

# Predicting the Decline of Ethnic Civil War: Was Gurr Right and For the Right Reasons?

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## Abstract

Many scholars have detected a decrease of political violence, but the causes of this decline remain unclear. As a contribution to this debate, we revisit the controversy over trends in conflict after the end of the Cold War. While many made ominous predictions of surging ethnic warfare, Gurr presented evidence of a pacifying trend since the mid-1990s and predicted a further decline in ethnic conflict in an article on ‘the waning of ethnic war.’ Leveraging more recent data on ethnic groups and their participation in ethnic civil wars, this study evaluates if Gurr was right about the decline of ethnic conflict, and if he was right for the right reasons. We assess whether an increase in governments’ accommodative policies toward ethnic groups can plausibly account for a decline in ethnic civil war. Our findings lend considerable support to an account of the pacifying trend that stresses the granting of group rights, regional autonomy and inclusion in power sharing, as well as democratization and peacekeeping.

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Although current violent conflicts such as Ukraine, Syria, Iraq, South Sudan, and Yemen dominate headlines, conflict researchers argue that armed conflict has declined in recent years. Pinker and Mack (2014) note that the media by definition is biased and will give more attention to violent events than peace or ‘things that don’t happen,’ and emphasize that ‘[t]he only sound way to appraise the state of the world is to count.’ In a magisterial survey, Pinker (2011) argues that the current trend is part of a pacification process” with long historical roots, while Goldstein (2011) attributes the more recent global decline in armed conflict to the influence of peacekeeping and other more indirect interventions by international organizations. Although some have questioned the finding itself — either through challenging parts of the decline-of-violence thesis or arguing that a decline of some types of violence hides an increase in other types of violence (e.g., Braumoeller, 2013; Harrison & Wolf, 2012; Fazal, 2014; Gray, 2015; Kaldor, 2013; Thayer, 2013; Levy & Thompson, 2013) — the empirical claim has generally held up well and started to acquire the status of an established fact (e.g., Gat, 2013; Gleditsch & Pickering, 2014; Pinker, 2015; Vayrynen, 2013).

What is less clear is what particular mechanisms are driving the decline. Sweeping claims about macro trends leading to a general decline of political violence have been more prominent than efforts to trace specific causal mechanisms. We focus on ethnic civil wars as a particularly important subclass of political violence. They remain an important international security concern, as many international crises have at least in part emerged out of ethnic civil wars, as illustrated by World War I, and more recent fears of international escalation over the conflict in Eastern Ukraine.

This study revisits the debate on ethnic conflict immediately after the Cold War. Several scholars argued that the events in the former Yugoslavia augured a ‘coming anarchy’ that would engulf the world (Kaplan, 1994; Walzer, 1992). Responding to these ‘doomsday’ scenarios, Gurr (2000a) observed that the frequency of ethnic conflict had actually declined considerably since the mid-1990s and predicted that this trend was likely to continue. He postulated that a new regime of accommodation and compromise would help prevent new conflicts and end ongoing ones. With the benefit of more than a decade of new data on ethnic civil wars and accommodation, we are now in a position to evaluate whether Gurr was right and for the right reasons. We use group-level data on ethnic groups’ power access from the mid-1990s, data on changes in political institutions, as well as data on peacekeeping operations. To anticipate, we

find ample support that Gurr was right both about the decline of ethnic civil war and that reduced conflict seems to follow accommodation and compromise.

## Literature review

Even though much of the conflict research on civil war had seen the rivalry between the superpowers as a key source fueling conflicts (see, e.g., Buzan, 1991), the initial enthusiasm over the end of the Cold War quickly gave way to a new pessimism (see, e.g., Mearsheimer, 1990a,b; Mueller, 1994). Many argued that the stable and largely peaceful world of nuclear deterrence under the superpowers was being replaced by a new and more dangerous world with increasing ethnic warfare.

One of the most prominent contributions, Kaplan (1994, 45), warned of a coming anarchy where we would see ‘the withering away of central governments, the rise of tribal and regional domains, the unchecked spread of disease, and the growing pervasiveness of war.’ While Kaplan stressed environmental scarcity, others gave cultural and ethno-religious factors a much more prominent role in promoting conflict. For example, Huntington (1993, 71) argued that ‘conflicts among nations and ethnic groups are escalating’ as cultural lines rose to prominence after the Cold War. In his 1993 inaugural address, President Bill Clinton noted that ‘the new world is more free but less stable. Communism’s collapse has called forth old animosities and new dangers.’<sup>1</sup>

Indeed, the premise that wars were becoming more common was so widely accepted that few even bothered to consider any empirical evidence. Perhaps the first study to detect a possible declining trend was Wallensteen & Sollenberg (1995). However, this assessment was limited to an analysis of a six year period 1989-1994, and primarily discussed whether there was a trend rather than the possible causes. The article received relatively limited attention, and the authors themselves appeared to downplay the significance of the finding by choosing to emphasize how it was premature to dismiss interstate war as obsolescent in a follow-up article published the subsequent year (Wallensteen & Sollenberg, 1996). An op-ed piece on a decline in warfare in the *Los Angeles Times* by Wilson & Gurr (1999) received more attention.<sup>2</sup> Drawing on prior work on conflict-reducing accommodation (Gurr, 1993), Gurr (2000a) proposed explanations

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<sup>1</sup>See <http://www.presidency.ucsb.edu/ws/?pid=46366>.

<sup>2</sup>According to Andrew Mack (personal communication), this op-ed piece eventually reached the desk of then General Secretary of the United Nations, Kofi Annan.

for the declining frequency of ethnic conflict. Based on an analysis of the Minorities at Risk Data, Gurr noted that over the 1990s, the absolute number of active violent conflicts had fallen from the peak level, and a much larger number of conflicts had deescalated rather than escalated in severity. Moreover, wars of self-determination were increasingly solved by peace agreements. Gurr (2000a, 52) pointed to a new regime of accommodation, 'where threats to divide a country should be managed by the devolution of state power and that communal fighting about access to the state's power and resources should be restrained by recognizing group rights and sharing power.' Gurr (2000a) furthermore noted that '[t]he decline in new protest movements foreshadows a continued decline in armed conflict.'

According to Gurr (2000a, 55), the decline of ethnic war was not the result of 'an invisible hand,' but reflected concerted efforts to curb and prevent conflict by individuals, groups, and organizations. Gurr argued that governments had become more willing to protect minority rights, manifested in a decrease of active discrimination, an increase in political autonomy, and greater accommodation of groups through power sharing. Governments had come to the realization that conflicts over self-determination were costly and thus best solved through negotiations and efforts to reach agreements to prevent violence. While many of these changes were linked to democratization, Gurr noted that even autocratic states had made efforts to accommodate minority groups. Although antagonists often find it difficult to settle conflicts by themselves, the scope for assistance and engagement from international organizations expanded with the end of the Cold War (see, e.g. Doyle & Sambanis, 2006).

