One Dyadic Peace Leads to Another? Conflict Systems, Terminations, and Net Reduction in Fighting Groups

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Governments often fight multiple civil conflicts simultaneously and each conflict can have multiple groups. Prior research on civil war termination and recurrence has been conducted at either the conflict level, once all the groups have been terminated, or the dyadic level, which examines group terminations in a conflict separately as more or less independent processes. Hence, conflict-level studies mostly tell us how to preserve peace once a civil war has already ended, while dyadic studies mostly tell us about the durability of specific group-level terminations within the larger process that led to that ending. As a result, our understanding of how ongoing civil wars are brought to a close is limited, particularly, with respect to multiparty conflicts. In this study, we put forth a systems approach that treats dyadic terminations as connected processes where group terminations influence the future behavior of other groups, incentivizing the system toward greater aggregate peace or conflict. Analyzing 264 dyadic terminations, the findings suggest that the most effective strategy for governments to reduce systemic conflict is to demonstrate to other groups that they have the political will and capacity to implement security, political, and social reforms as part of a larger reform-oriented peace process. Viable implementation can be followed by the concomitant use of military victories against remaining groups with great success. However, military victories achieved in isolation, that is, outside of a reform-process, do not reduce future levels of conflict even if they themselves are durable.

Introduction

Governments often fight multiple civil conflicts at the same time and each conflict can have multiple armed groups. This article investigates how a group termination in one warring dyad influences the future conflict behavior of other groups, incentivizing a conflict system toward greater or lesser amounts of aggregate group-level conflict. Of particular theoretical interest is how rebel groups exit a system and the subsequent implications for future interactions between the government and other rebel groups. This approach breaks with the tendency in the literature to treat group-level terminations as more or less independent processes, which is at odds with much of our qualitative knowledge of multiparty civil wars. The historiographies of armed groups show that the choices of rebel groups to initiate a fight, continue a fight, or give up a fight are often influenced by what happened with the rebel groups that came before them. In Colombia, for example, Durán, Loewenherz and Hormaza (2008, 34) write the following: “The peace process with M-19 opened doors for other peace processes in the 1990s...the PRT in January 1991; the EPL in February 1991; the Armed Movement Quintín Lame in May 1991; the Ernesto Rojas Commandos in March 1992; the CRS in April 1994; the Urban Militias of Medellín in May 1994; and the Garnica Front in June 1994...The M-19 peace process also influenced the negotiation effort with the Guerrilla Coordinating Board (FARC, ELN, and a faction of EPL).” To sum, rebel group trajectories are rarely independent outcomes (Fjelde and Nilsson 2012).

We put forth a theoretical and empirical approach that treats dyadic terminations as connected or dependent processes. In the large amount of research done on the topic of how civil wars end and what makes peace last, most studies have been conducted at either a conflict level of analysis, which combines all the groups in the same incompatibility into one civil war with a single meta-outcome, or a dyadic level of analysis, which examines group terminations separately within a multigroup setting. This means that dyadic studies have produced findings primarily about the durability of specific group-level terminations, which often occur within larger conflict systems involving other groups, but without examining their connectedness or the larger process per se. Conversely, since all of the dyads that make up one civil war must be terminated in order to say that a civil war has ended, conflict-level studies have produced findings primarily about how to prolong peace once it has already been established. This is a different question from explaining the gradual process through which peace was achieved in the first place—a typically lengthy process, which often involves a sequence of different group terminations taking place at different times. The result is that our understanding of the long-term process of how ongoing civil wars are concluded is limited, particularly, with respect to systems

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with multiple civil wars and civil wars with multiple fighting groups. In our approach a termination in one dyad influences the future conflict behavior of other groups, incentivizing a system toward greater aggregate peace or conflict. Analyzing 264 dyadic terminations since 1989, we find strong evidence that the choices of rebel groups to initiate a fight and/or continue a fight are influenced by the fate of other rebel groups that came before them. Comparing the various ways that groups can exit a conflict system, the most efficient long-term strategy for achieving a net reduction in fighting groups at the system-level is to reach and implement a comprehensive peace agreement. Implementation can be followed by the concomitant use of military victories against remaining groups with great success, however, military victories achieved in isolation are inefficient for achieving system-level conflict reduction. Our approach contributes to a growing literature on rebel group interdependencies and civil war duration, spoiler group dynamics, and the difficulties in ending multiparty conflicts (Nilsson 2010; Fjelde and Nilsson 2012; Cunningham 2011; Akinaroglu 2012; Reiter 2016).

The layout of the article is as follows: in the next section we review how prior conflict-level and dyadic-level analyses of civil war recurrence have been limited, each in their own way, in their ability to examine civil war reduction as a long-term process where group-level terminations impact future group conflict behavior. In the theory section, we propose how dyadic terminations affect subsequent dyadic terminations through mechanisms of reputational learning in which groups update their beliefs on the efficacy and justification of using organized violence against the government based on what they see happening with other groups. In the methods section, we give definitions and explain our data structure and empirical approach. In the results section, we present our findings before offering concluding remarks on the policy implications of the study.

Civil War Termination and Recurrence Designs

Many studies have examined the effects of different modes of termination on subsequent levels of peace or conflict following the termination of a civil war or warring dyads in a civil war.1 Dyadic-level and conflict-level studies of termination and recurrence often diverge in their findings. To briefly sum a rather extensive literature, most dyadic studies find that military victories are the most durable outcome, while a smaller number of conflict-level studies find this to be the case. Conversely, most conflict-level studies find that peace agreements, especially more comprehensive ones, are the most durable outcome, while few dyadic studies find this result. Clearly, the level of analysis at which civil war termination and recurrence is being studied is influencing the findings in a predictable fashion, leading to a great degree of ambiguity with respect to policy implications on the topic. These divergent findings should not be seen as competing perspectives in our view or as resulting from errors in measurement. Rather, these should be seen as problems of scope and domain conditions, that is, “where are these findings best applied?” In a multiple-conflict and/or multiple-group setting, the groups within these different configurations can be terminated in different ways and at different times, producing different termination sequences. Hence, the coding of a “case” can mean very different things depending on the design of the study.

