Explaining Physical Violence in Parliaments

Abstract

Why do lawmakers resort to physical violence in some parliaments but not in others? Brawls not only constitute a stark break with democratic norms and ideals, they also affect voter perceptions and have been seen as a bellwether for conflict and democratic backsliding. Yet, the phenomenon remains poorly understood. This paper introduces a new, original dataset recording reported incidents of physical fights in parliaments across the globe between 1980 and 2018 that includes almost four times more cases of violence than existing data. Theoretically, we argue that levels of democracy and the composition of parliament should drive violence. The analysis shows that fighting is most common in countries that are neither very autocratic nor very democratic, in fragmented parliaments, and in chambers with slim majorities. The findings have implications for the study of (de-)democratization, political instability, and the design of democratic institutions.

Introduction

Why do lawmakers resort to physical violence in some legislatures but not in others? Although thankfully not the norm, outbursts of violent discord among parliamentarians have occurred throughout history and across the globe. In 1856, five years before the start of the American Civil War, Representative Charles Sumner, an abolitionist from Massachusetts, was famously attacked with a walking cane by Preston Brooks, a pro-slavery congressman from South Carolina, nearly killing Sumner.¹ In 1920, in the midst of the Irish War of Independence, the Irish nationalist member of the United Kingdom House of Commons Joseph Devlin was assaulted by Conservative MP John Elsdale Molson over the issue of violence committed by British troops in Ireland, echoing an earlier altercation over the Irish question in 1893.² The attack took place despite Westminster MPs being sat “two sword lengths apart”,³ an architectural feature symbolically intended to highlight the imperative to settle conflicts peacefully (Gandrud 2016). More recently, in Ukraine, brawls between

¹ This was by no means the first physical altercation in Congress. On repeated occasions, Congressmen assaulted one another, going back as early as 1798, when Roger Griswold attacked Matthew Lyon in the House of Representatives – incidentally with a walking cane as well.
³ https://www.parliament.uk/about/how/role/customs/ Technically, the line markings on the floor on either side of the aisle delimiting where members can stand while speaking are said to be two sword lengths apart. This was not a literal necessity however, as the carrying of armor and offensive weapons had been banned in the English parliament since 30th October 1313, during the reign of King Edward II; in other words, hundreds of years before the current chambers of Parliament were built.
parliamentarians became increasingly common in the run-up to the civil war that broke out in 2014 (Shukan 2010; 2013). And in Turkey, fistfights occurred regularly throughout the 2010s as Recep Tayyip Erdoğan and the ruling Justice and Development Party remodeled the political system of the country and increasingly curbed political and civil liberties. This long history, as well as recent scholarship (Freeman 2018), therefore seem to suggest that violence in legislatures could in fact act as a bellwether of more consequential political phenomena.

To be sure, the use of physical force by the representatives of the people is also problematic in its own right. It constitutes a strong symbolic challenge to what democracy is widely regarded to stand for. Peaceful deliberation has indeed always been considered to be at the very core of the democratic ideal. John Dewey, for example, wrote that “[…] the essence of the democratic principle is appeal to voluntary disposition instead of to force, to persuasion instead of coercion” (Dewey and Tufts 1932, 358). Furthermore, in functioning democracies, lawmakers should ideally accept and abide by the outcome of majority decisions in parliament. But when MPs set off tear gas to prevent the ratification of a treaty, as happened in Kosovo, or when MPs of the ruling AKP in Turkey assault a colleague of the opposition simply because of a speech critical of the president, “the rules of the game” are clearly no longer broadly accepted (Anderson et al. 2005; Boix 1999; Massicotte, Blais, and Yoshinaka 2004).

The consequences of breaking with these norms are not just abstract and theoretical: Nathan F. Batto and Emily Beaulieu showed, for example, that in the case of Taiwan, brawls in the legislature can shift voter perceptions in various ways (Batto and Beaulieu 2020), adding to a longer tradition of research arguing that the public responds negatively to conflict in parliament (Durr, Gilmour, and Wolbrecht 1997; Ramirez 2009). There are, therefore, real

---

4 Joanne B. Freeman, author of “The Field of Blood – Violence in Congress and the Road to the Civil War”, writes that “in a sense, the first battles of the Civil War were waged in Congress itself” (Freeman 2018, 11).
risks that legislative violence contributes to a disillusionment with politicians, or worse, a delegitimization of democracies (Batto and Beaulieu 2020; Gandrud 2016).

So, far from being random events of largely anecdotal significance – or worse – mere subjects of entertainment news coverage, the study of legislative violence may hold a key to a better understanding of the broader dynamics of polarization, democratic backsliding, democratization, and civil conflict.

Existing scholarship tells us that legislative violence is most often employed to achieve important political objectives (Batto and Beaulieu 2020; Gandrud 2016). Violence has a performative component effectively serve as a way of communicating with voters, a public performance designed to draw attention or signal commitment to a cause (Shukan 2013; 2010; Batto and Beaulieu 2020). But it can also be used tactically in an attempt to forcibly block or push through laws, appointments, treaty ratifications, constitutional amendments, etc. (Gandrud 2016; Wolfe 2004).

Thus far, few studies have attempted to identify the conditions under which violence is more likely to occur. In the only cross-country analysis of the phenomenon, Christopher Gandrud argues that “that violence in democratic legislatures is often precipitated by situations where legislators find it difficult to credibly commit to follow peaceful bargaining outcomes” (Gandrud 2016, 131). In this article, we build and improve on Gandrud’s work in a number of ways.

First, by significantly improving the availability and quality of data. We introduce an original dataset, the Fistfights in parliamentary Sessions Time Series (FISTS) v.1.0, which includes between three and four times as many instances of violence as previously existing data, thanks to web searches in all official UN languages as well as in Portuguese. This shows that brawls have been much more common than previously assumed (Batto and Beaulieu 2020; Gandrud 2016). Second, we expand the scope of analysis to all countries of the globe
regardless of regime type, allowing for the most detailed and comprehensive analysis of the phenomenon thus far.

Third, we develop a comprehensive theory of parliamentary violence stating that levels of democracy and the composition of parliament should drive the occurrence of brawls. Expanding on Gandrud’s theory of credible commitment problems, we argue that for them to become salient, parliaments must first be democratic enough to matter and to be at least somewhat representative. In autocracies, parliaments are either heavily dominated by a ruling party, making political controversy rare, or they are simply not an arena for consequential political debates and decision-making to begin with. We therefore should not expect to see much brawling in these chambers. At the other end of the spectrum, the most democratic parliaments should be better at solving credible commitment problems and more legitimate in making consequential or controversial decisions (Gandrud 2016). In hybrid or intermediary regimes, however, parliament matters and is representative enough to make it an arena for consequential and controversial debates, but the ability of actors to credibly commit and the legitimacy of consequential or controversial decisions is lower.