Much of the subsequent research on civil war rejected the relevance of ethnicity and grievances for civil war, instead highlighting civil war as fundamentally a problem of weak states and rent-seeking activities (see, e.g., Collier & Hoeffler, 2004; Fearon & Laitin, 2003). However, a new wave of research has challenged the alleged irrelevance of ethnicity and grievances (see, e.g., Regan & Norton, 2005; Petersen, 2011; Cederman & Girardin, 2007; Cederman, Gleditsch & Buhaug, 2013). We extend this line of research to derive testable propositions based on Gurr's projections relating changes in accommodation and decreasing exclusion to the decline of civil war.

## **Trends in ethnic civil war and accommodation since the mid-1990s**

In order for Gurr to be right for the right reasons there would (1) have to be a decline in ethnic civil wars since the mid-1990s, (2) evidence of an emerging regime of ethnic accommodation and decreasing discrimination, and (3) we would need to have evidence that the latter trend is associated with the first.

We first consider whether internal conflict along ethnic lines actually has declined since the mid-1990s, since other studies find that the decline of conflict is not uniform for all types of conflict and regions. For example, Gleditsch (2008, 702) notes that civil wars involving Muslim countries and/or Islamic opposition movements have remained relatively constant since the end of the Cold War. We use a conflict coding based on the ACD2EPR data, which map each rebel organization in the Uppsala Conflict Data Program's Armed Conflict Dataset (ACD) (Gleditsch et al., 2002) to the corresponding ethnic group in the Ethnic Power Relations (EPR) data, if the rebel organization expresses an aim to support the ethnic group and group members participate in combat (Wucherpfennig et al., 2012). For convenience, we use the term ethnic civil war for all ethnic civil conflicts in the ACD dataset, which relies on a lower limit of 25 battle deaths. There is little evidence for a clear distinct trend in the ethnic civil wars relative to other civil wars. The incidence of ethnic civil war declines at a somewhat slower rate after the end of the Cold War, possibly reflecting that ethnic conflicts are more difficult to settle than non-ethnic conflicts. However, looking at the aggregate or country level does not allow us to examine conflict trends relative to group characteristics. We instead turn to the group level, and examine conflict incidence, onset and termination:

We use group-level data on ethnic groups from the Ethnic Power Relations dataset (EPR) version 2014 (Vogt et al., 2015). Figure 1 displays the number of ethnic groups in conflict from 1946 through 2013. There is an increase in ethnic civil war until the mid-1990s, but conflict incidence has been declining since this juncture, which is precisely the turning point that Gurr (2000a) pinpointed (here indicated by the blue vertical line).<sup>3</sup>

We further decompose conflict incidence by assessing the number of conflict onset per year (Figure 2), as well as the rate by which ongoing conflicts terminate (Figure 3). Figure 2 is also

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<sup>3</sup>We acknowledge that the incidence of ethnic conflict prior to decolonialization may be underestimated in so far as most colonial conflicts could be deemed to involve an ethnic element. However, the lack of precise information on the political status and conflict participation by ethnic groups in colonies prevent us from a more systematic analysis of these conflicts at the group level.

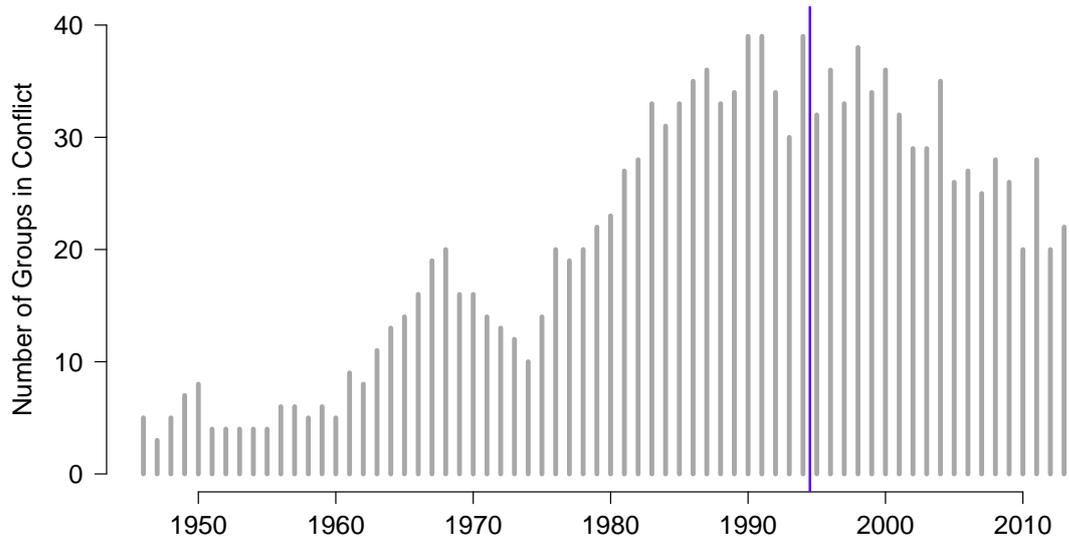


Figure 1. Incidence of ethnic civil war

consistent with Gurr’s prediction of a decline in ethnic conflict onsets since the end of the Cold War, despite a short-lived spike in 2011 reflecting several ethnic groups in the south of Sudan. The rate at which groups in conflict terminated fighting in Figure 3 is less straightforward, in part due to declining number of ongoing conflict and thus fewer opportunities for termination. Until the 1980s, many years saw no groups terminating fighting at all, while the rate of termination has been more or less consistently high since the 1990s, broadly in line with Gurr’s conjectures.

The observation that ethnic civil war has been less prevalent is also consistent with a change-point analysis. In the online appendix we detail a Bayesian changepoint analysis (Park, 2010) on simple trend models for the incidence, onset and termination of ethnic civil war. All three models estimate ‘structural breaks’ that indicate a decrease in the rate of conflict to occur around the mid/late 1990s, again bolstering Gurr’s conjectures.

