participants in COW interstate wars ending before 1946 fought in Europe, compared to only 4% after World War II.

the increase in draws over time.

Issue Salience

Wars fought over low salience issues may be more likely to end in a draw. It should be easier to call a militarily stalemated fight off and find a compromise outcome when the contest is over lower salience issues than when the stakes are higher (Diehl and Goertz 2002; Stam 1996, pp. 106-8).²⁸ If states after World War II, or parties to civil wars after 1989, are now fighting over lower stakes issues than before, this might explain the increase in ties that we observe. Fazal (2001) has documented the decline of “state death,” that is, conquest and the loss of formal sovereignty in interstate war, after World War II. If states know that they are unlikely to be “killed off” in war, salience is arguably now lower. But while the number of states that actually die in war has declined markedly, the number of interstate wars in which one side sought the elimination of another state or regime has not declined (Holsti 1991, pp. 319-20). Fazal (2004) argues that the goal of eliminating regimes has increased, while the goal of eliminating states has decreased. How much confidence do states have in their immunity from state death after World War II? Do decision-makers care less about the survival of their own regime than about the survival of the state?

Observing salience in civil wars is similarly tricky. The hypothesis that civil wars over ethnicity or identity are more salient and therefore less tractable than others receives mixed empirical support (Doyle and Sambanis 2000; Elbadawi and Sambanis 2000; Fearon 2004;

²⁸ Stam hypothesizes that draws are more likely in lower stakes fights because neither side is willing to commit enough resources to win outright (see also Maoz (1983, p.223). However, issues that are highly salient for one side are also likely to be highly salient for the other (which helps to explain Stam’s findings that high salience issues are more likely to end in victory **and** in defeat). There may thus be an effect of stakes independent of the relative resources argument explored above.

Hartzell, Hoddie, and Rothchild 2001; Licklider 1995; Soderbom, Collier, and Hoeffler 2002; Walter 2001). Ideology is arguably of lower salience than other issues over which civil wars are fought. But this would lead us to expect exactly the opposite pattern over time than the one we observe, as wars over ideology were presumably more frequent during the Cold War than after. Governments with many potential break-away regions fight hardest over secessionist wars to avoid setting a precedent that might lead to the state's disintegration (Toft 2003; Walter 2003).²⁹ If the number of secessionist conflicts has fallen since the end of the Cold War, this might explain the trend in civil conflicts. It is therefore possible that secular trends in salience explain the observed pattern in war outcomes.

Regime Type

Both highly repressive governments and democracies are more likely to win their wars, but are also more likely to tie (Stam 1996, pp.162, 177).³⁰ These findings are consistent with Goemans' (2000) argument about regime type and war termination. Leaders of democracies, while they may lose office if they fail to win at war, are unlikely to be harshly punished. Highly repressive governments can suppress, and therefore survive, discontent with war outcomes that are less than ideal. It is intermediate regimes or "anocracies" that are most vulnerable, facing punishment that may be almost as bad for a draw as for complete defeat. Leaders of democracies and highly repressive states should thus be more willing to compromise and settle a stalemated

²⁹ Enterline and Balch-Lindsay (2002) make a similar argument about government reputation, but find that separatist wars are no less likely to end in a compromise outcome.

³⁰ Reiter and Stam (2002, ch.7) argue that because democracies are more sensitive to the costs of war, if war drags on they will be more willing to settle for a draw, while autocracies will continue to fight, holding out for the possibility of victory. DeRouen and Sobek (2004) find no effect of regime type on civil war outcomes, but they do not consider the possibility of non-linear effects.

war, rather than “gamble for resurrection,” holding out for the possibility of a clear victory. The spread of democracy could thus explain the rise in the number of draws over time. If levels of repression have also increased (in other words, if regime types have become more extreme over time), this would help answer our question about historical change.

In sum, there exist a number of possible alternative explanations for the shift in war outcomes. These can be thought of as falling into two categories: those factors that affect the ability of one side to win outright, and those that, like peacekeeping, affect belligerents’ ability to cease-fire rather than continue fighting in the hopes of eventual victory.

The following section tests the plausibility of the peacekeeping explanation, as well as these alternative explanations. Some of the variables suggested by these arguments, including peacekeeping, are known to have changed over time, making them *prima facie* the most likely candidates for explaining the temporal increase in draws, but the others are worth investigating as well to ensure that the change we observe is not spurious.

METHOD

The hypotheses outlined above can be rejected if either a) the relevant factor does not change when war outcomes change, or b) it does not predict whether war ends in a victory for one side or a draw. I therefore examine, first, whether the factors outlined as possible explanations above are significantly different for interstate wars that ended after 1945 than for the 1816-1945 period, and for civil wars that ended after 1988 than for those during the Cold

War.³¹ I then explore whether these variables are significant predictors of draws. For the civil war tests, I use a data set adapted from Doyle and Sambanis (2000), consisting of 115 civil wars ending after 1945.³² For the interstate wars, I use a data set consisting of all dyads in COW wars from 1816 to 2000, yielding 308 dyads in over 80 wars.³³ This includes even relatively minor participants. To ensure that these minor players are not driving findings, I also run tests on a subset of the data restricted to 147 dyads of the main participants in the war.³⁴

The first set of results consists of difference of means tests for continuous variables and cross-tabulations for categorical variables, along with Mann-Whitney tests for both, to compare the two periods (1816-1945 to 1946-2000 for interstate wars; 1944-1988 to 1989-1997 for civil wars). Tables 6 and 7 show these results for interstate and civil wars, respectively; indicating the mean or percentage for each variable in the two time periods, and the probability, in a Mann-Whitney test, of the null hypothesis that the distributions in the two time periods are equal. The second set of tests consists of logit analyses to assess variables' effects on the probability of a draw. Results for interstate wars are reported in Table 8. To test for robustness across different codings of interstate outcomes, I use three different measures of war outcomes: Stam's coding of

³¹ Unfortunately, data on many of the variables investigated here are currently available only after 1945 for civil wars, making it impossible to test arguments about change over a longer period of time.

³² Their data is available at <www.worldbank.org/research/conflict/papers/peacebuilding/>. [Notes on its adaptation available from the author upon request.]

³³ I use the Dyadic Militarized Interstate Disputes (DYMID1.1) data so as to include, in multilateral wars, only those dyads that actually fought each other. See Maoz (2001) for a description of this data. It is available online at <<http://spirit.tau.ac.il/poli/faculty/maoz/dyadmid.html>>. The data are updated, and many country level variables (capabilities, polity scores, etc.) generated using EUGene (Bennett and Stam 2003), available online at <www.eugenesoftware.org>.

