

A Double-Edge Sword?

Mass Media and Nonviolent Dissent in Autocracies

Kristian Skrede Gleditsch, Martín Macías, and Mauricio Rivera

Abstract

It is often assumed that nondemocratic regimes will control mass media and suppress independent information, but in many autocracies the media are partially free and imperfectly controlled. We argue that partial media freedom can increase the prospects for mass nonviolent dissent. We develop a theory emphasizing how even less than perfectly free media outlets can increase the ability of individuals to coordinate and mobilize, and provide an informational endowment that can help non-state actors overcome collective mobilization barriers. We further argue that this informational endowment amplifies the effect of other influences spurring mass protests in autocracies, in particular protest contagion and elections. We find empirical support for our argument in an analysis of all autocracies between 1955 and 2013. A case study of the Georgian Rose revolution provides further support for the postulated mechanisms.

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Introduction

Government respect for media freedom is a hallmark of democracy, and access to independent information allows citizens to hold a government to account. Much research assumes that non-democracies will suppress or control mass media to prevent any information that may promote popular grievances and anti-regime mobilization (e.g., Dahl, 1989; Linz and Stepan, 1996; Poe and Tate, 1994). But although some autocracies such as Cuba and North Korea fit this popular image, many non-democracies have a more varied and less directly controlled media landscape. As Egorov et al. (2009, 646) put it, “there is much variation in media freedom even among dictatorial regimes,” and “many dictatorships have partially free media” (see also Whitten-Woodring, 2009; Stier, 2015).

Existing research highlights how dictators may allow partially free media as this can help increase control over the bureaucracy, improve governance, or to help legitimate the regime (e.g., Egorov et al., 2009; O’Donnell and Schmitter, 1986). We shift attention to the effects of mass media by arguing that printed/broadcast media outlets are a double-edged sword, and partially free media can facilitate mass dissent in autocracies. Our point of departure is that collective action is difficult in autocracies due to the lack of information about the nature and capacity of the incumbent regime, the strength of the opposition, and the feasibility of different mobilization strategies. Partial media freedom provides a coordination good, enhancing the ability of dissidents to organize and overcome collective action barriers. We further argue that the informational advantage that potential dissidents have under even imperfectly free media can play an important role in amplifying the effect of other factors that make mass dissent more likely, in particular protest contagion and the mobilizing effects of elections.

We examine data for all autocracies over the 1955-2013 period.¹ Our analysis shows that mass nonviolent dissent is more likely in countries with more media freedom and where there are

¹There is also significant variation in media freedom in democratic regimes (Whitten-Woodring and Van Belle, 2017), which could affect incentives and opportunities for contention. However, we focus only on autocracies since we are primarily interested in large-scale mobilization for regime change, which is rarely the focus for contention in democracies.

alternative sources of information, compared to regimes where no independent media exist. We also find that partial media freedom amplifies the effect of protest contagion, although we fail to find evidence that partially free media outlets increase the impact of elections on mass dissent in autocracies. The results are robust to alternative explanations and different measures of press freedom and dissent, as well as matching techniques that address potential selection problems.

This article contributes to the literatures on mass dissent and authoritarianism in several ways. Previous work suggests that dictators often use mass media outlets to monitor dissent and strengthen their rule, while at the same time acknowledges the potential risks associated with the presence of imperfectly media outlets (Gohdes, 2020; Lorentzen, 2014; Shadmehr and Bernhardt, 2015; Gehlbach and Sonin, 2014). Case-based research likewise points to the relevance of mass media in explaining dissent activity (McFaul, 2005; Kudlenko, 2015; Areshidze, 2007). These case studies offer valuable insights, but in general underline idiosyncrasies of particular cases and do not address the problem of case selection on the dependent variable. We build on and expand this literature by outlining a general argument about how mass media outlets increase the flow of relevant information and provide opposition actors with an informational advantage that facilitates coordination, as well as we detail specific mechanisms through which print and broadcast media outlets facilitate dissent against autocrats.

To our knowledge, our analysis is the first to systematically examine both direct and indirect effects of partial media freedom on mass dissent in autocracies. Media freedom is often seen as mere “window dressing”, but we show how even partially free media outlets provide important information, which becomes a valuable resource to solve collective action problems (McAdam et al., 2001). Our findings also add to the insights in studies of how independent institutions in autocracies shape relations between regimes and the opposition (Gandhi and Przeworski, 2007; Reuter and Robertson, 2014; Rivera, 2017).

Finally, while much recent research focuses on and highlights the role of recent digital forms of information and communication technologies (Reuter and Szakonyi, 2015; Weidmann, 2015; Zeitzoff, 2017), we show that old forms of mass media such as broadcast radio and television, as

well as printed communication remain very relevant for dissent and direct action in the contemporary world. Moreover, our case study of Georgia demonstrates that media outlets themselves can be important actors in popular mobilization.

Information and Collective Action in Autocracies

Drawing on previous ideas on resource mobilization and collective action, many recent studies underline the role of information in facilitating mobilization against autocracies. Scholarship tends to emphasize the role of specific focal events or new communication technologies that facilitate collective action. However, attention to new technologies such as the internet and social media has led to a relative neglect of the enduring impact of “old school” media such as the press.

Some studies emphasize how elections in autocracies can generate focal events for dissent, by highlighting common grievances and a focus for converging on specific forms of mobilization. Protest around elections help highlight the extent of political grievances and convey information about regime support and the strength of opposition (e.g., Miller, 2015). Better information about the regime’s intentions and internal divisions helps opposition actors choose more effective strategies and establish broader support.

Related studies stress how protests in other countries can help promote mobilization, as seen in the 1848 Revolutions and the more recent Color Revolutions (e.g., Bunce and Wolchik, 2011; Weyland, 2009). Information about the feasibility and effectiveness of specific dissent tactics in other states increases the willingness to participate in anti-regime protests and the ability to coordinate. Evidence from cross-country analyses and case studies corroborates that dissent spreads across autocratic countries, in line with claims emphasizing how information promotes contagion (e.g., Beissinger, 2007; Gleditsch and Rivera, 2017).

