




ORIGINAL ARTICLE

Thin-skinned leaders: regime legitimation, protest issues, and repression in autocracies

Eda Keremoğlu^{1*} , Sebastian Hellmeier^{2,3}  and Nils B. Weidmann¹ 

¹Department of Politics and Public Administration, University of Konstanz, Konstanz, Germany, ²University of Gothenburg, Goteborg, Sweden and ³WZB Berlin Social Science Center, Berlin, Germany

*Corresponding author. Email: eda.keremoglu-waibler@uni-konstanz.de

(Received 14 April 2020; revised 1 October 2020; accepted 16 November 2020; first published online 5 May 2021)

Abstract

The literature on autocracies has argued that repression of protest is either a result of the political environment in which protest occurs, or depends on particular characteristics of the protest events themselves. We argue that the interaction of both matters. Authoritarian regimes vary in how they legitimize their rule, and they should be particularly thin-skinned if protesters challenge the basis of their legitimacy. Using event-level data on mass mobilization in autocracies between 2003 and 2015, we use text classification methods to extract protest issues from newspaper reports. Our analysis shows that dictators are more likely to repress protest against incumbents when they claim legitimacy based on the person of the leader. Overall, our study shows that protest issues are not universal in triggering repression; rather, they need to be considered together with the political context in which they are raised.

Keywords: Protest; authoritarian regimes; repression; legitimation; demands

1. Introduction

Without any doubt, 2019 saw an unprecedented spike in popular mobilization worldwide, with some observers calling it the “year of resistance” (Emanuel, 2020) or the “year of global protests” (Maerz *et al.*, 2020, 920). At the same time, however, autocratic leaders have tried to counter these threats to their rule. As the examples from Hong Kong or Venezuela show, governments sometimes choose to use violence against protesters, attempting to crush dissent by coercive means. Not surprisingly, violent repression of mass protest is much more common in autocratic countries than in democracies. According to data from Clark and Regan (2016), more than 20 percent of protest events in autocracies were repressed violently, while this is the case for only 8.5 percent in democracies.¹ Still, repression is not omnipresent, and autocratic rulers sometimes choose to respond violently, but oftentimes fail to do so. In this paper, we aim to explain this variation.

Repression has been a recurrent topic in the political science literature. Much existing work has argued that the likelihood of repression depends on characteristics of the political system in which protest occurs. For example, the “law of coercive responsiveness” (Davenport, 2007a) states that autocratic leaders will respond with repression when facing threats to their rule. Comparing levels of state repression *within* authoritarian regimes shows that single-party regimes are less repressive than other regime types (Davenport, 2007b) and that the concentration of power in few hands (personalism) is associated with more repression (Frantz *et al.*, 2020).

¹Numbers calculated using the Varieties of Democracy Project’s “Regimes of the World” index.

Along similar lines, other research has argued that the likelihood of repression depends on the leader's characteristics (Hencken Ritter, 2014). More recent work, in contrast, has attempted to explain the repression of protest by characteristics of protest *events* themselves. An example from this literature is the recent paper by Klein and Regan (2018), which argues that a violent response from the state is less likely if disruption caused by protest is high, but more so if the demands of the protesters are more difficult for the government to meet.

Our argument follows this line of inquiry. We argue that protest characteristics (such as protesters' demands) are not universal in triggering violent repression. Rather, it matters in which political context these demands are raised. As earlier work has shown, autocratic regimes invoke different claims to justify their rule. While some emphasize the legitimacy of their leaders, others make claims based on their economic performance or the rationality of their rule (Gerschewski, 2018). Our argument stipulates that these regimes should differ in the way they respond violently to particular protest issues, and they should be particularly repressive when faced with protesters questioning the basis for the regime's legitimacy. For example, a regime deriving legitimacy primarily through its leader should be thin-skinned if protest is directed against the leadership.

This mechanism can explain why otherwise similar protests can trigger very different governmental reactions, depending which type of regime they are directed against. In other words, we argue that rather than individual characteristics of the protests themselves or the political environment they occur in, it is particular combinations of both that lead to violent repression. Our argument therefore combines the key insights from two existing explanatory approaches in the study of repression, and examines the interaction of protest issues and the political context in which they are raised.

We test our argument using protest event data for all autocracies worldwide and the years 2003–2015 (Weidmann and Geelmuyden Rød, 2019; Hellmeier *et al.*, 2019). Our data contain individual incidents of anti-regime protest that are coded based on news reports. The data include information about the level of repression used by a regime, but also about the protest issue(s). Since the latter information is simply extracted from the news report without imposing a prior classification, we use topic modeling to assign protest demands to particular issues. In a regression analysis at the level of protest events, we combine these data with information on regimes' legitimation strategies (Tannenberg *et al.*, 2020). Our results provide partial support for our expectations: we find that protests directed against the leader and the ruling elite are more likely to be repressed in regimes legitimized through their leader. However, there is little evidence that this logic applies also to regimes/protests beyond the "leadership" dimension.

2. Protest and repression in autocracies

Existing work on the repression of protest can largely be divided into two strands of literature. The first one uses characteristics of the political system to explain whether protest is repressed or not.² "The Law of Coercive Responsiveness" (Davenport, 2007a) is one of the core findings in repression research, and states that threats to political power in autocracies trigger a violent response by incumbents (Carey, 2006). Popular protests as contentious events challenge the status quo and bear the risk of toppling the government and the political system. Therefore, we frequently see images of security forces dispersing crowds using tear gas or rubber bullets, arresting and sometimes even killing activists. Through means of repression, incumbents aim to prevent the diffusion of protest, restore political order and signal strength and determination to stay in power. Other state-level explanations of repression have focused on regime type and found

²We build on Earl (2011, 263) and her definition of repression as "(...) state or private action meant to prevent, control, or constrain non-institutional, collective action (e.g., protest), including its initiation". Our focus is on state repression rather than repression by private actors.

that coercion is more widely used in autocracies than in democracies (Davenport, 1999; Davenport and Armstrong, 2004), and especially so in dictatorships where power is personalized (Frantz *et al.*, 2020). Similarly, research has shown that leaders are more likely to resort to violence when their prospects of staying in office are low (Young, 2012; Hencken Ritter, 2014), which can indeed be effective as a strategy to help autocrats secure power (Escribà-Folch, 2013). In addition to domestic determinants of repression, previous work has emphasized the importance of international factors such as economic sanctions (Wood, 2008) or preferential trade agreements (Hafner-Burton, 2005).

At the same time, recent scholarship has recognized that there is still a lot of variation in the likelihood and frequency of repression *within* particular regimes. It therefore takes a more differentiated perspective by focusing on event-level explanations to investigate the conditions under which governments repress protest and under which they tolerate mass mobilization. While Moore (2000) sees repression and accommodation as substitutes in case one strategy fails, Klein and Regan (2018) argue that incumbents' use of violence is contingent on the costs imposed by mass mobilization: repression is more likely when protest demands entail high concession costs, whereas incumbents are more likely to accommodate demands if protest generates high economic and social costs. Christensen (2018) shows that incumbents are well aware of the danger of coercion, and that the use of lethal repression is more likely in rural areas where there are fewer bystanders and the risk of a backlash is lower. Other work argues that protests in autocracies can provide information on sources of discontent in an information-scarce environment (Huang *et al.*, 2019), and finds that small-scale economic protest is more likely to be tolerated in China (Lorentzen, 2013).