Having shown that ethnic civil wars have declined since the mid-1990s, we now turn to trends of accommodation along five dimensions: (1) ethnic discrimination, (2) territorial autonomy, (3) power-sharing regimes, (4) democratization, and (5) peacekeeping operations. We evaluate the first three using the EPR dataset, which provides a coding on whether the group in question rules alone (i.e., either monopoly or dominance), shares power, or is excluded from executive power. The EPR data also indicate if a group enjoys regional autonomy through ex-

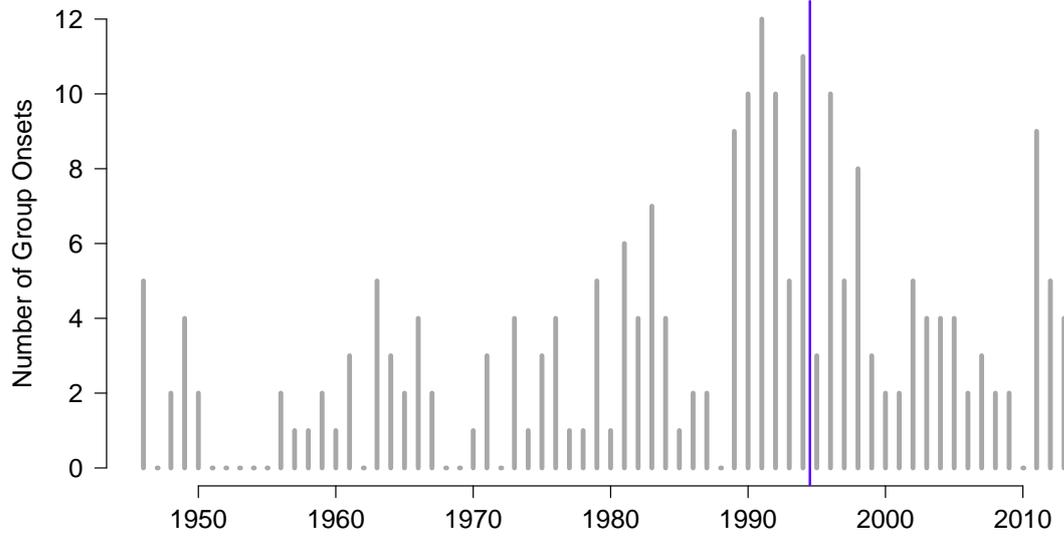


Figure 2. Onset of ethnic civil war

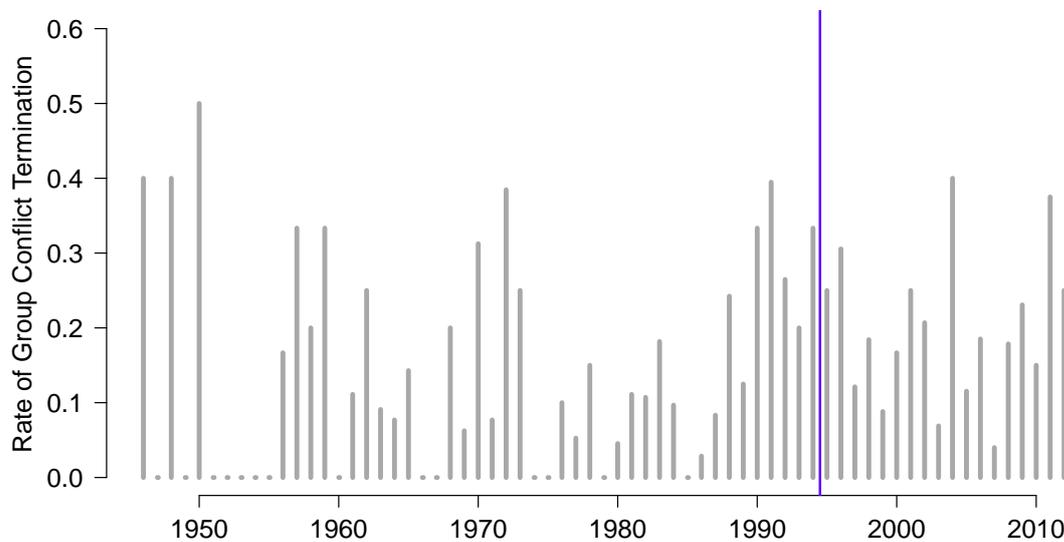


Figure 3. Termination of ethnic civil war

ecutive organs at the regional level with *de facto* rather than merely *de jure* powers. These conditions usually apply in federations, but also include where individual groups have autonomy, such as the Kurds in contemporary Iraq, or self-exclusion such as the Abkhazians declaring

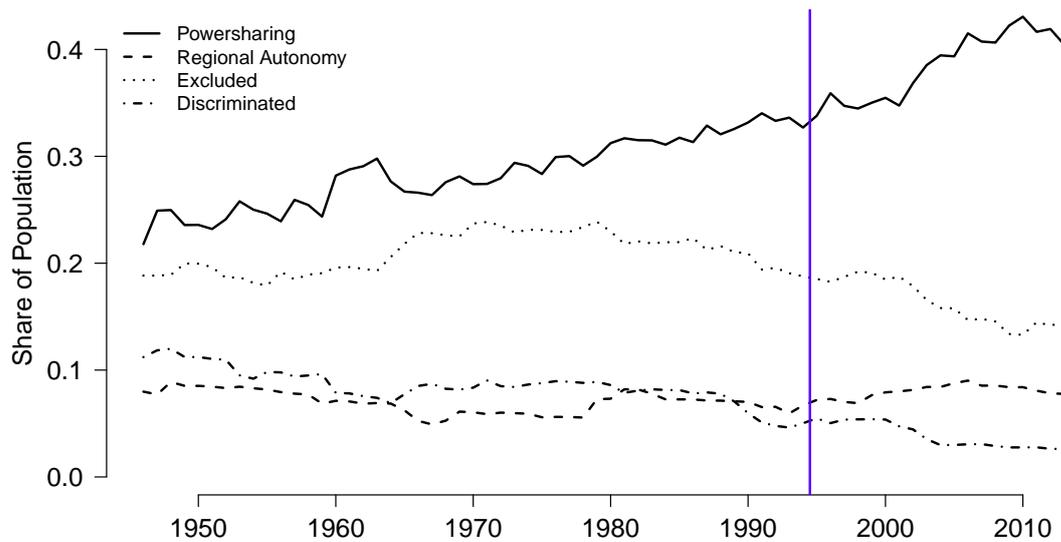


Figure 4. Trends in accommodation and ethnic groups' power access

independence from Georgia. Figure 4 shows changes in the power status of ethnic groups over time, depicting mean shares of population across countries. The world has clearly become more inclusive since the 1970s, with the average share of excluded population sinking steadily.<sup>4</sup> Discrimination has also declined, while power sharing has increased dramatically over the entire post-WWII period.<sup>5</sup>

Figure 5 displays trends in democratization based on the Polity IV data, classifying countries with a score of 6 and above as democracies. This confirms a steady increase in the share of democratic countries, especially since the end of the Cold War. Figure 6 displays the evolution of peace keeping operations over time, using Beardsley's (2011a) approach to extract missions with military deployment by the UN, a regional security organization or a coalition of states.<sup>6</sup> This indicates a qualitative shift in the number of peacekeeping missions around the end of the Cold War, when the reduced tensions between the superpowers expanded the room for peacekeeping in civil wars.<sup>7</sup>

<sup>4</sup>From 1994 through 2014, mean share of excluded population sank from 0.174 to 0.132, a decline that is significant at the  $p = 0.04$  level.