Given both the tactical and performative natures of violence, we also expect the composition of the chamber to influence brawling. Gandrud found that the size of the government’s majority in parliament correlated negatively with violence in parliament (Gandrud 2016). We believe that it is sensible to expect that any lopsided distribution of seats, in other words large majorities or small minorities, should reduce violence. If, however, parliament is composed of two camps of almost equal numerical strength, we argue that brawls become more likely. In such contexts, the closeness and uncertainty of legislative outcomes increases incentives for lawmakers to employ tactical violence. In addition, making politically significant decisions in a context of slim majorities is more likely to be seen as illegitimate.
Given the performative nature of violence, we also argue that parliaments with a greater number of smaller parties should also witness a greater amount of brawls. Smaller parties are more likely to be composed of MPs holding more extreme views (Belchior 2013), less likely to be included in ruling majorities, and thus more inclined to use radical steps to publicize their cause and signal their ideological commitment to die-hard supporters (Batto and Beaulieu 2020).

Our empirical analysis confirms these expectations, as we find that legislatures are most likely to witness violence when (1) the country is neither very democratic nor very autocratic, (2) majorities are slim, and (3) chambers are more fragmented.

Our findings have important implications for the literature on violence, conflict, and (de-)democratization. First, it provides additional support to scholarship arguing that intermediate regimes are more prone to instability and to political and social violence than either strong democracies or autocracies (Fox and Hoelscher 2010; Gates et al. 2006; Hegre et al. 2001). Second, while not providing causal evidence on the effect of within-country (de-)democratization on violence in parliaments, our research and anecdotal evidence suggests that depending on the point of departure lower or higher levels of democracy may increase or decrease the likelihood of violence. In other words, while in some countries parliamentary brawls are a sign of (increased) democratic openness, in others they may indicate democratic backsliding. And third, while levels of democracy are crucial, the design of institutions affecting the composition of and distribution of power within parliament also contribute to more or less violent chambers.

We begin this paper by reviewing a small but growing body of research on violence in parliaments. We then specify hypotheses to be tested. The subsequent section describes our data and the methodology employed. We then present our results before discussing them in the penultimate section. Lastly, we conclude.
Literature review

Though disruptive behavior in parliament is mostly peaceful (Johnson 2013; Rai 2013; Spary 2010), debates and arguments in the chamber can sometimes turn violent. But what would drive lawmakers to physically attack their colleagues?

While spontaneous, gratuitous, or even trivial violence does exist, brawls in legislatures usually serve two strategic purposes. First, violence can be conceptualized as a public performance through which lawmakers communicate with the wider polity (Batto and Beaulieu 2020; Shukan 2010; 2013; Spary 2013; Spary, Armitage, and Johnson 2014). Carole Spary, for instance, showed how disruptive actions are planned and carried out in order to draw attention to particular issues, constituting “a ritual for performing political contention” (Spary 2013; Spary, Armitage, and Johnson 2014, 204). Ioulia Shukan, who ethnographically studied episodes of violence in Ukraine’s legislature, argued that particularly when elections are approaching, physical violence signals to voters how committed MPs are to – quite literally – fighting for them (Shukan 2010; 2013). In a similar vein, Batto and Beaulieu write that “legislators who choose to participate in brawls are taking advantage of an opportunity to communicate with an audience they consider important for re-election” (Batto and Beaulieu 2020, 317). They demonstrated that what they choose to communicate, and who with, depends on the position of the party in parliament (e.g. majority or opposition) and the institutional context. In the specific case of Taiwan, the country with the most parliamentary brawls, they show that ideologically extreme party supporters, whose support is crucial for re-election in the Taiwanese political system, are the main intended audience of brawling politicians.

Second, violence is also employed to achieve important tactical, legislative goals (Gandrud 2016). Under some circumstances, MPs may see it as a possible course of action –
if only of last resort – to ensure that the chamber passes, delays, or fails to pass a law. Indeed, some lawmakers – typically from the opposition – may employ violence in the hopes of delaying or preventing legislation, while others – usually from the governing majority – may want to use it in an attempt to break legislative deadlocks and impose their will on the chamber (Gandrud 2016, 131). The costs of such behavior are generally thought to be low, because potential sanctions are usually weak, inconsistently applied, and seem to have no discernible effect on MPs’ propensity to fight (Gandrud 2016; Wolfe 2004). One may argue that lawmakers could face reputational consequences, but, as Batto and Beaulieu’s research shows, the generally negative response of the wider population could, in the eyes of the perpetrators, be outweighed by positive perceptions from key voting blocs (Batto and Beaulieu 2020).

Therefore, be it for performative or tactical reasons, or indeed both, MPs may under certain circumstances choose violence over peaceful deliberation. But what exactly are these circumstances? When and where are lawmakers more likely to brawl? Only few studies have attempted to answer these questions thus far.

The nature and quality of democratic institutions themselves is a logical theoretical starting point for thinking about what tends to incentivize lawmakers to fight. In the only cross-country study so far, Christopher Gandrud puts forward a “theory of credible commitment problems”. He argues that “in democratic legislatures winners and losers – who may someday become winners – need to be able to credibly commit to not use or remake legislative procedures and policies in their narrow self-interest. They need to commit to limits on their power [...]” (Gandrud 2016, 132). Indeed, there seems to be less of an incentive to resort to radical, violent action if MPs have the confidence that today’s losers can in fact become tomorrow’s winners (Gandrud 2016; Palma 1990; Przeworski 1991).
But other scholars, such as Eugene Wolfe, who analyzed a recrudescence of violence in the Japanese Diet during the 1990s, have been more skeptical of this argument (Wolfe 2004). He points out that MPs often have very high discount rates and that some policies may not be easily reversed even if the opposition were to win future elections, explaining why even in well-designed democratic systems violence occurs (Wolfe 2004). Another hypothesis suggests that MPs need to internalize and be socialized with democratic norms and that therefore democracies should become less prone to violence over time (Wolfe 2004). Wolfe showed that it does not adequately explain the Japanese or other cases of established democracies that have repeatedly experienced violence (e.g. Italy), arguing that over time, MPs could internalize rule-breaking norms just as much as rule-following norms (Wolfe 2004). However, in the instances above, Wolfe’s critique is based on the fact that these hypotheses do not explain all cases, in particular not the cases of Japan and Italy, which of course does not preclude the fact they still hold true in most cases. Indeed, Gandrud’s cross-country study does suggest that the institutionalization of democracy prevents violence (Gandrud 2016).