To illustrate, consider briefly the case of the Lebanese Civil War (1975–1990), where the conflict parties spent years negotiating the Ta’if Accord, which was signed in November of 1989. The Lebanese parliament ratified the accord into law the same month, and over the next twenty-four months, all of the major provisions aimed at ensuring a more proportionate representation among the warring religious sects in the government and parliament were implemented, including the parliamentary changes and seat allocation modifications, which represented the core of the agreement. After 1990, Lebanon had no more civil wars and represents one of the longest peace spells to follow any civil war at almost three decades. However, violence did not cease immediately after the Ta’if Accord. The agreement was challenged by a spoiler group, who surrendered the next year in October 1990. Consequently, this case shows up very differently in the datasets of prominent civil war termination/recurrence studies. Fortna (2008) treats Lebanon as a successful peace agreement in 1990.2 Hartzell and Hoddie (2007) treat Lebanon as ending in a successful peace agreement in 1989.3 Doyle and Sambanis (2000) and Sambanis (2004) treat Lebanon as a failed peace agreement in 1991.4 Walter (2002), Kreutz (2010), and Toft (2010) code the Lebanese civil war as ending in a government victory in 1990—and not a failed settlement in 1989 since the violence never ceased based on their coding criteria.5 What the Lebanese case and many others show is that civil wars often do not end in one termination type at one point in time; rather, they can have multiple group-level outcomes over a period of years; some are far-reaching and enabling, while others are less consequential. Conflict-level and dyadic-level research designs are limited in their ability to handle these aspects of termination dependency.

Limitations of Conflict-level Designs

Conflict-level studies analyze samples of terminated civil war “cases,” and these can contain any number of fighting groups (i.e., dyads). All of the dyads that make up a civil war must end before a civil war case can receive an overarching termination outcome (e.g., comprehensive peace agreement; partial agreement; government victory; rebel victory; low activity, etc.). Therefore, a civil war is seen as having ended only after all of the main groups fighting are already defeated, negotiated a peace agreement, or just stopped fighting. Yet, the results gleaned from these samples of already-terminated civil wars are not merely being applied to terminated civil wars in an effort to avoid recurrence, but are routinely applied to ongoing civil wars in an effort to end those wars. Deriving policy implications from a sample of civil wars that already ended and then applying those findings to ongoing civil wars carries the implicit assumption that preserving peace once it has already been established is the same as establishing peace.

At a theoretical level, the main limitation of beginning a study after a civil war has already ended is that we do not learn about the role of past group-level terminations in the process that contributed to the ending of the civil war. This is especially important given the degree of theoretical emphasis in previous termination/recurrence studies on the possible ways that different modes of termination...
impact the decision calculus of future challengers against the government. In conflict-level studies, these arguments have begun to be tested only after all the challengers have ceased fighting. The basic argument that termination outcomes can have positive or negative externalities on the amount of future armed conflict in a country can just as appropriately be applied and tested during a civil war by focusing on group termination sequences.

**Limitations of Dyadic Designs**

The limitations just discussed in conflict-level analyses are not resolved in dyadic designs that treat dyadic termination and recurrence as being driven primarily by processes contained more or less within each dyad. In dyadic research designs of civil war termination and recurrence, the unit of analysis is the rebel-government dyad that typically enters the analysis at the point when the dyad is terminated, and the dependent variable of interest is whether war resumes in that particular dyad in the future. In dyadic designs, multiple other rebel groups often continue to fight the government after a termination with some other group takes place.

Existing dyadic studies have not examined how conflict actors in an ongoing dyadic confrontation might learn from observing other groups fighting the same government they are fighting. Although studies may use technical fixes to help deal with the lack of independence between cases, the termination of one warring dyad is treated as unrelated to all previous dyadic outcomes and all future dyadic outcomes involving other groups. The domain problem refers to the fact that, when a study finds that dyads ending in a government victory are more durable than other outcomes, this only applies to the group that was defeated (Kreutz 2010).

While military victories are indeed durable at the group level, there is no evidence that government victories over groups is associated with a reduction in the aggregate amount of group-level conflict inside a country. Military victories could be durable at the group level but counterproductive at higher levels of analysis. To sum, the problem in many systems is not with terminating groups, but doing so at a faster rate than new groups emerge. In the next three sections we put forth a theoretical approach capable of handling multiple and sequential dyadic terminations occurring in the same country that explicitly examines the positive and negative externalities of dyadic terminations on the amount of future aggregate group conflict in a country.

**A Systems Approach to Reducing Fighting Groups**

**Conflicts Systems**

Premise one of our argument is that a country in civil war can be conceptualized as a conflict system, one primarily defined by group interdependency, which behaves differently as the number of groups in the system changes. Our argument builds on previous works that likewise examine the interdependence of group behavior within a system, particularly surrounding efforts to end armed conflict. Cunningham (2011) examines how systems with more groups (veto players) makes finding agreement on new policy and implementation more difficult, which increases conflict duration. Walter (2009) examines whether a government’s willingness to offer concessions to one secessionist group is influenced by the number of other potential secessionist groups in the country as a whole. Nilsson (2008, 2010) studies how excluded groups in a system, who are not part of a dyadic peace agreement, impact the likelihood of a settlement and the success of that agreement. Mason, Gurses, Brandt, et al. (2011) examine “peace spells” at the country level and the conditions that encourage the emergence of new rebel groups able to mobilize sufficient human and material resources to mount a rebellion to the state.

In developing our own systems approach, we draw in particular on the literatures on spoiling groups in peace processes and reputational learning in international relations and in multiparty conflicts. The inherent interdependency of groups in termination processes is reflected in Stedman’s (1997) categorization of spoiler groups based on their stance toward the decision of other groups to fight or negotiate with the government. Some spoilers are irreconcilably opposed to a peace process, according to Stedman, while other groups are merely opportunistic and emerge to take advantage of the process rather than destroy it.

In a more recent and comprehensive study of spoilers, Reiter (2016) finds that peace processes can lead to group fragmentation in the short run as internal divisions within rebel groups become more consequential. This fragmentation is necessary to pull out factions that can be brought in under modified terms. Reiter finds that the archetypical spoiler group that seeks only to destroy a peace agreement is actually pretty uncommon; most groups seek to renegotiate aspects of agreements or modify or enforce implementation. Despite the prevailing negative image of spoilers, modification and enforcement spoilers can lead to a stronger peace “by altering agreements in ways that satisfy more parties or recommitting actors to an effective implementation” (106). Especially pertinent to our topic of long-term group reduction is the attention Reiter gives to nonviolent domestic groups attempting to influence the peace process. He finds that, when these latent challengers can be brought in under modified terms, these groups will discontinue their threats of violence.

Other studies on reputational learning examine how the state perceives group interdependence in their quest to diminish future group conflict. Walter (2009) has studied reputational effects arising from a government’s choice to accommodate or not accommodate self-determination movements. She finds that governments are less likely to accommodate in systems with a high potential for self-determination (SD) movements due to high levels of ethnic heterogeneity. Walter examines whether SD movements receiving accommodation were followed by any other SD movement subsequently. Cunningham (2011) examines in greater detail the effects of accommodating SD movements with concessions. She finds that the use of concessions by governments tends to lead to the further use of concessions toward future groups. While these studies do not examine civil war terminations, the logic that concession-making leads to further concession-making and the notion that governments use accommodation to divide moderates from radicals is directly applicable to the problem of reducing the number of rebel groups in a system.