Another strand of research explores how new information and communication technologies (ICTs) help to foster popular collective action, including the internet, cell phones, and specific social media platforms like Twitter. While there is evidence that new communication technolo-

gies facilitate the outbreak and/or spread of different forms of violent direct action (e.g., Garcia and Wimpy, 2016; Pierskalla and Hollenbach, 2013; Warren, 2015; Weidmann, 2015), ICTs have more ambiguous effects on nonviolent mobilization. Some scholars make strong claims about the liberating power of ICTs (e.g., Diamond, 2010; Shirky, 2011), and some studies suggest that the expansion of cell phone coverage increases the risk of mass dissent (e.g., Christensen and Garfias, 2018; Little, 2016). However, autocrats can also use ICTs and social media to manipulate information and undermine anti-regime protest (e.g., King et al., 2013; Lorentzen, 2014; Rød and Weidmann, 2015).² The emphasis on the relevance of new communication technologies for popular dissent sometimes downplays traditional mass media, but we believe information from old school media such as printed press often remains very important for collective action.

Of course, many studies have already explored how mass media may affect protest. Several formal models suggest that media independence facilitates dissent by spreading information, although it may also increase the risk of repression (e.g., Kim et al., 2015; Whitten-Woodring and James, 2012). Stein (2016a) shows how the *Folha de São Paulo* newspaper in Brazil provided information that helped opposition actors mobilize against the military regime. These studies offer many valuable insights, but comparative empirical research on the mass media–dissent nexus remains scant. To our knowledge, only Groshek and Christensen (2017) have analyzed the effect of media freedom on mass nonviolent dissent. This study differs from ours by covering a shorter period (1990–2006), focusing on both democracies and autocracies, and does not consider the potential selection problems. Moreover, no previous work has considered potential indirect effects of mass media on large-scale dissent through amplifying the influence of other events and factors.

Mass Media, Informational Advantages, and Dissent

Mass nonviolent dissent may arise over claims on the government such as regime change, policy change, or demands for secession or territorial autonomy. Getting individuals to mobilize col-

²Stein (2016b) notes how many empirical studies on strategic use of ICTs in autocracies focuses on China, suggesting that state capacity matter.

lectively is difficult when participation is costly, even if individuals have shared political motives. Potential dissidents face two interrelated collective action problems: coordination and information. Coordination challenges arise when the potential benefits of mobilization are non-excludable but individual participation entails significant risks of government repression or sanctions. Since any benefits realized through dissent are public but the costs of mobilization are private, individuals have incentives to free ride on others and not themselves participate in protest (e.g., Olson, 1965; Tullock, 1971).

Social incentives can encourage participation, and there can be safety in large numbers when individuals expect others to participate. But individuals often lack accurate information about the preferences of other potential dissidents, especially in autocracies, where the threat of sanctions and repression make individuals unlikely to publicly reveal dissatisfaction with a regime (Kuran, 1997). More generally, collective action is more difficult under information challenges, when individuals do not know how others see the *status quo* and their willingness to mobilize against the government.

Individuals also lack accurate information about government policies, actions, and consequences. Autocratic governments normally try to hide the consequences of policies that could generate popular discontent. For example, the Soviet Union successfully suppressed knowledge about the 1930s famine in Ukraine from much of the population (Courtois et al., 1998). The Pinochet regime in Chile, although repressive, succeeded in building an image of honesty and public integrity while in power. Pervasive systematic corruption went under the radar, and only long after the transition to democracy was it revealed how Pinochet had hid considerable assets in Riggs Bank.³

Information deficits can significantly reduce popular discontent as well as the capacity to coordinate collective action. However, we argue below that even imperfectly free media in autocracies can provide important information and increase the likelihood of mass dissent mobilization.

³<http://www.washingtonpost.com/wp-dyn/articles/A50222-2004Jul14.html>.

Mass media and dissent

Existing work distinguishes between public goods that produce and improve welfare, and public goods which constitute *coordination goods* that produce information and facilitate communication (Bueno De Mesquita and Smith, 2010). We argue that media freedom provides coordination goods that enhance individuals' ability to organize mobilization. Autocracies with partially free media are more likely to experience mass dissent, since greater information raises individual awareness about the nature and power bases of a regime, the preferences of actors, possible dissent strategies, and how likely these are to be successful. For example, despite attempts by the Maduro government to censor the press in Venezuela,⁴ media outlets have continued to report acts of repression against the opposition and abuse.⁵

Furthermore, media outlets in imperfectly free environments can convey information about key policy failures. Under dominant party rule in Mexico, for example, many outlets covered prominently the severe 1994 economic crisis, criticizing the Zedillo administration's economic policies and holding it partly responsible for the crisis.⁶ Increasing public awareness about the government's role and inability to prevent the crisis undermined electoral support and triggered anti-government protests.

In addition to information about incumbent regimes and their policies, mass media provide information about individuals' preferences and dissent strategies, increasing coordination capacity and decreasing uncertainty about participation. Mass media often convey information on the principles and preferred tactics of specific opposition actors, which helps promote organization and strengthen coordination capacity. Moreover, media outlets normally disseminate information, and allow dissident leaders to reach larger audiences and increase the number of would-be participants. In the Arab world, for example, Al-Jazeera disseminated information that ultimately

⁴https://elpais.com/internacional/2018/09/02/america/1535909954_649279.html.

⁵https://elpais.com/internacional/2015/03/01/actualidad/1425228969_135730.html?rel=mas.