³⁴ This subset consists of those dyads included in Stam's data set. For example, there are 30 dyads in the Korean war in the larger data set, but only 4 in the restricted data.

draws, the COW coding of ties, and the MID coding of stalemates.³⁵ Because there are often several observations from a single war, I calculate robust standard errors, assuming that observations are independent between wars but not necessarily within them. Similarly, for civil wars, I assume independence between countries but not within observations from the same country. Results for civil wars are reported in Table 9.³⁶

[Tables 6-9 about here]

ANALYSIS

Peacekeeping

What we would now call peacekeeping missions were employed in only a few cases before 1945. The League of Nations deployed military observer commissions in the Lithuanian-Polish War, the Manchurian War, the Italo-Ethiopian War, and the Chaco War (Wainhouse 1966). The use of military observers and peacekeepers became much more common after World War II, however, with the creation of the United Nations, for which peacekeeping became a central mission. UN observer missions deployed after the first Arab-Israeli war and the first Kashmir war, and the principles and practices of peacekeeping were developed after the Sinai war in 1956.³⁷ The measure used here (*peacekeeping*) marks whether any military commission, observer mission or peacekeeping force was deployed by an international organization (e.g., the League, the UN, or the OAS) or by an ad hoc group of states (for example, the Neutral Nations

³⁵ Note that because some variables (particularly those coming from Stam) are measured for only some dyads, their inclusion substantially reduces the number of observations.

³⁶ Population and army size are highly correlated in the civil war data, so cannot be tested together.

³⁷ Dag Hammarskjold, Brian Urquhart, and Lester Pearson are often credited with “inventing” the practice of peacekeeping.

Supervisory Committee in the Korean War). As Table 6 indicates, peacekeepers were used in fewer than 2% of all warring dyads before 1946, but over 70% of those after. For all three measures of war outcome, ties are significantly more likely when peacekeepers are present (Table 8).

For civil wars, this hypothesis also does quite well. As Table 7 indicates, civil wars are much more likely (over 60%) to see a peace operation after 1988 than before (13%) ($P < 0.000$). This is true whether I count consent-based missions only in my measure of peacekeeping, or also include enforcement missions. While peacekeepers deployed in a few civil wars before the end of the Cold War (e.g., the Congo and Cyprus), only with the end of the superpower rivalry and the relaxing of the strict sovereignty norm that had prevented the UN and other organizations from interfering in the internal affairs of states did peacekeeping become common and accepted in civil wars. Civil wars to which peacekeepers are deployed are also much more likely to end in a draw (see Table 9).³⁸ The hypothesis that the availability of peacekeepers allows civil war combatants to stop their wars at a draw rather than fight to the finish thus passes both tests for both types of war.

Alternative Arguments: Reaching Stalemate

Relative Capabilities

At first blush, the argument that changes in the relative power of warring states might account for the rising number of draws in interstate wars seems plausible. A dyadic measure of *relative capabilities* based on the COW index of national capabilities indicates a fairly large and

³⁸ This finding is supported by DeRouen and Sobek (2004).

significant shift. As Table 6 shows, the mean of this measure of preponderance of power (which can, in theory, range from 0.5 for completely balanced capabilities to 1.0) drops from 0.64 to 0.52, a difference that is significant at $P < 0.01$. In other words, warring dyads are more equally balanced after 1946 than before. Note, however, that this difference may be driven by counting even minor participants in each war.³⁹

But even if this variable passes the first test, relatively balanced capabilities are not a good predictor of draws. As the positive coefficients in Table 8 show, ties are if anything more likely when there is a preponderance of power – exactly the opposite of what we would expect. These coefficients are not statistically significant, so we cannot conclude that there is a strong relationship between preponderance and stalemate, but we can safely reject the hypothesis that more balanced capabilities explain the increase in the number of draws over time.

Another measure of relative power is whether the war pitted a major power against another major power, against a minor power, or consisted of two minor powers. Dyads composed of matched powers, i.e., either two major powers or two minor powers (*matched dyad*) account for only about 45% of wars from 1816-1945, but about 70% of the post-WWII wars, (Table 6). This change is driven entirely by the increase in wars between minor powers, as both major-major power dyads and major-minor power dyads have declined as a percentage of all wars. As we might expect, the relatively equal dyads pairing either two major power or two minor powers are most likely to result in a draw,⁴⁰ but this finding is not very robust to different

³⁹ If only the dyads coded by Stam (that is, only major participants) are examined, the difference is smaller (0.57 to 0.51) and is no longer statistically significant.

⁴⁰ This is true whether one uses a measure of power status taken in the year before the war began, or in the last year of the war – a difference that affects several cases, for example, China in the Korean War.

model specifications. It does not hold for Stam's measure of draws, nor when all dyads, rather than just principal belligerents, are included (Table 8).⁴¹ Relative measures of military personnel, military expenditures, and troop quality also fail to explain the temporal trend. Those that change significantly over time (personnel and expenditures) are not strong predictors of war outcomes, while troop quality predicts ties but does not change over time.⁴² The evidence in support of the relative power hypothesis for interstate wars is thus decidedly mixed. States fighting each other after World War II are more equally balanced than in earlier eras, but there is only weak support for the argument that more equally balanced states are more likely to tie.

We do not have a good measure of relative capabilities in civil wars. While acknowledging its limitations, a number of studies use the size of the government's army as a proxy (e.g., Mason, Weingarten, and Fett 1999, pp. 244-45). *Government army size* is lower on average in the post-Cold War era civil wars than in previous years, dropping from about 414,000 troops to 221,000, but this difference is not significant in a Mann-Whitney test (see Table 7). Civil wars against smaller armies may be more likely to end in a tie, but the effect is not significant (see Table 9, column 1). In any case, this measure captures only the strength of one side, not the relative asymmetry between rebels and the government.

While it is difficult directly to test Doyle's arguments about declining superpower support

⁴¹ A closer look indicates that when a larger set of cases is analyzed (for example, when variables for which many data are missing are omitted), minor-minor dyads are more likely to fight to a draw than are uneven dyads pitting a major power against a minor power. But major-major dyads are often the least likely to tie. In other words, it may not be the balance of power that matters, but rather something about great power status.

⁴² Results not shown. To my knowledge, no measures of mobilization (other than government army size, as discussed below) or troop quality yet exist for civil wars.

for governments against insurgency, or the proliferation of small arms, an implication of these arguments can be tested easily. Both trends suggest a general tilt in capabilities at the end of the Cold War toward rebel groups and away from governments. If these trends are occurring, we should see not only that draws become more likely, but also that rebel victories become more common. Here the evidence is also somewhat mixed. In the Doyle and Sambanis data, as an overall percentage of civil wars, *rebel victories* become less frequent after 1989, not more. Approximately 30% of all civil wars end in rebel victory before 1989, only 19% after. But the drop for *government victories* is even steeper (from 51% to 11%). Of the wars ending in a victory for one side, the government wins most during the Cold War, while rebels win most after the Cold War.⁴³ If one considers that some rebel groups may be fighting in the hopes of forcing a settlement, rather than to overthrow the government, this hypothesis is more strongly supported. In sum, it is possible that the change in outcomes in civil wars reflects a general shift in relative capabilities toward rebels and away from governments, but the evidence for this is weak.