The most comprehensive work on reputational learning is Crescenzi (2007, 2018), who focuses mostly on interstate dyads and conflict. Crescenzi argues that the fear of being...
exploited when trying to cooperate with an adversary leads actors to infer the trustworthiness of their opponent by observing closely how that actor treats a third-party or “proxy” actor. If one’s adversary follows through on its negotiated commitments with a proxy, the reluctant actor can predict with a much higher degree of confidence that it too will not be exploited. If, however, the adversary cheats the proxy and reneges on the terms of the agreement, it would be rational to avoid future interactions with an adversary who, at best, lacks the capacity to follow through on its commitments and, at worst, is seeking to exploit its opponents. Drawing on Jervis (1976), Leng (1983), and Levy (1994), Crescenzi describes this reputational mechanism as “experiential” in that states learn from the experiences of other states; “diagnostic” in that states use the experiences of others to update their beliefs about the intentions of others; and “vicarious” in that states learn from experiences in which they are not directly involved (see also Melin and Grigorescu 2014).

Taken together, these works have important implications for how we think about the causes of conflict accumulation in systems. In particular, peace agreements, if they are implemented, and if they are followed by continued (re)negotiations should reduce the number of fighting groups in a system. Governments can use peace processes to divide moderates from radicals, and while this may produce fragmentation in the short term, it can put the system on a long-term path toward more permanent conflict reduction. We believe that having a chance to observe an opponent interact with a proxy should be one of the most significant factors impacting how one interacts with that opponent (Axelrod and Hamilton 1981; Pollock and Dugatkin 1992). What rebel groups are learning from the fate of past groups in their interactions with the government should determine to a large extent whether a system has greater amounts of cooperation or conflict, which brings us to our second premise.

**Conflict Accumulation in Systems**

Premise two of our argument is that conflict accumulation in a system occurs when existing conflict dyads are terminated at a slower rate than new conflict dyads are entering the system—resulting in an overall net increase in active dyads over time. Though most recurrence studies focus on the “durability” of terminations, conflict accumulation often occurs despite a system’s ability to produce durable terminations. Irrespective of the durability of a group termination, there is no evidence this is associated with a reduction in the aggregate amount of group-level conflict inside a country. Terminations could be durable at the group level but counterproductive at higher levels of analysis. In Myanmar, as seen in Figure 1, the military was fighting two groups in 1989, and over the next twenty-five years, the system produced almost a dozen durable group-level terminations (i.e., the terminated group did not re-emerge). But in spite of this fact, the Myanmar government was fighting more active armed groups at the end of the period than in the beginning. 7

We posit three general conditions contributing to conflict accumulation in systems. First, we expect a backlog of unresolved disputes in countries where the government has not recently demonstrated its ability to uphold its negotiated commitments. The most important of these commitments are credible assurances of legal and personal security for combatants willing to demobilize (Snyder and Vinjamuri 2004). Second, we expect conflict accumulation in systems with more exclusive electoral institutions and narrower governing coalitions as they will be less able to reform the policy status quo, while at the same time facing larger marginalized population shares (Bueno de Mesquita, Smith, Siverson, and Morrow 2003). Third, we expect conflict accumulation in systems that are not responsive at addressing popular grievances at a rate sufficient enough to maintain manageable levels of social unrest and identity-group competition (Davies 1962). Although somewhat distinct, we treat these three conditions as part of the same syndrome that makes some systems unable to reform themselves in ways that reduce conflict.

A key reason identified in the literature for why governments are not able to reach agreements with latent and active groups is lack of credibility to follow through on...
political dealings. Both the success of prewar bargaining (i.e., agreeing not to fight in exchange for implemented reforms) and midwar bargaining (i.e., agreeing to stop fighting in exchange for implemented reforms) depend upon the government’s ability to credibly commit to implementing the terms of future settlements (Fearon 1995; Powell 2006). How does a government convince armed groups willing to demobilize, and latent groups willing to forego the conflict-track, that you will implement the terms of whatever agreement is reached? The go-to solution in the civil war literature to date has been strong third-party guarantees. Third-party assurances, however, are likely to be insufficient to guarantee implementation compliance. Third-party enforcement tends to be short-term, while implementing reforms can take many years. Also, governments are not a unitary actor but large and divided conglomerates, and few provisions in CPAs fall under the mandate of the executive branch. Moreover, the administration needs to show that the reforms will be carried out even after they personally leave office. It is simply not enough, we argue, for the government charged with implementing the terms of a political settlement to signal its commitment by binding itself to third-party oversight. Instead, the government must demonstrate that it has the ability to carry out negotiated reforms in the face of external and internal resistance.

The inability of some systems to reform themselves in ways that will reduce their susceptibility to armed conflict is rooted in deep principle-agent problems. Most of the day-to-day implementing work—adhering to and enforcing of reforms to the policy status quo—will be done by the agents working within those policy jurisdictions who typically prefer the policy status quo and are likely to strongly oppose reform efforts. This is especially likely to be the case in civil war countries, given that civil wars mostly occur within “small coalition systems” where the administration represents a small segment of the population and maintains its loyalty by providing large amounts of private excludable goods only to its members. The per-capita benefits of membership in a small winning coalition can only decrease by implementing reforms aimed at expanding the electorate. Reforming the policy status quo in small coalition systems is made even more difficult by the fact that coalition members usually have very strong family ties to the government, military, and bureaucracies (Bueno de Mesquita et al. 2003, 360–81). From the rebel’s point of view, it would be foolish to give up their guns, bargaining power, and defensive capabilities, without knowing that the government has the capacity and political will to implement reforms. The most clear-cut way that rebel groups can learn about the capacity and intentions of the government is to observe previous government-rebel group interactions. In the next section, we discuss different strategies taken by governments to deal with rebel groups. These strategies reveal different types of information about the government’s ability to implement security guarantees and political and social reforms.

**Conflict Reduction in Systems**

Premise three of our argument is that the manner in which groups are “exitng” the conflict system provides opportunities for active and latent groups to learn vicariously through the experiences of other groups in ways that should influence their future conflict propensity. Close to a necessary condition for vicarious learning to take place is the observability of the government’s efforts to reform itself. Compared to other outcomes, comprehensive peace agreements provide the greatest amount of evidence of the government’s ability to deliver on promised reforms. Comprehensive peace agreements (CPAs) contain a number of different types of provisions aimed at monitoring and verifying its own implementation compliance: 76 percent of all CPAs contain formal verification mechanisms designed to monitor and report on implementation progress (these are often chaired and operated by international guarantors); 60 percent of CPAs call for international donor support; 30 percent call for reviews of implementation by outside auditors; another 35 percent contain peacekeeping operations that provide an additional layer of monitoring and security (Joshi, Quinn, and Regan 2015). Higher levels of implementation for monitoring and verification provisions ensure accountability, transparency, and the observability of compliance.