<sup>5</sup>This figure does not depict political exclusion and discrimination due to colonialism since the EPR dataset only covers sovereign units. If these cases were considered, however, the trend toward inclusion would have been even stronger.

<sup>6</sup>We exclude interventions without the consent of the host countries and collective security actions with offensive aims such as the US-led UN force in the Korean War.

<sup>7</sup>While the number of operations has not changed much since 1996, the budgets have increased substantially in

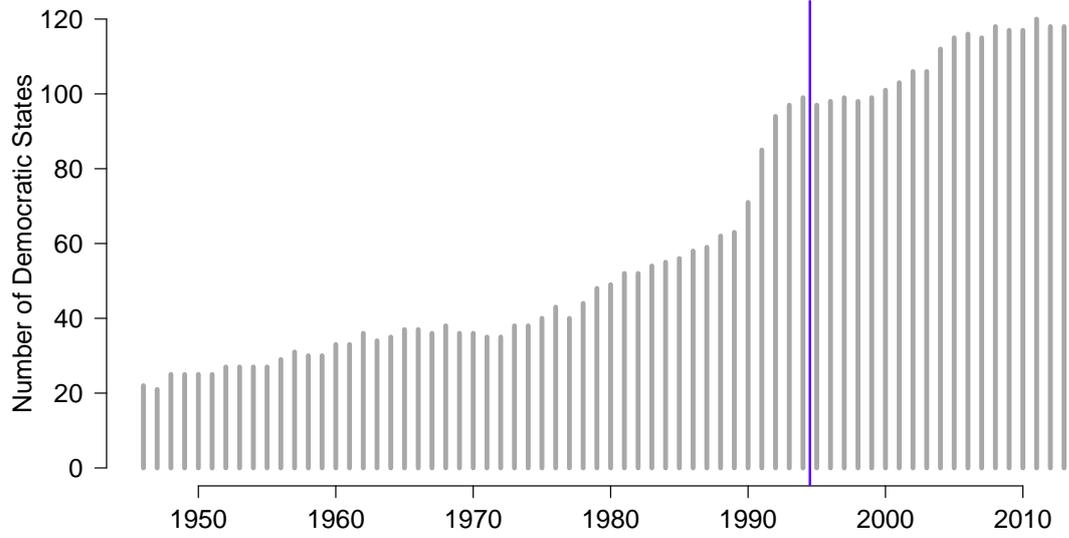


Figure 5. Trends in democracy

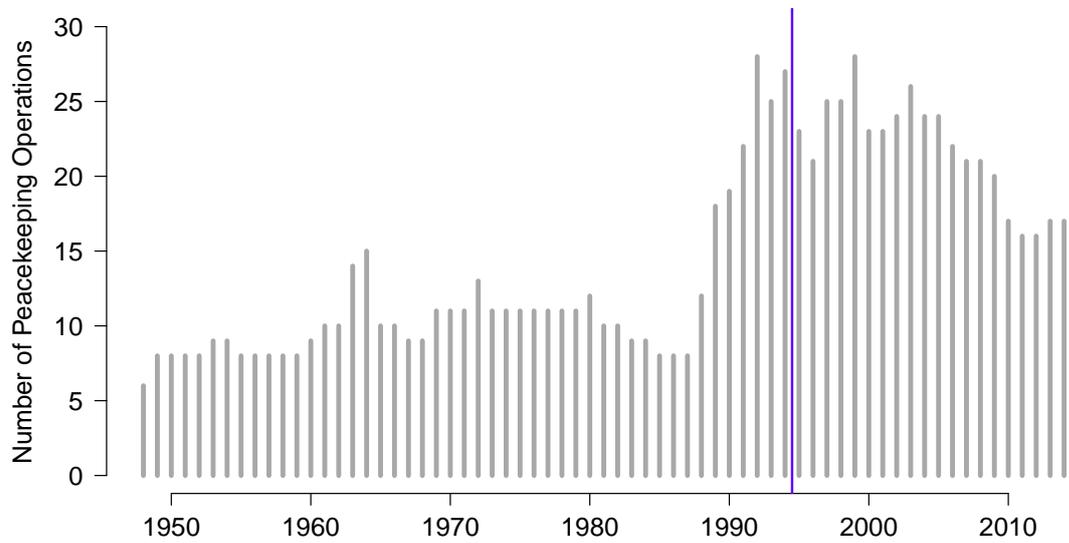


Figure 6. Trends in peacekeeping

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recent years (Hegre, Hultman & Nygård, 2015).

## **Is increasing accommodation linked to the decline of ethnic civil war?**

On the whole, the empirical record vindicates Gurr's claims about an increase in ethnic and political accommodation. Indeed, the trends that were already visible a decade after the end of the Cold War remain intact and have possibly been even stronger. This section addresses whether the increasing accommodation plausibly caused the decline of ethnic civil war. We unpack the aggregate trends and evaluate ethnic power access and conflict outcomes for individual ethnic groups. If Gurr's expectations are correct, groups that were granted improved power access or group rights should be less likely to experience violence than those who were not, and democratization and peacekeeping should exert a further influence. We test the following hypotheses for the onset (a) and termination (b) of ethnic civil war the period from 1994 through 2013:

H1a,b. Improved group rights through reduced discrimination caused a decline of ethnic civil war.

H2a,b. Granting of territorial autonomy to previously powerless groups caused a decline of ethnic civil war.

H3a,b. Inclusion in power-sharing regimes of previously excluded groups caused a decline of ethnic civil war.

H4a,b. Democratization caused a decline of ethnic civil war.

H5b. Peacekeeping operations caused a decline of ethnic civil war.

These mechanisms could operate through either a decline in the probability of a conflict outbreak or an increased likelihood that conflicts will terminate. For peacekeeping, however, we do not expect to see any effects on conflict outbreak, since peacekeeping almost by definition is deployed to ongoing conflict to facilitate conflict termination.<sup>8</sup>

Our research design attempts to approximate counterfactual principles in that it identifies accommodative changes as treatments and restricts the sample to those groups that can enjoy such treatments, rather than comparing levels of accommodation across groups based on the full sample. This approach elucidates the consequences of increasing accommodation, which is

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<sup>8</sup>Peacekeeping may prevent regional conflict spillovers to other countries (Beardsley, Cunningham & White, 2015), but the only 'proactive' mission in a country deemed to have a high risk of conflict outbreak so far is the United Nations Preventive Deployment Force (UNPREDEP) in the Republic of Macedonia.

precisely the gist of Gurr’s reasoning. However, it should be noted that our analysis is of course quasi-experimental rather than strictly counterfactual since it rests on estimation without a truly randomized, experimental treatment, with all the limitations that this entails.