I have not yet tested whether the shift described by Kalyvas and Balcells (2009a) toward more symmetric types of civil war can explain the decline of clear victories. However, their own preliminary analysis indicates that while symmetric non-conventional wars tend to end in a draw, and have become more common since the Cold War ended, conventional civil wars, which have

⁴³ The proportions swap evenly – before 1989 the government won 62.5% to rebels' 37.5%, after 1989 the numbers are the reverse. The difference between time periods is marginally significant ($P = 0.08$). In the COW data, there is little difference between time periods in the percentage of all wars ending in rebel victory, and no significant difference in rebel victories as a proportion of decisive victories. The COW coding of rebel victories is biased by its treatment of cases in which a rebel group takes power but fighting continues. Thanks to Nicholas Sambanis for pointing this out.

also become more common, tend to end in clear-cut victory (Kalyvas and Balcells 2009b).⁴⁴

While more research is needed on this, the rise in symmetrical non-conventional wars seems unlikely to account for the dramatic shift in outcomes, as they remain relatively rare. There were 7 such wars during the Cold War, and 11 afterwards (Kalyvas and Balcells 2009a).

Strategy

I use Stam's coding of the strategies used by the offense and the defense in each dyad in interstate wars to mark whether both sides used attrition strategies, one used attrition while the other used a punishment strategy, or one used attrition while the other employed a maneuver strategy (*strategy*).⁴⁵ Changes over time in the war fighting strategies of belligerents do not explain the temporal increase in draws. As Table 6 indicates, cases in which both sides use attrition (found by Stam to be the most likely to lead to a draw) decline as a percentage of all dyads after World War II. Wars in which one side uses a punishment strategy have increased slightly, but are so rare (occurring in only four dyads) that this could easily be a statistical fluke. The use of maneuver strategies, found by Stam to be least likely to result in a draw, have increased over time.⁴⁶ In other words, strategies have shifted in exactly the opposite way of what we would expect if this variable were to explain the decline of decisive victories. Nor is strategy a strong predictor of ties (Table 8).

As a measure of strategy in civil wars, I use Fearon's (2004) distinction between guerilla

⁴⁴ [Stathis Kalyvas, email with the author, August 27, 2009, referencing Kalyvas and Balcells 2009b.]

⁴⁵ In all of Stam's cases, at least one side is coded as employing an attrition strategy, so the other possible combinations (punishment-punishment, punishment-maneuver, and maneuver-maneuver) do not exist in the data.

⁴⁶ Reiter and Meek (1999) find that democracies and industrialized countries are more likely to choose maneuver strategies. Democratization and industrialization over time may thus explain this trend.

insurgencies on the one hand, and coups or revolutions on the other (*insurgency*).⁴⁷ Guerilla tactics have indeed become more common after the end of the Cold War. Of the wars ending after 1989, 87% are classified as insurgencies, compared to 71% before, with this difference in distributions only missing by a hair the $P < 0.05$ threshold for statistical significance (see Table 7). As Table 9 indicates, insurgency wars (as measured by Fearon) are also significantly more likely to end in a tie, consistent with this hypothesis. So while changing strategies cannot explain the rise of draws in interstate wars, they may account for the decline in decisive victories in civil wars. This raises the question, however, of why rebel strategies have shifted with the end of the Cold War. Kalyvas and Balcells (2009a) provide an explanation for a change in strategies after the Cold War, but they argue insurgencies or irregular wars, as opposed to more symmetric types of conflict, have become less rather than more likely.

Offense-Defense Balance

To test the hypothesis that changes in the offense-defense balance account for the rise of draws, at least in interstate wars, I use Adams' (2003/2004) assessment of available technology in various historical periods. A dummy variable (*defense dominant*) marks wars occurring in periods in which technology favors defense or deterrence, as opposed to offense (that is, 1850-1933 and 1946-present). Obviously, since one of these periods corresponds to the era we are interested in here, this is, on the face of it a plausible explanation. However, defense-dominance is not a good predictor of draws. This variable is not significant, and in most cases the sign is the opposite of what this hypothesis predicts; with draws if anything less likely to occur in defense-

⁴⁷ Note that not all of the wars in the data used here are in Fearon's data, so there is some missing data for this variable.

dominated eras, all else equal (Table 8).⁴⁸

While data does not exist on the offense-defense balance for civil wars, it is worth noting that the logic of this hypothesis runs counter to the notion that an increase in the availability of small arms has fueled rebel movements since the end of the Cold War. Such a change favors the offense (or at least the side trying to change the status quo), rather than the defense.

Balancing and Intervention

The argument that draws have become more likely because outside states are now more likely to join the fray does not hold up for interstate wars. The percentage of dyads in wars that are joined by other states is actually somewhat lower after 1946 than before. Here I use a measure (*joined*) derived from Shirkey's (2006) work on contagion in war.⁴⁹ Moreover, wars in which outsiders joined the fray are no more likely than others to end in a tie, and may even be less likely to do so.

This measure of intervention in interstate wars captures only states that actually join the fighting with their own troops, not intervention to support an ally with military or economic aid, or covert assistance. These kinds of help arguably make up much of the intervention by the superpowers during the Cold War. However, the hypothesis fares no better in civil wars where

⁴⁸ This measure cannot be included for models with the COW measure of outcomes as no wars coded as ties by COW occur in an era of offense-dominance. Bivariate analysis thus suggests that defense dominance is a good predictor of ties as coded by COW, but it is impossible to know whether this relationship holds when other factors are controlled for.

⁴⁹ The decline in joined wars is even clearer when I use a measure derived from MID codings of whether any states in the war were not originators of the fight (that is, they joined in after the beginning). Shirkey's coding is probably a better measure, however, as the MID coding seems to include as joiners states that were not originators of lower-level disputes but that were involved from the beginning of the fight when these disputes escalated to war. The difference between time periods appears whether minor participants are included or not, but fails a test of significance when the Shirkey measure is used and all participants are counted.

the measure of *intervention* does include these less direct forms of aid.⁵⁰ Surprisingly, great powers are slightly more likely to intervene in civil wars after the end of the Cold War than before, though the difference is not statistically significant (Table 7). But wars that see such intervention by outsiders are no more likely, statistically, to end in a draw than are wars that are left alone. The negative coefficients in Table 9 suggest just the opposite, although they are not significant. Patterns of external intervention and joining thus cannot explain the pattern of war outcomes over time.

Terrain

Nor does a shift in the location of wars to rougher terrain explain the puzzle. *Difficulty of terrain* is Stam's (1996) measure of terrain mobility for interstate wars (inverted to match the civil war data); and for civil wars, I use Fearon and Laitin's (2003) data on the percent of the country that is mountainous (*mountains*). In neither kind of war is the change over time in the right direction. Interstate wars are fought on more open terrain, on average, after World War II than before (Table 6). And countries afflicted by civil wars after the Cold War are, if anything, less mountainous on average than those with civil wars before 1989 (Table 7).⁵¹ Rougher terrain does tend to yield draws in interstate wars, as coded by MID and Stam, but the opposite is true for ties coded by COW (Table 8). Meanwhile civil wars fought in more mountainous countries are less likely to end in ties, exactly the opposite of the hypothesis above (Table 9).

⁵⁰ I use Doyle and Sambanis' measure "major" which codes direct military participation in the war or extensive political support by a major power. It does not include participation by outsiders in a peace operation.

⁵¹ The difference of means is marginally significant (P=0.09), but just fails the Mann-Whitney test (P=0.16).