In sum, repression research suggests that governments do not coerce when the costs of repression outweigh its benefits, but do respond with violence when stakes are high: when mass mobilization threatens the survival of the regime, it is more likely to respond violently. By focusing on protesters' demands and tactics, the literature has treated threats and costs as rather constant across countries. It also assumes that certain demands, for example, the more radical ones, should be equally likely to be repressed, regardless of the political environment in which they occur. This approach, however, cannot explain why protests with similar issues are repressed in some countries but tolerated in others.

2.1 Linking protest issues and legitimacy claims

Similar to much of the repression literature, we ask why autocrats repress some protests but tolerate others. In line with existing work, we argue that some protest issues are more likely to be perceived as a threat to a regime. However, the extent to which this happens depends on the characteristics of the regime against which protest is directed. We argue that whether protesters' demands are perceived as a threat should be contingent on regimes' *legitimation strategies*, or in other words, the claims that autocratic regimes make to justify their rule. In short, our argument is that legitimation strategies and protest issues together explain repression: if protesters directly challenge these claims and therefore question the foundations of the government's rule, repression should be more likely.

What are these legitimation strategies, and why do autocratic leaders need them? Even if only for strategic reasons, autocrats care about what citizens think, and almost all of them aim to generate favorable attitudes toward the regime among the broader public (White, 1986; Gilley, 2009). These attitudes stem from a broad legitimacy belief according to which citizens are convinced that rulers are entitled to exercise their power (Weber, 1922). This has an instrumental value (Gilley, 2009) in generating popular support for the regime as well as voluntary cooperation and compliance by the ruled (Beetham, 1991). While obedience can also be achieved through intimidation, it is not the most efficient way of ruling. From the dictator's perspective, exercising legitimate power rather than solely relying on force makes ruling less costly (Beetham, 1991, 26–28), because she is

not constantly faced with challenges. These benefits can make legitimacy an appealing complementary tool for dictators to stay in office (Gerschewski, 2018).

The notion and importance of legitimacy, however, is contested (Marquez, 2016), even more so for autocracies (Gerschewski, 2018). While Weber's concept is empirical and refers to whether citizens believe political rule to be justified, it contrasts with normative accounts according to which only democratic rule can be legitimate. Nonetheless, we know that many autocrats still try to justify their rule (White, 1986; Dukalskis and Gerschewski, 2017), which may play an important role in understanding dictators' peaceful or repressive interaction with their citizens. Here, the distinction between legitimacy and legitimation is further helpful in understanding how and why autocrats seek to justify their rule. While the former refers to a regime's property, the latter describes the process, or effort, to generate the belief among the public (Barker, 2001)—irrespective of whether citizens believe rulers' claims. Similarly, recent developments in autocracy research that examine authoritarian responsiveness also highlight incumbents' efforts to appear receptive to citizen concerns, which is believed to increase popular support for the regime (Chen *et al.*, 2016). In any case, rulers' efforts to generate and keep citizens' support are widespread in authoritarian regimes, even if the outcomes of such efforts are contested.

In democracies, incumbents' political power rests on the democratic process itself. This is by definition not possible in autocracies where leaders are rarely elected into office in free and fair elections. However, autocrats can draw on a variety of sources to justify their rule. Most famously, Weber (1922) distinguishes between three ideal types of legitimate rule: traditional, legal-rational, and charismatic authority. While *traditional* authority rests on supposedly long-standing systems of ideas, such as religion or a political ideology, *charismatic* rule is tied to the personal characteristics of the ruler herself. *Legal-rational* power is rooted in legality, meaning an adherence to existing law, often mimicking democratic rule by holding elections (Schedler, 2002).³ While most scholars agree on these three types of legitimacy claims or some version of it, *performance-based* legitimation is a fourth source many scholars refer to in their discussion of authoritarian stability (White, 1986; Brooker, 2014; von Soest and Grauvogel, 2017). The latter refers to incumbents' claim to spur economic development and provide high living standards for their citizens. Even though one type of legitimacy claim can dominate the justification of rule, incumbents often draw on several sources. In communist systems, for instance, the socialist ideology and claims to superior socio-economic performance are usually intertwined (White, 1986). Similarly, autocrats can draw both on a particular ideology and seek personalistic legitimation. Those strategies can also change over time. We observe this in China where claims drawing on the person of president Xi Jinping have become stronger in recent years (Phillips, 2018).

How are legitimacy claims linked to the repression of protest? We expect that autocratic regimes will see those incidents of mass mobilization as particularly threatening that challenge predominant legitimacy claims. Authoritarian governments should thus be more likely to repress mass mobilization when protesters' demands bring up core issues that are central to their justification of power. For instance, in some autocracies such as North Korea under the Kim dynasty, leaders draw on their charisma and personal achievements or the myth of their family history to justify their rule. Since there is no separation between the office and the incumbents as officeholders, the survival of the regime is tied to the (political) survival of the leader. Therefore, we expect that in these regimes, protests that criticize leadership or may even demand the resignation of high-level politicians are more likely to be repressed. Similarly, when autocrats justify their rule by referring to their ability to provide for the well-being of citizens, as is the case in China and Singapore, they are less likely to tolerate criticism of their performance. In this case, regimes should be more likely to respond with coercion when citizens voice dissatisfaction with their economic or social situation. In China, for example, workers faced a coercive response

³Legitimation through democratic elections taps into this type.

by authorities when their protests in 2016 amidst a slowing economy threatened leaders' credible claim to superior performance (Hernández, 2016). When authoritarian rule is anchored in an ideology, such as a political dogma or religion, we expect governments to be less tolerant of protest against that doctrine. Accordingly, protesters are more likely to face violence when they criticize core aspects of that ideology. Lastly, some autocracies draw mainly on their supposed adherence to existing law. We expect that these authoritarian governments are more likely to repress protest when it refers to the rational-legality of the system. When citizens take to the streets to protest election fraud, for instance, they risk being repressed violently.

3. Empirical approach

In this section, we describe in more detail how we investigate the relationship between protest issues and repression empirically. We use event-level data on anti-government protest in authoritarian regimes, which contains information about (i) the level of state repression and (ii) the issues that were raised by protesters during a given event. In contrast to previous approaches that manually assign protesters' demands to pre-defined categories, we rely on topic modeling for short texts to identify topics and to determine the prevalence of these topics at the event level. We add yearly information on the regime's claims to legitimacy and perform regression analyses to see whether the probability of state repression changes as a function of the interaction between protesters' demands and regimes' claims to legitimacy.

3.1 Protest events

We rely on the Mass Mobilization in Autocracies Database (MMAD) (Hellmeier *et al.*, 2019; Weidmann and Geelmuyden Rød, 2019) to gather information on the occurrence of protest against the government in a large sample of non-democracies. MMAD provides details on key features of protest events, defined as “a public gathering of at least 25 people with an expressed political motivation” (Hellmeier *et al.*, 2019), directed against the local, regional, or national government. The coding of protest events is based on news reports provided by the news agencies Associated Press (AP), Agence France Presse (AFP), and BBC Monitoring. Crucially, the latter collects and translates news reports from local sources, which reduces reporting bias. The country sample in MMAD builds on the binary regime classification by Geddes *et al.* (2014) and includes 76 countries from 2003 to 2015 that were coded as “autocratic.” We restrict our sample to reports of anti-government protest and exclude pro-government rallies and events directed against non-state actors.