Existing scholarship also considered the potential role of personal and demographic factors. Shukan hypothesized that the personal background of many Ukranian MPs could explain why they do not shy away from a fight, as many rose to power and riches under dubious circumstances in the rough and turbulent environment of the 1990s (Shukan 2013). Wolfe pointed out that cases such as the Weimar Republic or post-war Italy also seem to indicate that political violence in society may “spill over” into parliament, although he underscores that in many cases, including 1990s Japan, this is not the case (Wolfe 2004). Gandrud’s study did not find any evidence for such a “spill over” theory, nor for other characteristics of MPs or society at large, such as the share of women in parliament, ethnic fractionalization, or the national murder rate (Gandrud 2016).
Lastly, researchers have focused on the distribution of power within parliament. The existing qualitative studies on Ukraine and Japan argued that brawls happened when the opposition did not have, or felt that it did not have, adequate influence over legislative outcomes (Shukan 2010; Wolfe 2004), and, in the case of Ukraine, usually occurred in the context of a deeply divided parliament (Shukan 2010; Whitmore 2019). Furthermore, Gandrud found that the size of the governing majority in parliament is negatively correlated with fighting, either because in parliaments with large majorities decisions are likely to be viewed as very legitimate, or because dissent is more easily marginalized and suppressed in such contexts (Gandrud 2016).

While Wolfe’s and Shukan’s extremely rich, detailed, and helpful analyses put forward valuable hypotheses that warrant further exploration and testing, they do not, as such, provide more generalizable explanations. Gandrud’s study is the most detailed and comprehensive effort at establishing generalizable determinants of physical violence in parliament thus far (Gandrud 2016). However, it also suffers from a few shortcomings we hope to address.

First, we believe that the data used significantly underestimates the occurrence of physical violence in parliaments. We suspect that this is due to the fact that the search for press material was conducted mostly, if not exclusively in English. In most countries around the world, leading national news outlets do not publish in English. In order to be detected, potential instances of parliamentary fighting would therefore have to be reported by foreign, English-speaking news media. These outlets tend not, for example, to be as interested in events unfolding in small developing countries where only the domestic, non-anglophone press tends to cover parliamentary affairs.

Second, the study focuses solely on parliamentary violence in democratic countries, analyzing 80 cases in 30 countries with higher levels of democracy between 1990 and 2012
There may be good reasons for this step, but many instances of parliamentary violence occur in countries that would not qualify as full democracies. Including them would therefore enable us to paint a much more complete picture of the determinants of violence in legislatures across the globe.

Third, in the context of such a study focusing on all countries regardless of regime type, we believe Gandrud’s theory of credible commitment problems could be operationalized in a more parsimonious way. Gandrud relies on two factors: the age of the democracy, because through habituation actors should increasingly trust that the other side will not “break peaceful bargains”, and at the disproportionality between the vote share and the seat share in parliament, because it “creates possibilities for shifts in power from those who benefit from the status quo to beneficiaries of rules that would more closely align legislative resources with voter support, [...]” thereby preventing “fairness equilibria” (Gandrud 2016, 132). However, one could argue that higher levels of democracy should more generally translate to a better ability to credibly commit and to stick to peaceful bargains.

In this paper we aim to build on the scholarship discussed in this section and hope to address some of its gaps and shortcomings. We do so by expanding the scope of our analysis to all countries regardless of regime type and by making use of a more complete original dataset. This helps us to test our new, comprehensive theory of parliamentary violence and to better operationalize existing ones. In the following section, we discuss some of our theoretical expectations and formulate some of the key hypotheses for physical violence in parliaments we test in subsequent sections.

Hypotheses

a. Working hypotheses

---

5 Other parts of his analysis rely on a slightly larger set of 86 cases in 30 countries because the time frame is longer, from 1981 to 2012.
i. Levels of democracy

As we expand the analysis to brawls in authoritarian and hybrid regimes, it becomes necessary to develop hypotheses on how the levels of democracy may affect the occurrence of legislative violence. By levels of democracy we mean the quality of electoral democracy, a minimal conception of democracy resting on free, fair, inclusive, and meaningful elections.6

First, for violence to occur in parliament, it must be an important arena of political conflict and decision-making and its composition must be somewhat influenced by elections. This is because if, like in many autocracies, parliament is not an arena in which important political decisions are being made but merely a rubber-stamp institution under control of the executive, tactical violence makes little to no sense because real decisions are being made elsewhere. Without at least somewhat free and fair elections, performative violence makes little sense either, since brawling politicians would be trying to communicate with effectively powerless audiences. And fighting should also be less likely when elections are so flawed that parliament does not reflect the political differences in society that are potential sources of conflict. Therefore, we should expect parliamentary violence to be less common in autocracies.

Second, political systems that are better resolving credible commitment problems should witness less violence (Gandrud 2016). In highly democratic countries, the people and their representatives can have high confidence in the reversibility of decisions by parliaments and possible alternation in power (Przeworski 1991; Palma 1990). More generally, outcomes of highly democratic processes, practices and institutions are also likely to be more legitimate and less contested. We would therefore also expect violence to be low in the most democratic countries.

---

6 A more detailed explanation of the V-Dem index used is given in the following section.
In intermediate or hybrid regimes, the situation is different from both autocracies and democracies. Parliament matters at least somewhat and elections, though flawed, produce an assembly representing some important different political views in society. However, credible commitment problems are more difficult to resolve in such contexts because politicians have less confidence that legislative outcomes are reversible (Przeworski 1991; Palma 1990). Moreover, greater “institutional inconsistencies” and political instability of hybrid regimes increase uncertainty and incentives to break peaceful bargains (Gates et al. 2006; Gandrud 2016; Hegre et al. 2001). In addition, the flawed nature of elections and political institutions reduces their legitimacy and increases their contentiousness.

When combining these theoretical expectations, this leads us to predict a curvilinear relationship between levels of democracy and the probability of parliamentary violence, peaking at a medium level where a country is considered partially democratic/authoritarian. We therefore hypothesize that:

**H1:** *The relationship between the level of democracy and parliamentary violence is curvilinear, with the latter peaking at the partially democratic/authoritarian level.*

**ii. Distribution of power in parliament**

Furthermore, we believe that the balance and distribution of power between government and opposition ought to have a significant impact on levels of both tactical and performative violence.