Intelligence

Another possibility considered but not tested thoroughly here is that the process by which states select themselves into war might account for the decline of victories. The better states can assess their chances as they choose whether to fight, the more closely matched they must actually be, otherwise the anticipated loser would choose to settle. We should thus observe more draws over time if actors' intelligence has improved. This logic should apply equally to civil wars, though why the ability to achieve surprise or the quality of intelligence might shift at different times (in 1945 for interstate wars, and in 1989 for civil wars) is unclear.⁵² Data on intelligence capabilities is inherently difficult to come by, however. A preliminary test of this argument, that improved intelligence has led to a decrease in states' ability to achieve strategic surprise (found by Stam (1996) to reduce the likelihood of draws), casts doubt. Surprise (as coded by Stam) has actually become more common not less (results not shown).

In sum, of the alternative arguments that suggest the change in war outcomes is due to an increased likelihood of hitting a stalemate, some can be ruled out, and others provide at best a partial explanation. Changes in the offense/defense balance, in intervention patterns, or in the type of terrain on which wars are fought can all be ruled out as explanations. There is some evidence that changes in relative capability might account for changes in outcome, but it is relatively weak or inconsistent. It is possible that changes in war-fighting strategy and the

⁵² Note that Stam (1996, p.78) argues the opposite, that states should self-select into wars they will win. This reflects a focus on just one side in the war. But we generally only see war when **both** sides have reason to believe they will fare reasonably well (Fearon 1995). If both sides know the likely outcome and it is clear one will lose, that side will likely choose not to fight.

prevalence of insurgency warfare can account for changes in civil war outcomes, but here we have contradictory findings – using Fearon’s measure, insurgency has increased after the Cold War, and is associated with draws, but according to Kalyvas and Balcells (2009a), it has decreased after the Cold War. In any case, war-fighting strategies cannot explain the change in interstate wars.

Alternative Arguments: Reaching a Settlement

Alternative explanations focusing on the ability of belligerents who have hit a stalemate to reach a settlement and stop fighting do not fare particularly well either.

Population

The average raw population figures for warring states are significantly higher after 1946 than before, but this is driven by the highly skewed nature of population data. A logged measure of *population* (fairly normally distributed) indicates no significant change over time (Table 6).⁵³ Dyads composed of more populous states are significantly more likely to end their wars in a tie, as coded by COW but this finding is not generally significant for the other measures of war outcomes (Table 8).

The population growth hypothesis does even less well for civil wars. The mean population of countries suffering civil war is actually lower after 1988 than during the Cold War (Table 7), and more populous states are less rather than more likely to see indecisive outcomes in their civil wars (Table 9). This variable seems to work differently in the two types of war. A larger population leads, if anything, to indecisive outcomes in interstate conflicts, but to decisive

⁵³ There is no difference in the relative population of the two sides in interstate wars.

outcomes in civil wars. Why this might be so is unclear, but in any case, the hypothesis that population growth can explain the rise of draws over time does not hold water.

Issue Salience

Territorial conflicts are often said to be highly salient, and are therefore particularly likely to escalate to war and to recur (Hensel 2000; Huth 2000; Vasquez 1995). I therefore use the standard MID coding of whether a war's "revision type" concerns territory (as opposed to policy, regime/government, or other) as a measure of salience (*territorial war*). Surprisingly, wars are significantly more likely to be territorial conflicts after World War II than in earlier periods (Table 6).⁵⁴ Wars over territory are less likely to end in a draw as coded by Stam and MID, but this finding is not significant, and the coefficient is actually positive for the COW coding of war outcomes, so that ties are more, rather than less, likely in these highly salient conflicts (Table 8). While territory may be more salient than other issues over which states rattle their swords and engage in militarized disputes short of war, it may not be notably more salient than other issues over which states actually fight. However, other measures of salience fare no better. Stam's coding of whether a war was fought over a highly salient issue changes in the right direction over time, with none of the wars fought after World War II coded as highly salient. But this measure does not predict draws well, and if anything indicates that draws are more likely when issue salience is high (results not shown).

I use several measures of the issue at stake in civil wars: two different data sets' (Doyle and Sambanis 2000; Fearon and Laitin 2003) codings of whether or not the war was based on

⁵⁴ Holsti's (1991, pp. 309-10) classification of issues suggests that territory has declined as an issue causing war, but that strategic territory has increased as a *causis belli*.

identity (e.g. ethnicity or religion), and whether or not it involved secessionist or autonomy claims by the rebels (*identity D&S; ethnic F&L; secessionist D&S; secessionist/autonomy F&L*). Using Doyle and Sambanis' measure, the civil wars that ended in the post-Cold War era are slightly more likely to be identity conflicts than those that ended during the Cold War, and there is a significant increase in ethnic wars as measured by Fearon and Laitin (Table 7). This is the opposite of what this hypothesis predicts. For neither measure does the predicted relationship between identity conflicts and the likelihood of a draw hold. The coefficients are insignificant and are in the wrong direction, predicting that ethnic conflicts are, if anything, more likely to end in a draw (Table 9, columns 1-3).

Post-Cold War civil wars are also, if anything, more rather than less likely to be secessionist conflicts. There is also a significant relationship between secessionist or autonomy conflicts and the likelihood of a compromise outcome, but again it is in the wrong direction (Table 9, columns 4-6). Arguments about the precedent set by compromising with secessionist claims cannot explain the pattern of war outcomes. Rather than being the most intractable conflicts, identity and especially secessionist conflicts are more amenable to compromise (or less amenable to victory). It is therefore not a change in issues that accounts for the rise of draws.

Regime Type

To test the hypothesis that both very democratic and very autocratic states are more likely to draw, I code whether either state in a dyad is a mixed regime, or *anocracy*, falling in the middle segment of the continuum from total dictatorship to total democracy.⁵⁵ Sixty-four percent

⁵⁵ Following Goemans (2000, p. 56), I consider a state an anocracy if its Polity "dem" score is between -4 and +5, inclusive.

of dyads in wars before 1945 included at least one anocracy, versus only 27% after 1945, a significant difference (Table 6).

Anocracy is also a fairly good predictor of interstate war outcomes. Dyads composed of at least one mixed regime are least likely to end their wars in a draw. The coefficient for anocracy is consistently negative, though it sometimes fails tests of statistical significance (for example if Stam's coding of war outcomes is used). While the evidence for this hypothesis is not overwhelming, changes in regime type remain a plausible explanation for the shift in interstate war outcomes over time.

In civil wars, however, neither overall *democracy scores* nor the proportion of wars fought in an *anocracy* show any significant change as the Cold War ends (Table 7). Anocracy is a significant predictor of ties, but the effect is in the wrong direction – anocracies are more rather than less likely to draw (Table 9). As column 6 indicates, however, the more democratic the state experiencing a civil war, the more likely a draw. The effect of regime type is therefore quite different for interstate and civil wars, a finding that requires further investigation.

With the partial exception of changes in regime type, which may help explain the shift in interstate war outcomes, but cannot explain the shift in civil wars, the alternative arguments about the ability of belligerents to reach a settlement, can be dismissed.