3.2 Repression

Besides the timing and location of protest events, the MMAD contains information on the behavior of state security forces during events. It codes whether official security forces were present, and if so, how they interacted with protesters. Security force engagement is coded in three categories: (i) presence (but no intervention), (ii) physical (crowd dispersals, arrests), or (iii) lethal violence. We recode this measure to a binary indicator of repression such that incidents of physical or lethal violence receive a score of “1”. Repression is coded as “0” if security forces were present but did not intervene, or if event reports do not contain information about the engagement of security forces. This decision is made because police violence has a great news value (Barranco and Wisler, 1999) and it is likely that violence would have been reported if it occurred. Based on this classification, out of 16,357 events in the sample, 29 percent of events were repressed by the state. This binary measure of repression is the dependent variable throughout the subsequent regression analyses.

3.3 Legitimacy claims

To assess whether and which sources authoritarian governments draw on in an effort to justify their rule, we rely on expert-coded data on legitimacy claims provided by the Varieties of Democracy (V-Dem) Project (Coppedge *et al.*, 2020). Tannenberg *et al.* (2020) give an extensive discussion of the measure's underlying theoretical concept, which is in line with the Weberian empirical notion of legitimacy this paper draws on. Accordingly, V-Dem gives information on "(...) the extent to which the government promotes or references its *performance*, the *person of the leader*, *rational-legal procedures* and *ideology* in order to justify the regime in place" (Tannenberg *et al.*, 2020, 3).⁴ It is important to note that the indicator does not measure the regime's *actual* legitimacy but rather its *efforts* to produce it.

The ordinal-scaled indicators represent the extent to which a regime draws on the respective source of authority, from "not at all" to "exclusively" (Tannenberg *et al.*, 2020, 11). Scores are assigned for each indicator and country-year, allowing us to assess multiple claims and their respective strength at the same time. In the regression analyses, we use the interval-scaled point estimates for each legitimacy indicator from the V-Dem measurement model that can range from -5 to +5. The Bayesian item response model takes into account coder-specific thresholds, disagreement between coders as well as measurement error (Pemstein *et al.*, 2020). To give an example, Cuba (1959–2006) scores very high on the ideology and leader dimension. As Figure 1 (left panel) shows, however, toward the end of the Castros' rule, values for ideology remain high, whereas the person of the leader becomes less important (0.42 in 2018). We observe a similar dynamic in Venezuela (right panel in Figure 1) where the main source of legitimation was Chávez's person and his political agenda of "Chavismo". After his death in early 2013, the importance of leader-based claims significantly drops, whereas the strength of ideology-based legitimacy claims increases constantly. Figure A.1 in the Appendix plots all claims over time for all countries in our sample.

3.4 Protest issues

MMAD also contains information on issues raised during protest events. Human coders were asked to identify the reported issues that motivate the protest, and list them using the original wording in the news report. This strategy retains the raw information and researchers can process it according to their needs. Most existing hand-coded protest event databases define issues, such as "economy" or "opposition" *beforehand* and have coders classify events accordingly. While this is a valid and common approach, there are several disadvantages that make databases with pre-defined categories difficult to use for the purpose of our analysis. First, some categories are too broad and conflate several topics that we would need to assign separately to different legitimacy claims. Second, they cannot capture newly emerging protest issues that do not fit the existing coding scheme, as all theoretically relevant issues have to be identified before processing the data. Nonetheless, the MM data, for instance, provide additional notes that describe protest events in more detail. In principle, this information could be used to extract issues independent of pre-defined categories. Crucially, however, the coverage of protest events in autocracies in MM (around 7,500) is significantly lower than in MMAD (more than 16,300).⁵

We deviate from these approaches by automatically analyzing the raw text in the short issue descriptions in the MMAD. To make sense of the diverse protest issues, we employ topic modeling for short texts. In other words, instead of coding manually, we let an algorithm uncover

⁴Ideology includes nationalist, communist/socialist, conservative/restorative, religious, and/or separatist notions (Tannenberg *et al.*, 2020).

⁵Additionally, around 1,000 of these MM events lack detailed notes, whereas MMAD provides information on issues for more than 15,000 events.

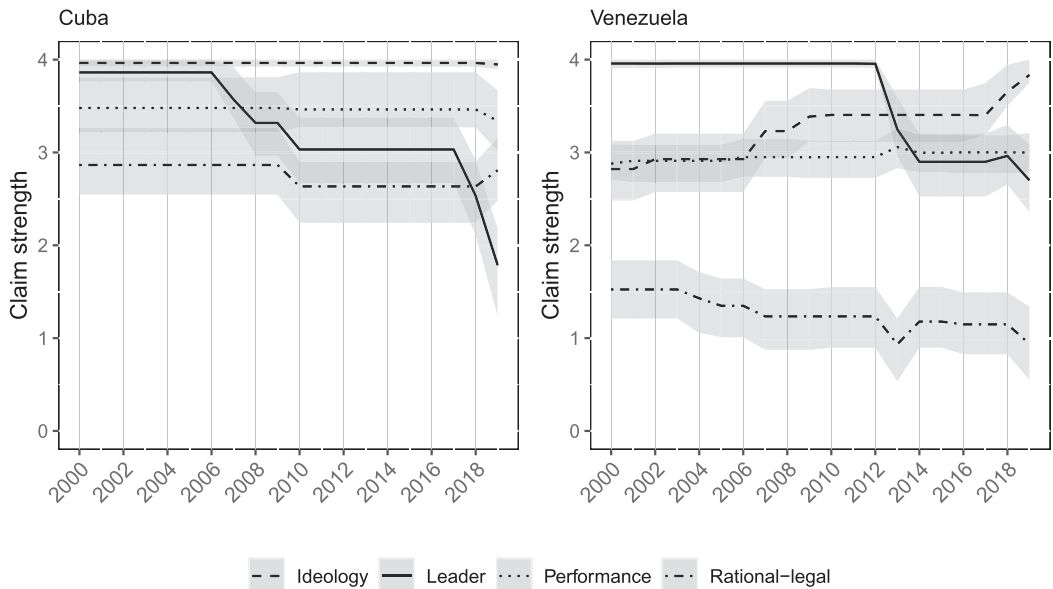


Figure 1. Strength of legitimacy claims in Cuba (left panel) and Venezuela (right panel) over time. Shadings represent CIs.

semantic commonalities in the data. In this way, we can detect broader topics to which specific protest demands relate. Our study only includes those events for which there is information on protest issues, which is the case for roughly 90 percent of all events in the database. Topic modeling is widely used in political science.⁶ However, commonly applied topic modeling techniques such as Latent Dirichlet Allocation (LDA) that work for collections of words at the document level do not perform well in our case, since we have only a few words for each event, which makes the information too sparse to identify topics with this method.