As emphasized in numerous prior studies, conflict reduction is unlikely without credible assurances of personal security for combatants willing to demobilize or dissidents willing to refrain from militarizing. CPAs contain a large proportion of content devoted to protecting demobilizing combatants and securing a legal path to return to civilian life: demobilization (74 percent of CPAs); disarmament (82 percent); reintegration (80 percent); police reform (71 percent); military reform (76 percent); ceasefire regulations (85 percent); and regulation of paramilitary groups (47 percent). CPAs also contain an array of justice reforms such as amnesty (59 percent); prisoners’ release (55 percent); judiciary reform (47 percent); truth commissions (35 percent); and victim reparations (24 percent), which enhances both short- and long-term peace (Druckman and Wagner 2019). Higher levels of implementation for security and transitional justice reforms provide concrete evidence that the government has the will and the muscle to overcome obstacles to implementation from within.

Systemic conflict reduction should also require broadening the governing coalition and reducing electoral exclusion, since civil wars mostly occur in small coalition systems. In the absence of electoral reforms, the narrowness of the electoral system and opposition exclusion will continue to generate group grievances that fuel rebel recruitment and recurrence (Marshall and Ishiyama 2016). At the same time, the high loyalty norm in small governing coalitions will inhibit the regime’s ability to negotiate solutions to avoid civil war—both prewar and midwar (Bueno de Mesquita et al. 2003; Cederman, Wimmer, and Min 2010, 372). If the size of the politically relevant population can be increased, however, there will exist the chance for alternative winning coalitions to form (Bueno de Mesquita et al. 2003). Of the different ways that civil wars can end, only peace agreements have been shown to result in electoral and coalition expansion (Joshi and Mason 2011). Keels (2018) cites the effectiveness of implementing reforms to the electoral/political system in CPAs, while Gurses and Mason (2008) and Joshi (2010) find higher levels of democratization following peace agreements. These findings are not surprising given the large share of content in CPAs devoted directly to this task. Seventy-six percent of all CPAs contain reforms to the electoral system that affect participation in the voting process and the ability of political parties to participate in elections. Sixty percent of CPAs seek to decentralize power and decision-making away from a centralized authority and toward regional, state, or local municipalities. Half of all CPAs establish transitional power-sharing arrangements where members of the opposition or the out-of-government party are guaranteed high-ranking positions. More than half of all CPAs reform the constitution; 35 percent of CPAs contain executive branch reforms;
the number of active fighting groups in a system.

Lastly, comparing the ways that civil wars can end, CPAs contain an array of provisions aimed at grievance reduction, and studies find peace agreements associated with future improvements along a range of quality-of-life indicators. Andersen-Rodgers (2015) examines the repatriation of displaced persons and CPA implementation and concludes that “the least successful accords are those that only saw minimal implementation” (39). On issues of public health, countries that ended their civil war with a CPA saw infant mortality decline by forty deaths per one hundred thousand, compared to fifteen deaths per one hundred thousand for rebel victories, and no decline following government victories. Child mortality (less than five years old) declined by seventy deaths per one hundred thousand for CPAs compared to a decline of seventeen for rebel victories and an increase of five deaths per one hundred thousand following government victories (Joshi 2015). With regards to post-conflict reconstruction, government victories are followed by lower levels of national gross domestic product (GDP) growth (Kang and Meernik 2005). Joshi and Quinn (2018) find that higher CPA implementation leads to significantly more foreign direct investment compared to other terminations. These examples show how implementation of various specific provisions is likely to have broader effects on grievances in society. From the expectation that CPA implementation is a key factor in reducing systemic conflict, we posit our first hypothesis:

**H1:** Higher rates of comprehensive peace accord implementation reduces the number of active fighting groups in a system.

We should note that we do not naively expect that observing CPA implementation will pacify all current or latent challengers. Some challengers will choose not to join the peace process even after observing progress across these dimensions. Nor do we think that less-than-comprehensive agreements will be ineffective. Rather, we expect that signing a noncomprehensive agreement provides some information to observers on the government’s commitment to the peace process, but less information than a multi-year implementation process. Thus noncomprehensive peace agreements should have some pacifying effect in a system since they convey a willingness to find alternatives to a purely military solution. Moreover, most noncomprehensive accords are signed in a negotiation process that is aimed at reaching a comprehensive agreement—and thus can rightly be seen as a stepping-stone to that end. Overall, we expect the signing of a noncomprehensive peace agreement to lead to a smaller reduction in the number of future fighting groups in a country than signing a CPA, as noncomprehensive agreements are limited in their scope and entail less coalition-building and grievance reduction than CPAs. This argument leads us to our second hypothesis:

**H2:** The signing of a noncomprehensive peace accord reduces the number of active fighting groups in a system.

Concerning the effects of government military victories over groups, we agree with previous studies that government victories are quite durable at the group level. Early recurrence studies focus on how terminations altered the future fighting ability of rebel forces (Licklider 1995). Wagner (2000) argues that negotiated settlements allowed rebel forces to retain the capacity to resume fighting should they later become dissatisfied, while victory destroys the losing party’s organization. However, a conflict actor that expects to lose a war will stop fighting before total defeat, retaining some organizational strength and bargaining power. In other words, no group fights to the last soldier and victories lead to peace not because the weaker side was eliminated but because the weaker side decided that continuing the fight was no longer worthwhile. If the underlying causes that generated the rebellion remain intact, it is likely that the same root conditions will generate subsequent rebellions if the balance of power shifts.