[Table 10 about here]

These findings are summarized in Table 10. The argument that fares best in these tests is that improved methods of maintaining peace, specifically the development of peacekeeping, help combatants bring an end to the war rather than fight to the finish. This is the only hypothesis that passes both empirical tests for both civil and interstate wars.

Meanwhile, we can rule out most of the alternative explanations. The increase in wars ending in ties is not well explained by outside parties joining the fray. Nor do shifts in the terrain on which wars are fought explain our puzzle. Population growth fails to explain the pattern in interstate wars, but appears to have opposite effects in interstate and civil wars. The issue salience hypothesis, too, can be rejected. While we do not have ideal data on the offense-defense balance (or any data for civil wars), the evidence we have so far suggests that this also fails to explain the decline of decisive victories over time.

For several other variables, the evidence is more mixed. While changes in the index of capabilities cannot explain outcomes, the prevalence of wars among minor powers may help explain the rise of draws. Similarly, for civil wars, outcomes may be the result of a general tilt in favor of rebels, but we have only weak evidence of this. Changes in war fighting strategy fail to explain interstate wars, but may explain outcomes in civil wars. However, this finding requires more research. While insurgencies as measured by Fearon (and distinguished from coups or revolutions) have increased over time, and are associated with draws; as measured by Kalyvas and Balcells (2009a), insurgencies have become less common, and are likely to end in clear victories (2009b). The opposite pattern is true for changes in regime type; we have at least mixed evidence that anocracies are both less prevalent now, and less likely to settle for a draw in interstate wars. But this variable does not explain outcomes in civil wars.

CONCLUSION AND DIRECTIONS FOR FURTHER RESEARCH

The number of wars that end in a draw rather than with a clear winner and loser has increased over time. This change took place at the end of World War II for interstate wars and at

the end of the Cold War for civil wars. In addition to documenting this historical trend, I have examined a number of possible explanations for these findings. Some of the hypotheses relate to factors that affect whether one side defeats the other outright or whether the war hits a stalemate, others concern variables that affect combatants' ability to lay down their arms rather than continue fighting.

The empirical tests presented here are quite basic – does the factor that might explain the shift in war outcomes actually change significantly over the relevant time period? And is it actually associated with ties. The evidence from these basic tests rules out many possible arguments, and casts doubt on others. The temporal trend in war outcomes cannot be explained by third parties joining the fight to prevent their allies' or proxies' defeat, or by shifts in the terrain on which belligerents fight. Population growth and changes in issue salience also fail as plausible explanations. While we do not have data to test it for civil wars, the hypotheses about the offense-defense balance does not hold water for interstate wars.

Other arguments fare slightly better, but are only weakly supported or cannot explain the shift in both types of war. There is weak evidence that changes in the relative power of combatants over time is driving war outcomes. Draws are more likely in minor-power dyads which have become more common after World War II, and there may be a shift in favor of rebels in civil wars, though the evidence on this is mixed at best. There may also be a shift toward more symmetric types of civil war, but whether that can account for the dramatic change in outcomes remains in doubt. By one measure, the strategy hypothesis holds up for civil wars (in which insurgencies have become more common and are most likely to lead to stalemate), but by another measure, the opposite is true. And in any case, strategy does not explain the shift in

interstate wars. Meanwhile, changes in regime type (specifically the decline of anocracy) may help explain the change in interstate wars, but this hypothesis does not hold up for civil wars.

The only straightforwardly positive finding to date supports the argument that the development of peacekeeping explains the rise in the number of ties. This is also the only argument tested so far that can explain the timing of the shift we observe in both civil and interstate wars.

As noted above, the causal relationship between peacekeeping and ties is likely complicated. Wars in which one side can defeat the other quickly will not see peacekeepers. But I would argue that if a war hits stalemate, the availability of peacekeeping affects whether the war will end in a tie, or will continue without settlement. The tests presented in this paper cannot assess this causal relationship directly. More research is needed to determine if once wars become bogged down in a stalemate, the availability of peacekeeping in fact makes it easier for belligerents to stop fighting, or if the causal arrows run only from war outcome to peacekeeping.⁵⁶ To test this hypothesis further, I will thus need data, whether quantitative or qualitative, on whether wars hit a stalemate during the course of the fighting. Of wars that do become bogged down in stalemate, I can then investigate whether peacekeeping helps terminate the fighting more quickly.

More research is also needed on some of the alternative arguments that are not ruled out entirely by the tests presented here. For example, why does democracy seem to have such different effects in interstate and civil wars? The contradictory findings about insurgency and its

⁵⁶ Examining the relationship between peacekeeping and duration without this information on stalemate would be misleading because many of the shortest wars never hit a stalemate, but are quickly won by one side, and thus do not experience peacekeeping.

relationship to war outcomes also require further investigation.

While more research is needed to confirm the causal story told here, the analysis so far suggests that the dramatic change in war outcomes is not, or at least not primarily, the result of wars becoming more likely to hit a military stalemate at some point, but rather that when wars do hit a stalemate, it is easier for the parties to settle and stop fighting than it once was. The reason for this has to do with changes in the “technology” of peacemaking, specifically the invention and subsequent changes in the application of peacekeeping as a tool for managing international and civil conflict. Invented first for use in interstate conflicts, and then applied to civil wars, peacekeeping has proved to be very effective at maintaining peace between belligerents (Fortna 2004c; 2008). In doing so, it appears to have had an important unintended consequence, one generally overlooked in scholarship on both peacekeeping⁵⁷ and war outcomes. Peacekeeping has changed not just the recurrence of war, but also how wars end. The implications of this for peace and security are not straightforward. On the one hand, peacekeeping allows belligerents who have reached the quagmire of stalemate to settle for a draw rather than continue to fight. On the other hand, it means that fewer wars end decisively and their underlying issues may continue to fester. The good that peacekeeping does in maintaining peace thus also helps bring about peace where war would otherwise continue to rage, but this may be offset somewhat by the fact that it leaves more conflicts frozen but not resolved.

⁵⁷ Though see Luttwak 1999 for a related argument.