In keeping with this logic, we test our hypotheses with dummy variables for all group years following the accommodative event, while discarding from the treatment any years characterized by reversals and limiting the scope to the period after 1993 until and including 2013. To be precise, H1a and H1b are tested with a dummy variable that captures the granting of basic group rights by referring to group years following an upgrade from discriminated status. We consider all years following such changes if they occurred after 1993 and the group did not suffer discrimination again, which implies that all discrimination-free years following the first upgrade are considered as treatment.<sup>9</sup>

Following the same principles, our operationalization of H2a and H2b focuses on those groups that were previously completely excluded, but were subsequently granted regional autonomy after 1993. Here the treatment concerns upgrades to autonomous status rather than the granting of group rights. Analogously, we test H3a and H3b by restricting the sample to all excluded groups and those that were included after 1993, considering the latter groups as the treatment category. Furthermore, using a country-level measure of democracy, we evaluate H4a and H4b based on a democratization indicator that denotes cases where groups were residing in a country that underwent a transition to full democracy since 1993. In line with the previous change indicators, this one considers only the democratic years as the treatment following the initial democratization, thus dropping any reversals to authoritarian rule from the treatment category. Finally, in the case of peacekeeping (H5b), we rely on the country-level variable that we introduced in the previous section. Here the variable indicates if peacekeeping was implemented anywhere in the country.

In addition, we introduce a number of variables to control for important group-level and country-level properties:

- Relative group size based on the demographic estimates of EPR.<sup>10</sup>

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<sup>9</sup>All treatment years, which are not necessarily consecutive, are coded as one, and all other years are kept at zero. This means that we do not consider at all those cases that already enjoyed group rights in 1993 since these groups were already ‘treated.’ For example, if a group was granted rights in 2002 until 2005 and then again after 2009, the variable would be zero before 2002 and then one from 2002 through 2005, following by zeroes until and including 2008, and one thereafter.

<sup>10</sup>Relative group size  $g \in [0, 1)$  comparing the population of the group  $G$  to the population of the incumbent  $I$  is defined as  $\frac{G}{G+I}$  if the group is excluded and as  $G/I$  if the group is included.

- Past conflict indicating whether the group has rebelled against the government since 1946 or the independence of the country.
- Logged GDP per capita and logged population size at the country level, lagged (Penn World Table 7.0, see Heston, Summers & Aten, 2011).
- Number of years since the previous conflict for onset analysis, and number of years since the last peace spell, both entered as cubic polynomials (Carter & Signorino, 2010).

Table I presents results for onset and Table II results for conflict termination for all politically relevant EPR groups that can receive accommodation from 1946 through 2013. We report logit estimates with robust country-clustered standard errors. Ongoing conflict years were dropped from the onset analysis and peace spells from the termination analysis.

In keeping with Gurr's projections, Table I shows that the granting of group rights dampens the risk of conflict, although the coefficient does not quite reach significance at the level of  $p = 0.05$  (see Model 1a). Regional autonomy arrangements also have a negative estimated coefficient, but the estimate is not statistically significant and we do not have clear evidence that this affects the probability of conflict in a consistent manner (see Model 2a).<sup>11</sup> Yet, groups included in power sharing benefit from a lower conflict propensity, a result that is statistically significant at the  $p = 0.01$  level (see Model 3a). Democratization also appears to operate as anticipated by Gurr, at a similar level of significance (see Model 4a).<sup>12</sup>

To evaluate what these results mean in practice we compare simulations for two counterfactual scenarios: a world in which no accommodation takes place and a world in which group rights are strengthened by means of either ending discrimination, granting regional autonomy, inclusion or democratization. We assume that accommodation takes effect in 2004 and then estimate the average probability of a group experiencing a conflict onset during the next ten years. Set up this way, the difference between the predictions for the two scenarios constitutes the long-term effect of accommodation.<sup>13</sup>

<sup>11</sup>It should be noted, however, that the current analysis does not explore the combination of territorial autonomy and central power sharing. Cederman et al. (2015) show that autonomy has a conflict-reducing effect in combination with power sharing.

<sup>12</sup>Since multiple groups may engage in the same conflict, there is a risk that the results might be driven by 'double-counting' of influential cases. However, in the online appendix we show that our results are robust to a procedure that randomly keeps just one group from such instances.

<sup>13</sup>Specifically, we draw 1,000 sets of coefficients based on the original model estimates, and calculate predicted probabilities for each observation for the prediction period 2004 to 2013, assuming non-accommodation and accommodation respectively. We then calculate yearly averages, i.e., the mean predicted probability (Gelman & Hill, 2007,

Table I. The effect of accommodation on ethnic conflict onset

	Model 1a	Model 2a	Model 3a	Model 4a
group rights	-1.122 <sup>+</sup> (0.573)			
autonomy		-0.409 (0.700)		
inclusion			-1.362** (0.501)	
democratization				-1.887** (0.718)
relative group size	6.859 (4.317)	4.268 (2.629)	3.354 (2.255)	1.784 (1.899)
relative group size <sup>2</sup>	-5.511 (6.502)	-3.778 (4.383)	-3.314 (3.705)	-1.388 (2.743)
past wars	0.875 (0.764)	1.050 <sup>+</sup> (0.627)	1.318* (0.519)	1.265** (0.482)
log gdp lag	-0.546* (0.230)	-0.279* (0.132)	-0.307*** (0.089)	-0.261* (0.106)
log population	0.336* (0.157)	0.262* (0.133)	0.137 (0.088)	0.108 (0.107)
peaceyears	-0.323** (0.099)	-0.382*** (0.108)	-0.364*** (0.083)	-0.414*** (0.083)
Constant	-2.198 (1.995)	-3.267 <sup>+</sup> (1.935)	-1.794 (1.253)	-1.811 (1.436)
Observations	1478	5401	7565	7504

