RESEARCH NOTE: COMBINING CIVIL AND INTERSTATE WARS

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Abstract

Quantitative studies of conflict analyze either civil or interstate war. However, the reason for this division is unexplored. In this article, we examine whether the segregation of analyses by conflict "type" is appropriate. While there may be observable differences between civil and interstate wars, theories of conflict focus on phenomena—such as information asymmetries, commitment problems, and issue divisibility—that should explain both conflicts within and between states. In analyses of conflict onset, duration, and outcome combining civil and interstate wars, we find most variables have similar effects on both "types" of war. Our article thus questions whether there is any justification for separate study of war types.

Ethiopia waged a nearly thirty-year war against Eritrean insurgents beginning in 1964. In 1994 Eritrea gained its independence. However, sovereignty only brought a brief respite from conflict as the sides returned to war from 1998-2000. Relations between Ethiopia and Eritrea remain tense with renewed conflict continually possible.

Vietnam was wracked by conflict from the 1940s to the 1970s. From 1946-1954, France fought against anti-colonial groups across Indochina. Vietnam emerged in practice as two states, with the new South Vietnam facing an immediate communist insurgency backed by North Vietnam. By the mid-1960s, conflict between the two Vietnams had reached all-out inter-state war, a war which continued until North Vietnam won and unified the country in 1975.

The Ethiopian-Eritrean and Vietnamese conflicts each lasted more than three decades and cost tens of thousands of lives. Because of their durations and consequences, political scientists are interested in understanding them. However, in quantitative conflict research these conflicts are generally not examined holistically, rather they are split into different "types," housed in different datasets, and analyzed in separate statistical tests.

These divisions occur because interstate and civil wars are analyzed separately in quantitative conflict research. In fact, the standard distinction made between conflicts is whether they contain zero, one, or two recognized members of the international system. These divisions have consequences. Statistical tests of inter-state war identify "war onsets" between North and South Vietnam in 1965 and between Ethiopia and Eritrea in 1998, despite the decades of preceding conflict. Studies of war duration are potentially more problematic, because the thirty-year conflict in Vietnam becomes three separate decade-long conflicts.

In this article, we examine whether the division of conflicts into separately analyzed types is always justified. We show that, despite common practice, there are reasons to believe analyses should be combined. We argue that the norm of studying these phenomena separately has limited

our understanding of violent conflicts. Consequently, we call for a research agenda that analyzes the dynamics of conflict more broadly.

Our article proceeds in two ways. First, we consider theoretical reasons for separate study. While the two types are traditionally examined separately, we show that theoretical arguments about both types of conflicts are similar. Second, to determine if the types of conflicts are driven by similar factors we conduct analyses of the onset, duration, and outcome of civil and interstate war, finding generally similar patterns across both "types." In fact, in combined analyses of outcome, the inclusion of common variables makes an indicator of whether each conflict was civil or interstate *insignificant*. Thus, we are able to show that the same factors generally have similar effect on both conflict "types" and that, controlling for conditions complicating bargaining, observed differences between civil and interstate conflicts are considerably mitigated.

Why are Civil and Interstate Wars studied separately?

While some scholars recognize that distinctions between civil and interstate wars might be unnecessary and even misleading,[1] empirical studies of conflict almost exclusively examine either civil or interstate wars. It is unclear why this became the norm, but two factors may have contributed. First, theoretical arguments about war within and between states were once quite distinct. Realism dominated International Relations research when large-n statistical studies of war first became common. It viewed war as resulting from structural features such as the number of poles and the distribution of power in the international system. Comparativists studying internal conflict, by contrast, usually emphasized state-level features such as government institutions, state

[1] For example, Lake 2003 and Wagner 1993 question separate study of civil versus interstate wars.

strength, and state-society relations, evaluating their theories almost exclusively against a handful of cases.

Second, data availability likely also played a role. The original Correlates of War (COW) dataset only included interstate and extra-state wars, excluding civil wars.[2] COW was the most commonly used dataset for large-n analyses of conflict, and researchers interested in conducting these analyses were therefore limited to studying interstate (and extra-state) wars. By the time COW's intra-state war list became available in 1982, scholarly patterns likely had become fixed.

Data availability and sub-field differences, then, meant that while large-n analyses of interstate war were common from the 1960s to 1980s, similar studies of civil war were unusual. By the 1990s, scholars began to close this knowledge gap as statistical analyses of civil war were increasingly frequently produced.[3] Theoretical approaches to understanding civil and interstate war began to converge, as realists saw some civil wars as arising from domestic anarchy,[4] and as the bargaining and war paradigm emerged as the dominant "rationalist" approach to the study of both civil and interstate war. In addition, in contrast to the 1960s and 1970s, scholars now have access to a huge amount of data on both types of war: COW now has data on four "types" of conflict—interstate, extra-state, intra-state, and non-state—and the Uppsala Conflict Data Project/Peace Research Institute Oslo Armed Conflict Dataset (ACD) contains data on a very large number of conflicts. Despite these changes, civil and interstate wars are still studied separately, a phenomenon

[2] The justification given for the exclusion was a claim that civil war "differs substantially in its nature, and usually in its political implications…" (Singer and Small 1972:33). Clearly that claim was merely speculative absent data on the excluded wars.