REFERENCES

- Adams, Karen Ruth. 2003/2004. Attack and Conquer? International Anarchy and the Offense-Defense-Deterrence Balance. *International Security* 28 (3):45-83.
- Bennett, D. Scott, and Allan C. Stam. 2003. EUGene: Expected Utility Generation and Data Management Program, Version 3.0.
- Bennett, Scott, and Allan C. Stam. 1996. The Duration of Interstate Wars, 1816-1985. *American Political Science Review* 90 (2):239-57.
- Bremer, Stuart A. 1992. Dangerous Dyads: Conditions Affecting the Likelihood of Interstate War, 1816-1965. *Journal of Conflict Resolution* 36 (2):309-41.
- Bueno de Mesquita, Bruce. 1981. *The War Trap*. New Haven: Yale University Press.
- Claude, Inis. 1962. *Power and International Relations*. New York: Random House.
- DeRouen, Karl, and David Sobek. 2004. The Dynamics of Civil War Duration and Outcome. *Journal of Peace Research* 41 (3):303-320.
- Diehl, Paul F., and Gary Goertz. 2002. Punctuated Equilibrium, Realism, and Stalemate in International Rivalries.
- Doyle, Michael W., and Nicholas Sambanis. 2000. International Peacebuilding: A Theoretical and Quantitative Analysis. *American Political Science Review* 94 (4):779-802.
- . 2006. *Making War and Building Peace: United Nations Peace Operations*. Princeton: Princeton University Press.
- Elbadawi, Ibrahim, and Nicholas Sambanis. 2000. External Interventions and the Duration of Civil Wars: World Bank Research Working Paper.
- Enterline, Andrew J., and Dylan Balch-Lindsay. 2002. By Sword or by Signature? A Competing Risks Approach to Third Party Intervention and Civil War Outcomes, 1816-1997.
- Fazal, Tanisha M. 2001. Born to Lose and Doomed to Survive: State Death and Survival in the International System. Ph.D. diss., Political Science, Stanford University.
- . 2004. From Conquest to Intervention: State, Regime, and Leader Exit. Paper Presented at Annual Meetings of the American Political Science Association, September 2-5, Chicago.
- Fearon, James D. 1995. Rationalist Explanations for War. *International Organization* 49 (3):379-414.
- . 2004. Why Do Some Civil Wars Last So Much Longer than Others? *Journal of Peace Research* 41 (3):275-302.
- Fearon, James D., and David D. Laitin. 1999. Weak States, Rough Terrain, and Large-Scale Ethnic Violence Since 1945. Paper Presented at American Political Science Association, September 2-5, Atlanta.
- . 2003. Ethnicity, Insurgency, and Civil War. *American Political Science Review* 97 (1):75-90.
- Fortna, Virginia Page. 2003. Inside and Out: Peacekeeping and the Duration of Peace after Civil and Interstate Wars. *International Studies Review* 5 (4):97-114.
- . 2004a. Does Peacekeeping Keep Peace? International Intervention and the Duration of Peace after Civil War. *International Studies Quarterly* 48 (2):269-92.
- . 2004b. *Peace Time: Cease-Fire Agreements and the Durability of Peace*. Princeton: Princeton University Press.

- . 2004c. Interstate Peacekeeping: Causal Mechanisms and Empirical Effects. *World Politics* 56 (4):481-519.
- . 2008. *Does Peacekeeping Work? Shaping Belligerents' Choices After Civil Wars*. Princeton: Princeton University Press.
- Goemans, H. E. 2000. *War and Punishment: The Causes of War Termination & the First World War*. Princeton: Princeton University Press.
- Hartzell, Caroline, Mathew Hoddie, and Donald Rothchild. 2001. Stabilizing the Peace After Civil War. *International Organization* 55 (1):183-208.
- Hensel, Paul R. 2000. Territory: Theory and Evidence on Geography and Conflict. In *What Do We Know About War?*, edited by J. A. Vasquez. Lanham, Maryland: Rowman & Littlefield.
- Holsti, Kalevi J. 1991. *Peace and War: Armed Conflicts and International Order 1648-1989*. Cambridge: Cambridge University Press.
- Howard, Lise Morjé. 2003. The Rise and Decline of the Norm of Negotiated Settlement. Paper Presented at Georgetown Junior Faculty Workshop on Intervention, October 23-24, Washington DC.
- Huth, Paul K. 2000. Territory: Why are Territorial Disputes Between States a Central Cause of International Conflict? In *What Do We Know About War?*, edited by J. A. Vasquez. Lanham, Maryland: Rowman & Littlefield.
- Jervis, Robert. 1978. Cooperation Under the Security Dilemma. *World Politics* 30 (2):167-86.
- Jones, Daniel M., Stuart A. Bremer, and J. David Singer. 1996. Militarized Interstate Disputes, 1816-1992: Rationale, Coding Rules, and Empirical Patterns. *Conflict Management and Peace Science* 15 (2):163-213.
- Kalyvas, Stathis N., and Laia Balcells. 2009a. International System and Technologies of Rebellion: How the Cold War Shaped Internal Conflict. New Haven: Yale University.
- Kalyvas, Stathis N., and Laia Balcells. 2009b. "How Technologies of Rebellion Affect Civil Wars: An Empirical Analysis." Paper presented at APSA.
- King, Charles. 1997. Ending Civil Wars. *Adelphi Papers* 308.
- Licklider, Roy. 1995. The Consequences of Negotiated Settlements in Civil Wars, 1945-1993. *American Political Science Review* 89 (3):681-687.
- Lieber, Keir A. 2000. Grasping the Technological Peace: the Offense-Defense Balance and International Security. *International Security* 25 (1):71-104.
- Luttwak, Edward N. 1999. Give War a Chance. *Foreign Affairs* 78 (4):36--44.
- Maoz, Zeev. 1983. Resolve, Capabilities, and the Outcomes of Interstate Disputes, 1816-1976. *Journal of Conflict Resolution* 27 (2):195-229.
- . 1984. Peace by Empire? Conflict Outcomes and International Stability, 1816-1976. *Journal of Peace Research* 21 (3):227-41.
- . 2001. Comments on the MID 2.1 Dataset and its Transformation to Dyadic MID Data DYADMID1.1. Tel Aviv: Tel Aviv University.
- Mason, T. David, and Patrick J. Fett. 1996. How Civil Wars End: a Rational Model Approach. *Journal of Conflict Resolution* 40 (4):546-68.
- Mason, T. David, Joseph P. Weingarten, and Patrick J. Fett. 1999. Win, Lose, or Draw: Predicting the Outcome of Civil Wars. *Political Research Quarterly* 52 (2):239-268.

- Mueller, John E. 1989. *Retreat from Doomsday: the Obsolescence of Major War*. New York: Basic Books.
- Organski, A.F.K. 1968. *World Politics*. 2d ed. New York: Knopf.
- Paul, T.V. 1995. Nuclear Weapons Taboo and War Initiation in Regional Conflict. *Journal of Conflict Resolution* 39 (4):696-717.
- Price, Richard, and Nina Tannenwald. 1996. Norms and Deterrence, the Nuclear and Chemical Weapons Taboo. In *The Culture of National Security*, edited by P. Katzenstein. New York: Columbia University Press.
- Regan, Patrick M. 2002. Third Party Intervention and the Duration of Intrastate Conflict. *Journal of Conflict Resolution* 46 (1):55-73.
- Reiter, Dan, and Curtis Meek. 1999. Determinants of Military Strategy, 1903-1994: A Quantitative Empirical Test. *International Studies Quarterly* 43 (2):363-387.
- Reiter, Dan, and Allan C. Stam. 2002. *Democracies at War*. Princeton: Princeton University Press.
- Shirkey, Zachary C. 2006. Unexpected Events and the Spread of Inter-state War. Ph.D. diss., Political Science, Columbia University.
- Small, Melvin, and J. David Singer. 1982. *Resort to Arms: International and Civil Wars 1816-1980*. Beverly Hills: Sage Publications.
- Soderbom, Mans, Paul Collier, and Anke Hoeffler. 2002. On the Duration of Civil War: World Bank Research Working Paper.
- Stam, Allan C. 1996. *Win, Lose, or Draw: Domestic Politics and the Crucible of War*. Ann Arbor: University of Michigan Press.
- Toft, Monica Duffy. 2003. *The Geography of Ethnic Violence*. Princeton: Princeton University Press.
- . 2007. Ending Civil Wars: A Case for Rebel Victory. Unpublished paper, Harvard University.
- Van Evera, Stephen. 1998. Offense, Defense, and the Causes of War. *International Security* 22 (4):5-43.
- Vasquez, John A. 1995. Why Do Neighbors Fight? Proximity, Interaction, or Territoriality. *Journal of Peace Research* 32 (3):277-93.
- Wainhouse, David W. 1966. *International Peace Observation*. Baltimore: Johns Hopkins Press.
- Walter, Barbara. 1997. The Critical Barrier to Civil War Settlement. *International Organization* 51 (3):335-64.
- . 2001. *Committing to Peace: The Successful Settlement of Civil Wars*. Princeton: Princeton University Press.
- Walter, Barbara F. 2003. Explaining the Intractability of Territorial Conflict. *International Studies Review* 5 (4):137-53.
- Weisiger, Alex. 2007. The Origins of Armageddon: Information, Leaders, and Commitment in Wars Little and Large. Ph.D. Dissertation, Department of Political Science, Columbia University.
- Werner, Suzanne. 1999. The Precarious Nature of Peace: Resolving the Issues, Enforcing the Settlement and Renegotiating the Terms. *American Journal of Political Science* 43 (3):912-34.