Where our argument differs is that we expect government military victories to be counterproductive to aggregate conflict reduction at the system level for a number of reasons. First, when the government militarily defeats a challenger, this dyadic termination conveys to other groups that the government is uninterested in coalition expansion and uninterested in addressing underlying issues motivating armed challengers. For latent challengers who have yet to militarize and emerge as active groups, witnessing a military victory over another group could be perceived as a reason to militarize as the government demonstrates the unlikelihood of negotiating any kind of ex ante deal to avoid future conflicts. Witnessing another group be defeated may also lead them to increase their military capabilities as they may expect to be next in line. Second, we believe that government victories lead to further rebel group fragmentation, as combatants of a group on the verge of defeat simply migrate to other groups or go underground to emerge some time later as new groups. Further, the suffering that typically is imposed on local populations in order for governments to achieve decisive military victories will lead to further resentment, radicalization, and recruitment of new combatants to active or emerging groups. Because so many of the processes associated with military victories are likely to promote the production of new groups, we do not expect systemic-level conflict reduction to follow government victories. Our third hypothesis reflects this expectation:

**H3:** Military victories will be ineffective in reducing the number of active fighting dyads in a system.

We expect military victories to have very different effects, however, depending on whether they are achieved in isolation or in the midst of a larger CPA implementation process. As a large spoiler literature has detailed, peace processes can also lead to group fragmentation (Stedman 1997; Reiter 2016) over policy preferences, leadership disputes, and disputes over strategy (Cunningham 2006). This process of fragmentation, however, is beneficial, we believe, for overcoming the veto problem as described by Cunningham (2006). As Reiter (2016) points out, most so called spoiler groups who wish to modify an agreement are not as hardcore as outside groups who wish to destroy the peace process. While fragmentation might make negotiation more difficult, if a viable peace process can be started, the resulting breakups and realignments can lead to opportunities for long-term conflict reduction. This is mainly because new groups or fractions can now form new umbrella groups and put forth a more unified and stronger agenda. Hence, viable implementation processes can create long-term platforms

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8 Refugee repatriation (65 percent of CPAs); internally displaced persons (71 percent of CPAs); economic and social development (68 percent of CPAs); human rights (62 percent of CPAs); education reform (44 percent); media reform (41 percent); natural resource management (29 percent); official language (26 percent); citizenship reform (26 percent of CPAs); women's rights (21 percent); minority rights (15 percent); and indigenous rights (15 percent) (see Joshi et al. 2015).
for expanding the scope of negotiations. Over time the process just described should increase the bargaining power of moderate groups and shrink the influence of hardliner groups who become weaker and increasingly isolated.

It follows that government military victories should be more efficient at reducing future conflict—if they happen concurrent to a viable CPA implementation process. Unlike military victories achieved in isolation, military victories after a CPA are against groups that have chosen to remain on the outside. Where the CPA implementation process is progressing, outside hardliner groups are likely to see their mobilization base shrink while support to moderate groups increases. At the same time, the capabilities of the new, broader government coalition engaged in implementing the accord are greatly improved (not the least in terms of intelligence capabilities regarding remaining factions in the field). Under this scenario, costs imposed on local populations by the government in their military campaign against remaining hardliner groups are more likely to lead to resentment against the rebel group instead of the government and thus are less likely to lead to further radicalization and recruitment. In statistical terms, our argument implies that there should be statistical interaction between the rate of accord implementation and government victories. Following this logic, we propose our fourth hypothesis:

H4: A government victory following higher levels of comprehensive peace accord implementation reduces the number of active dyads in a system.

Lastly, we are mostly agnostic on rebel victories from the perspective of other armed groups at a system level. Rebel victories can be seen as the mirror image of the former incompatibility as the former governing coalition becomes opposition; hence, rebel victories should more or less preserve the amount of conflict or conflict potential in the system. Having just succeeded in their own struggle to overpower the former government and its coalition, and lacking a history of coalition-building or accommodation while in power, we suspect that rebel regimes are unlikely to accommodate challengers with preemptive deals to avoid war. We think that other armed groups are also likely to conceive of a victorious rebel group as a reputational reset. That is, the reputation-building amassed by the previous regime is nullified and the process begins anew as the victorious rebels start building their own reputation in their new more powerful role in government. In addition, latent groups may be encouraged to take up arms after witnessing the success of another group. Consequently, rebel victories should be unlikely to result in any net reduction of the number of violent challengers in a conflict system. Our final hypothesis thus reads:

H5: Rebel victories should be ineffective in reducing the number of active fighting dyads in a system.

To summarize, reform-oriented agreements that address security issues as well as political and social grievances, which are implemented at higher levels, leads to a higher quality of peace. Conflict accumulation occurs in systems unable to end group-level conflicts at a faster rate than new ones arise. Government military victories, which tend to preserve the policy status quo, are the least effective at conflict reduction; CPAs the most effective; with rebel victories falling somewhere in between. We now turn to our empirical strategy to assess these arguments.

**Research Design**

Our dependent variable is the total number of active rebel groups engaged in intrastate armed conflict each year taken from the dyadic-level data published by the Uppsala Conflict Data Program (UCDP) (Melander, Pettersson, and Themmen 2016). This measure has several advantages over binary measures of recurrence or duration measures of the amount of time that passes before the binary measure of failure is triggered, as customarily used in most civil war recurrence studies. First, binary measures require the selection of an arbitrary threshold of violence where everything above the line is failure and everything below is success. Such a measure hides the many gradients of success and failure while a continuous measure like the number of groups does not. Second, binary measures, depending on one’s chosen threshold, must be “triggered” at a precise moment in time (i.e., year two, year three, year five) where everything past the line is failure and everything before the line is success. Such a measure hides the many gradients of success and failure over time, while a continuous measure like the number of active groups does not. Third, as we discussed in the second section of the article, binary measures of failure are associated with a number of level-of-analysis problems.

To test the effects of dyadic-level terminations in general, and the implementation of CPAs in particular, on systemic levels of future dyadic activity, we constructed a time-series cross-sectional dataset (TSCS), organized by country-year, based on three streams of data: group terminations, the number of active groups in a country, and the annual implementation of comprehensive civil war peace agreements. Panel ordinary least square econometrics for time-series cross-sectional panel data are used in which time and unit dependence are addressed by lagging variables by one year and using fixed effects models. As for sample structure, the analysis for each country begins with the first termination experienced after January 1, 1989, resulting in a sample comprised entirely of “post-termination” country-years. Hence, a panel is a post-termination country in which subsequent terminations may occur. Terminations, as they occur, are used as independent variables.

This structure concords with our theory that every post-termination period represents a cycle of group-learning and the updating of beliefs. We expect the most recent termination event to convey the most timely and relevant information to existing and latent groups, and this purview should last until a new learning opportunity (i.e., termination event) takes place. Each country-panel enters the analysis with a new episode of group-learning having just started and remains in the analysis until the last year of observation (2013). The most recent termination type is carried forward until it is replaced by a new termination. In the first year of observation (1989), eleven countries enter the sample with a termination; by the end of the study, there are seventy-three country-panels in the sample. We include a control for years since the last termination; this control resets with each termination. This research design is less vulnerable to endogeneity problems as we are examining the effects of termination on groups other than those that were terminated. If a termination has downstream effects on other groups, the effects can hardly be attributed to endogeneity.