Gandrud found that the size of the governing bloc in parliament had a negative and significant effect on brawls (Gandrud 2016). We agree with this assumption and further believe that any lopsided distribution of seats, i.e. a very large governing or a very large opposition bloc, should result in less fighting. When majorities are very large, legislative
outcomes are much more certain. A very dominant majority is able to quickly pass laws or quash dissent and a very small minority government needs to seek a consensus with large parts of the opposition. But when parliament is polarized into two roughly equally-sized camps, the stakes and the uncertainty are high, increasing the incentives for tactical violence. The opposition, in a strong position in terms of its seat share but with ultimately often limited means of influencing the legislative outcome, could then be more amenable to employing violence (Shukan 2010; 2013; Wolfe 2004). In a similar fashion, government MPs may try to forcibly impose their will when their preferred outcome is within reach but still uncertain, facing opposition, obstruction, or delay.

We also contend that we should observe more violence when more seats in parliament are held by smaller, fringe parties whose MPs we believe to be more likely to engage in performative violence. These lawmakers are more likely to hold more radical, less compromising, and more provocative political views, to be less able to drive substantive legislative outcomes and therefore to care much more than others about appealing and signaling commitment to die-hard party loyalists (Batto and Beaulieu 2020). Given that splintered parliaments tend to include more of such MPs and parties (Belchior 2013), we should be able to use the degree of parliamentary fragmentation as a proxy.

We therefore hypothesize:

\textit{H2: Violence is more likely to occur in parliaments with slim majorities.}

\textit{H3: Violence is more likely to occur in more fragmented parliaments.}

c. **Alternative explanations and controls**

We further test and control for a number of additional explanatory factors which have either been tested in previous studies or put forward in qualitative, small-\(n\) research. We revisit the initial operationalization of Gandrud’s theory of credible commitment problems developed by
Gandrud to explain parliamentary violence, age of democracy, and the disproportionality between vote share and seat share (Gandrud 2016). Furthermore, Shukan’s work suggested that performative violence could be particularly attractive in the run-up to general elections, so as to woo voters with their displays of political and ideological commitment (Shukan 2010; 2013). Lastly, we also control for a range of other possible explanatory factors, such as levels of interpersonal trust in society, the percentage of women in parliament, and various other political and socio-economic variables (Gandrud 2016; Shukan 2010; 2013).

**Methodology and Data**

We introduce a new, original dataset of physical violence in parliaments, the Fistfights in parliamentary Sessions Time Series (FISTS) v.1.0 which is made publicly available.\(^7\)

Thanks to our search strategy, we were able to expand the universe of cases of violence in parliaments by 286% compared to the only currently existing dataset (Gandrud 2016). We used keyword searches of Google web search, LexisNexis, Youtube, Associated Press Video Archive, Google News, and the AllAfrica archive. The keywords included “brawl”, “fistfight”, “scuffle”, “fisticuff”, “throwing punches”, “clash” in combination with “MPs”, “lawmakers” and terms such as “parliament”, “assembly” or the specific name of the national legislature. This search was conducted in all official working languages of the United Nations, namely Arabic, Chinese, English, French, Russian, and Spanish, as well as in Portuguese, by the two authors of this paper and two research assistants. The countries under study include all member states of the United Nations plus Taiwan and Kosovo, which are de facto sovereign states that have regularly sitting elected parliaments. We focused exclusively

---

\(^7\) The data used for this article can be found in the replication materials. The dataset is also hosted at www.moritz-schmoll.com.
on national legislatures. The time frame covered in the dataset extends from 1980 to 2018 (though as we shall explain below, our models will use the time frame from 1990 to 2018).

We consider an act of physical violence to have occurred when a MP touched or applied force to another MP without their consent, or when an MP did so by putting an object or substance in motion, which broadly corresponds to the legal definition of battery. We also categorized as violence the discharging of a firearm, even when it did not injure another MP. We were interested only in violence between lawmakers and therefore did not count physical violence used by state officials (e.g. clerks, riot police officers, soldiers, etc.) against MPs or vice-versa as violence for the purpose of our research. The dataset further only covers violence between MPs in parliament buildings and therefore does not include instances of violence that may have occurred between MPs elsewhere (e.g. in TV studios, on the campaign trail, etc.).

The dataset also coded information on the reported reason or context for the fight, although a detailed analysis of these different sub-categories of violence is beyond the scope of this paper. Fights were categorized into four different categories: (1) fights over power-affecting constitutional changes, policies or appointment decisions, such as changes to the political system (parliamentary to presidential), electoral law reform, significant changes to parliamentary procedure, reforms reducing judicial independence or curtailing civil freedoms, or supreme court judge appointments; (2) fights over symbolic constitutional reform or policies that do not directly affect the power balance within the political system but that are an issue of major historical, political or cultural symbolic significance (e.g. the pacifist nature of the state in Japan, diplomatic relations with Israel in many states of the Middle East and North Africa, etc.); (3) fights over ordinary policies or appointments, such as an education bill, a budget, or a ministerial appointment; (4) fights due to ad hominem attacks, insults, personal

---

8 In countries where violence in sub-national parliaments is very common, this may therefore lead to an underestimation of the prevalence of violence in legislatures in the country as a whole. India and Brazil are country examples where this may apply.
issues, or accusations of improper, illegal or unethical behavior. In a few instances, we could not determine the cause of the fighting from the available source material.

This dataset is, to the best of our knowledge, the most exhaustive and detailed database on legislative violence compiled to date. However, it also has some limitations. While the language coverage is much more extensive than before, roughly 60 countries we studied do not have as their main official language one of the languages we conducted our search in (although half of them are situated in Europe and therefore ought to be relatively well covered by media reporting in the five European languages we use in our search). In addition, for a few of our sources, in particular archives or aggregators that rely on digitized printed newspaper articles, the press of smaller or more peripheral countries may be less represented. However, Google web searches in the right languages should return press articles even from the media of such countries when the right search terms are used. Finally, a concern for data collection is the availability of information on parliamentary violence over time. Because we rely essentially on media reports of cases of parliamentary violence, including many online sources, coverage could be skewed toward more recent years. Figure 1 shows the number of incidents in our dataset in every year since 1980.