Standard errors in parentheses

<sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

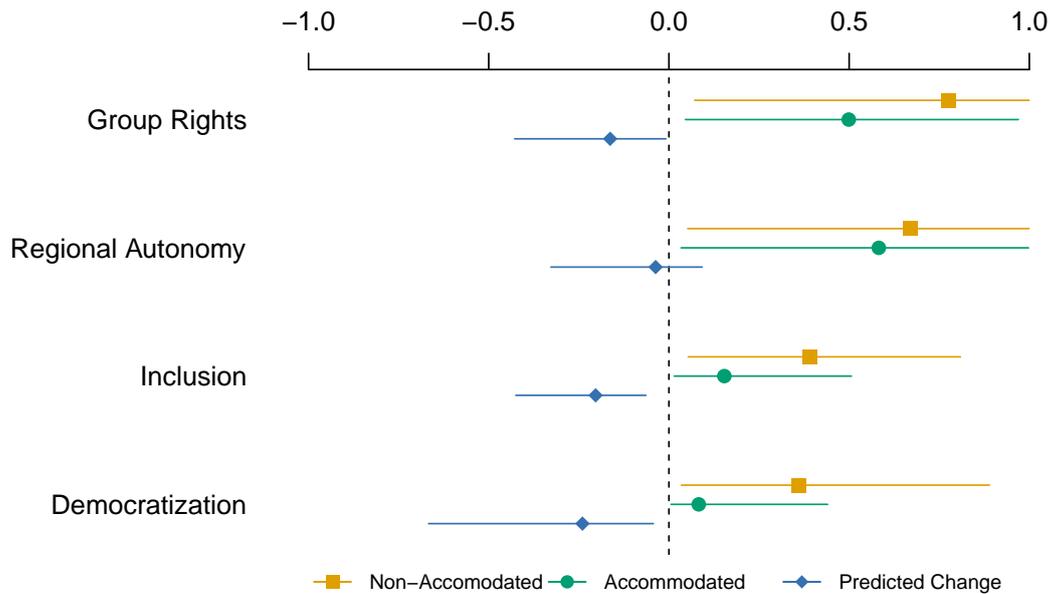


Figure 7. Predicted Probabilities of at least one Conflict Onset during 2004 to 2013

Figure 7 visualizes the predictions for Models 1a-4a, where the orange estimates (squares) depict the non-accommodation scenario, the green estimates (circles) represent the accommodation scenario, and the difference between the two, i.e., the predicted change, is given in blue (diamonds). The figure demonstrates that accommodative politics is associated with considerably lower levels of conflict for affected groups. Indeed, our estimates suggest that on average groups that are no longer discriminated against are 15 percent less likely to experience conflict during the next decade. Inclusion can reduce this probability by 20 percent, while democratization leads to a reduction in risk by 27 percent.

In perfect symmetry to the onset models, the analysis of conflict termination relies on a dependent variable that marks the ‘onset of peace’ while dropping all peace years. Table II shows encouraging results for the link between group rights and war termination (see Model 1b). Turning to Model 2b, it is clear that autonomy has a major pacifying influence on ongoing civil wars. Model 3b suggests that offering power sharing to rebels could have a positive influence on conflict termination, but this finding is only weakly significant.<sup>14</sup> In contrast to the onset analysis, however, democratization does not appear to be associated with a reduction in conflict at a level

406) for the relevant sample-year for a given draw,  $\bar{p}_t$ . The probability of experiencing at least one event during the ten year period, 2004 to 2013, is given by  $1 - \prod_{t=2004}^{2013} (1 - \bar{p}_t)$ . The expected change induced by accommodation is then computed as the first difference between the two estimates (again for each draw).

<sup>14</sup>Yet, narrowing the focus to governmental conflict produces significantly positive results ( $p = 0.009$ , see the Online Appendix). This is to be expected because governmental power sharing addresses the sources of conflict at the center of government.

that can be separated from zero (see Model 4b). Finally, Model 5b reveals that peacekeeping operations make conflict endings more likely, a finding that is confirmed as significant at the  $p = 0.055$  level.<sup>15</sup>

Table II. The effect of accommodation on ethnic conflict termination

	Model 1b	Model 2b	Model 3b	Model 4b	Model 5b
group rights	2.059** (0.638)				
autonomy		2.386** (0.783)			
inclusion			1.130+ (0.586)		
democratization				0.448 (0.490)	
peacekeeping					0.540+ (0.282)
relative group size	-4.991 (4.433)	-2.112 (2.154)	-3.839+ (2.059)	-4.249+ (2.413)	-5.751** (2.121)
relative group size <sup>2</sup>	3.453 (4.273)	0.347 (2.435)	2.811 (2.057)	2.901 (2.512)	5.024* (2.064)
log gdp lag	0.052 (0.148)	-0.135 (0.143)	-0.025 (0.105)	0.044 (0.134)	-0.017 (0.110)
log population	-0.162 (0.339)	-0.522** (0.171)	-0.341** (0.128)	-0.612*** (0.124)	-0.466*** (0.110)
waryears	-0.084 (0.233)	-0.382+ (0.225)	-0.397* (0.160)	-0.025 (0.264)	-0.476*** (0.134)
Constant	0.565 (4.597)	6.487** (2.332)	4.103* (1.873)	6.076** (1.946)	5.497** (1.743)
Observations	197	349	493	414	571

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Figure 8 visualizes our results in an analogous manner, depicting the mean probabilities for a group in conflict to terminate fighting within two years following a change towards accommodation in 2004. The groups that are no longer discriminated against are on average 15 percent more likely to terminate fighting within two years, while granting regional autonomy leads to

<sup>15</sup>Restricting the dependent variable to the ending of governmental conflict produces highly significant findings ( $p = 0.003$ ), which reflects the fact that peacekeeping troops typically intervene in governmental civil wars rather than in secessionist conflicts.

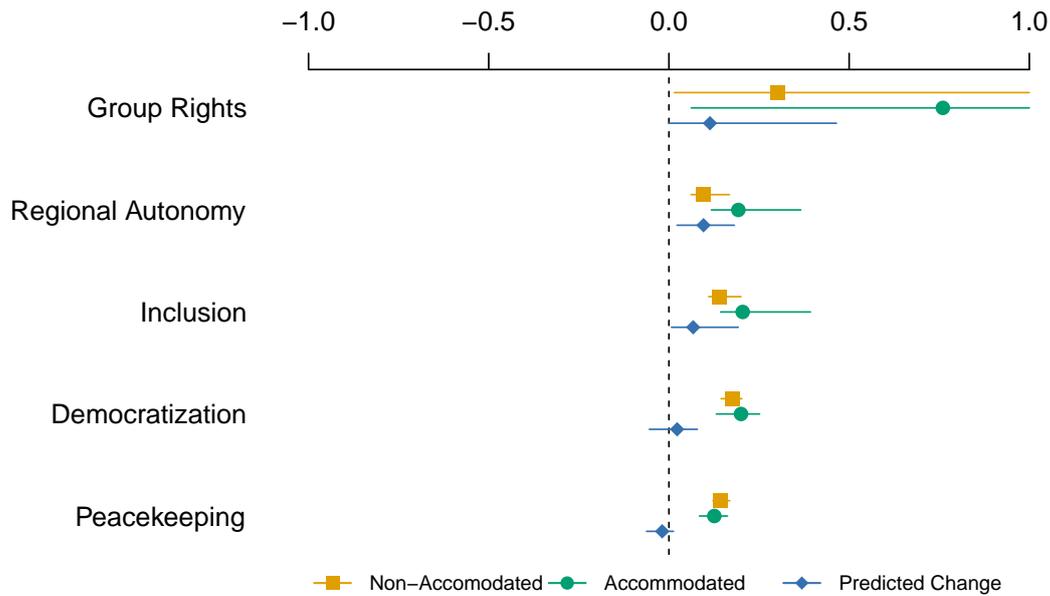


Figure 8. Predicted Probabilities of Conflict Termination during 2004 or 2005

an increase of 25 percent. The estimates for inclusion and democratization amount to 12 and 5 percent respectively. Finally, peacekeeping raises the probability of conflict termination within two years by 4 percent.