Our main independent variables are taken from the Peace Accords Matrix Implementation Dataset (Joshi et al. 2015) and an updated version of the UCDP Conflict
Termination Dataset (Kreutz 2010). The Peace Accords Matrix Implementation Dataset provides annualized implementation data on a population of thirty-four comprehensive peace agreements (CPAs) negotiated between 1989 and 2012. Implementation is tracked for fifty-one different categories of provisions on an annual basis in these CPAs for a period of ten years. Implementation is coded in the following way: First, each CPA is coded according to the number and type of provisions contained in the accord. Second, for each provision contained in each CPA, annual historical narratives are written covering the major implementation events taking place each year, for ten years. This results in several thousand yearly narratives. Third, using an ordinal coding scheme, these provision-specific annual narratives are coded according to whether the amount of overall implementation achieved by the end of each year would be best described as (1) minimal (initiated but not on track for full implementation at the current pace), (2) intermediate (likely to reach full implementation if continued at the current pace), or (3) fully implemented. The scores for each provision are then aggregated to form an annual implementation score. Annual CPA implementation rate is used as the main independent variable in our analysis. Descriptive statistics are presented in Table 1.

All other termination outcomes come from an updated version of Kreutz’s (2010) termination data, which provides information on conflict termination at the dyadic level for six possible outcomes: peace agreement, ceasefire agreement with regulations, ceasefire agreement, government victory, rebel victory, and low activity. Our final dataset contains 264 terminations in seventy-two countries and a total of 1,404 country-year observations. The country-panels represent conflict systems that are followed over time; hence, the country-year is our unit of analysis. Next, we create our dichotomous termination outcome variables. The variable non-CPA captures all peace agreements that are less than comprehensive. If a dyad terminated with a rebel victory in a given year, that country-panel is assigned a value 1 for that variable in that year and 0 otherwise. If a dyad terminated with a government victory in a given year, that country-panel is assigned a value 1 for that variable in that year and 0 otherwise. If a dyad fails to meet the twenty-five annual battle-death threshold in a given year, that country-panel is assigned a value 1 for the variable low activity in that year and 0 otherwise. If a dyad fails to meet the twenty-five annual battle-death threshold in a given year, that country-panel is assigned a value 1 for the variable low activity in that year and 0 otherwise. Low activity termination is used as our reference category. To capture government victories during a CPA implementation process, we construct the interaction term CPA implementation rate x government victory. In any given year in which there are implementation values from an ongoing CPA process, and a subsequent military victory, the implementation rate is multiplied by 1. We also interact CPA implementation rate with non-CPA and rebel victory for comparison.

We control for many factors that could potentially contribute to the reduction of the number of active dyads at the systemic level such as the deployment of peacekeeping troops, democratic governance, economic growth, and whether the last termination was a governmental or territorial conflict. Following many studies that find international peacekeeping significantly lowers civil war recurrence and violence against civilians and shortens war duration inside conflict episodes (Doyle and Sambanis 2006; Fortna 2004; Hultman, Kathman, and Shannon 2016; Kathman and Benson 2019), we control for peacekeeping with the variable UN deployment, which reflects the number of military troops, police, and observers deployed in the country each

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Table 1. Descriptive statistics

| Variable                                      | Obs. | Mean   | Std. dev. | Min  | Max  |
|-----------------------------------------------|------|--------|-----------|------|------|
| Number of active dyads                        | 1404 | 0.672  | 1.216     | 0.000| 9.000|
| Number of active dyads_{t-1}                  | 1331 | 0.685  | 1.227     | 0.000| 9.000|
| CPA implementation rate_{t-1}                 | 1378 | 21.059 | 33.898    | 0.000| 95.830|
| Non-CPA_{t-1}                                 | 1404 | 0.298  | 0.406     | 0.000| 1.000|
| Rebel victory_{t-1}                           | 1404 | 0.090  | 0.287     | 0.000| 1.000|
| Govt. victory_{t-1}                           | 1404 | 0.144  | 0.351     | 0.000| 1.000|
| First year                                    | 1404 | 0.182  | 0.386     | 0.000| 1.000|
| Second year                                   | 1404 | 0.136  | 0.343     | 0.000| 1.000|
| Third year                                    | 1404 | 0.100  | 0.301     | 0.000| 1.000|
| Fourth year                                   | 1404 | 0.084  | 0.278     | 0.000| 1.000|
| Fifth year                                    | 1404 | 0.067  | 0.250     | 0.000| 1.000|
| Years since last termination                   | 1404 | 6.324  | 5.452     | 1.000| 24.000|
| Government conflict                           | 1404 | 0.605  | 0.490     | 0.000| 1.000|
| Log total population_{t-1}                    | 1352 | 16.416 | 1.487     | 12.881| 21.019|
| Log GDP per capita (2005)_{t-1}                | 1260 | 7.110  | 1.307     | 3.913 | 10.605|
| Executive constraint_{t-1}                    | 1404 | 0.527  | 0.499     | 0.000 | 1.000|
| UN deployment x 1000_{t-1}                    | 1331 | 0.717  | 2.902     | 0.000 | 32.572|
| Log infant mortality rate_{t-1}               | 1352 | 3.723  | 0.857     | 1.253 | 5.100|
| Polity2_{t-1}                                 | 1302 | 2.544  | 5.897     | –9.000| 10.000|
| Cumulative deaths (best est.)_{t-1}           | 1404 | 4506   | 9179      | 0.000 | 87004|
| CPA rate x non-CPA_{t-1}                      | 1378 | 1.530  | 9.707     | 0.000 | 77.140|
| CPA rate x government victory_{t-1}           | 1378 | 2.376  | 12.444    | 0.000 | 83.330|
| CPA rate x rebel victory_{t-1}                | 1378 | 1.038  | 9.485     | 0.000 | 95.830|
| External military support_{t-1}               | 1404 | 0.042  | 0.202     | 0.000 | 1.000|

Note: CPA rate = CPA implementation rate.

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10 We also created the variable CPA, a binary variable marking the year in which a country signs a comprehensive peace agreement. This variable was negative and statistically significant, and the effect was roughly half that of a highly implemented CPA.