-------------

Figure 1 here
-------------

We therefore included year fixed effects to all models to account for the information bias toward later years. We further confined our analysis to the years subsequent to 1990 as it gives us a sufficiently long time series to reach meaningful results in our analysis whilst keeping the discrepancy of availability of information through time to an acceptable level. Running our main model with an extended time frame reaching back to 1980 returned very similar results (see Table A1 in the Appendix), demonstrating the robustness of our findings.
Our dependent variable is the number of instances of violence in parliament in a given country-year. To serve as our measure for the Level of Democracy, we will use the Electoral Democracy index compiled by the Varieties of Democracy (V-Dem) project, which has a range of 0 to 1 where 0 denotes an absolute autocracy and 1 an ideally functioning democracy (Lindberg et al. 2014). The index is “formed by taking the average of, on the one hand, the sum of the indices measuring freedom of association (thick), suffrage, clean elections, elected executive (de jure) and freedom of expression; and, on the other, the five-way interaction between those indices” (Teorell et al. 2019, 648). We use the V-Dem index because it has, since its introduction in 2016, quickly become the new standard dataset used in political science and is in many ways superior to the previously widespread Polity IV dataset.9

We will rely on two measures to test our hypothesis regarding the impact of the distribution of power in parliament. Marginality is a measure of the balance of power between government and opposition parties within a parliament of a certain year.10 It is defined as the distance from a perfectly split parliament and has a range from 0 to 0.5 where 0 would be a perfectly polarized parliament with the government and opposition each occupying exactly half of the seats whilst 0.5 would denote a parliament where either the government or the opposition occupy all the seats. In other words, the higher the value of Marginality, the more lopsided the balance of power in parliament. Party Fragmentation measures the level of fragmentation within a parliament in a given year (Henisz 2017). It takes on a value between 0 and 1 that denotes the probability of two parliamentarians, randomly drawn from the lower chamber of the parliament, representing different parties.

Results

9 Gandrud’s study, published around the time the V-Dem data was made public, relies on Polity IV.
10 Adapted from the Inter-American Development Bank (IDB) Database of Political Institutions (DPI) 2017 (Scartascini, Cruz, and Keefer 2018).
a. Descriptive statistics

In total we counted 375 cases of violence between 1980 and 2018, and 365 cases between 1990 and 2018, the time frame of our analysis. Figure 2 below illustrates the geographic distribution of instances of violence between 1990 and 2018. It shows that violence is much more common than previously assumed (Batto and Beaulieu 2020; Gandrud 2016). Cases were found across 78 countries in Latin America and the Caribbean, Europe, the Middle East and North Africa, Sub-Saharan Africa, and different parts of Asia.

-------------------

Figure 2 here

-------------------

Table 1 below presents the number of cases of parliamentary violence categorized along the four groups of themes (discussed in the previous section) of the legislative session during which the violence happened.

-------------------

Table 1 here

-------------------

The most prominent type of policy context for parliamentary violence are “ordinary” policy disputes, accounting for about 30% of cases, followed by those directly related to attempts to alter political institutions or the allocation of power. These cases account for a little over a quarter of overall cases. Fights over highly symbolic issues constituted 17% of total cases, while *ad hominem* attacks represented roughly 22% of brawls. Between them, highly consequential (power-affecting) and controversial (symbolic) cases therefore represent close to 45% of all brawls in chambers. While there is no global data on the share of overall parliamentary debates these sub-types would normally account for, we believe that is safe to
say that, rather unsurprisingly, violence seems to occur disproportionately when consequential or controversial policies are being debated.

b. **Regression analysis**

The dependent variable of all models is the number of cases of parliamentary violence, or sub-types of violence, within a country-year. To account for the fact that the outcome is a count variable, all the models employed in this paper are Poisson time series regressions as expressed by Equation 1:

\[
\log E(Y_{it}|u_{it}) = \alpha + X_{it}\beta + \gamma_t + u_{it}. \quad (1)
\]

All models include year fixed effects \( \gamma_t \) to control for possible variations in the availability of information on parliamentary violence over time. Lastly, we excluded from the analysis country-years where there is no effective elected legislature. This is a necessary constraint on the analysis, as the inclusion of the few dictatorships with no (or no regularly-sitting) elected parliaments at all, such as China, North Korea or Saudi Arabia, might excessively distort the estimated effect from key variables such as the level of electoral democracy and the size of the government majority. However, we also ran the main model without this constraint and the results largely resemble those presented in this paper (see Model 3 in Table A1 of the Appendix).

--------------

Table 2 here

--------------

Table 2 shows the models that estimate the number of cases of physical violence in parliament in a given country-year. Models 1 and 2 test the curvilinear relationship between Level of Democracy and the occurrence of parliamentary violence as per H1. Model 1 first estimates the linear relationship between parliamentary violence and Level of Democracy,
which by itself is not statistically significant. The addition of a squared term in Model 2 causes the coefficient for both the linear and squared term to become significant at the 0.05 and 0.01 level respectively. Figure 3 below plots the estimated levels of violence per country-year against Level of Democracy, as estimated in Model 2. It shows that parliamentary violence rarely occurs at the extreme ends of Level of Democracy, but instead clusters around intermediate regimes, peaking at a V-Dem Electoral Democracy index score of between 0.5 and 0.55 out of 1.

---------------

Figure 3 here

---------------

Model 3 tests the impact of the balance of power between government and opposition in parliament as well as party fragmentation on the occurrence of violence in parliament, as proposed by H2 and H3. Model 3 is our core model that includes all the variables that test H1, H2, and H3. The coefficients for Marginality and Party Fragmentation indicate that both slim majorities and higher party fragmentation have a positive effect on the occurrence of violence in parliamentary sessions. Moreover, all these are statistically significant at 0.05 level and are in the hypothesized direction. We therefore find evidence confirming our core hypotheses H1, H2, and H3.

Models 4 and 5 test a previous operationalization of the theory of credible commitment problems relying on the variables Disproportionality and Age of Democracy. It should be noted that due to missing data on the disproportionality between vote share and seat share from some countries, the analysis of these two models are limited to a smaller subset of countries, thus making comparisons with other models difficult. Results from model 4 show that an increase in Age of Democracy does have the expected negative effect on the occurrence of parliamentary violence. However, the coefficient for Disproportionality is not
statistically significant and in the wrong direction. Model 5 adds these two variables to our core model. Similar to Model 4, the results show that only the coefficient for Age of Democracy is statistically significant at the 0.05 level. The coefficients of key variables which support our theories, such as Level of Democracy and Party Fragmentation, remain significant and of the predicted direction.

Model 6 tests whether violence is more common in the run-up to elections by adding the Year Left of Current Term variable to our core model (Model 3). The result is not statistically significant and indicates that MPs are not more likely to brawl when an election is approaching.