In general, these findings confirm Gurr’s reasoning, and more generally those studies that argue in favor of the pacifying influence of accommodation and ethnic inclusion. For example, powerful arguments have been made in support of power-sharing arrangements, including regional autonomy (see e.g., McGarry & O’Leary, 2009) and governmental power sharing (see e.g., Lijphart, 1977; Mattes & Savun, 2009). Because all these institutions cannot as a rule be treated as random shocks or externally imposed factors, however, endogeneity remains a major challenge in this literature. In the absence of an identification strategy relying on an effective statistical instrument, the current study also does not offer a fool-proof way of circumventing these difficulties. Yet, it seems reasonable to assume that power sharing and similar concessions are primarily offered to groups that are potentially threatening and thus more likely to engage in armed conflict (e.g., Wucherpfennig, Hunziker & Cederman, forthcoming; Cederman et al., 2015). If so, then inclusive moves are actually likely to be more effective than indicated by naive modeling on observed data. The same applies to peacekeeping operations, which are known to have been applied in more difficult cases rather than conflicts which are easy to settle (e.g., Fortna & Howard, 2008; Beardsley, 2011b).

The result showing that conflict varies with democratization is also of considerable theoretical interest. While previous studies link democratization episodes to the outbreak of civil war, these have typically focused on more limited liberalization processes leading to semi-democracy rather than full democracy (e.g., Mansfield & Snyder, 2005; Cederman, Hug & Krebs, 2010). In this sense, the current study is compatible with such findings, especially since incomplete democratization is not associated with a pacifying trend.

Table III shows the possible combinations of types of accommodation (columns) and outcomes (rows), with some suggested examples where we have seen actual conflict or perceived high risks prior to accommodation and these changes plausibly contributed to prevent outbreaks or settlements in ongoing conflicts. Space does not allow us to discuss these in detail here, but we provide details on the individual cases in our supplementary appendix, substantiating the highlighted mechanisms.

Table III. Examples of conflict-preventing and termination-promoting accommodation since the mid-1990s

	Group rights	Autonomy	Inclusion	Democratization	Peacekeeping
Onset	Liberia, Nigeria	Kurds in Iraq	South Africa, Angola	Guatemala, Ghana	(●)
Termination	Tuaregs in Mali and Niger	Northern Ireland, Aceh	Bosnia	Burundi	Macedonia

## Predicting conflict trends

The divergent claims on the future of ethnic conflict in the 1990s could be considered as forecasts. Gurr formed his predictions on the basis of explicit theory that relates changes in accommodation and exclusion. By contrast, many of the pessimists, including Kaplan, saw conflict as virtually inevitable and extrapolated a continuing steady rise of ethnic conflict into the future.

Treating these contrasting views as distinct conceptual models, the current analysis evaluates their ability to generate out-of-sample predictions. Turning the clock back to the mid/late 1990s, we focus on the information that was available to these authors at the time of writing. Restricting the analysis to conflict incidence, we estimate two simple statistical models that seek to reflect Gurr's accommodative politics and the time trend predicted by the pessimists.

The accommodative politics model builds on a binary measure of 'political inclusion' as its

key variable (see Models 3a and 3b). By contrast, in keeping with the doomsayers' extrapolations, the trend model includes 'calendar year' as the central explanatory variable. In addition, both models include count variables for 'peaceyears' and 'waryears' to account for duration dependence. In short, each model contains three independent variables, two of which are identical across both models. We then estimate these models drawing solely on the historical data that was observable at the time of the debate, that is, data covering the period 1946–1999.<sup>16</sup>

Combined with new data for the post Cold War period, the parameter estimates derived from our 'training' dataset can be used to generate in-sample predictions for the period 1946–1999, as well as out-of-sample predictions for the period 2000–2013. For each group-year, this yields the predicted probability of conflict incidence. It is then possible to aggregate by summing all group-level predicted probabilities for a given year. This transforms the group-year predicted probabilities into a global yearly predicted *count* of the number of ethnic groups engaging in conflict. This is visualized in Figure 9. Here, the in-sample predictions from the training period are given by the dark solid line (accommodation), and the dashed line (trend), whereas the out-of-sample predictions are depicted in green and orange, respectively. The corridors depict 95 percent confidence intervals.

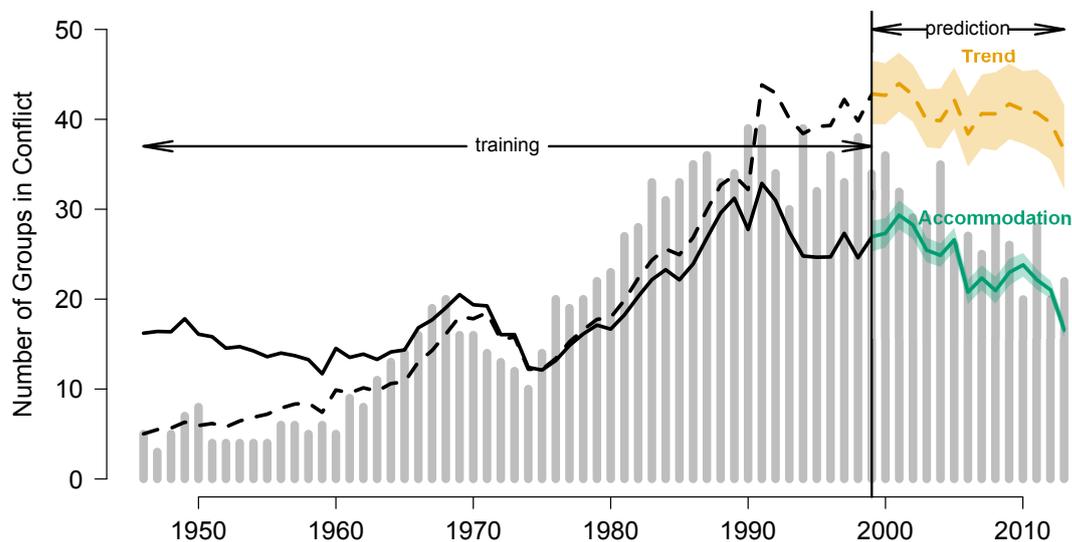


Figure 9. Out-of-sample predictions based on accommodative politics and trend

<sup>16</sup>Results for a sample 1946–1994 are virtually identical for both models (results not shown).