⁶On December 24, for instance, the cover page of *Proceso* – a weekly magazine – announced that the economy was about to failing (“La economía a pique”), and a week later, on December 31, they attributed responsibility to former president Carlos Salinas de Gortari (“el gran culpable”) and the recently elected president Ernesto Zedillo (“el corresponsable”).

facilitated collective action. It “became a source of the common knowledge of Arab political life . . . It also fuelled political protest movements, which used the Qatari television station to spread their message, to break through domestic censorship, and to protect themselves from the worst of regime repression” (Lynch, 2014, 94). Media dissemination can also increase the costs of repressing the opposition. During the Orange Revolution in 2004 in Ukraine, dissident leaders used mass media to publicize their actions and government responses, broadcasting a 24-hour live camera feed from Maidan square through the pro-opposition Fifth Channel. This strategy increased the cost of repression, and helped prevent the government from using large-scale violence. The architect of the strategy, Tarasyuk, explicitly highlights the role of the media: “there were dangers, so I suggested to the Fifth Channel that they install the picture of Maidan at night to keep it in live transmission. So if anything happened, people would be watching, and they would immediately understand what was going on” (Binnendijk and Marovic, 2006, 415).

In short, even partially free environments can help disseminate information and solve coordination problems in collective action. Our first hypothesis is based on this reasoning:

Hypothesis 1 *Media freedom increases the likelihood of mass dissent in autocracies.*

If partially free media outlets facilitate mass dissent and increase threats to nondemocratic rule, why would dictators allow and tolerate the presence of partial media freedom? To answer this, we first highlight how tradeoffs are endemic in autocracies (e.g., Egorov et al., 2009; Wintrobe, 2007). Some strategies might increase support or cooperation from specific actors, but increase discontent among others and strengthen their incentives to mobilize. We argue that partially free media outlets can be attractive for dictators for at least three reasons, namely the prospects for improving autocratic governance, providing information on the preferences of actors, and enhancing regime legitimacy.

First, partially free media is helpful for dictators to provide better incentives to the bureaucracy and enhance the quality of governance. Media outlets help reveal incompetence or misconduct in important areas, and can strengthen elite control over bureaucracy and reduce informational asymmetries (Egorov et al., 2009; Lorentzen, 2014; Huang et al., 2019). This argument implies that

the benefits of free/partially free media are greater in resource-poor autocracies, where bureaucratic incentives are more important than in resource-rich non-democracies.

Second, dictators have limited information about their actual support among societal and elite actors (Wintrobe, 2007), and partial media freedom can improve information about relevant actors. Existing work highlights how elections can help mitigate information problems and provide insights into the power of contenders and popular dissatisfaction (e.g., Miller, 2015). We argue that mass media can play a similar role, and that dictators thus have incentives to tolerate partial media freedom. Gohdes (2020), for example, highlights that autocrats learn about dissident activities to use targeted repressive strategies by keeping open both traditional and new media outlets such as the internet.

Finally, allowing partially free media outlets might help increase political legitimacy. Most autocrats seek to acquire some popular consent to govern and stay in office (Wintrobe, 2007). To mitigate widespread popular discontent and the need to use repression, autocrats make concessions to legitimate their rule. These concessions include provision of public goods (e.g., Gandhi and Przeworski, 2007), and increasing civil liberties like freedom of speech and association (e.g., O'Donnell and Schmitter, 1986).⁷ In particular, allowing privately owned media outlets with some investigative journalism and criticism can help signal a partial liberalization process, encouraging societal demands through institutional channels.

In short, dictators often face tradeoffs between strategies that may appease some while aggravating others, or strategies that may increase stability in the short run and increase opposition in the long run. Free or partially free media is a similar double-edged sword: dictators will often allow some independent media outlets attempting to regulate dissent and improve their standing, even if increasing information and criticism by freer media outlets entails other risks and may facilitate mobilization from below.

⁷These concessions seek to improve regime legitimacy, although they are often compensated with new strategies of nondemocratic control and manipulation (King et al., 2013).

Mass media, focal events, and dissent

Partially free mass media can have important indirect effects on political mobilization, by amplifying the effect of other events and factors that make coordination easier and help overcome collective action barriers. Although much research focuses primarily on domestic factors, revolutionary events in Europe and Latin America in the 18th century and recent episodes of mass dissent in the Arab world suggest that transnational factors can trigger anti-regime protest (Weyland, 2009; Lynch, 2014). In light of this, some authors highlight that protest events in other states can promote mobilization via emulation and learning about the effectiveness of specific mobilization and resistance strategies (e.g., Gleditsch and Rivera, 2017; Beissinger, 2007). Empirical studies have uncovered strong spatial clustering in protest activity, where nonviolent dissent spreads across countries and dissent onsets become significantly more likely following nonviolent episodes in other states (e.g., Gleditsch and Rivera, 2017; Butcher and Svensson, 2016). Out-of-sample forecasting efforts have also shown that contagion is a robust predictor of nonviolent mass dissent (Chenoweth and Ulfelder, 2017).

We argue that free/partially free media outlets can inform the public about mass dissent in other states, the strategies opposition actors have used elsewhere, and help increase the likelihood of emulation. Al-Jazeera disseminated information about protest events in the Arab-speaking countries in the Middle East and North Africa, generating a knowledge base on the messages, lessons, and experiences in different countries that can help boost mobilization efforts. From this argument we derive our second hypothesis:

Hypothesis 2 *Dissent contagion will have a stronger positive effect on the likelihood of mass dissent in autocracies as levels of media freedom increase.*

Elections represent another key focal point in non-democracies. Research shows that institutions in autocracies such as political parties, legislatures, and elections can change state-society relations (e.g., Gandhi and Przeworski, 2007; Miller, 2015; Rivera, 2017). Many autocracies hold elections that fall short of the standards of democratic fair competition. Unfair elections give oppo-

sition actors incentives to mobilize against incumbent regimes, despite the risk of repression (e.g., Howard and Roessler, 2006). Several studies show that autocratic elections entail a higher risk of protest (e.g., Beissinger, 2007; Hafner-Burton et al., 2014), and in fact increase the probability of regime breakdown in the short-term (Knutsen et al., 2017).