[3] E.g. Licklider 1995, Mason and Fett 1996, Regan 1996, Walter 1997, and Collier and Hoeffler 1998.

[4] The "ethnic conflict as security dilemma" literature, particularly Posen 1993, is an example.

we attribute primarily to tradition: they are studied separately because they have always been studied separately.

Are there costs from separate study of civil and interstate wars? While a definitive answer is unavailable, we can address a larger question about costs from arbitrary division of cases into segmented analyses. Civil war researchers frequently assert that analysis of civil wars is important because they produce more fatalities, last longer, and recur more frequently than do interstate wars. Such distinctions are empirically true, but the same distinctions exist *among* interstate wars as well. Some interstate wars are bloodier, longer, more likely to recur, than are other interstate wars. What conclusions would have been reached had (for example) high-fatality long-duration interstate wars been studied separately from low-fatality short-duration interstate wars?

To answer that question, we analyzed a dyad-years dataset in which COW interstate war onsets are the dependent variable alongside the set of independent variables from Bremer's canonical "Dangerous Dyads".[5] We recoded the dependent variable such that in one analysis a war onset occurs only if a high-fatality war broke out, in another only if a long-duration interstate war broke out, etc. We generated six distinct subsets of interstate wars paralleling "distinctive" characteristics of civil wars. We found no subset in which joint democracy had a significant pacifying effect. The only well-known correlate that performed consistently was contiguity (i.e. regardless of how we re-defined interstate war, contiguous dyads were more likely to fight). Imagine, the Democratic Peace and most of the remaining conventional wisdom about interstate war onset would have gone undiscovered had interstate war researchers arbitrarily divided wars into allegedly distinct "types" (full details of these analyses are available in a Web Appendix).

[5] Bremer 1992.

Theory Driven Combinations of War "Types"

While we are inherently skeptical of unsubstantiated claims that civil and interstate wars are innately different, we are quite open to theoretical justifications for dividing them. Indeed, as discussed above, the initial division between inter- and intrastate wars likely resulted at least in part from the perception that interstate wars were produced by the anarchic nature of the international system while civil wars were believed to be caused by state or societal-level factors. While scholars focus less on the structure of the international system as the determinant of interstate war now, given that they usually still study civil and interstate war separately, they must have an implicit theory in mind about how these types of war are causally distinct. In particular, it is likely that many scholars see them as different because interstate war takes place between internationally-recognized states and civil war takes place within them. Perhaps scholars implicitly believe international recognition and other aspects of statehood generate different behaviors across these conflict types.[6]

Implicit theories aside, the dominant theoretical approach to the study of both inter- and intrastate conflict currently focuses on the same factors—the ability to make credible commitments, the divisibility of issues, and information asymmetries—as critical determinants of when wars occur, how long they last, and how they are ended. And while many formal models analyzing the determinants of war theoretically look at interactions between "State A" and "State B,"[7] similar insights have been applied to war between a state and a non-state actor. For example, Wagner's "bargaining and war" model looks at interaction between any "predatory rulers," which could be

[6] Hypotheses about how such factors affect behavior in interstate and civil war differently must be tested on a sample of cases that includes both types, otherwise recognition/non-recognition is a constant.

[7] See, for example, Fearon 1995; Wagner 2000.

leaders of states but could also be "non-state actors,"[8] and comes to conclusions similar to those of state-centric models.

If both inter- and intrastate wars occur and persist due to commitment problems, issue indivisibility, and information asymmetries, why are they divided into separate types for analysis? The most common justification seems to be a perception that these barriers to bargaining are more acute in intra-state contexts. Walter argues that commitment problems present particularly high barriers to negotiation in civil wars because at least one side will have to disarm in the implementation phase, rendering itself vulnerable.[9] Toft argues that issues in ethnic conflicts become indivisible when states and geographically-concentrated ethnic groups bargain over territory.[10] Another common belief is that informational asymmetries are greater in civil conflicts, because in inter-state conflict the military capabilities of each side are generally known in advance, while rebels and governments are often both uncertain about the rebels' mobilization capacity, coupled with the incentive rebel groups often have to hide their strength.[11]

It may be true that conflicts within states frequently generate greater commitment problems and information asymmetries, and are fought over less divisible issues, than conflicts between states. In fact, if these are the main determinants of warfare, the greater prevalence of intra-state conflicts in the post-World War II era requires this to be true. However, if these problems are more extreme in civil wars, that is a justification for better models, i.e., those that include more theoretically-

[8] Wagner 2007

[9] Walter 1997, 2002

[10] Toft 2003

[11] Walter 2009

motivated independent variables and inclusion of all relevant cases, thereby ensuring variation on the important causal variables.

Take Walter's work as an example. She finds strong support for her prediction that civil wars are more likely to end in a negotiated settlement when a third-party offers a credible "guarantee" to enforce the agreement.[12] Her logic highlights the difficulty post-war combatants have trusting each other when creating one government with one military. Her analysis is limited to civil wars because it is typically in them that combatants end up sharing the same state. However, this is not always the case. In some civil wars (particularly separatist conflicts) it is possible that each side will secure its own government and military, and in those cases an external guarantor may be unnecessary. Some inter-state wars, likewise, lead to the creation of one state (such as the Vietnam War, or the Wars of Italian Unification), and presumably in those cases issues of trust in the disarmament and government creation phase are likely to be particularly difficult to resolve.