We follow Yan *et al.* (2013) and apply Biterm Topic Modeling (BTM) for short texts. BTM infers topics from word co-occurrence patterns in the whole corpus instead of document co-occurrence as with LDA. It is therefore better suited for the analysis of short texts, such as headlines or twitter posts.⁷ The basic idea is that words that frequently co-occur in the event-level description of protesters' demands belong to the same topic.⁸ We use the BTM package (Wijffels, 2018) in R to identify the main topics in our protest issue variable.⁹

Table 1 lists the most common ten tokens of each topic. Based on an assessment of those, we assign topic labels to describe their underlying commonality. The topic *Regime* subsumes issue words that relate to the core of the regime and fundamental change such as democracy. Demands that refer to office-holders rather than the political system are included in the topic labeled *Incumbents/officials*. The topic *Economy/living conditions* includes economic demands that affect ordinary citizens' lives, whereas the topic *Governance* is concerned with more specific policy issues such as infrastructure, housing, and construction. We use the label *Elections* to describe topics that touch the issue of voting, electoral fraud, and election results. The remaining

⁶For an overview of applications in comparative politics, see Lucas *et al.* (2015) and for a recent application to the study of state repression and human rights, see Bagozzi and Berliner (2018).

⁷Yan *et al.* (2013) conduct a systematic comparison between BTM and LDA and show that BTM achieves better results in identifying coherent topics. In the Appendix (Tables A.1 and A.2), we apply LDA topic modeling to our data and compare it to the BTM results. The results show moderate to high correlations between the two methods.

⁸The technical details are described in Yan *et al.* (2013).

⁹See Appendix for technical details.

Table 1. Issues, topic labels, and tokens

Issue	Topic label	Top 10 tokens
Person of the leader	Incumbents/officials	presid, govern, resign, militari, reform, regim, minist, former, rule, polit
Performance	Economy/living conditions	price, rise, govern, wage, increas, servic, corrupt, better, live, condit
	Governance	govern, land, construct, plan, local, build, compens, author, hous, citi
Rational-legal	Elections	elect, candid, presidenti, result, presid, parlamentari, resign, vote, fraud, elector
	Opposition/repression	releas, polit, opposit, prison, freedom, leader, protest, activist, arrest, detain
	Repression	govern, kill, forc, polic, secur, attack, author, peopl, foreign, action
	Regime	right, freedom, democraci, govern, law, restor, constitut, state, king, ban

two topics both deal with repression: *Opposition/repression* refers to coercion of the opposition and dissidents, whereas *Repression* refers to repression by security forces more generally.

Next, we link protest issues and legitimacy claims by assigning the topics to broader issues that correspond to the different claims described above (see Table 1).¹⁰ When protest demands refer to incumbents, they are linked to the issue of the leader, while claims about regime performance are mirrored by topics on economy and governance. When citizens mobilize because of elections or in favor of the opposition, protest relates to the rational-legal issue. While we cannot assign the topics of repression and regime to any specific issue in our legitimation framework, we also do not find topics that relate to the legitimacy claims about the regime's ideology. We therefore focus on the three sets of protest issues and legitimacy claims, namely those that revolve around leadership, performance, and the rational-legal dimension. Figure 2 shows the distribution of topics. The most frequent issue that motivates protest against dictatorships is elections, followed by repression and economic issues. However, there are no large differences between topics, which is not surprising given that we selected a small number of topics.

Based on the biterm topic model, we obtain predicted topic probabilities for each event. In other words, for each event, we let the model determine the probability that the issues at the core of that event belong to each of the seven major topics. For example, on May 8, 2013, tens of thousands of citizens took to the streets of Kuala Lumpur to protest recent election results.¹¹ The corresponding entry in the MMAD lists "electoral fraud by ruling regime; repeating the elections; alleged electoral fraud; electoral bias and cheating" as the main protest issues. The model correctly identifies *Elections* as the most likely topic (72 percent).

To further validate our measure, we plot the weekly average strength of three major topics, *Regime*, *Elections*, and *Economy*, relative to all other topics, for all anti-government protests that occurred in Venezuela in 2014 (Figure 3a) and in Armenia in 2013 (Figure 3b). The plots show how the salience of the three issues varies between countries and over time. The protests in Venezuela were mainly about the devastating state of the country's healthcare system, increasing crime rates, and inflation, while the protests in Armenia focused on the contested presidential elections in February 2013. However, the plot also shows that Armenians stopped contesting the election results in mid-2013. Later that year, they returned to the streets to raise concerns about the country's decision to join the Eurasian Customs Union. We use

¹⁰When we assign more than one topic to an issue, we take the maximum value of all respective topics to construct the strength of the issue.

¹¹See <https://www.bbc.com/news/world-asia-22445435> (last accessed on September 27, 2020).

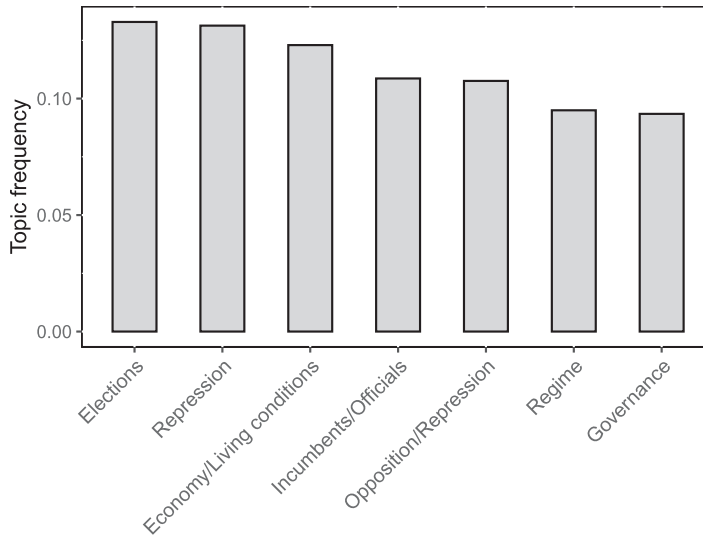


Figure 2. Distribution of topic frequencies.

these continuous measures to capture the presence of particular protest issues in the subsequent regression analyses.

3.5 Controls

We control for additional protest characteristics coded in the MMAD. Larger protests may lead protesters to push for more far-reaching demands and thus pose a greater threat to incumbents who, in turn, may be more inclined to crush the mobilized masses. We therefore include the number of participants (logged) in a given event. When protesters turn violent, security forces may respond with repression to restore social order. We therefore add information on participant violence during an event, and differentiate between damaged property, injured others, and killed people.¹² Protest directed against the national government may also be perceived as more threatening than protest directed at the regional or local government, and therefore increase the likelihood of repression, which is why we consider the scope of protest events (Weidmann and Geelmuyden Rød, 2019). We also include the number of protest events in the previous three weeks in a given location. Repression may be more likely when the regime has already faced challenges and wants to contain the further spread of popular contention. In addition, we include the remaining topics: *Regime* controls for the extent to which protest is concerned with fundamental change and issues affecting the core of authoritarianism, and *Repression* accounts for demands referring to state coercion. Table A.3 in the Appendix reports summary statistics for all variables.

4. Models and results

Table 2 reports the main regression results. All models are conditional logistic regressions (Therneau and Grambsch, 2000) with country- and year-fixed effects to account for time-invariant country characteristics and unobserved factors changing over time. The unit of analysis

¹²Similar to our coding of the repression variable, we code no reports of participant violence as the absence of such violence.