As in the case of dissent contagion, we argue that partially free media can help disseminate information about the inherent unfairness of autocratic elections, ex-ante and ex-post, the incumbent's intention of manipulating the electoral process, as well as the positions and strategies pursued by the opposition. This helps coordinate more effective anti-regime mobilization, and thus amplify the effect of elections on large-scale dissent. Our third hypothesis summarizes this reasoning:

Hypothesis 3 *Executive elections will have a larger effect on the likelihood of mass dissent in autocracies as levels of media freedom increase.*

Data Analysis

We assess our hypotheses using panel data for all autocracies between 1955 and 2013, with country-years as the unit of observation. The lower and upper bounds of the time period are determined by data availability on the dependent variable.

Mass dissent

Our dependent variable is the onset of nonviolent campaigns from the Major Episodes of Contention (MEC) data set (Chenoweth and Ulfelder, 2017). The MEC data set defines an episode of mass dissent as “a series of observable, continuous, coordinated, purposive mass events in pursuit of a political objective” (Ibid.:13), and codes these episodes from news stories published in Associated Press and Agence France Press within Factiva and LexisNexis. In our data, we observe 102 onsets of nonviolent major episodes of contention.

Media freedom

We use five different indicators to capture variation in media freedom in autocracies, with specific attention to print (newspapers and magazines) and broadcast (radio and television) media outlets. We rely on three indicators from the V-Dem data set, labelled *print and broadcast media critical* (“Of the major print and broadcast outlets, how many routinely criticize the government?”), *government censorship effort* (“Does the government directly or indirectly attempt to censor the print or broadcast media?”), and *print and broadcast media perspectives* (“Do the major print and broadcast media represent a wide range of political perspectives?”). These three measures come from expert-coded surveys based on the questions in parentheses, where the ordinal survey responses are converted to interval indicators through a measurement model (Coppedge et al., 2018).

We also use the Press Freedom Index from Freedom House, which provides information on printed and broadcast media freedom, ranging from 0 (perfectly free) to 100 (no freedom). We reversed the index for an easier interpretation, so larger values reflect more media freedom. It is important to note that the Press Freedom Index is available from 1990 onwards. Finally, we use data from the Global Media Freedom Dataset, including four categories of media freedom: (1) free, (2) imperfectly free, (3) not free, and (4) no media (Whitten-Woodring and Van Belle, 2017). In the analysis, this indicator is coded 1 if autocracies have an imperfectly free or free media, and 0 otherwise.⁸

It is noteworthy that the three indicators from the V-Dem dataset and the Press Freedom Index from Freedom House capture degrees of media freedom, allowing us to assess whether changes in printed and broadcast media freedom affect the risk of mass dissent in autocracies.⁹ We pay specific attention to the results for the V-Dem indicator print and broadcast media critical, since this refers to how many media outlets frequently criticize the government, and thus better captures the extent of citizens’ access to alternative sources of information that are crucial for overcoming collective action problems.

⁸We combine imperfectly free and free categories of media freedom, as the latter in our case accounts for about 15 per cent of the total number of state-year observations where we see imperfectly free or free media in autocracies.

⁹<https://freedomhouse.org/freedom-press-research-methodology>.

One potential objection is that reporting bias could generate apparent support for effects of media freedom, if partially free media outlets are more likely to report mass dissent events. The likelihood of reporting can also influence the incentives to carry out events such as terrorist attacks or protest (Polo and Gleditsch, 2016). However, we believe that reporting biases are less likely to affect our analysis, as major episodes of contention can be identified by reports from other countries and do not require free media in the country where they take place. Moreover, nonviolent events in the MEC data are actually more frequent in autocracies with no media or where the media are not free, contrary to what we would expect if the above reporting biases applied.

Controls

We include several controls commonly expected to affect mass dissent and that may be correlated with media freedom in autocracies. Research suggests that poverty and poor economic performance are likely to increase popular dissatisfaction with incumbent regimes, and thus can motivate dissent. Accordingly, we incorporate the natural log of the gross domestic product (GDP) per capita and the growth rate using data from the Maddison Project Dataset (Inklaar et al., 2018).

There is evidence that urbanization increases the likelihood of mass dissent, as population in capitals and large cities tend to be more resourceful in mass collective action than rural populations (Butcher and Svensson, 2016). We thus control for urban population (logged) in cities with populations greater than 100,000 from the Correlates of War Project.

Oil wealth can affect mass dissent and media freedom autocracies. Oil rich countries can invest in repression to dissuade or buy off support to prevent dissent, and resource-poor dictators allow some media freedom to improve the quality of government (Egorov et al., 2009). We control for oil wealth, using data on oil production value as per capita rents from oil and natural gas, less country-specific extraction costs (Ross, 2015).

We include the percentage of ongoing episodes of nonviolent dissent in a given region, as there is evidence that dissent clusters spatially and the risk of nonviolent campaigns increases in the wake of nonviolent dissent episodes in other states (Gleditsch and Rivera, 2017).

It is well established that autocratic elections affect political survival. Knutsen et al. (2017) show that elections destabilize autocracies in the short-term, but improve regime stability in the long-term, although the stabilizing long-term effect is less robust than the destabilizing short-term effect. Accordingly, we include a binary indicator of executive elections from Coppedge et al. (2018).

Research suggests that modern communication technologies facilitate collective action, and some studies show that cell phone coverage increases the odds of violent conflict (Pierskalla and Hollenbach, 2013), and predicts to nonviolent dissent (Chenoweth and Ulfelder, 2017). We thus control for the log of cell phone subscriptions per 100 people, using data from the World Bank Development Indicators.

Repression can prevent popular dissent via deterrence (Gandhi and Przeworski, 2007; Rivera, 2017), and could be increased following dissent in neighboring states (Danneman and Ritter, 2014). We thus control for state repression, which reflects mean estimates of a latent scale of respect for human rights and accounts for changing standards of accountability in human rights norms and reporting over time Fariss (2014).

Finally, we control for time dependence by including logged time (in years) since any previous episode of mass nonviolent dissent.

Baseline estimates

Table 1 reports logit estimates of the onset of mass nonviolent dissent, excluding state-year observations with ongoing nonviolent dissent events; standard errors are clustered on country. Respectively, models 1-5 correspond to the five indicators of media freedom described above: media critical, media censorship, media perspectives, Press Freedom Index, and partially free media.