The results are striking. The trend model performs better in-sample, mirroring relatively closely the rise in ethnic civil war until the early 1990s. By contrast, the accommodation model overpredicts conflict until the mid 1960s, while slightly underpredicting during the 1980s.<sup>17</sup> However, this performance pattern is sharply reversed for the out-sample prediction. Whereas the trend model vastly over-predicts the amount of ethnic civil war (orange), the theoretically driven specification focusing on ethnic exclusion correctly actually predicts a decline that started during the late 1990s and largely matches the empirical trend (gray barplot).<sup>18</sup> We emphasize that these predictions are theory-driven, thus allowing us to evaluate more closely the causal mechanisms behind the decline in conflict. In short, Figure 9 suggests that not only was Gurr right in anticipating a decline in frequency of ethnic civil war, but by pointing to the role of accommodation as a driving force, he appears to have been right for the right theoretical reasons.

## Conclusion

We contribute to the recent literature on the decline-of-conflict hypothesis by focusing on the reasons for the decline of ethnic civil war. Our findings are largely compatible Gurr's observations about 'ethnic warfare on the wane' and stand in stark contrast to various pessimistic projections that were made in the early post-Cold War period and continue to be made about today's world. Along a number of empirical dimensions, we have found that this relatively optimistic perspective holds up well. Ethnic civil wars appear to have subsided after the mid-1990s, and this decline is at least partially attributable to an increase in governments' accommodative policies toward ethnic groups.

Clearly, a lot more than intellectual history is at stake, as Gurr's arguments have major implications for our theoretical understanding of civil wars while offering clues about appropriate policies. Our findings support the general literature on grievances in civil wars that includes Gurr's own work (e.g., Gurr, 1993, 2000b) and many others (e.g., Horowitz, 1985; Petersen, 2002; Cederman, Gleditsch & Buhaug, 2013). The findings have relevance for policy in underlining how concessions to ethnic groups that have hitherto been generally badly treated appears to be associated with lower levels of conflict. This differs fundamentally from the alternative

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<sup>17</sup>The root mean squared error (RMSE) is 4.53 for the accommodation model vs. 7.81 for the trend model, and the mean absolute percentage error (MAPE) is 0.27 vs. 0.77.  $RMSE = \sqrt{\sum(y_i - \hat{y}_i)^2/n}$ .  $MAPE = \frac{1}{n} \sum \left| \frac{y_i - \hat{y}_i}{y_i} \right|$ . Lower values indicate better predictions for both measures.

<sup>18</sup>RMSE: 13.73 vs. 5.37; MAPE: 0.51 vs. 0.16.

body of research that sees civil war exclusively as a problem of weak states, dismissing both the role of grievances for conflict as well as the potential for accommodation to help settle conflicts (e.g., Fearon & Laitin, 2003, 2004). Our analysis supports the conclusion that inclusive policies, whether based on group rights, autonomy, inclusion or democracy, constitute the safest path to peace (see also Mack, 2002). Our confidence in these relationship and the stability of positive trends also determine whether we should see the recent increase in conflicts in the Middle East, most dramatically in Syria — where we have seen little accommodation so far — as an isolated and temporary blip or a harbinger of a general reversal in the decline of conflict (Pettersson & Wallensteen, 2015).

In principle, it is possible that other types of political violence follow opposite trends, especially if they function as substitutes. For example, it is possible that that we see a form of transference where terrorism, riots, and one-sided violence are increasing despite reduced ethnic inequality.<sup>19</sup> Existing data do not allow us to easily link specific ethnic groups to other type of violence, but we see this as an important area for future research. Current research on these topics, however, do not suggest strong support for clear transference. For example, the Global Terrorism Database indicate an increase in terrorist events. However, this may reflect better coverage over time and possibly a greater tendency to classify more violent events as ‘terrorism’. More fundamentally, most attacks take place in countries undergoing civil war, and the increase in terrorist attacks over time is largely confined to countries with civil war. This is clearly not consistent with the claims about transference and an increase in terrorism outside civil war, although we stress again that these figures are not linked specifically to ethnic groups. Moreover, Engene (2004) documents a clear decline in ethnic terrorism in Western Europe, attributed to greater accommodation. Valentino (2014, 100) finds a clear decrease in one-sided violence by the government after the Cold War, although again not specifically limited to ethnic conflict, and much of this takes place inside rather than outside civil war. More generally, any increases in unorganized violence such as riots following organized violence is difficult to consider as transference by the same actors or organizations, and more likely to reflect fringe groups. Finally, we have not attempted to study whether a decline in violent ethnic civil war is accompanied by an increase in non-violent ethnic politics, but in our view such shifts should be seen as consistent with Gurr’s arguments rather than a challenge.

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<sup>19</sup>For some prominent claims about transference, see e.g., Gray (2015); Kaldor (2013)

Furthermore, we have studied only political changes, thus ignoring changes in other dimensions of inequality at the level of individuals and groups. For example, globalization increases openness of societies, which could in turn be expected to affect development and between-group economic inequality in either direction depending on one's theoretical beliefs. Religious tolerance and freedom could also be changing systematically over the same time period.

It should also be recalled that our analysis has been limited to the period from the mid-1990s. A more profound treatment of the decline-of-war thesis would have to consider the entire post-WWII era as well. Preliminary analysis indicate that we get similar results if one extends the sample to the period from 1946 (see the online appendix). Yet, it could well be that the accommodation regime was less effective during the Cold War because power sharing and similar arrangements were simply not credible in the absence of strong third-party guarantees. Indeed, it would seem that power sharing in Bosnia-Herzegovina after the end of the Cold War would not have endured without massive external support. It is also possible that the pacifying behavioral norms flowing from the accommodation regime have lagged far behind their introduction.

These are important tasks for future research. For now, we conclude that there is ample evidence in support of Gurr's initial conjecture based on empirical data going back to the beginning of the post-Cold War period. Our findings reinforce more general claims about violence made by Pinker and Goldstein, but help go beyond sweeping claims and establish important reasons why ethnic civil conflict has declined.

## **Replication data**

The dataset and do-files for the empirical analysis in this article can be found at <http://www.prio.org/jpr/datasets>.

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