This suggests, then, that many interstate wars present the same barriers to trust that civil wars do. Fortna's recent book concludes convincingly that "peacekeeping works" in civil wars,[13] but her earlier book[14] demonstrated that it also prolongs peace after interstate wars.[15] Many interstate wars occur between states with great difficulty trusting each other (e.g. Israel-Syria, India-Pakistan) even if neither side anticipates sharing the same government in the future.

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[12] Walter 1997, 2002

[13] Fortna 2008

[14] Fortna 2004

[15] In separate analyses, Fortna (2003) demonstrates that peacekeeping prolongs peace in both civil and interstate wars.

The argument that information asymmetries are greater in civil wars also does not necessitate separate study. While information asymmetries may be more acute on average in civil war, there is likely to be large variance in information across both civil and inter-state wars. This variance could be caused by a number of factors. States and/or non-state actors are likely to be more certain of their opponents' capabilities if they have fought before—so recurrent civil wars might actually have less acute informational problems than do first time interstate conflicts. Since many interstate wars are recurrent conflicts between "enduring rivals," it may be that they are shorter because they are often fought between states with high levels of information about each other.

Each of these arguments suggests there is some underlying factor causing commitment problems, information asymmetries, or issue indivisibility, and that underlying factor is thus causing warfare. A proper empirical analysis should measure that underlying factor and examine how it impacts the onset, duration, or outcome of war across a set of cases without limiting the analysis to one or another sub-set of conflict.

To see if, in fact, similar factors have similar effects across types of conflict, we conduct combined empirical analyses of civil and interstate wars. While there are numerous studies of the onset, duration, and outcome of civil or interstate war, here we study them together, perhaps for the first time ever. We attempt to determine whether we can identify the causes of conflict onset, duration and outcome that are common across wars. If we are able to do so, we may be able to replace limited statements such as "civil wars are unlikely to be resolved without external guarantees," with more general statements such as "conflicts in which combatants have high levels of mistrust are unlikely to be resolved without external guarantees."

Analyses of Civil and Interstate War Onset

Onset presents the hardest case for combining civil and interstate wars. The analysis of war onset involves different independent variables and different research designs. Interstate war is studied dyadically (in which observations are pairs of states) while civil war onset is treated monadically (with observations of state years). This considerable difference arises because of the lack of data on rebel groups prior to their rebellions, and thus dyadic analysis of civil war onset is very rare.[16] While state-level analysis of interstate war onset is extremely rare, we undertake one here because it is the only research design that will allow comparison of onset patterns across types.

Similarly, since monadic and dyadic arguments differ, we cannot offer a single argument to motivate the predictors of onset in our analyses. Instead, we offer three analyses using commonly studied correlates. Thus, while we do not offer a single theory explaining both types of war onsets, we do show reasonably consistent patterns regardless of which predictors are used.

We draw "interstate" war onset correlates from across the existing literature. Our first is the number of allies a state has. A second is an indicator of the number of interstate "enduring rivals" the state has.[17] A third "interstate" correlate indicates the number of direct land neighbors the state has, while a fourth is the well-known Correlates of War indicator of major power status. States with more allies are more active in the international system, and as such might be expected to experience

[16] Nevertheless, dyadic civil war onset studies include Lemke (2008), Cederman, Buhaug, and Rød (2009), and Cederman, Wimmer, and Min (2010). Interestingly, these studies all report that power parity between sub-state actors makes civil wars more likely – a finding long established for interstate war onset.

[17] From Diehl and Goertz's (2000) dataset. Other interstate variables are from EUGene (Bennett and Stam 2000).

more conflict. Alternatively, states with many allies may successfully deter conflict, and thus experience fewer wars. Past research suggests states with more rivals are more likely to experience interstate war. Similarly, since most wars are among neighbors, a count of contiguous states should positively predict war. Finally, we know from the earliest COW research that the most powerful states are more frequently involved in interstate wars.[18]

A first set of civil war onset correlates are drawn from Hegre and Sambanis' comprehensive sensitivity analyses.[19] By studying dozens of claimed causes across different datasets and with varying estimation techniques, they produce a list of the most robust predictors of civil war onset. Borrowing from their findings, our first list of civil war onset variables includes: previous war (a dummy indicating whether the state experienced a different war in either of the previous two years – in Table 1 column 1 this indicates a previous interstate conflict, in column 2 a previous intrastate conflict, in column 3 either type of conflict); gross domestic product per capita; logged population[20]; and Polity IV's 0-10 democracy score.

While this list of variables is attractive due to the robustness Hegre and Sambanis demonstrate, it omits a number of variables frequently employed in civil war onset research. Consequently, we offer a second set of variables representing insurgency conditions and ethnicity as potential causes of civil wars drawn from Fearon and Laitin's[21] canonical study. The specific correlates are: the percentage of the state's territory that is mountainous, whether the state has non-continuous territory, whether it is an oil exporter, whether it is a new state (a dummy equal to one

[18] Singer and Small 1972: Chapter 11

[19] Hegre and Sambanis 2006.