The coefficient estimates of the five different measures of media freedom are positive and statistically significant across models, consistent with our claim that, though imperfect, media freedom and the presence of alternative sources of information can help opposition actors to overcome collective action barriers. The consistency of the estimated coefficients for all the measures yield

confidence in our results. In the Online Appendix we report logit estimates with region and fixed effects that help control for country-specific determinants of mass dissent and unobserved common trends. These results are largely consistent with the estimates from Table 1. The only exception is the coefficient of partially free media from Whitten-Woodring and Van Belle (2017), which turns insignificant when we control for region and decade fixed effects. This is not surprising, however, because this is a binary indicator that with limited variance over time, and the use of region and decade fixed effects absorbs much of the effect of slowly moving variables (Wilson and Butler, 2007).

Based on Model 1, Figure 1 provides a more meaningful illustration of the predicted probability of mass nonviolent dissent onsets, conditional on media critical; the confidence intervals correspond to a two-sided test with $p > 0.10$. It suggests that the likelihood of mass nonviolent episodes of contention steadily increases as the values of media critical increase from its minimum to the maximum.

To assess our conditional hypotheses, we estimate a model that incorporates an interaction term between protest contagion and media critical, and other one that includes an interaction term between executive elections and media critical. We evaluate these hypotheses in Figure 2 and Figure 3, respectively; coefficient estimates are shown in the Online Appendix. Figure 2 presents predicted probabilities to illustrate the effect of protest contagion at different values of media critical, holding the other variables at their means. Figure 2 shows that the effect of protest diffusion on mass nonviolent dissent is significantly larger as media critical increases. Although these differences are not statistically significant when the proportion of ongoing episodes of dissent in a region is low ($< 10\%$), we see large and significant differences as ongoing episodes of mass nonviolent dissent raises, corresponding to most of the observations in the sample.

Using a the same approach, Figure 3 shows the predicted probability of mass nonviolent dissent onsets in the presence of autocratic executive elections, conditional on media critical and holding the other variables at their means. Autocratic regimes with executive elections in average face a higher risk of dissent than autocracies with no elections, but in Figure 3 we fail to find evidence

Table 1: Logit estimates of nonviolent dissent onsets

	1	2	3	4	5
Media critical	0.342*** (3.31)				
Media censorship		0.298* (2.10)			
Media perspectives			0.332** (3.21)		
Press Freedom Index				0.045** (3.16)	
Partially free media					0.697* (2.02)
Ln GDP pc	0.052 (0.22)	0.104 (0.43)	0.071 (0.31)	0.331 (0.96)	-0.002 (-0.01)
Growth of GDP pc	0.000 (0.12)	-0.000 (-0.16)	0.000 (0.08)	-0.000 (-0.14)	-0.000 (-0.03)
Ln urban population	0.332*** (4.04)	0.329*** (3.78)	0.344*** (4.25)	0.127 (1.01)	0.346*** (3.90)
Oil wealth	-0.000* (-2.35)	-0.000* (-2.24)	-0.000* (-2.32)	-0.001* (-2.14)	-0.000* (-2.34)
Dissent contagion	0.134*** (8.47)	0.131*** (8.07)	0.132*** (8.26)	0.105*** (4.18)	0.129*** (8.18)
Executive elections	0.520 (1.47)	0.598 (1.62)	0.543 (1.55)	0.924 (1.63)	0.724* (2.13)
Ln mobile subscriptions	0.081 (0.91)	0.121 (1.35)	0.083 (0.91)	0.307† (1.91)	0.165† (1.76)
Repression	-0.111 (-0.64)	-0.171 (-0.98)	-0.109 (-0.63)	-0.711* (-2.19)	-0.089 (-0.52)
Ln time since last nvc	-0.070 (-1.10)	-0.078 (-1.24)	-0.074 (-1.23)	-0.137 (-1.40)	-0.102 (-1.60)
AIC	674.450	680.245	675.905	246.152	682.193
Log pseudolikelihood	-326.225	-329.123	-326.953	-112.076	-330.097
N	3874	3874	3874	1056	3861

Standard errors clustered on country in parentheses

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

that the size of the effect of elections varies depending on media critical.

Matching

The decision to tolerate somewhat independent media outlets may be determined by conditions that are related to the prospects for popular mobilization. If autocracies where leaders allow partially free media outlets may differ systematically from regimes in which media freedom is not allowed or tolerated, the apparent effects of partially free media on mobilization could reflect selection bias. We noted before that allowing independent media outlets could also help reduce popular discontent

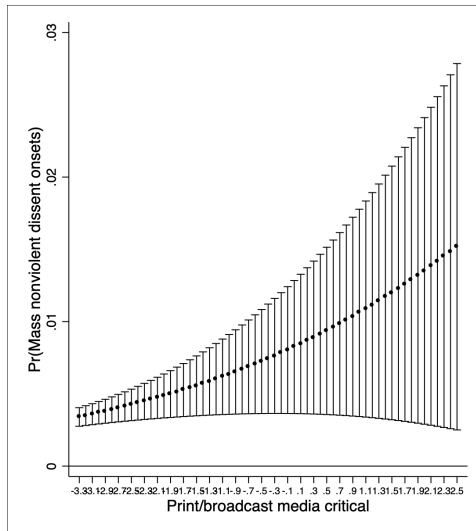


Figure 1: Media critical and mass nonviolent dissent

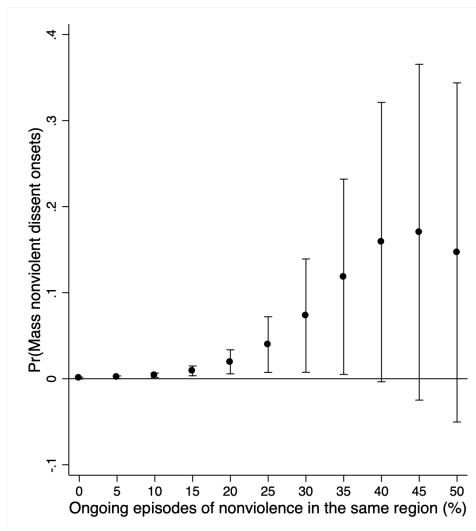


Figure 2: Effect of media critical indicator on the link between dissent contagion and mass nonviolent dissent