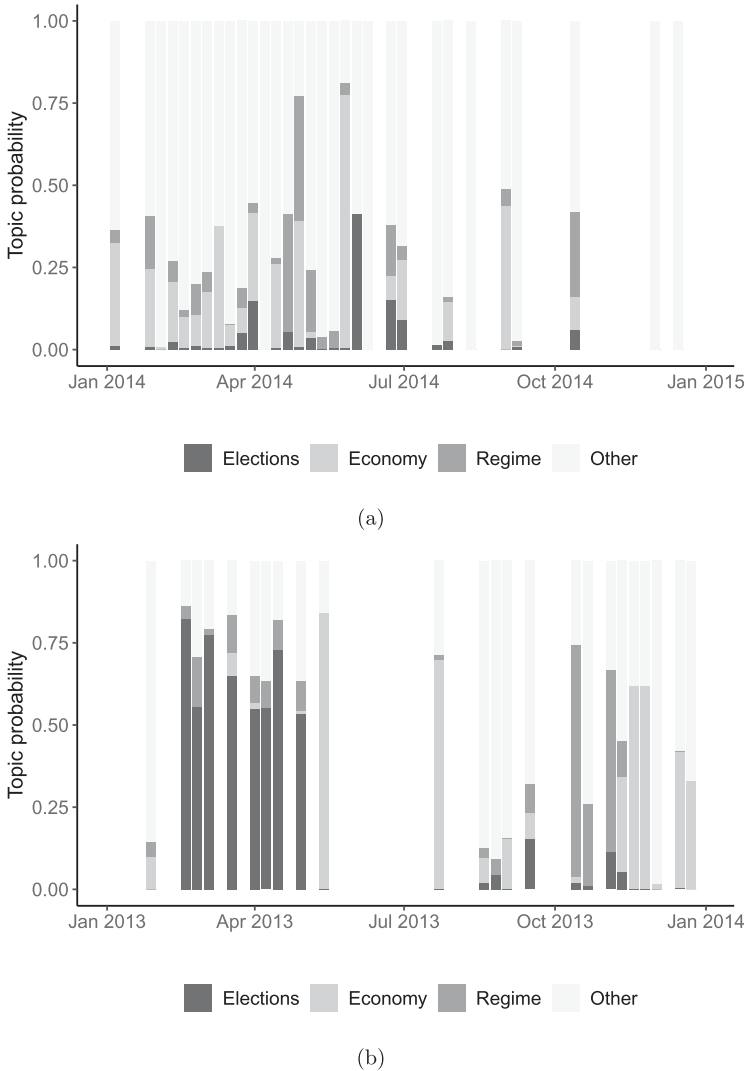


Figure 3. Topic relevance over time for anti-government protest events in Venezuela 2014 (a) and Armenia 2013 (b).

is the individual anti-government protest event.¹³ Model 1 regresses repression on the main protest issues as labeled in Table 1. None of the protest issues is systematically linked to state violence. We extend this model by including all relevant legitimacy claims (Model 2). In this model, only autocracies that draw on the person of the leader to justify power are significantly more repressive, but none of the protest demands nor other claims are systematically related to state violence.

To test whether dictators' justifications moderate the relationship between contention and repression, we assess the effect of protest issues conditional on the extent of their respective legitimacy claims in Model 3. From our theoretical discussion, we expect that repression is more likely the more protesters' core demands target the very foundations on which dictators build their power. However, the coefficients for the interaction effects support our expectation only for the interaction between protest against incumbent politicians. Before we assess the results based on a visualization

¹³We cluster standard errors at the country level to take into account dependencies between our event-level observations.

Table 2. Repression of anti-government protest

	(1)	(2)	(3)	(4)
Issue: performance	0.04 (0.10)	0.05 (0.10)	0.17 (0.10)	-0.03 (0.10)
Issue: rational-legal	0.09 (0.09)	0.10 (0.09)	0.19 (0.10)	0.12 (0.10)
Issue: leader	0.05 (0.12)	0.04 (0.12)	-0.13 (0.13)	0.04 (0.13)
Issue: regime	0.28 (0.12)	0.28 (0.12)	0.31 (0.12)	0.54** (0.11)
Issue: repression	0.02 (0.12)	0.03 (0.12)	0.06 (0.12)	-0.04 (0.12)
Claim: performance		-0.02 (0.08)	0.01 (0.08)	-0.03 (0.09)
Claim: rational-legal		-0.08 (0.08)	-0.05 (0.08)	-0.10 (0.08)
Claim: leader		0.31* (0.05)	0.26* (0.05)	0.16 (0.06)
Performance: issue x claim			-0.18 (0.06)	-0.07 (0.06)
Rational-legal: issue x claim			-0.18* (0.06)	-0.10 (0.06)
Leader: issue x claim			0.42** (0.09)	0.28** (0.09)
Property damage by participants				1.59*** (0.04)
People injured by participants				1.90*** (0.05)
People killed by participants				1.65*** (0.08)
Participants (log)				-0.11*** (0.01)
Scope: regional/ state				0.001 (0.07)
Scope: local				0.04 (0.06)
Event history				0.003 (0.01)
Country FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes
<i>N</i>	15,035	15,035	15,035	15,035
Log likelihood	-23,994.34	-23,972.90	-23,953.61	-22,891.68
AIC	48,022	47,985	47,953	45,843

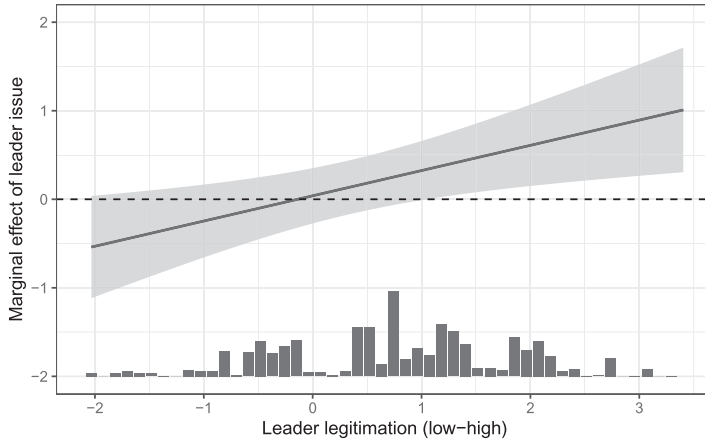
p* < 0.05; *p* < 0.01; ****p* < 0.001.

Conditional logistic regressions. Unit of analysis: protest events. Robust standard errors clustered at country-level.

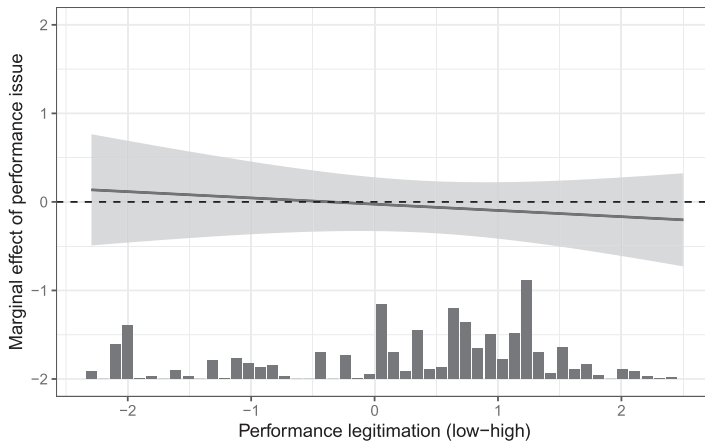
of the effects, we estimate an additional model controlling for event-level factors that affect rulers' decisions to repress (Model 4). The model shows that the interaction between issues targeting the leadership and repression in leader-based autocracies remains unchanged.