[20] Both GDP/capita and population data are from Gleditsch 2002.

[21] Fearon and Laitin 2003.

for the first two years after independence), a measure of instability (a dummy equal to one when the state's regime type score has changed by three or more in any of the previous three years), and a measure of ethnic fractionalization.

We constructed a state year dataset that includes the variables described above, as well as indicators of whether a civil or interstate conflict started in any given state year.[22] Our dataset covers the years 1946-2006.

Table 1 reports results for three separate specifications: the Interstate or "COW" variables, the "Hegre and Sambanis" variables, and the "Insurgency and Ethnicity" variables. We avoid combining all 14 variables in one analysis because the usefulness of such a kitchen-sink model is dubious. Achen and Ray document how misleading regression models with many regressors can be.[23] Recall, our preliminary task is simply to determine whether the correlates of one type of conflict onset are also correlates of the other type. We could put together larger multivariate models, but in an effort to avoid model specifications disingenuously chosen to support our argument, we instead opt to keep this preliminary analysis tractable, and suggest that three models with logically coherent groups of regressors well serves that goal.[24] Table 1 reports the results.

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[22] Our onset measures are from the ACD version 4-2011. We use all conflicts (>25 fatalities), but restrict analysis to only original participants. Replications with COW war onsets (>1000 fatalities) produce results quite similar to those reported here.

[23] Achen 2002; Ray 2003

[24] Nevertheless, in kitchen-sink models we find similar effects across both types of wars, but primarily because few variables are significant for either type. The lack of significance is likely due to the pathologies Achen and Ray describe. More reliably, in bivariate models we find even more statistically significant similarity across types of conflicts than we report here.

*******Table 1 about here*******

In Table 1 we report odds ratios, which are interpreted in the following way—odds ratios below 1 mean increasing values of the independent variable make conflict onset less likely, while values above 1 make conflict onset more likely. Table 1 implies strongly that the correlates of one type of conflict are also correlates of the other type. Of the fourteen correlates considered across the regressions, nine (or two thirds) show evidence of consistent influence on conflict onset regardless of whether intra- or interstate conflict is considered (meaning the variable makes both "types" of conflict more/less likely, or that the variable is not a significant predictor of either). "Prior War" and "Instability" have different signs across the two types of wars, but given that the estimate is insignificant for three of the four estimates, it is not the case that there are clearly different effects across the two "types" of wars. Importantly, none of the variables produce a significant sign switch across "types." While we are unaware of researchers arguing variable X has *opposite* effects across inter and intra-state conflict, we nevertheless think it important there are no significant sign switches in Table 1 because their presence would raise serious doubts about our argument.[25]

Turning to the specifics of Table 1, we find that states with more allies are less likely to experience either interstate or intrastate conflicts. Perhaps a deterrent effect protects allied states from either type of conflict. Would-be attackers and would-be rebels may expect the allied state will enjoy support from some of its allies, making it increasingly less likely the attacker, whether interstate or rebel, will win. Conversely, we find that states with many rivals are more likely to

[25] The Combined Conflict column omits a "civil war" dummy because when the value of that variable is "0" it could mean either the presence of an interstate conflict or the absence of either type of conflict, unlike in Table 2.

experience both types of conflicts. It is likely that states with rivals will experience more interstate conflict with those rivals, or with states encouraged by the rivals, and that in addition such states will experience more intrastate conflict as their rivals support rebel groups against them. Turning to the "Hegre and Sambanis" variables, it is unsurprising that richer and less populous states are less likely to experience either type of conflict. But when considering the "Insurgency and Ethnicity" variables, it is interesting to discover that New States are more likely to experience both types of conflicts. An expectation among civil war researchers is that new states are weaker states, without the institutional stability to resist rebellions. A parallel expectation among interstate war researchers is that some new states disrupt the international order, making conflict more likely.[26] It may be that new states are attractive conflict targets both to international and domestic forces, and thus the disruption and weakness associated with newness provokes conflict of both types.

Importantly, the odds ratios for most of the variables are of roughly the same magnitude across both types of conflicts, suggesting their substantive effects are consistent regardless of the type of conflict studied. This is particularly true for the "COW" variables, but the magnitudes of the odds ratios for the "Hegre and Sambanis" and "Insurgency and Ethnicity" variables are very similar across both types of conflicts as well (with Ethnic Fractionalization being a lone exception). To be sure, the magnitudes of all odds ratios are not identical, for example "Rivals" increase the risk of interstate conflict more than of intrastate conflict, but nevertheless states with rivals are more likely to experience both types of conflicts, and across most variables, the effects are of quite similar magnitude.

There are some surprises to be found in Table 1. For example, Prior Conflict is not significant in the first two columns. Nevertheless, the surprises are far fewer than the successful

[26] First described by Maoz 1989.

expectations. Further, none of the surprises are clear refutations of our expectation of similar effects, such as would be the case with significant sign switches across conflict types. The evidence shows that the correlates of one type of conflict onset are generally correlates of the other as well.