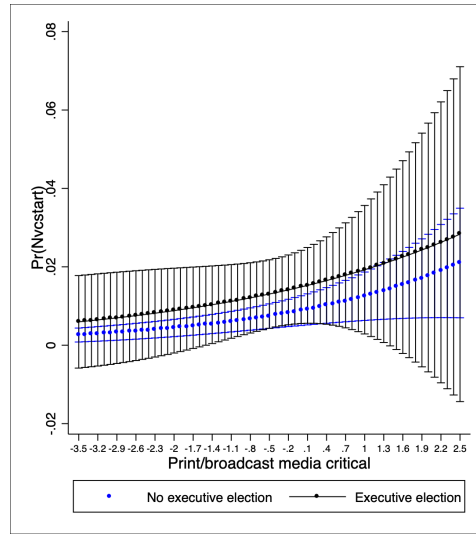


Figure 3: Effect of media critical indicator on the link between executive elections and mass non-violent dissent

and dissent, if it helps legitimate, improve governance, or strengthen a regime's capacity to get information about opposition and social support. Hence, the impact of selection is ambiguous, and could bias against our findings.

We address the potential selection problem and mitigate the risk of model dependence in our empirical estimates by using coarsened exact matching, which helps identify observations within the control group that match as closely as possible the treated group (Iacus et al., 2012; Ho et al., 2007), before re-assessing our hypotheses on the matched data using parametrical analysis. We use this approach to estimate the latent probability of having at least some important print and broadcast media outlets that routinely criticize the government in each observation, match units with a similar probability, and then separate units between the control and treatment groups. Put differently, we pre-process the data to reduce differences between autocracies where media critical does not exist or is marginal (i.e., control group) and regimes where some important mass media outlets are critical (i.e., treated group). We match on GDP per capita, urban population, oil wealth, post-Cold War period, and media critical at time $t-1$. The overall balance measure statistic before and after matching are 0.970 and 0.790, indicating that matching increases balance. The number of observations reduces from 3874 to 2394 after matching.

Table 2 replicates Models 1-3 reported in Table 1, based on the matched sample. To clarify, we report models for the V-Dem measures of media freedom. These indicators are highly correlated and thus matching on media critical is not problematic, as opposed to the Press Freedom Index and partially free media that are less correlated with media critical and cover a shorter time period, as is the case of the Press Freedom Index. The coefficient estimates in Table 2 are largely consistent with the results using unmatched data. The coefficient for partial media freedom is positively signed and statistically significant for media critical, media censorship, and media perspectives. We report substantive effects in the Online Appendix.

Table 2: Logit estimates of nonviolent dissent onsets (matched data)

	1	2	3
Media critical	0.791** (3.03)		
Media censorship		0.733* (2.13)	
Media perspectives			0.557** (2.63)
Ln GDP pc	-0.161 (-0.21)	0.452 (0.51)	0.114 (0.15)
Growth of GDP pc	-0.000 (-0.16)	-0.000 (-0.59)	-0.000 (-0.35)
Ln urban population	0.517 (1.56)	0.447 (1.47)	0.449 (1.46)
Oil wealth	-0.001 (-0.70)	-0.000 (-0.54)	-0.001 (-0.60)
Dissent contagion	0.166*** (5.31)	0.173*** (5.21)	0.169*** (5.27)
Executive elections	0.712 (1.35)	0.732 (1.41)	0.738 (1.40)
Ln mobile subscriptions	0.525** (2.74)	0.493** (2.64)	0.491* (2.50)
Repression	-0.767 (-1.63)	-0.761† (-1.88)	-0.769† (-1.70)
Ln time since last nvc	0.026 (0.24)	0.028 (0.24)	-0.003 (-0.03)
AIC	351.860	353.739	357.603
Log pseudolikelihood	-164.930	-165.869	-167.801
N	2394	2394	2394

Standard errors clustered on country in parentheses

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Robustness

We performed additional estimates to consider the robustness of our results, which are reported in the Online Appendix. First, we estimate models using data on the number of anti-government demonstrations from Banks.¹⁰ Anti-government demonstrations refer to “any peaceful public gathering of at least 100 people for the primary purpose of displaying or voicing their opposition to government policies or authority, excluding demonstrations of a distinctly anti-foreign nature.” As such, this measure entails a much lower threshold, compared to the measure from the Major Episodes of Contention (MEC) data set (Chenoweth and Ulfelder, 2017). These results are largely consistent with the results reported above.

Second, in additional estimates we include four binary variables for different types of autocracies, single-party, monarchic, military, and personalist regimes (Geddes et al., 2014). This is because mass nonviolent dissent may be more likely in some autocracies than in others, and certain regimes may be more tolerant to media criticism and investigation (Stier, 2015). Importantly, the substance of the main results do not change if we consider different types of autocracies.

Third, so-called anocracies or semi-democracies are more likely to experience conflict due institutional inconsistencies (e.g., Knutsen and Nygård, 2015), and one may wonder whether our results merely reflect such institutional inconsistencies rather than media freedom per se. We show that our results remain robust when we include a binary indicator for semi-democracies.

Finally, recent research highlights that new communication technologies such as the internet have played a prominent role in mass uprisings against dictators over the last two decades (see Diamond, 2010). Some may argue that the omission of internet censorship in our estimates may bias our results in favor of our hypotheses. In additional models we thus control for internet censorship efforts by the government, using data from the V-Dem dataset (Coppedge et al., 2018). Importantly, the substance of our results remains after controlling for internet censorship efforts. Overall, we believe these models provide evidence that the presence of relatively free print and broadcast mass media outlets indeed facilitate mass dissent in autocracies, independent of the role

¹⁰<https://www.cntsdata.com>

played by new communication technologies.