Regression coefficients alone do not allow for a straightforward interpretation of coefficients for interactions in non-linear models (Ai and Norton, 2003). Therefore, we visualize the conditional effects of issues across the strengths of the respective legitimacy claims in marginal effect plots.¹⁴ Figure 4a plots the effect of incumbent-related protest issues on repression, conditional on the extent to which the autocrat's rule is justified in reference to the person of the leader. Higher values on the legitimacy dimension indicate stronger claims. The plot shows that

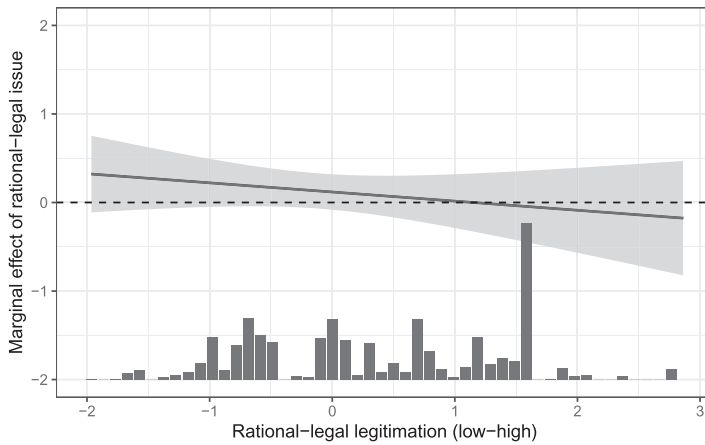
¹⁴All interaction plots are based on estimates from Model 4. Shaded areas represent 95 percent CIs, bars plot the distributions of legitimacy claims.



(a)



(b)



(c)

Figure 4. Effect plots based on Model 4. Marginal effect of leader issue (a), performance issue (b), and rational-legal issue (c) on the probability of protest repression.

incumbent-related protest is not systematically linked to repression in autocracies that place little emphasis on the leader. However, the more dictatorships draw on the person of the leader in an effort to legitimize power, the more threatening leader-related protest becomes. The conditional effect of the incumbent issue on repression becomes larger and significant for autocracies with intermediate and high scores on the leader legitimacy dimension, thus supporting our initial observation above. We show similar plots for the performance (Figure 4b) and the rational-legal dimension (Figure 4c). Contrary to our expectations, the plots show that there is no evidence for a systematic effect on repression once protest issues and legitimacy claims clash.

Overall, the empirical evidence lends partial support to our expectations about the relevance of a regime's foundation in understanding whether protest is repressed. The results show that protests against leaders are more likely to be met with violence if they occur in leader-legitimized regimes. However, we find no evidence that a similar clash of protest issues and legitimacy claims explains the occurrence of repression for other dimensions (performance and rational-legal). Before we relate this finding to our theoretical framework, we conduct several robustness tests.

4.1 Robustness

Country-level factors. We run additional tests to increase confidence in our results. We consider a series of additional country-level factors that could confound the relationship between protest issues and repression. The results are summarized in Table A.4 in our Appendix.¹⁵ Model 5 accounts for several observable economic and political factors such as gross domestic product (GDP) per capita (log-transformed), population size (log-transformed) (World Bank, 2019), and V-Dem's electoral democracy index that measures the quality of elections and other democratic features (Coppedge *et al.*, 2020). We also assess whether the executive's power base is determined by the military (military dimension index) or a ruling party (ruling party dimension index) (Coppedge *et al.*, 2020) to account for important differences between autocracies (Teorell and Lindberg, 2019; Wright, 2019). Further, we account for overall state repression by assessing states' respect for human rights (Fariss, 2014). We also assess whether there was an armed conflict in a given country-year (Gleditsch *et al.*, 2002; Pettersson and Öberg, 2020). Model 6 additionally assesses the degree to which power is institutionally concentrated in one person as a measure for personalism, a driver of state coercion (Frantz *et al.*, 2020). The results remain essentially unchanged in Models 5 and 6, as the interaction plots in Figure A.2 show: Autocrats claiming leader-based legitimacy are significantly more repressive when they face criticism referring to leadership. To account for the possibility that V-Dem experts conflate personalist concentration of power with leader-centered legitimation, we interact the measure of personalism with our measure on leader issues in Model 7. Figure A.3 shows that the result is not significant, which indicates that the interaction between leader claims and issues is not driven by institutional concentrations of power in one person.

Alternative measurement. We check robustness to alternative measurements of our independent variables. Table A.5 shows the results for models where we replaced the continuous measures of legitimacy claims with binary ones that indicate whether a respective claim is the strongest one in a given country-year. We would expect dictators to be especially thin-skinned when protesters target the primary legitimacy source of a regime. This alternative measure does not change our main result. As Figure A.4 in the Appendix shows, we find that repression of leader-related protest is significantly more likely if the strongest claim is based on the person of the leader. In Table A.6, we replicate our models using binary measures that indicate whether a particular issue is the strongest one for a given event. It may make a difference for autocrats' threat perception when a particular issue is especially pronounced. As Figure A.5 shows, the result remains

¹⁵All models retain country- and year-fixed effects.

essentially unchanged. When leader-based autocracies face protest where the strongest issue targets incumbents, repression is significantly more likely.

Endogeneity. Research has shown that there is a dynamic relationship between protest and incumbents' responses (Carey, 2006; Young, 2012). Accordingly, dissidents' and incumbents' interactions and expectations of each others' behavior is linked to the likelihood of protest and repression (Moore, 1998; Ritter and Conrad, 2016). Just as contention can trigger repression, previous state coercion shapes present dissent behavior (White, 1989; Siegel, 2011). Most of the work on this dissent-repression-nexus has focused on the *occurrence and frequency* of protest. While this article's scope is different in assessing state response to protesters' demands *once protest has taken place*, similar dynamics may hold in our case. Dictators use repression to fend off challengers. This may not only cause a backlash in triggering further protest (as previous research has shown), but may also shift the issues raised in later protests more toward incumbents (which is relevant for our analysis). In short, repression of previous protests may lead to the emergence of particular issues in future episodes, which in turn increases the likelihood of repression again.

We consider the effect of previous repression in additional models in Table A.7 included in the Appendix. Repressed protest in the past may affect both the extent to which a protest is directed against leader and incumbents' likelihood to resort to violence. First, we control for the impact of the number of repressed and unrepressed protests in the preceding 7 and 21 days in the country (Models 16 and 17). When protesters in one corner of the nation were coerced, we expect this to affect later demands and repression irrespective of location. We replicate this controlling for the impact of previously repressed protest in the same location to assess location-specific dynamics (Models 18 and 19). The results show that previous repression significantly increases the likelihood that protesters will face coercion again. Our finding of the joint impact of leader issues and leader claims on repression remains robust across all models. We illustrate the marginal effects in Figures A.6 (controlling for previously repressed protest in the country) and A.7 (location) in the Appendix. Both figures show that repression of protest targeting incumbents is more likely in leader-based regimes.