Analyses of Civil and Interstate War Duration and Outcome

Having just demonstrated similarity across the onset correlates of inter- and intrastate conflict, in this section we conduct similar analyses of the duration and outcome of civil and interstate war. In contrast to how scholars study onset, considerable similarity prevails in analyses of duration and outcome. These are predominantly investigations with conflicts as the units of analysis. Thus, there is no artificiality in comparing analyses of interstate and intrastate conflict duration and outcome. More useful, we can create a dummy indicating whether a conflict is inter- or intrastate and include it in combined conflict analyses.

Duration and outcome analyses require identifying when conflicts begin and end. The ACD indicates the start and end dates of *episodes* of violence, and leaves researchers to decide when to code new conflicts. We code a conflict as starting in the first year it generated 25 battle deaths and code conflict as ending following at least two years without 25 battle deaths.

While we largely take the set of conflicts in the ACD as coded, there are a few exceptions. The ACD codes some conflicts as separate not because there is a two year period without 25 battle deaths, but rather because the conflict changes type. However, because we are explicitly interested in analyzing the duration and outcome of conflict regardless of type we have combined six ACD wars. Anti-colonial conflicts in Angola, Cameroon, and Malaysia became civil wars after independence. We have combined these wars for each state. For Vietnam we have combined an anti-colonial conflict, a subsequent civil war, and the North-South Vietnam interstate war into one long thirty-year war. In Israel, the ACD codes an end to the war in 1964 because the non-state actor

changes from "Non-PLO groups" to the "PLO," but we code this as one conflict. Finally, the ACD divides the 2003-on Iraq war into an interstate and a civil conflict, but we have combined them. In each of these cases, we code the civil war dummy as time-varying, it is "0" for periods of interstate war and a "1" for periods of civil war.

For our duration analysis, the dependent variable is the duration of conflict, in days, between the start of conflict and the end as defined above. In our study of conflict outcomes, the dependent variable is a dichotomous measure of whether the conflict ended in a negotiated settlement.[27]

We include a number of independent variables to examine whether factors have similar effects across civil and interstate conflicts. Identifying these variables is difficult for two reasons. First, because separate study is the norm, variables are generally coded either for civil or interstate conflicts, and so finding factors that are measured the same way across conflict types is difficult. Second, since bargaining approaches predominate in both inter- and intrastate analyses of duration and outcome, we seek to identify factors that specifically affect the ability of states and non-state actors to bargain their way out of conflict. Finding valid empirical measures related to bargaining is difficult. Despite this, we include measures of concepts that should affect bargaining in both civil and interstate wars analyses.

First, we include a measure of whether the conflict is over territory.[28] Territory is an interesting case for bargaining theories. Even though a piece of territory is logically infinitely divisible, Toft argues that territory can be indivisible in civil wars.[29] An examination of historical

[27] This variable is coded from the Uppsala Conflict Termination Project, see Kreutz 2010.

[28] Our measure is the ACD indicator of "incompatibility."

[29] Toft 2003

wars shows that states are very hesitant to cede territory in interstate conflicts as well. Conflicts over territory, then, may be less amenable to bargaining than conflicts over more-divisible issues.[30]

Second, we measure whether the war is recurrent—that is, whether a previous war has occurred involving the same combatants. Here expectations from bargaining approaches could be mixed. On the one hand, if combatants have fought before they may have gained greater information about each other, leading wars to be shorter. On the other hand, recurrent conflicts such as those among "enduring rivals" (internal or international) may indicate that the issues involved are particularly difficult to resolve, making bargaining harder and wars longer. In their study

[30] A potential problem with including territory in combined analysis arises if territory means different things in intra- and interstate contexts—if, for example, interstate territorial disagreements are primarily squabbles over marginal land but intrastate territorial disagreements constitute existential identity struggles. A consequential interstate conflict literature, however, suggests that territory is a fraught issue internationally as well as domestically. Hensel 2000, Huth 1996, and Vasquez 1993 are prominent contributors to this school of thought, all showing that territorial disagreements are especially war prone. In fact, the evidence shows that not only are territorial disagreements the most war-prone, but most interstate wars are fought over territorial issues (Holsti 1991). While we do not demonstrate (or necessarily believe) that "territorial conflict" is an identical phenomenon in both intra- and interstate contexts, it is clear that territory presents formidable obstacles to conflict-avoiding bargains both internationally and domestically. Further, we can find no indication in the ACD codebook that the incompatibility indicator is collected differently in inter- versus intra-state contexts.

of interstate war duration, Bennett and Stam argue that war can become "institutionalized" if combatants have fought frequently.[31]

Third, we measure the ratio of troops between the two sides in the conflict. Some argue that bargaining is easier when the combatants are more evenly matched, because it is easier to identify a negotiated settlement when fighting it out is likely to be a long process. We use the COW Project's National Military Capabilities data to identify the number of troops possessed by each state, and a combination of the UCDP and the Non-State Actor data[32] to identify the number of troops possessed by each non-state actor. We divide the number of troops of the stronger actor by those of the weaker, and then log this ratio to reduce skewness.

Fourth, we examine the type of government in the conflict with a dichotomous variable measuring whether there is at least one democratic state. This variable is unfortunately measured differently for civil and interstate wars, since interstate wars by definition involve two official governments and civil wars only one. However, there is a large literature that examines how regime type affects bargaining—with arguments suggesting democracies both reveal more information and are better able to make credible commitments.