Tracing the Mechanisms: The Case of Georgia

The statistical analysis is consistent with the expectations of our argument, but it does not allow us to directly ascertain that the postulated mechanisms apply. In this section we use the Georgian 2003 Rose Revolution as an example to illustrate the mechanisms where freer media can facilitate nonviolent mass uprisings in autocracies.

Eduard Shevardnadze became head of state in Georgia after the country's first president Zviad Gamsakhurdia was removed during a civil war, and formally elected president in 1995. Although a new constitution was drafted, allowing regular elections, power was confined to elites close to the president, and corruption was widespread. Following the national parliamentary elections in November 2003, protests erupted to demand Shevardnadze's resignation, citing alleged fraud. When the Georgian Central Electoral Commission publicized the official results of the election, thousands mobilize, and Shevardnadze resigned twenty days after the first protests erupted.

Analysts of the Rose Revolution generally agree that independent media was important for mobilization, and they especially highlight the TV channel Rustavi-2 (Fairbanks, 2004; Kandelaki and Meladze, 2007). Media played a critical role in providing information about the regime and enhancing public debates before the outbreak. Georgia has partly free media since 1995 in the Global Media Freedom Dataset (Whitten-Woodring and Van Belle, 2017), including newspapers and magazines with some circulation and television channels that provided independent information. By 2002, there were seven television channels with daily programs and with influence over public opinion (Usupashvili, 2004, 94). Many smaller media outlets were critical of the regime (McFaul, 2005, 12), but Rustavi-2 was the most important for the Rose Revolution.

Rustavi-2 was created in 1994 as a pure commercial channel, and became popular before Shevardnadze assumed the presidency (Kandelaki and Meladze, 2007). Once in power, Shevardnadze supported Rustavi-2 as a platform to signal democratic reforms, and the channel was also endorsed

by future opposition leaders such as Zhvania and Saakashvili then aligned with Shevardnadze (Ibid.,114). Rustavi-2 was also supported by external donors such as Soros Foundation and the US backed NGO Internews, as well as private donors in Georgia (Welt, 2009).

Rustavi-2 was the most professional media in Georgia, with the most prominent public figures participating in its programs, and deemed more trustworthy and influential than its competitors (Usupashvili, 2004, 94). Through its daily news programs and investigative reporting, Rustavi-2 “gained widespread popularity as a result of several years of open and fearless criticism of the Shevardnadze regime” (Welt, 2009, 161-62) and “critical reporting, and the fact that it was the only channel other than state TV that had a national reach, turned Rustavi-2 into the most watched channel in Georgia” (Anable, 2006, 16). According to Kudlenko (2015, 173), during the Rose Revolution Rustavi-2 was one of the first sources of information for online discussions about protest strategies and general information about the revolution. It was also available to the many Georgians who could not afford newspapers.

Rustavi-2 helped bring about the Rose Revolution by increasing scrutiny on the regime before the 2003 elections. For instance, in 2000 and 2001, Rustavi-2 systematically covered corruption scandals involving members of the regime. These reports provoked threats by the authorities to shut down the channel and one famous journalist was killed by a former police officer (Anable, 2006, 16). But the move to limit Rustavi-2’s reporting backfired and promoted further dissent. When the Minister of Interior threatened to shut down the channel after reports on political corruption in October 2001, student protested outside the offices, rejecting the action of the authorities, and demanded the resignation of the government. These protest later spread to parliament and president’s office (Anable, 2006, 17).

Before the 2003 Rose Revolution, Rustavi-2 began to campaign in favor of the opposition and to undermine the regime’s legitimacy. When David Gramkelidze, leader of the New Rights Party, organized a protest in Tbilisi to demand a new electoral commission on 3 June 2003, Rustavi-2 covered extensively the rally and helped increase the number of protesters (Areshidze, 2007, 111). After the rally, the opposition leaders Zhvania, Gramkelidze and Saakashvili stated that they

would launch a joint movement, and the media helped convey the sense of opposition momentum (Areshidze, 2007, 111-2). In August, Rustavi-2 stepped up its criticism of the government, and arranged an informal pact with an NGO coalition financed by the Open Society Foundation (Areshidze, 2007, 107). From September to October, Rustavi-2 promoted motives to protest and supported the opposition, providing an outlet for opposition groups to publicize their grievances and agendas as well as a platform for the oppositional leaders Zhvania and Saakashvili (Anable, 2006; Kandelaki and Meladze, 2007). This helped the opposition to gain popular credibility and support (Mitchell, 2004, 345), “enabling [the opposition leaders] to engineer the revolution” (Anable, 2006, 19). Every Monday, the channel published polls indicating that the opposition parties were leading the campaign. Some analysts point out that these results were not entirely unbiased, as polls were conducted precisely when opposition parties could be reached, yet the information helped sway voters and discredit the regime (Areshidze, 2007, 141-3).

In October, Rustavi-2 screened the documentary *Bringing down a dictator* about the overthrow of Slobodan Milosević in Serbia 2000 (Anable, 2006, 18). The documentary helped convey the tactics and possibilities of change. A member of the National Movement states that “most important was [that after] the film . . . the demonstrators knew the tactics of the revolution in Belgrade by heart Everyone knew what to do. This was a copy of that revolution, only louder”.¹¹ Although diffusion was helped by direct NGOs and activist connections with the Serb Otpor! movement (Bunce and Wolchik, 2011), the media dissemination also played an important role. According to Welt (2009, 182), “not only should Kmara and associated NGOs be considered a conveyor of the ‘Serbian’ model but also Saakashvili’s National Movement and, ultimately, Rustavi-2.” As (Anable, 2006, 19) puts it, the “months before Shevardnadze’s resignation were exciting times here, and Rustavi-2 portrayed the excitement”. After the resignation of Shevardnadze, a U.S. diplomat indicated that Rustavi-2 was different from NGOs, because “many people in Georgia pay attention to Rustavi-2, and it did play what can almost be called an inflammatory role” (Welt, 2009, 173).