11 After the ten-year mark, we carry forward the score from the last recorded observation.
Table 2. Dyadic terminations and the number of fighting groups in a country

| (1)        | (2)        | (3)        | (4)        | (5)        |
|------------|------------|------------|------------|------------|
| CPA impl.  | −0.007***  | −0.007***  | −0.006***  | −0.007***  | −0.008***  |
| t–1        | (0.001)    | (0.001)    | (0.001)    | (0.001)    | (0.001)    |
| Non-CPA    | −0.246***  | −0.203**   | −0.235***  | −0.349***  | −0.397***  |
| t–1        | (0.066)    | (0.069)    | (0.067)    | (0.068)    | (0.075)    |
| Rebel vict. | −0.223     | 0.057      | −0.240     | −0.234     | −0.124     |
| t–1        | (0.121)    | (0.148)    | (0.122)    | (0.124)    | (0.139)    |
| Govt. vict. | 0.165      | 0.069      | 0.164      | 0.137      | −0.154     |
| t–1        | (0.093)    | (0.097)    | (0.095)    | (0.093)    | (0.102)    |
| Government  | 0.109      | −0.063     | 0.035      | −0.113     | −0.311**   |
| conflict t–1| (0.086)    | (0.088)    | (0.089)    | (0.090)    | (0.099)    |
| UN deploy.  | 0.015      | 0.015      | 0.017*     | 0.014      | −0.003     |
| (1000s) t–1| (0.008)    | (0.008)    | (0.008)    | (0.008)    | (0.009)    |
| First year  | 0.922***   | 0.891***   | 0.904***   | 0.850***   | 0.922***   |
| t–1        | (0.065)    | (0.067)    | (0.068)    | (0.068)    | (0.065)    |
| Second year | −0.141*    | −0.135*    | −0.160**   | −0.168**   | −0.141*    |
| t–1        | (0.057)    | (0.060)    | (0.062)    | (0.062)    | (0.057)    |
| Third year  | −0.038     | −0.070     | −0.055     | −0.070     | −0.038     |
| t–1        | (0.061)    | (0.065)    | (0.065)    | (0.065)    | (0.061)    |
| Fourth year | −0.062     | −0.055     | −0.074     | −0.071     | −0.062     |
| t–1        | (0.063)    | (0.065)    | (0.066)    | (0.066)    | (0.063)    |
| Fifth year  | −0.062     | −0.045     | −0.069     | −0.064     | −0.062     |
| t–1        | (0.068)    | (0.069)    | (0.071)    | (0.071)    | (0.068)    |
| Log total  | 0.079      | −0.367     | −0.432*    | −0.103     | −0.075     |
| population t–1| (0.191) | (0.193)    | (0.204)    | (0.234)    | (0.093)    |
| Log GDP per | −0.071     | −0.062     | −0.071     | −0.062     | −0.071     |
| capita t–1 | (0.063)    | (0.065)    | (0.065)    | (0.065)    | (0.063)    |
| Executive  | −0.099     | −0.103     | −0.379**   | −0.099     | −0.103     |
| constraint t–1| (0.107)    | (0.108)    | (0.131)    | (0.107)    | (0.108)    |
| Log infant  | 0.000      | −0.001     | −0.007     | 0.000      | −0.007     |
| mortality   | (0.007)    | (0.007)    | (0.007)    | (0.007)    | (0.007)    |
| rate t–1    | −0.000***  | −0.000***  | −0.000***  | −0.000***  | −0.000***  |
| Cumulative  | −0.099     | 7.099*     | 8.295*     | 4.449      | 4.499      |
| deaths (best est.) t–1| (3.408) | (3.599)    | (3.599)    | (4.068)    | (3.408)    |
| Years since  | 0.639***   | −0.038     | 7.099*     | 8.295*     | 4.449      |
| last termin. | (0.074)    | (2.887)    | (3.408)    | (3.599)    | (4.068)    |
| Constant    | 1907       | 1180       | 1264       | 1213       | 1213       |
| Observations| 72         | 67         | 70         | 70         | 70         |
| F-Stat      | 36.88      | 27.08      | 28.66      | 27.64      | 9.57       |
| Probability > F | 0.000 | 0.000      | 0.000      | 0.000      | 0.000      |
| Mean VIF    | 1.27       | 1.36       | 1.37       | 1.41       | 1.39       |

Note: (1) Fixed effects estimation. (2) Standard errors in parenthesis. (3) Statistical significance levels: * p < 0.05, ** p < 0.01, *** p < 0.001.
As implementation progresses, the number of active armed groups operating in a country decreases. In Model 1, signing a non-CPA significantly reduces the number of active armed groups operating in a country \((p < 0.001)\) (Hypothesis 2). Comparing the estimated coefficients, the full range of effect for signing a non-CPA is roughly one–third of the full range of effect for CPA implementation. As for the other termination outcomes, military victory does not reduce the future number of active armed groups operating in a country (Hypothesis 3). The result suggests that military victories, although durable at the group level, are ineffective at reducing the number of fighting groups in a country in the long run. These findings are also consistent throughout all the models in Table 2 and Table 3.

Based on the results obtained in Model 4, we calculate the marginal effects of implementing a CPA, estimating the predicted number of fighting groups for various levels of CPA implementation. As seen in Figure 2, as CPA implementation progresses, the predicted number of groups significantly declines.

We also argue that a government victory can be achieved in conjunction with a viable CPA implementation process to reduce the number of violent challengers in a system. The findings across the models, the results show strong support for our expectation that negotiating and implementing a comprehensive peace agreement is an effective systemic-level conflict reduction strategy (Hypothesis 1).

Across the models, the results show strong support for our expectation that negotiating and implementing a comprehensive peace agreement is an effective systemic-level conflict reduction strategy (Hypothesis 1). All results reported below are robust regardless of which termination is used as the excluded reference category. In Model 1, the estimated coefficient for annual CPA implementation is negative and statistically significant \((p < 0.001)\), indicating that as implementation progresses, the number of active armed groups operating in a country decreases. In Model 1, signing a non-CPA significantly reduces the number of active armed groups operating in a country \((p < 0.001)\) (Hypothesis 2). Comparing the estimated coefficients, the full range of effect for signing a non-CPA is roughly one–third of the full range of effect for CPA implementation. As for the other termination outcomes, military victory does not reduce the future number of active armed groups operating in a country (Hypothesis 3). The result suggests that military victories, although durable at the group level, are ineffective at reducing the number of fighting groups in a country in the long run. These findings are also consistent throughout all the models in Table 2 and Table 3.

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Table 4. Predicted number of fighting groups given the interaction of Comprehensive Peace Accord Implementation Rate and government victory

| Comprehensive Peace Accord Implementation Rate | No government victory | Government victory |
|-----------------------------------------------|-----------------------|--------------------|
| 10                                           | 0.71                  | 0.67               |
| 20                                           | 0.63                  | 0.45               |
| 30                                           | 0.56                  | 0.24               |
| 40                                           | 0.49                  | 0.02               |

results suggest that, when hardline groups choose to remain on the outside of a peace process, a government operating under a CPA will be more effective in going after these hardline groups (Hypothesis 4). As seen in Model 7, the interaction term for CPA implementation and government military victory is negative and statistically significant \((p < 0.001)\), while government victory by itself, is nonsignificant. We find no significant results for the other interacted terminations.