Discussion

What makes lawmakers violently attack each other in some parliaments but not in others? Our findings suggest that what affects levels of violence in parliaments is the levels of democracy and the composition of parliament.

First, fights are more likely to occur when the quality of electoral democracy is at an intermediate level. In closed autocracies, lawmakers physically clash less often, presumably because parliaments are more rubber-stamp institutions than arenas of actual deliberation. And since elections are not free and fair, parliament is also less likely to reflect the political divides of the country or to have a genuine opposition. Put simply, we believe that fistfights are less common in these chambers because serious disagreement is less common.

In the most democratic countries, we also observe very little violence. We think that because in such contexts parliaments and their members tend to be the product of very democratic elections, lawmakers are more likely to accept parliamentary norms, practices and procedures as the most appropriate ones for solving disagreements (Gandrud 2016; Wolfe 2004). They can also reasonably expect that political outcomes generally remain reversible
and that today’s losers may in the future still become winners (Gandrud 2016; Palma 1990; Przeworski 1991).

In countries with hybrid regimes, the situation is different. Unlike in closed autocracies, the basic ingredients for potentially antagonistic exchanges are there. Parliament is a relatively important arena of political decision-making and elections, though flawed, are free and fair enough to allow for a wider range of opposing political opinions to be represented. But credible commitment problems loom large in hybrid regimes. Politicians will in these systems often want to rewrite the rules of the game. Although there will be partisans of the status quo, due to “institutional inconsistencies” some MPs will seek greater authoritarianism, and others further democratization, which often tends to result in much more intense and fundamental political tensions than if people disagreed “only” on mundane policies (Gates et al. 2006). An example is Hong Kong,11 where violence in the Legislative Council became much more common because pro-Beijing and pro-Democracy members fundamentally disagreed on the desirability of an encroachment of mainland China’s authoritarian system as opposed to a protection or even expansion of Hong Kong’s then proto-democratic form of government.

Based on our results, it seems likely that a lack of institutionalization of democratic norms and practices over time, which can also help resolve credible commitment problems, also plays some role in explaining violence (Gandrud 2016). Scholars like Wolfe remained skeptical of this hypothesis but Gandrud’s study had within the subset of democratic countries found a negative relationship between the age of democracy and fighting (Gandrud 2016; Wolfe 2004). Our findings show age of democracy to be significative, and given that the most democratic countries – consisting mainly of Western Europe, North America, Australia and New Zealand – also tend to be the oldest and most established democracies, this is entirely

---

11 Hong Kong is not included in our dataset because, unlike Taiwan, it is not a de facto sovereign state.
plausible. Overall, however, we believe that the quality or level of democracy is a better predictor and offers a more holistic and at the same time more parsimonious relationship between democracy and parliamentary violence.

Unfortunately, we are unable to demonstrate that historical variations in the levels of electoral democracy within a given country make legislative violence more or less likely. Results from our model using country fixed effects are not conclusive due to the small number of countries that remain in such a model, and therefore do not allow us to make such claims. Albeit anecdotal in nature, there are nonetheless examples that illustrate how the fluctuations in (de-)democratization can coincide with changes in legislative violence. In Russia, which since the presidency of Vladimir Putin has moved from an intermediary state of democracy to an autocracy, violence in parliament subsided not long after he took office. Conversely, in Turkey, the country moved from a democratic state to a hybrid regime under president Recep Tayyip Erdogan, coinciding with an increase in brawling in parliament.

Second, we found that legislative violence correlated strongly with the distribution of seats in parliament. The slimmer the majorities in parliament, and the more fragmented the chamber is, the more common scuffles become, confirming our hypotheses H2 and H3, respectively. With respect to the former relationship, our findings are in line with Gandrud’s study (Gandrud 2016). We add some nuance by showing that independently of whether it is the government or the opposition that controls a very large share of the seats in parliament, lopsided distributions of seats are generally associated with fewer fights.

Indeed, when governments command large majorities, we believe that legislative outcomes are very certain and so virtually all lawmakers must expect the government’s bills to pass no matter what they do. Such a large majority’s decisions are presumably also more likely to be seen as more legitimate. When it is the opposition that commands large majorities, the governing party in parliament has to co-operate with a large number of MPs from other
parties. We believe this need for multipartisan cooperation would also result in a lower likelihood of fighting. However, when majority and opposition are of roughly equal strength, the legislative uncertainty and stakes are higher, increasing the incentives to employ strategic violence to push through or prevent legislation.

We also demonstrated that our hypothesis H3, postulating that more fragmented parliaments should experience more violence, holds true across our data. We believe that this is due to the fact that more fragmented parliaments are more likely to include parties and lawmakers with radical views, who are less likely to be able to substantively affect outcomes but still care a lot about publicizing causes to voters and supporters. Though again anecdotal in nature, evidence from the South African case can help illustrate the mechanism we believe to be at work. In the former, greater fragmentation was linked to the entry into parliament of the Economic Freedom Fighters, a radical left-wing party. They became a highly disruptive force in the assembly (Calland and Seedat 2015; Sorensen 2020), and have been at the origin of every single one of the five incidents of violence we counted between 2014 and 2018.

Our results did not produce convincing evidence supporting alternative hypotheses. Disproportionality between vote share and seat share was not significant, and we therefore remain skeptical of a theoretical mechanism linking violence in parliaments to attempted changes in electoral laws (Gandrud 2016). We also could not find evidence for the fact that brawling is more common in the run-up to elections, as Shukan had described in the Ukrainian case (Shukan 2013). At the cross-country level, it could therefore be that performative violence is more a feature of the political and partisan identity of the MPs than of the political context or timing. Political institutional variables such as the existence of a strong second chamber, proportional representation, a presidential, or semi-presidential system were not significant or in the opposite direction of the theory’s predictions. Although institutions will have effects on the three factors we found to be significant, it appears that various types of
political systems can experience violence in their parliaments. Lastly, a range of socio-economic and demographic variable were also not statistically significant, including levels of GDP per capita, or the share of women in parliament.

**Conclusion**

This article aimed to explain the still understudied phenomenon of physical violence in parliaments. Our findings, based on the analysis of a novel dataset that widely expanded the known universe of cases of violence, provide new evidence on the drivers of brawling in the world’s legislative assemblies.