¹¹https://www.washingtonpost.com/archive/politics/2003/11/25/tbilisis-revolution-of-roses-mentored-by-serbian-activists/8cf6a82c-e1ee-4f4a-9276-b5fb6521c3fc/?utm_term=.a63ca1f4075a.

Rustavi-2 had a role in creating a hostile environment for the regime during the start of elections on November 2, publicizing mistakes on the electoral lists, announcements of polling stations that were not able to open on time, a declaration of Saakashvili that he was not on the list, and a statement of the Central Electoral Commission that they were going to extend the journey for two hours. This showed that “the election was turning into uncontrollable chaos, just as many had feared, with the state institutions unable to provide for the most basic of citizens’ rights . . . In other words, “there was a perfect environment for those who wanted to bring down Shevardnadze to achieve their goal” (Areshidze, 2007, 147-8).

After the elections, Rustavi-2 publicized an exit poll, showing a victory for Saakashvili’s National Movement with 21% of the vote and with the Shevardnadze’s coalition in second place (Welt, 2009, 165). The media disseminated information to compare the Electoral Commission’s results and make trouble for the government. Indeed, the owner of Rustavi-2 intended to use the poll to call people to the streets and protest electoral fraud, with the intention to create a crisis (Areshidze, 2007, 151). Moreover, as long as the poll was the only information available, Rustavi-2 succeeded in convincing people believe that these were the actual results (Areshidze, 2007, 152). The following day, a parallel vote count showed the same results as the Rustavi-2 poll (Welt, 2009, 167). Saakashvili took the results as a clear victory and appeared on television to call people to the streets to begin a rally at 17:00 (Areshidze, 2007, 154). The appearance of Saakashvili on TV to incite mass dissent became a common strategy for opposition leaders to coordinate. Saakashvili used Rustavi-2 to rally the public, and interviews and roundtables became platforms to inform about places and time of subsequent events (Mitchell 2004, 345). Saakashvili stated that thousands of students were brought to the streets, precisely due to the information publicized by Rustavi-2 (Anable, 2006, 15), and “the opposition won the information war with the presidential coalition and this was the single most important driving force for their success in the November election and the Rose Revolution” (Usupashvili 2004,94).

On November 7, the protests extended to the regional capital city Zugdidi. The media helped to convey a big and strong opposition, bolstering individual participation based on expectations of

how others will act and the declining risk of individuals being victims of repression. “Rustavi’s image of the vigil differed just enough from the reality to give the viewers the impression that there are really a mass movement actively supporting Saakashvili and the opposition” (Mitchell, 2004, 345). According to Broers (2005, 342), Rustavi-2’s staff used opportunistic location of camera’s angles, focusing the same crowds in different places, recordings of the logos of different parties united to the National Movement to give the idea of a wide base of support for the opposition, and, lastly, Rustavi-2 showed police removing their helmets to spread the impression that the security forces were with the dissenters. This made people believe that protests were really representing Georgia’s population and would be successful, thus convincing more hesitant people to come on the streets (Welt, 2009, 174). When leaders of the opposition organized a mass demonstration on 14 November, Rustavi-2 efforts to call people to the streets spurred 20-25,000 in support of the campaign of civil disobedience (Areshidze, 2007, 165-6).

On 20 November, the Electoral Commission publicized the official results, announcing a victory for Shevardnadze. On November 22, thousands of people gathered in Tbilisi to demand the resignation of Shevardnadze. The publication of parallel information created an environment rejecting the official results, which helped to mobilize the population against Shevardnadze (Haindrava, 2004). Pope (2003) argues that “the fraudulent elections provided a greater catalyst for popular outrage than the Liberty Institute and Kmara expected. That was largely because of U.S. and NGO-funded exit polls broadcast on Rustavi 2 TV, which showed everyone exactly how pro-Shevardnadze parties had stolen the election”.¹² On November 21, Saakashvili launched a caravan of cars and buses, with Rustavi-2 recording and broadcasting convoy updates on TV, and Saakashvili seized the opportunity to call people to join the mass demonstration on the next day (Areshidze, 2007, 170). On November 22, the crowd gathered outside parliament. The dissidents stormed the building to impede Shevardnadze to declare victory to his coalition. The next day he resigned, and the opposition won the Rose Revolution.

¹²See <https://www.wsj.com/articles/SB1069507873431700>.

Conclusion

Theoretical work on collective action emphasizes how a lack of information can impede the capacity to mobilize against autocracies. Better access to independent sources of information can thus help overcome the collective action problem and increase mobilization capacity. Beyond new information communication technologies, we emphasized the importance of traditional forms of printed/broadcast mass media, and how even partially free media can unleash the disruptive power of information in autocracies. Our analysis provides robust evidence that mass nonviolent dissent is more likely in non-democracies with partially free media, supporting our claim that information is a coordination good that helps overcome collective action problems.

This article improves our understanding of the role of the media and mass direct action in several ways. With some notable exceptions, most previous research has emphasized a democratic and nondemocratic media freedom dichotomy, overlooking significant variation within democracies and autocracies that are likely to affect other outcomes. We showed that media freedom in non-democracies have important implications, and that even imperfectly free media can create an informational opening that social actors can leverage to coordinate and mobilize.

Our findings provide insights to international actors seeking to promote political liberalization in autocracies, as greater support for independent media outlets can strengthen opposition actors' capacity to promote change. Even if new information and communication technologies like the internet and cell phone coverage can have important implications for protest and direct action, printed media and television are important to understand longer trends in episodes of mass dissent in autocracies in the 20th century and remain prominent sources of information.

Our case study of Georgia helps demonstrate the role that independent media can play in providing information, but also alerts us to how the media itself is an important player in mobilization. The media are not passive bystanders that simply report on political struggles and objectively determined facts; rather, the way that the media report on political events often make them a key player in the opposition and mobilization efforts.

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