Wittman, Donald. 1979. How War Ends: A Rational Model Approach. *Journal of Conflict Resolution* 23 (4):743-763.

Zacher, Mark W. 2001. The Territorial Integrity Norm: International Boundaries and the Use of Force. *International Organization* 55 (2):215-50.

INTERSTATE WARS

Table 1 Dyadic War Outcomes 1816-1992, using MID's coding

	Victory/Loss or Yield	Stalemate or Compromise	Total
1816-1945	176 94.12%	11 5.88%	187
post-WWII	46 52.27%	42 47.73%	88
Total	222 80.73%	53 19.27%	275

Pearson's $\chi^2 = 67.34$, $P(\chi^2) < 0.000$
Mann-Whitney test: $Z = -8.19$, $P > |Z| = 0.000$

Table 2 Dyadic War Outcomes 1816-1992, using Stam's coding

	Victory/Loss	Draw	Total
1816-1945	99 92.58%	8 7.48%	107
post-WWII	26 65.00%	14 35.00%	40
Total	125 85.03%	22 %14.97	147

Pearson's $\chi^2 = 17.33$, $P(\chi^2) < 0.000$
Mann-Whitney test: $Z = -4.15$, $P > |Z| = 0.000$

Table 3 Dyadic War Outcomes 1816-1992, using COW's coding

	Victory/Loss	Tie	Total
1816-1945	195 99.49%	1 0.51%	196
post-WWII	44 55.70%	35 44.30%	79
Total	239 86.91%	36 13.09%	275

Pearson's $\chi^2 = 94.92$, $P(\chi^2) < 0.000$
Mann-Whitney test: $Z = -9.72$, $P > |Z| = 0.000$

CIVIL WARS

Table 4 War Outcomes, COW list of intrastate wars 1816-1997

	Victory/Loss	Draw	Total
1816-1988	167 99.40%	1 0.60%	168
post-Cold War	30 81.08%	7 18.92%	37
Total	197 96.10%	8 3.90%	205

Pearson's $\chi^2 = 27.15$, $P(\chi^2) < 0.000$
Mann-Whitney test: $Z = -5.20$, $P > |Z| = 0.000$

Table 5 War Outcomes, list of civil wars adapted from Doyle and Sambanis 1944-1997

	Victory/Loss	Draw	Total
1944-1988	48 78.69%	13 21.31%	61
post-Cold War	16 29.63%	38 70.37%	54
Total	64 55.65%	51 44.35%	115

Pearson's $\chi^2 = 30.13$, $P(\chi^2) < 0.000$
Mann-Whitney test: $Z = -5.26$, $P > |Z| = 0.000$

Table 6 Change Over Time, Interstate Wars

Variable	1816-1945 mean or percent	1946-1992 mean or percent	Mann-Whitney test of equal distributions ^a	N
peacekeeping	1.83%	71.43%	0.000	302
relative capabilities	0.64	0.52	0.003 ^b	308
matched dyad (major-major or minor-minor)	45.87%	71.11%	0.000	308
strategy: attrition-attrition	79.07%	55.56%	0.009	122
attrition- punishment	2.33%	5.56%	0.363	
attrition-maneuver	18.60%	38.89%	0.018	
defense dominant	61.01%	100%	0.000	308
joined wars	66.51%	58.89%	0.205 ^c	308
difficulty of terrain	0.31	0.20	0.010	122
population	10.70	10.91	0.915	308
territorial war	39.91%	57.30%	0.006 ^b	307
anocracy	63.87%	26.74%	0.000	277

^a Shows probability of the null hypothesis that the distribution of the variable in the two time periods is equal.

^b Not significant for restricted data of principal belligerents.

^c Significant for restricted data of principal belligerents.

Table 7 Change Over Time, Civil Wars

Variable	1944-1988 mean or percent	1989-1997 mean or percent	Mann-Whitney test of equal distributions ^a	N
peacekeeping	13.11%	61.11%	0.000	115
government army size	413.60	220.72	0.436	115
rebel victory	29.51%	18.52%	0.172	115
government victory	50.82%	11.11%	0.000	115
insurgency	70.59%	86.96%	0.052	97
intervention	42.62%	53.70%	0.237	115
mountains	2.828	2.435	0.164	107
population	16.36	15.91	0.102	115
identity (D&S)	60.66%	64.81%	0.647	115
ethnic (F&L)	43.14%	58.70%	0.056	97
secessionist (D&S)	34.43%	51.85%	0.060	115
secessionist/autonomy (F&L)	23.53%	32.61%	0.280	97
democracy score	-4.12	-4.00	0.470	111
anocracy	28.33%	37.25%	0.319	111

^a Shows probability of the null hypothesis that the distribution of the variable in the two time periods is equal.