In addition to the variables described above, we include two others. First, we measure the total number of troops in the conflict. Bennett and Stam examine this variable in their analysis of interstate wars and argue that when there are more troops the sides can fight longer, which is likely to apply in civil wars as well.[33] Second, we measure the total population of the states involved (which is the population of the civil war state in civil war cases). Bennett and Stam find that wars last longer

[31] Bennett and Stam 1996

[32] Cunningham, et al. 2009

[33] Bennett and Stam 1996

when the populations of the states are greater, and population is one of the variables consistently related to civil war onsets.[34] Because these variables are skewed, we use their natural log in the analyses.

We introduce each of these variables into analyses of the duration and outcome of civil and interstate wars to see if they have similar effects across conflict types. In the outcome analysis, we also measure whether peacekeepers were present in the conflict. Walter argues that civil wars are much more likely to end in negotiated settlement if the international community guarantees to enforce the terms of agreement,[35] and Fortna finds that peacekeeping makes peace last longer after interstate wars.[36] This variable is coded based on Fortna's datasets of interstate and civil wars[37] as well as through the United Nation's website to fill in cases omitted from her dataset.

We begin with discussion of our duration analyses, found in the left-hand side of Table 2. We use Cox Proportional Hazard models and report hazard ratios which are interpreted similar to odds ratios—values above one indicate that higher values of the covariate make the hazard of observing the dependent variable (i.e., conflict termination) more likely while values below one make it less likely. Thus, hazard ratios above one mean that increasing values of the independent variables shorten conflicts, and values below one indicate that they lengthen them.[38]

*******Table 2 about here*******

[34] Hegre and Sambanis 2006

[35] Walter 2002

[36] Fortna 2004

[37] Fortna 2004, 2008

[38] Duration and settlement replications with COW wars are not possible because we lack territoriality, rebel strength, and settlement data on COW wars.

The analyses in Table 2 show considerable similarity across the correlates of intra- and interstate conflict duration. Regardless of conflict type, we find that territorial conflicts, recurring conflicts, larger total troop participations, and larger populations at war are associated with longer wars. In contrast, the more unequal the troops of the two sides, the shorter conflicts are found to be. Such comparisons suggest considerable similarity across both types of wars. Of all the covariates, only Democracy produces a sign switch from one conflict type to another. When at least one of the states in an interstate war is a democracy the war is shorter, but when the state involved in an intrastate conflict is a democracy, the fighting persists longer than when the civil war state is non-democratic. Given the very different way we must measure this variable across the two conflict types (since we lack regime type data for rebel groups), it is uncertain whether these are truly contradictory findings.

In addition to the similarity in sign and significance for several variables, the magnitude of the effects is similar with one exception, that of territory. Territorial wars are longer in both contexts, but the effect of territory in interstate wars is much greater. This is likely because non-territorial interstate wars are both rare and extremely short in this dataset. The similarity of magnitude on the variables beyond democracy and territory suggest that these factors generally have a similar effect on both types of war.

The significance of the "Civil War" dummy in the third column of Table 2 indicates that intrastate conflicts persist longer than interstate conflicts, even controlling for the variables in our analysis. The greater duration of civil wars is widely established in the quantitative literature, so the sign and significance of this variable is not a surprise. However, its significance does not discredit the considerable similarity we uncover in correlates of duration across five of the six variables included in our model. What's more, had we better measures of the bargaining concepts motivating

research on conflict duration, it is quite possible that the substantive and statistical significance of the Civil War dummy would be considerably attenuated.

Moving to the outcome of conflict, the right-hand side of Table 2 presents the results of logistic regressions of the outcome of civil and interstate conflicts, with negotiated settlement coded as a 1 and any other outcome coded as a 0.[39] The argument that civil wars are less likely to end in negotiated settlement than are interstate wars is a frequently cited justification for studying civil wars separately from interstate conflicts. To our knowledge, however, no one has ever analyzed the determinants of negotiation success in combined analysis of both types.

The results for Outcome show less similarity across conflict types than do our Duration results, primarily because it is difficult to find statistical significance for the interstate conflicts. Only the presence of peacekeeping is statistically significant with the same effect for both types of conflicts. Territorial War, however, essentially shows the same pattern for both conflict types. In the Interstate Conflict analysis the variable is dropped because there are no negotiated settlements in non-territorial conflicts, meaning that interstate territorial conflicts are especially likely to have negotiated settlements (an odds ratio greater than 1). The odds ratio for Territorial War in the Intrastate Conflicts column is also greater than one, and nearly significant ($p = 0.12$). In the combined analysis the effect of this variable is very large and significant. We conclude that there is substantial similarity, and substantively strong effects in particular for Peacekeeping and Territorial Conflict.[40] Further, there is no instance of a variable having a significant negative effect on outcome

[39] Because conflict outcome may be affected by how long conflict lasts, we also include a measure of the number of years each conflict persisted.

[40] Peacekeeping has a considerably larger effect in interstate war, but has a large odds ratio for both types.

for one type of conflict and a significant positive effect on the other. That is, there are no significant contradictory factors in our analyses of conflict outcome.