To model the interdependent relation of protest issues and repression, we run simultaneous equation models that include both leader issue strength and repression (for a similar approach see Young (2012)). Due to the binary nature of our dependent variable, we run two-stage probit least squares where the first stage is estimated using OLS and the second with probit models. Because we cannot instrument the interactive term between protest issues and legitimacy claims, we rely on a subsampling strategy, and split the sample into those country-years where legitimization strategies strongly refer to the leader and those where legitimacy claims are based on other sources.¹⁶ We then estimate the effect of leader issue on repression by running the same simultaneous equation models for each subsample. Model 20 in Table A.8 in the Appendix reports the second-stage results for the sample where legitimization is strongly based on the person of the leader. We find a significant link between the instrumented leader issue and the likelihood that these protests will be repressed. We do not find such an effect for the sample where leader-based legitimization is weak (Model 21). We visualize these probabilities in Figure A.8. The plot shows that in regimes that stress the person of the leader, the probability that a protest will be repressed increases from around 30 percent to more than 65 percent with the extent that it targets incumbents. For regimes that rely on other legitimization strategies, this effect is not significant.

In addition to the protest-repression-dynamic, there are other possibly endogenous relations that may drive our results. It may be that dictators drawing on particular claims are more prone to experience contention in the first place. Figure A.9 in the Appendix plots the distribution of the number of anti-government protest events per autocracy and year, dependent on the strongest legitimacy claim for each country-year. The figure shows that, on average, the pattern is

¹⁶See Appendix for details.

similar for all four of the legitimation strategies. For most autocratic country-years, event numbers are low with less than 25 events per year. We assess this more systematically in Model 22 in Table A.9 in the Appendix, where we regress the yearly number of protest events on different claims, while controlling for other country-level factors that may be related to contention. We do not find any evidence that the number of protest events is systematically related to any of the legitimacy claims.

However, it could also be possible that particular claims attract particular demands, which means that leader-based protest issues would be especially prevalent in leader-based autocracies. To assess this, we plot the number of anti-government protest events for each of the three claims and issues in Figure A.10 in the Appendix. We select events where the strength of the issue is above the respective mean of the sample. The plot shows no stark differences between claims. Rather, they follow similar patterns, suggesting that neither claim is more susceptible to certain issues. We explore this further in additional models that regress issue strengths on claims (Models 23–25). Again, there is no evidence that leader-based autocracies are either more or less prone to protest targeting incumbents. In light of our main finding, this again suggests that these autocrats do not face more severe popular criticism—but when they do, they are less likely to tolerate it.

5 Conclusion

While many instances of protest are met with violent repression from the regime, some do not face such a response. Much of the existing literature has argued that the characteristics of protest determine whether an autocratic government uses repression. This would suggest that particular issues brought forward by protesters should be related to a similar likelihood of being repressed, regardless of the regime in which they occur. In this paper, however, we argued that regimes vary in the degree to which they perceive particular protest issues as threatening. More precisely, we hypothesized that if protesters challenge the basis of the regime's legitimation, repression should be more likely. Our empirical analysis used recent protest event data from the Mass Mobilization in Autocracies Database that contains descriptions for the protest issues. Using topic modeling, we identified issue categories that map onto the legitimation claims made by the regime. In a regression analysis, we tested whether repression is more likely if protest issues clash with regime legitimation.

The results showed that protests challenging leaders are more likely to trigger violent repression, but only in regimes that claim legitimacy based on their leaders. We do not, however, find a similar pattern for the other dimensions we examined (regime performance, rational-legal). What could be the reason for this? Regimes with legitimacy based on performance or rational-legal governance could be more tolerant toward public dissent because (i) the targets of criticism are more diffuse, and (ii) the underlying cause for a particular state of affairs may be external to the regime. For example, if protest occurs around economic problems in a performance-legitimized regime, the targets of that protest are likely to be members of the administration, rather than the government as a whole. Similarly, for protest of this kind, regimes can always blame external factors such as economic crises, rather than admit their own incompetence. Similar reasons may apply to regimes legitimized through rational-legal rule. In contrast, in a leader-based regime, protests criticizing the incumbent unavoidably target the foundation of the regime, and concessions could not be made other than through a leadership change.

Our study emphasizes the interaction between protest issues and the political environment in which they occur to explain repression. Regimes legitimized through a leader are those that are particularly thin-skinned when protesters criticize the foundation of their rule. According to the V-Dem data (Coppedge *et al.*, 2020), some regimes are increasingly relying on the leader to justify their rule, among them Russia, China, Eritrea, and Jordan. It is in these countries that protesters face a high risk of repression if they publicly voice dissent against the regime and its leadership.

Supplementary material. The supplementary material for this article can be found at <https://doi.org/10.1017/psrm.2021.19>.

Acknowledgments. We gratefully acknowledge comments from the participants of the 2019 AFK Methods Meeting in Bonn, as well as the participants of the Workshop “Inequality and Autocracy” held in December 2019 at the University of Konstanz, in particular Abel Escribà-Folch, Eda Keremoğlu and Nils B. Weidmann gratefully acknowledge funding from the German National Science Foundation (DFG) under Research Grant 402127652. Sebastian Hellmeier gratefully acknowledges support from Vetenskapsrådet (grant number 2018-016114, PI: Anna Lührmann) and the European Research Council (grant number 724191, PI: Staffan I. Lindberg, V-Dem Institute, University of Gothenburg).