Table 4 illustrates the substantive strength of this interaction and shows the predicted number of active groups in the system for different combinations of CPA implementation and the presence or absence of a government victory. Looking at the leftmost column, which corresponds to an implementation rate of 10 percent, there is a very small difference in the number of groups given a government victory and no government victory (0.71 versus 0.67). In contrast, moving to the rightmost column, corresponding to an implementation rate of 40, we see a very large effect. The predicted number of active groups is 0.49 in the absence of a government victory and 0.02 in the presence of a government victory. In other words, the model predicts that, in a typical conflict system, if a government victory follows a comprehensive peace accord for which implementation is well underway, there will be essentially zero groups left fighting.

Lastly, several control variables returned noteworthy results. Across the models, the first year of termination is positive and significant. This implies, as we have suggested, that eliminating civil war violence in a country takes time and the presence of some residual violence should not be equated with peace failure. In the second year, we witness a significant decline in the number of groups. Years since termination is negative and significant in Model 5, suggesting a general trend of declining active groups following a termination. Government conflict is significant and negative, indicating that terminated conflicts in which the issue is control of the central government rather than secession tend to be followed by less conflict. The negative and significant sign on cumulative deaths supports a general country-level war weariness effect. The coefficients for institutionalized democracy, executive restraint, and GDP per capita did not reach statistical significance in any model. Population size reaches marginal significance (negative coefficient) in Models 3 and 4; infant mortality is negative and significant in Models 5–8; UN troop deployment is marginally significant in Model 3. There has been a lot of work on the impact of UN involvement in peace processes. A plausible explanation for the nonsignificance of UN deployment is that most all of these missions were part of a CPA implementation processes. Their mandate as such was to provide stability and monitoring in support of CPA implementation and not the elimination of armed groups, which was the purpose of the agreement being enforced. Hence, in our interpretation, CPA implementation is key, and UN peacekeeping plays a supportive role in this context. In Model 9, we see that, when one of the warring parties receives external military support, this is significantly and positively associated with a greater number of groups at the system level. This confirms existing studies on civil war duration that show that outside support to one or both sides makes conflicts harder to end and also serves as a control for the influence of the number of veto players on the amount of future conflict (Cunningham 2011). In Model 10, the lagged version of the dependent variable is positive and significant as we expected, and our results strongly hold. Including the lagged term means that the lagged term accounts for most of the variation in the dependent variable and the regression then captures the effect of the other independent variables on the difference between the current value of the dependent variable and the lagged value of the dependent variable (i.e., the change).
Conclusion

The overall results support our argument concerning the effects of various types of group-level terminations on subsequent levels of dyadic conflict in a country. We argue that a critically important dynamic in long-term conflict reduction is relational-learning by rebel groups, particularly with respect to other rebel groups in the same system. If rebel groups learn about their opponent from the fate of other groups, then every termination marks a new cycle of group-learning, the updating of beliefs, and establishment of a new perceptual baseline. To gauge these dynamics, we treat countries as conflict systems, and the findings suggest that the most effective strategy for governments to reduce systemic conflict is to demonstrate to other groups that they are willing to reform and have the capacity to implement security, political, and social reforms as part of a peace process. We also find systemic conflict reduction associated with a sequence of two outcomes: higher levels of CPA implementation, followed with the concomitant use of military victories against remaining groups. Crucially, according to the findings presented here, strategies centered on the stepwise military defeat of groups in succession is less likely to lead to systemic peace. No matter how many groups are defeated in a conflict-perpetuating system, one should expect more groups, resulting in a queue of challengers awaiting attention. The results also suggest that some groups, no matter what, may refuse to join a peace process, but these groups can be defeated militarily without counterproductive ramifications, if the government is simultaneously engaged in a viable implementation process. We attribute this finding to the ability of viable CPA implementation processes to draw in moderate groups, successfully isolating hardline groups who can then be decisively defeated. Historically, some of the most difficult cases of civil war have ended almost precisely in the sequence just described. In Cambodia 1991, Lebanon 1989, Angola 1994, Burundi 2000, Tajikistan 1997, and other cases, post-CPA governments continued to implement the accord while going after remaining groups that were later defeated.

Two broad implications for policy and research flow from the results. First, the results are not generally supportive of the conventional wisdom that accommodating armed movements will inspire greater amounts of future conflict. A recent study by Forsberg (2013) of 647 ethnic groups from 1989 to 2004 also found no evidence that granting concessions to one group has any affect on the inclination of other groups to pursue separatism. The fact that her study also begins in 1989 raises interesting issues concerning generalizability and the effects of different conflict reduction strategies over time as the amount of conflict potential in a system changes over time. Stated differently, in a system where most of the groups that could emerge already have emerged, conflict reduction must come from ending ongoing conflicts rather than deterring latent groups from militarizing. Moving backward in the history of any system, the ratio of latent to manifested group mobilization will tend to increase and groups may behave differently to events than in later periods. Second, the overall results built on recent efforts to operationalize a continuous “positive” or “quality” peace, that is, much more than just “not war.” These results demonstrate the utility of taking a systems approach to positive peace where peace is an aggregate generated by conflict reduction mechanisms in a system (Goertz, Diehl, and Balas 2016; Davenport, Melander, and Regan 2018, 3; Wallensteen 2015). Our findings also suggest that the quality of peace between one rebel group and a government influences the decision of groups in the future to fight or continue a fight, leading to conflict accumulation or reduction.

Lastly, we note that taking a system-level view of aggregate conflict reduction in a polity is not without limitations. Some of what we gain by not confining the empirical landscape to one level of analysis at the exclusion of others, and abstracting away from binary measures of conflict recurrence, entails a loss of detail regarding the groups. Rebel-group heterogeneity could not be aggregated to a systemic level of analysis with our dependent variable that counts the number of fighting groups in a country. Examining the question of whether vicarious learning may be amplified when groups share characteristics requires a different research design. In the end, we think that the choice of a group to pursue political reforms through group militarization or through nonviolent mobilization should heavily depend on whether the government is capable of implementing reforms. We argue that differences between groups should not fundamentally alter this calculus. All groups can learn from the experiences of other rebel groups even if those experiences are not deemed equally relevant. Our argument acknowledges that some groups will continue to fight despite observing a peace process; thus, observing a process does not influence the decision calculus of all groups in the same way. Future research should explore potentially relevant group traits in this regard.

Supplementary Information

Supplementary information is available at the International Studies Quarterly data archive.

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