If conflict is really driven by bargaining dynamics common to both civil and interstate war, then models validly capturing barriers to bargaining should explain the duration and outcome of conflict, and a measure of whether the war is civil or interstate should then not matter. In our analyses of conflict duration, we were unable to render the civil war dummy insignificant. However, the last column of Table 2 shows that the civil war dummy is not a significant predictor of the likelihood of negotiated settlement. It is still below one, suggesting that civil wars are generally less likely to end in settlement, but we cannot reject the null hypothesis of no difference with even 90% confidence. Many of the other variables, however, are significant in the way that we would expect from bargaining approaches. Peacekeeping makes negotiated settlement more likely, and the size of the odds ratio shows a large effect. Wars over territory are more likely to end in negotiated settlement, as are those where the two sides are more equal in the number of troops. Their significance and the insignificance of the civil war dummy suggests that some combination of Peacekeeping, Territorial War, and Troop Ratio accounts for all of the variation in the probability of a negotiated settlement between intra- and interstate conflicts. That is, these variables (which arguably represent the ability to bargain) entirely explain away the difference in negotiation propensity between "types" of wars.

The analyses in Table 2 suggest, then, that the well-established empirical pattern that civil wars are less likely to end in negotiated settlement than interstate wars is relatively easy to explain. There does not appear to be something special about civil wars making them less amenable to resolution. Rather, when either civil or interstate wars have higher barriers to bargaining they are less likely to end in settlement. Conflicts over territory, where the sides are more equal, and where peacekeepers have been deployed to enforce agreements are more likely to end in settlements,

regardless of whether they are fought between two states or one state and a non-state actor. The reasons why civil wars have had less negotiation success over the last sixty years may be that they generally are fought with greater power asymmetries than interstate wars and because, until the end of the Cold War, norms of sovereignty and superpower rivalries meant that peacekeeping was not available. If true, this is new knowledge gained by combining analyses of types of conflicts.

There is one potential issue with these outcome analyses. By treating outcome as dichotomous, we compare negotiated settlements to three different outcomes—military victory, low activity, and "other"—which are lumped together as zeros. We analyze outcome as a dichotomy here because that is the standard way to study why conflicts end in negotiation. However, in additional tests we conducted multinomial logit analyses of these outcome types and found that the civil war dummy remains always insignificant. When including measures of barriers to bargaining civil wars are no less likely to end in settlement and no more likely to end in military victory (relative to low activity) than are interstate wars. These multinomial analyses revealed other interesting findings and are presented and discussed in the Web Appendix.

In sum, our analyses evidence considerably more similarity than difference in the effect of covariates. The factors influencing the onset, duration, and outcome of civil wars influence the onset, duration, and outcome of interstate wars in the same, or at least very similar, ways.

Conclusions

We have learned much about civil and interstate wars through decades of research based on large-n datasets such as the Correlates of War and the Uppsala Conflict Data Project. However, our knowledge may be hampered by conflict researchers always focusing on separate "types" of conflict.

Theoretical arguments, like those from the bargaining and war approach, anticipate that conflicts are more likely to break out, last longer, and be less likely to end in negotiated settlement

when barriers to bargaining make it harder for actors to reach agreement. These arguments logically apply to all conflicts, not just civil or interstate wars, and testing them on only one type then leads to the possibility of non-representative samples. To determine if civil and interstate wars are driven by similar factors, we conducted onset, duration, and outcome analyses, finding considerable similarity and very little difference in the effect of many covariates on each. The similar theoretical arguments about the determinants of civil and interstate wars and consistent empirical findings in our analyses provide reason to believe these phenomena are influenced by similar factors.

We foresee many potential benefits from further combined analyses. First, combined analyses of war may identify empirical realities currently hidden by arbitrarily dividing wars. It is impossible to know at this stage what these patterns are because separate study of civil and interstate war is so pervasive. Only through combined study can we answer questions about whether civil and interstate wars really have different empirical patterns. The pattern that civil wars generally do not end in settlements and that interstate wars generally do has prompted a literature designed to determine which civil wars are more or less amenable to settlement. But in our combined analysis we found that this "difference" between civil and interstate war settlement is relatively easy to explain. Research focused on understanding the conditions under which *all* conflicts are amenable to settlement should help us gain greater understanding about the outcome of both civil and interstate wars. With better specified combined models, there are likely other such patterns to be explained for onset and duration as well.

We believe that there is much to be gained from studying violent conflicts as similar phenomena, rather than dividing analyses into allegedly separate types. Combining conflicts properly, however, requires a new research agenda. Existing data collections on civil and interstate wars are generally separate efforts. This separation makes it very difficult to find empirical measures that can be included across war types in combined models. This problem is compounded by the fact

that interstate war is often studied as a dyadic process and civil war is often studied monadically. There is movement away from this general trend,[41] but there is still very little readily-available data that can be used as empirical measures in combined analyses.