We found that physical violence in parliaments is mainly determined by the levels of electoral democracy and the composition of parliament. Violent altercations are a more common occurrence in intermediate or hybrid regimes, because in autocracies elections and parliaments are not sufficiently free to allow for controversy and conflict, whereas in democracies highly democratic and legitimate institutions help resolve credible commitment problems (Gandrud 2016). The findings lend additional support to a strand of the literature that has highlighted how intermediate or hybrid regimes are much more likely to be affected by political violence, social violence, and instability (Fox and Hoelscher 2010; Gates et al. 2006; Hegre et al. 2001). Institutional inconsistencies between the dual authoritarian and democratic natures of these regimes are therefore likely also at the root of actual, physical violence within these institutions themselves (Gates et al. 2006). What does this finding mean for democratization and democratic backsliding? Although more research is needed, a tentative lesson from our research seems to be that the answer to that question to a large extent depends on the point of departure of the country. In authoritarian countries, experiencing a democratic opening, parliamentary violence can be seen as the growing pains of democratization, as a sign of burgeoning democratic vitality. If, on the other hand, fighting
takes place in a more democratic country, it could be a source for concern, though established democracies such as Japan or Italy have also managed to “live with” regular fistfights among their MPs. Another lesson is that one important way to reduce violence is via freer and fairer elections, and more generally better democratic institutions. Such institutions, and the decisions they produce, are more likely to be accepted by lawmakers than those produced by less democratic and more illegitimate bodies.

The fact that the composition of parliament also shapes the probability of brawling highlights the tactical nature of violence. Should one want to reduce violence in parliaments, institutions could be designed to make the occurrence of slim majorities or party fragmentation less likely, although this can often come at the cost of a chamber that is less representative of its electorate. Alternatively, institutions fostering cooperation across the aisle instead of incentivizing political actors to force their way through in context of slim majorities could also reduce brawling. Such a reform happened in South Korea with the official and explicit goal of attaining a more “efficient operation” of the National Assembly,\textsuperscript{12} which as observers pointed out also meant ending parliamentary brawls.\textsuperscript{13} Since the act took effect in 2013, we have counted no fistfights in parliament, despite South Korea historically being the fourth worst “offender” in the world, with a total count of 18 cases in our dataset between 1990 and 2012. But there is a price to pay: potentially greater legislative gridlock. Furthermore, such reforms are generally very unlikely to be replicated in other contexts, as it is quite rare that ruling majorities restrict their own power and ability to pass laws. If anything, the trend seems to be going in the opposite direction, if we consider, for example, recent debates about abolishing the filibuster in the US Senate. Based on our findings, in such a

\textsuperscript{12} Article 1, National Assembly Act (Act No. 11453, May 25, 2012) of the Republic of Korea.

\textsuperscript{13} See, for example, “The Tyranny of the Minority in South Korea”, The Diplomat, September 20, 2014 (https://thediplomat.com/2014/09/the-tyranny-of-the-minority-in-south-korea/).
scenario we would expect that the multiplication of contentious laws trying to be passed with a slim majority will strongly exacerbate the already existing tensions.\textsuperscript{14}

The fact that the presence in parliaments of greater numbers of smaller, often more ideologically committed parties also drives violence further points to a strong role of performative violence. Lawmakers from these smaller parties are more likely to be on the extreme ends of the political spectrum, less likely to be part of ruling majorities and have greater incentives to focus on communicating their strongly held views to voters and supporters (Batto and Beaulieu 2020). Therefore, another way to discourage fights in parliament is to adopt measures that could reduce party fragmentation and in particular the entrance of small extremist parties into parliament.\textsuperscript{15}

Despite our increasingly improved understanding of this phenomenon, we expect that further progress in this nascent subfield will come with better data availability and measurement of a number of variables. First, of ideological polarization. While some cross-country measures exist on this, they are few in number and none has the precision, reach, and coverage that would be necessary for a rigorous cross-country analysis. Second, systematic, cross-country data on how formal and informal legislative procedures distribute power to the majority and the opposition would also be invaluable. And third, though this is less likely on a large cross-country, cross-time scale, knowing more about the personal backgrounds of MPs would be helpful to better test hypotheses on the impact of individual factors on physical violence in parliaments.

Future research should also leverage the data on the reasons and legislative context for brawls included in FISTS. Such a fine-grained analysis can better test the mechanisms at play and help improve our confidence in the relationships uncovered. Lastly, we believe there is

\textsuperscript{14} The recent nomination processes of Supreme Court justices, for which the filibuster has been abolished, already provides some support for our prediction.

\textsuperscript{15} Although this too would in all likelihood result in a reduced representativeness of parliament.
great promise in further exploring the potential downstream linkages, predictive qualities, and consequences of parliamentary violence. Is fighting in parliament only a symptom of an unstable, more conflict-prone political system, or is it, as a number of historical examples and some recent research suggests, perhaps even a sign of its upcoming intensification, up to the point of civil war (Freeman 2018)? With the help of our new dataset, subsequent studies will hopefully be better equipped to answer such questions.
References


Figures and tables (in order of appearance)

Figure 1. Number of cases of parliamentary violence in each year (1980-2018)

Figure 2. Geographical distribution of cases of physical violence in national parliaments (1990-2018)
Table 1. Number of violence by types of causes 1990-2018

<table>
<thead>
<tr>
<th>Cause of violence</th>
<th>No. of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power-affecting</td>
<td>98</td>
</tr>
<tr>
<td>Symbolic</td>
<td>62</td>
</tr>
<tr>
<td>Policy dispute</td>
<td>114</td>
</tr>
<tr>
<td><em>Ad hominem</em></td>
<td>78</td>
</tr>
<tr>
<td>Total</td>
<td>365</td>
</tr>
</tbody>
</table>
Table 2. Regression results