References

- Ai C and Norton EC (2003) Interaction terms in logit and probit models. *Economic Letters* **80**, 123–129.
- Bagozzi BE and Berliner D (2018) The politics of scrutiny in human rights monitoring: evidence from structural topic models of US State Department human rights reports. *Political Science Research and Methods* **6**, 661–677.
- Barker R (2001) *Legitimizing Identities. The Self-Presentations of Rulers and Subjects*. New York: Cambridge University Press.
- Barranco J and Wisler D (1999) Validity and systematicity of newspaper data in event analysis. *European Sociological Review* **15**, 301–322.
- Beetham D (1991) *The Legitimation of Power*. Basingstoke: Palgrave Macmillan.
- Brooker P (2014) *Non-Democratic Regimes, 3rd Edn*. Basingstoke: Palgrave Macmillan.
- Carey SC (2006) The dynamic relationship between protest and repression. *Political Research Quarterly* **59**, 1–11.
- Chen J, Pan J and Xu Y (2016) Sources of authoritarian responsiveness: a field experiment in China. *American Journal of Political Science* **60**, 383–400.
- Christensen D (2018) The geography of repression in Africa. *Journal of Conflict Resolution* **62**, 1517–1543.
- Clark D and Regan P (2016) Mass Mobilization Protest Data. Available at <https://doi.org/10.7910/DVN/HTTWYL>.
- Coppedge M, Gerring J, Knutsen CH, Lindberg SJ, Teorell J, Altman D, Bernhard M, Fish MS, Glynn A, Hicken A, Lührmann A, Marquardt KL, McMann K, Paxton P, Pemstein D, Seim B, Sigman R, Skaaning S-E, Staton J, Wilson S, Cornell A, Alizada N, Gastaldi L, Gjerløw H, Hindle G, Ilchenko N, Maxwell L, Mechkova V, Medzihorsky J, von Römer J, Sundström A, Tzelgov E, Wang Y, Wig T and Ziblatt D (2020) V-Dem [Country-Year/Country-Date] Dataset v10. Varieties of Democracy (V-Dem) Project.
- Davenport C (1999) Human rights and the democratic proposition. *Journal of Conflict Resolution* **43**, 92–116.
- Davenport C (2007a) State repression and political order. *Annual Review of Political Science* **10**, 1–23.
- Davenport C (2007b) State repression and the tyrannical peace. *Journal of Peace Research* **44**, 485–504.
- Davenport C and Armstrong II DA (2004) Democracy and the violation of human rights: a statistical analysis from 1976 to 1996. *American Journal of Political Science* **48**, 538–554.
- Dukalskis A and Gerschewski J (2017) What autocracies say (and what citizens hear): proposing four mechanisms of autocratic legitimation. *Contemporary Politics* **23**, 251–268.
- Earl J (2011) Political repression: iron fists, velvet gloves, and diffuse control. *Annual Review of Sociology* **37**, 261–284.
- Emanuel L (2020) A year of resistance: The global spread of civil disobedience. *The Telegraph*. Available at <https://www.telegraph.co.uk/news/global-protests-2019/>.
- Escribà-Folch A (2013) Repression, political threats, and survival under autocracy. *International Political Science Review* **34**, 543–560.
- Fariss CJ (2014) Respect for human rights has improved over time: modeling the changing standard of accountability. *American Political Science Review* **108**, 297–318.
- Frantz E, Kendall-Taylor A, Wright J and Xu X (2020) Personalization of power and repression in dictatorships. *The Journal of Politics* **82**, 372–377.
- Geddes B, Wright J and Frantz E (2014) Autocratic breakdown and regime transitions: a new data set. *Perspectives on Politics* **12**, 313–331.
- Gerschewski J (2018) Legitimacy in autocracies: oxymoron or essential feature? *Perspectives on Politics* **16**, 652–665.
- Gilley B (2009) *The Right to Rule. How States Win and Lose Legitimacy*. New York: Columbia University Press.
- Gleditsch NP, Wallensteen P, Eriksson M, Sollenberg M and Strand H (2002) Armed conflict 1946–2001: a new dataset. *Journal of Peace Research* **39**, 615–637.
- Hafner-Burton EM (2005) Trading human rights: how preferential trade agreements influence government repression. *International Organization* **59**, 593–629.
- Hellmeier S, Geelmuyden Rød E and Weidmann NB (2019) Coding Instructions for the Mass Mobilization in Autocracies Database, version 2.0. University of Konstanz.
- Hencken Ritter E (2014) Policy disputes, political survival, and the onset and severity of state repression. *Journal of Conflict Resolution* **58**, 143–168.
- Hernández JC (2016) Labor protests multiply in china as economy slows, worrying leaders. *The New York Times*. Available at <https://www.nytimes.com/2016/03/15/world/asia/china-labor-strike-protest.html>.

- Huang H, Boranbay-Akan S and Huang L** (2019) Media, protest diffusion, and authoritarian resilience. *Political Science Research and Methods* 7, 23–42.
- Klein GR and Regan PM** (2018) Dynamics of political protests. *International Organization* 72, 485–521.
- Lorentzen PL** (2013) Regularizing rioting: permitting public protest in an authoritarian regime. *Quarterly Journal of Political Science* 8, 127–128.
- Lucas C, Nielsen RA, Roberts ME, Stewart BM, Storer A and Tingley D** (2015) Computer-assisted text analysis for comparative politics. *Political Analysis* 23, 254–277.
- Maerz SF, Lührmann A, Hellmeier S, Grahn S and Lindberg SI** (2020) State of the world 2019: autocratization surges—resistance grows. *Democratization* 27, 909–927.
- Marquez X** (2016) The irrelevance of legitimacy. *Political Studies* 64, 19–34.
- Moore WH** (1998) Repression and dissent: substitution, context, and timing. *American Journal of Political Science* 42, 851–873.
- Moore WH** (2000) The repression of dissent. A substitution model of government coercion. *Journal of Conflict Resolution* 44, 107–127.
- Pemstein D, Marquardt KL, Tzelgov E, Wang Y, Medzihorsky J, Krusell J and von Römer J** (2020) The V-Dem Measurement Model: Latent Variable Analysis for Cross-National and Cross-Temporal Expert-Coded Data. V-Dem Working Paper No. 21. Varieties of Democracy (V-Dem) Project.
- Pettersson T and Öberg M** (2020) Organized violence, 1989–2019. *Journal of Peace Research* 57, 597–613.
- Phillips T** (2018) “Ensuring happier lives”: Chinese media defends move to make Xi Jinping all powerful. *The Guardian*. Available at <https://www.theguardian.com/world/2018/feb/27/ensuring-happier-lives-chinese-media-defends-move-to-make-xi-jinping-all-powerful>.
- Ritter EH and Conrad CR** (2016) Preventing and responding to dissent: the observational challenges of explaining strategic repression. *American Political Science Review* 110, 85–99.
- Schedler A** (2002) Elections without democracy. the menu of manipulation. *Journal of Democracy* 13, 36–50.
- Siegel DA** (2011) When does repression work? Collective action in social networks. *The Journal of Politics* 73, 993–1010.
- Tannenbergh M, Bernhard M, Gerschewski J, Lührmann A and von Soest C** (2020) Claiming the right to rule: regime legitimization strategies, 1900 to 2019. *European Political Science Review* 13, 77–94.
- Teorell J and Lindberg SI** (2019) Beyond democracy-dictatorship measures: a new framework capturing executive bases of power, 1789–2016. *Perspectives on Politics* 17, 66–84.
- Therneau TM and Grambsch PM** (2000) *Modeling Survival Data: Extending the Cox Model*. New York: Springer.
- von Soest C and Grauvogel J** (2017) Identity, procedures and performance: how authoritarian regimes legitimize their rule. *Contemporary Politics* 23, 287–305.
- Weber M** (1978 [1922]) *Economy and Society: An Outline of Interpretive Sociology [Wirtschaft und Gesellschaft]*. Berkeley, CA: University of California Press.
- Weidmann NB and Geelmuyden Rød E** (2019) *The Internet and Political Protest in Autocracies*. New York: Oxford University Press.
- White S** (1986) Economic performance and communist legitimacy. *World Politics* 38, 462–482.
- White RW** (1989) From peaceful protest to guerilla war: micromobilization of the provisional Irish Republican Army. *American Journal of Sociology* 94, 1277–1302.
- Wijffels J** (2018) Btm: Biterm topic models for short text. R package version 0.2.
- Wood RM** (2008) “A hand upon the throat of the nation”: Economic sanctions and state repression, 1976–2001. *International Studies Quarterly* 52, 489–513.
- World Bank** (2019) World development indicators. Available at <https://data.worldbank.org>.
- Wright J** (2019) The latent characteristics that structure autocratic rule. *Political Science Research and Methods*. doi: <https://doi.org/10.1017/psrm.2019.50>.
- Yan X, Guo J, Lan Y and Cheng X** (2013) A biterm topic model for short texts. In *Proceedings of the 22Nd International Conference on World Wide Web, WWW '13*, New York, NY, USA, pp. 1445–1456.ACM.
- Young JK** (2012) Repression, dissent, and the onset of civil war. *Political Research Quarterly* 66, 516–532.