Table 8 Effects on the Probability of Interstate Stalemate

Logit
regression

	1	2	3	4	5	6	7
	COW Ties			Stam Draws		MID Stalemates	
peacekeeping	2.175*** (0.785)	1.783*** (0.528)	2.396*** (0.896)	2.299*** (0.838)	2.128** (0.895)	0.675* (0.411)	1.007** (0.524)
relative capabilities	0.964 (1.438)			2.171 (1.485)		0.541 (1.244)	
matched dyad		0.613 (0.502)	2.775*** (1.083)		0.553 (0.863)		0.436 (0.492)
strategy (attrition)	3.296 (3.777)		2.813 (4.141)	1.238 (1.490)	0.992 (1.436)	-0.338 (1.025)	
defense dominant				-1.017 (1.242)	-1.202 (1.332)		-0.017 (1.077)
joined wars	-1.854 (1.897)	0.169 (1.124)	-2.584 (1.747)	-1.615 (1.228)	-1.281 (1.292)		0.375 (0.841)
difficulty of terrain	-3.902* (2.103)		-4.365** (2.227)	7.348*** (2.394)	6.666*** (2.111)	2.587 (1.687)	
population	0.898*** (0.272)	0.747*** (0.255)	1.680*** (0.555)	0.253 (0.235)	0.367* (0.222)	-0.143 (0.210)	0.191 (0.258)
territorial wars	1.430 (1.050)	0.649 (0.948)	1.642 (1.164)	-0.870 (0.638)	-1.021 (0.745)		-0.502 (0.712)
anocracy	-3.978*** (1.532)	-0.445 (0.608)	-6.704*** (2.261)	-0.599 (0.848)	-0.397 (0.783)	-0.735 (0.593)	-0.992* (0.517)
constant	-16.518*** (6.024)	-12.608*** (3.617)	-26.048*** (8.072)	-8.282*** (2.712)	-7.987*** (2.502)	0.774 (3.087)	-3.957 (3.775)
N	117	244	117	118	118	114	244
pseudo R ²	0.57	0.49	0.61	0.41	0.39	0.11	0.24
log pseudo-likelihood	-13.73	-51.74	-12.48	-33.49	-34.76	-51.03	-96.09

Robust standard errors (clustered on war) in parentheses

* p ≤ 0.10 ** p ≤ 0.05 *** p ≤ 0.01 js indicates joint significance

Table 9 Effects on the Probability of Civil War Stalemate

Logit regression

	1	2	3	4	5	6
peacekeeping	3.040*** (0.728)	2.627*** (0.573)	2.815*** (0.739)	3.039*** (0.787)	2.957*** (0.765)	3.419*** (0.831)
government army size	-0.0004 (0.0006)					
insurgency	2.305*** (0.734)		2.558*** (0.840)	3.200*** (0.825)	2.950*** (0.778)	2.831*** (0.822)
intervention	-0.144 (0.599)	-0.341 (0.540)	-0.453 (0.671)	-0.704 (0.630)	-0.551 (0.657)	-0.881 (0.684)
mountains	-0.467** (0.237)		-0.508* (0.280)	-0.381 (0.253)	-0.332 (0.242)	-0.336 (0.251)
population		-0.475** (0.194)	-0.682** (0.313)	-0.858*** (0.324)	-0.895*** (0.321)	-0.786*** (0.258)
identity (D&S)	0.567 (0.614)	0.492 (0.541)				
ethnic (F&L)			0.587 (0.366)			
secessionist (D&S)				1.120** (0.567)		1.059* (0.597)
secessionist / autonomy (F&L)					0.697** (0.344)	
anocracy	1.827*** (0.593)	1.223** (0.517)	2.199*** (0.809)	2.200*** (0.648)	2.032*** (0.654)	
democracy score						0.174*** (0.056)
constant	-2.803*** (0.987)	5.882* (3.134)	7.618 (4.829)	9.879 (4.960)	9.927** (4.798)	10.3577*** (3.983)
N	94	111	94	94	94	94
pseudo R ²	0.40	0.35	46	0.47	0.47	0.45
log pseudo-likelihood	-38.83	-49.44	-34.90	-34.54	-34.37	-35.62

Robust standard errors (clustered on war) in parentheses

* p ≤ 0.10 ** p ≤ 0.05 *** p ≤ 0.01

Table 10 Summary of Findings

Hypothesis		Data source / measure	Change over Time?	Predicts Draws?	Hypothesis Supported?
Peacekeeping	I	Fortna	yes	yes	yes
	C	D&S	yes	yes	yes
Alternative Arguments: Stalemate					
Relative Capability	I	COW cap. index	yes	no	no
		COW matched status	yes	not robust	weak
	C	D&S govt army size	no	no	no
		D&S rebels win more	mixed	—	weak
Strategy	I	Stam attrition	wrong way	no	no
	C	Fearon insurgency	yes	yes	yes
Offense-Defense Balance	I	Adams period	yes	no	no
	C	no data	—	—	—
Intervention	I	Shirkey joiners	wrong way	no	no
	C	D&S intervention	not significant	no	no
Terrain	I	Stam roughness	wrong way	not robust	no
	C	Fearon mountains	wrong way	wrong way	no
Alternative Arguments: Settlement					
Population	I	COW	no	not robust	no
	C	D&S	wrong way	wrong way	no
Issue Salience	I	MID territorial	wrong way	not robust	no
		identity (D&S; F&L)	no/wrong way	no	no
	C	secession (D&S; F&L)	wrong way	wrong way	no
Regime Type	I	Polity anocracy	yes	yes	yes
	C	Polity anocracy	no	wrong way	no

I = interstate wars

C = civil wars

COW = Correlates of War

MID = Militarized Interstate Disputes

D&S = Doyle and Sambanis

F&L = Fearon and Laitin

Fig. 1 Interstate Wars 1816-2000

Dyadic outcomes as coded by Stam MID and COW

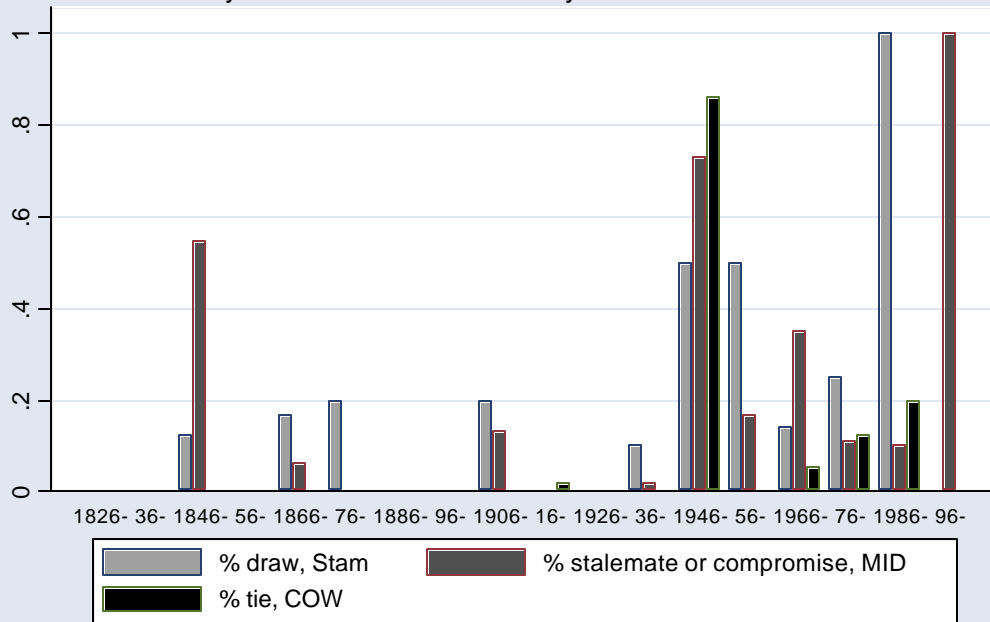


Fig. 2 Civil Wars 1944-2000
Outcome as coded by Doyle and Sambanis