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Democracy</td>
<td>-0.734*</td>
<td>9.024***</td>
<td>5.399*</td>
<td>13.69***</td>
<td>6.973*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.510)</td>
<td>(2.920)</td>
<td>(3.441)</td>
<td>(5.079)</td>
<td>(3.783)</td>
<td></td>
</tr>
<tr>
<td>Level of Democracy^2</td>
<td>8.944***</td>
<td>-5.985**</td>
<td></td>
<td>-10.56***</td>
<td>-7.114*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.628)</td>
<td>(3.034)</td>
<td>(4.055)</td>
<td>(3.294)</td>
<td>(0.698)</td>
<td></td>
</tr>
<tr>
<td>Marginality</td>
<td>-1.562*</td>
<td></td>
<td>-0.941*</td>
<td>-1.517*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.678)</td>
<td>(0.828)</td>
<td>(0.698)</td>
<td>(0.698)</td>
<td>(0.698)</td>
<td></td>
</tr>
<tr>
<td>Party Fragmentation</td>
<td>1.636***</td>
<td>1.907**</td>
<td>2.080***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.554)</td>
<td>(0.807)</td>
<td>(0.612)</td>
<td>(0.612)</td>
<td>(0.612)</td>
<td></td>
</tr>
<tr>
<td>High Disproportionality(Dummy)</td>
<td></td>
<td>-0.235*</td>
<td>-0.0482</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.193)</td>
<td>(0.207)</td>
<td>(0.698)</td>
<td>(0.698)</td>
<td></td>
</tr>
<tr>
<td>Age of Democracy(In)</td>
<td></td>
<td>-0.181*</td>
<td>-0.321*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0770)</td>
<td>(0.130)</td>
<td>(0.698)</td>
<td>(0.698)</td>
<td></td>
</tr>
<tr>
<td>Year left of current term</td>
<td></td>
<td></td>
<td></td>
<td>0.0774</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.0483)</td>
<td>(0.0483)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-2.938***</td>
<td>-5.081***</td>
<td>-4.721***</td>
<td>-2.506***</td>
<td>-7.622***</td>
<td>-5.861***</td>
</tr>
<tr>
<td></td>
<td>(0.570)</td>
<td>(0.859)</td>
<td>(1.018)</td>
<td>(0.620)</td>
<td>(1.744)</td>
<td>(1.156)</td>
</tr>
</tbody>
</table>

Observations: 3,600
Number of Countries: 173

Standard errors in parentheses:
*** p<0.001, ** p<0.01, * p<0.05.

Figure 3. Predicted levels of violence by level of democracy
Appendix

Table A1 – Regression results (continued)

<table>
<thead>
<tr>
<th>Level of Democracy</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
<th>(11)</th>
<th>(12)</th>
<th>(13)</th>
<th>(14)</th>
<th>(15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country fixed effects</td>
<td>3.250**</td>
<td>2.090**</td>
<td>1.293**</td>
<td>2.503**</td>
<td>2.896**</td>
<td>3.037**</td>
<td>2.275**</td>
<td>2.353**</td>
<td>2.346**</td>
<td>2.285**</td>
<td>2.307**</td>
<td>3.036**</td>
<td>2.276**</td>
<td>2.278**</td>
<td>2.410**</td>
</tr>
</tbody>
</table>

Table A2 – Overview of variables
<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence in parliaments</td>
<td>Number of cases of physical violence in parliaments in a given country-year</td>
<td>Authors (FISTS v.1.0)</td>
</tr>
<tr>
<td>Level of democracy</td>
<td>Score on the V-Dem Electoral Democracy Index</td>
<td>V-Dem Project (Lindberg et al. 2014)</td>
</tr>
<tr>
<td>Marginality</td>
<td>Balance of power between majority and opposition in parliament, its distance from a 50/50 split</td>
<td>Inter-American Development Bank (IDB) - Database of Political Institutions (DPI) 2017 (adapted by authors) (Scartascini, Cruz, and Keefe 2018)</td>
</tr>
<tr>
<td>Party fragmentation</td>
<td>Probability of two randomly picked MPs being of a different party</td>
<td>Witold Henisz - The Political Constraint Index Dataset (Henisz 2017)</td>
</tr>
<tr>
<td>Age of democracy</td>
<td>Years a country has had a V-Dem polyarchy score greater than 0.5</td>
<td>V-Dem (adapted by authors) (Lindberg et al. 2014)</td>
</tr>
<tr>
<td>Disproportionality</td>
<td>Dummy variable for above or below average in Gallagher index of electoral disproportionality (1=above average electoral disproportionality)</td>
<td>Michael Gallagher – Electoral System Website (adapted by authors) (Gallagher 2018)</td>
</tr>
<tr>
<td>Years left in current term</td>
<td>Number of years left before the expiration of the current parliament’s term</td>
<td>IDB - DPI 2017 (Scartascini, Cruz, and Keefer 2018)</td>
</tr>
<tr>
<td>Proportional representation</td>
<td>Dummy variable for the use of proportional representation (PR) in parliamentary elections (1= PR electoral system)</td>
<td>IDB - DPI 2017 (Scartascini, Cruz, and Keefer 2018)</td>
</tr>
<tr>
<td>Bicameralism</td>
<td>Dummy variable for the existence of a second chamber with substantial power (1=Bicameral)</td>
<td>Witold Henisz - The Political Constraint Index Dataset (Henisz 2017)</td>
</tr>
<tr>
<td>Semi-presidentialism &amp; Parliamentarism</td>
<td>Categorical variable for executive-legislative relation (1=Assembly-elected executive, 2= Parliamentary system, baseline Presidentialism)</td>
<td>IDB - DPI 2017 (Scartascini, Cruz, and Keefer 2018)</td>
</tr>
<tr>
<td>Women in parliament</td>
<td>Percentage of female MPs</td>
<td>The World Bank (WB) - World Development Indicators (WDI) (World Bank 2018)</td>
</tr>
<tr>
<td>Ethnic fragmentation</td>
<td>The probability of two randomly selected persons being from a different ethnic group</td>
<td>Alesina, Devleeschauwer, Easterly, Kurlat and Wacziarg - Fractionalization Dataset (Alesina et al. 2003)</td>
</tr>
<tr>
<td>Internal conflict</td>
<td>Number of armed conflicts within a country in a given country-year</td>
<td>Uppsala Conflict Data Program (UCDP) Dyadic Dataset (Harbom, Melander, and Wallenstein 2008)</td>
</tr>
<tr>
<td>Year before election</td>
<td>Dummy variable for the year before a general election (1= Year before election)</td>
<td>IDB - DPI 2017 (adapted by authors) (Scartascini, Cruz, and Keefe 2018)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>Gross domestic product per capita, using purchasing power parity (PPP)</td>
<td>WB – WDI (World Bank 2018)</td>
</tr>
<tr>
<td>Gini coefficient</td>
<td>Coefficient measuring income inequality with 0 denoting a perfectly equal distribution of incomes and 100 a perfectly unequal one</td>
<td>WB – WDI (World Bank 2018)</td>
</tr>
<tr>
<td>Social trust</td>
<td>Average of country score in social trust in survey(s) of a country year. Missing data are filled with the latest entry available for a country. 0 denotes very low social trust whilst 100 denotes very high social trust</td>
<td>Andrew Klassen - Human Understanding Measured Across National (HUMAN) Surveys (Klassen 2018)</td>
</tr>
</tbody>
</table>