A specific recommendation is to enhance our ability to undertake dyadic research about both types of wars. Data about rebel participants are increasingly available for ACD wars. Similar information must be made available for COW wars too. Most critically, we need data about *potential* rebel groups so we can undertake dyadic analyses of civil war onset. Whether first-order sub-national administrative units (i.e., provinces, states), ethnic groups, opposition groups, or some other entity are the most promising "potential rebel" population, awaits future research. We recognize the many challenges confronting collection of such a dataset; indeed we are both actively working on such datasets. But we are confident that much is to be learned about civil war onset, and how similar it is to interstate war onset, by being able to study it dyadically.

Turning from onset, combining analyses of civil and interstate war duration, severity, settlement, recurrence, third party joining, and other war characteristics is more tractable. We simply need comparable data about potential causes of war characteristics across interstate and domestic contexts. Which variables should be collected awaits theoretical developments not offered here. The case for such theory development, however, is made here. Our findings suggest scholars of onset, duration, or outcome should study both civil and interstate wars in combined analyses. Doing so will eliminate artificial discontinuities like the "outbreak" of a Vietnamese War in 1965. Similarly, whereas a student of international conflict might ignore a post-1991 Somalia, a student of *conflict* more generally might find considerable similarity across conflicts between Somalia and Ethiopia, Somalia and clan rebels, or between warlords and Islamic militias.

[41] Particularly in "disaggregating civil wars" work like Gleditsch and Cederman (2009).

Our understanding of interstate and civil war has grown greatly thanks to data collections such as COW and ACD. Our understanding of these types of conflict will continue to grow as more, and more nuanced, data on civil and interstate wars are collected. We also suggest that there is much to gain from a new research agenda focused on analyzing violent conflicts together, rather than assuming them to be separate types.

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Table 1: Logit Regressions of Conflict Onsets

Model	Variables	Interstate Conflict	Intrastate Conflict	Combined Conflict
"COW" Interstate Variables	Allies	0.91**	0.91**	0.92**
	Rivals	1.81***	1.18*	1.44***
	Neighbors	1.03	1.12***	1.07*
	Major Power	1.52	1.71	1.98
	Intercept	-4.657***	-3.837***	-3.360***
	Model X^2	120.48***	25.28***	90.32***
	Observations	8573	8573	8573
Hegre and Sambanis Extreme Bounds Analysis	Prior War	0.45	1.27	1.42**
	GDP per capita	0.99**	0.99***	0.99***
	Log of Population	1.63***	1.37***	1.43***
	Democracy	0.99	1.01	0.99
	Intercept	-8.333***	-5.861***	-5.985***
	Model X^2	71.78***	54.28***	103.74***
	Observations	6486	6486	6486
Insurgency and Ethnicity Variables	Log of Mountains	1.23**	1.25***	1.24***
	Discontinuous Terr.	1.25	1.74**	1.66**
	Oil Exporter	1.22	1.73**	1.49*
	New State	2.44**	3.01***	2.64***
	Instability	0.65	1.80***	1.39**
	Ethnic Fractionalization	1.28	4.49***	2.77***
	Intercept	-4.698***	-4.785***	-3.980***
	Model X^2	13.86**	72.85***	40.45***
	Observations	6469	6469	6469

Cell entries are odds ratios, except Intercepts which are logit coefficients;
*=p<0.10, **=p<0.05, ***=p<0.01, robust standard errors clustered on "country code"

Table 2: Duration and Outcome Analyses

	Duration Analyses			Outcome Analyses		
	Interstate Conflicts	**Intrastate Conflicts**	**All Conflicts**	**Interstate Conflicts**	**Intrastate Conflicts**	**All Conflicts**
Civil War			0.171*** (0.038)			0.584 (0.293)
Peacekeeping				9.761** (9.851)	2.731** (0.140)	3.463*** (1.491)
Territorial War	0.110*** (0.078)	0.864 (0.134)	0.836 (0.131)	Dropped[1]	1.861 (0.748)	2.465** (0.942)
Recurring War	0.659 (0.201)	0.958 (0.153)	0.970 (0.129)	2.615 (2.146)	0.616 (0.298)	0.750 (0.277)
Troop Ratio	1.036 (0.179)	1.176*** (0.060)	1.157*** (0.048)	1.801 (0.656)	0.663*** (0.087)	0.808*** (0.844)
Democracy	2.106** (0.698)	0.462*** (0.120)	0.719* (0.135)	0.908 (0.671)	3.288* 2.048	1.757 (0.765)
Total Troops (logged)	0.866 (0.158)	0.967 (0.076)	0.943 (0.067)	0.676 (0.270)	0.958 (0.175)	0.848 (0.135)
Population (logged)	0.747* (0.131)	0.867** (0.063)	0.857** (0.055)	0.590 (0.211)	1.018 (0.213)	0.884 (0.160)
Duration				1.026 (0.064)	1.020 (0.025)	1.020 (0.021)
Intercept				792.879*** (2032.357)	0.663 (1.011)	3.911 (5.701)
Subjects	56	225	280			
Failures	55	181	236			
Observations	115	1471	1586	54	181	235
Wald chi2	42.29***	27.06***	86.90**	16.02**	30.60***	38.58***

[1] Dropped because territory=0 predicts no settlement perfectly

Cell entries are Hazard Ratios (for duration) and Odds Ratios (for outcome).

*=p<0.10; **=p<0.05; ***=p<0.01