# Propaganda in Autocracies: Institutions, Information, and the Politics of Belief 

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[^0]Propaganda becomes ineffective the moment we are aware of it.

- Joseph Goebbels

The struggle of man against power is the struggle of memory against forgetting.

- Milan Kundera


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## Part I

## Foundations

## Chapter 1

## Persuasion and Domination

### 1.1 Strategies of Propaganda in Autocracies

"As long as people think that the dictator's power is secure," Tullock (1987) wrote, "it is secure." When citizens think otherwise, all at once, a dictator's power is anything but, as Kuran (1989, 1991) and Lohmann (1993) observed after the Soviet Union collapsed. This conviction - that power rests on citizens believing in it - has long compelled the world's autocrats to invest in sophisticated propaganda apparatuses. This book draws on the first global dataset of autocratic propaganda, encompassing over eight million newspaper articles from 59 countries in six languages. We document dramatic variation in propaganda across autocracies: in coverage of the regime and the opposition, in narratives about domestic and international life, in the threats of violence issued to citizens, and in the domestic events that shape it. We also show that propaganda discourages protests by citizens.

Why does propaganda vary so dramatically across autocracies? Our answer, put simply, is that different autocrats employ propaganda to achieve different ends. Most autocrats now govern with nominally democratic institutions: regular elections, national parliaments, and opposition parties. Some autocrats are more constrained by these institutions than others, perhaps because their recourse to repression is limited by international pressure or because they confront domestic institutions or pressure groups that bind them. Where these electoral constraints are relatively binding, autocrats must curry some amount of popular support, and so they employ propaganda to persuade citizens of regime merits. To be persuasive, however, propaganda apparatuses must cultivate the appearance of neutrality, which requires conceding bad news and policy failures. Where electoral constraints are binding, we find, propaganda apparatuses cover the regime much like Fox News covers Republicans.

Where autocrats confront no electoral constraints - where autocrats can fully secure themselves with repression - propaganda serves not to persuade citizens, but to dominate them. Propaganda derives power from its absurdity. By forcing citizens to consume content that everyone knows to
be false, autocrats make their capacity for repression common knowledge. Propaganda apparatuses engage in absurdly positive pro-regime coverage, while pretending opposition does not exist. Narratives about a country's contemporary history are presented in absurd terms, for these absurdities give them power. Citizens are told that their countries are envied around the world, crime does not exist, "democracy" is alive and vibrant, and that the dictator is a champion of national sports. Propaganda apparatuses routinely and explicitly threaten citizens with repression.

Many scholars regard nominally democratic institutions as forces for stability and regime survival as secured with patronage and repression. Our approach is different. We view nominally democratic institutions as constraints that autocrats attempt to loosen and citizens' beliefs as the key battlefield on which the struggle for political change is waged. Our focus on citizens' beliefs accords with how scholars understood autocratic survival for much of the 20th century. Autocrats wage the battle for citizens' beliefs with a range of tools, propaganda chief among them. Most broadly, we show that even weak electoral constraints force autocrats to wage the battle for citizens' beliefs from a position of weakness. To persuade citizens of their regimes' merits, electorally constrained autocrats must acknowledge policy failures that risk confirming citizens' frustrations and facilitating collective action.

We draw from a range of disciplines to illustrate how. Our theory is informed by field research in China and Central Africa, and aided by the tools of game theory. We use computational tools to collect and measure propaganda, statistical and network techniques to analyze it, survey experiments to probe its effects on those who consume it, and case studies to bring it to life. Many of these case studies are of intrinsic historical importance. We explain why Russian President Vladimir Putin's propaganda apparatus uses Donald Trump as a propaganda tool, why the Chinese Communist Party's (CCP) flagship propaganda newspaper is more effusive than any point since the Cultural Revolution, why Tunisian President Zine El Abidine Ben Ali publicized his regime's failures before becoming the Arab Spring's first casualty, and why Cameroonian President Paul Biya produces different propaganda in English and French.

Two autocracies are emblematic of the propaganda strategies we document: the People's Republic of China and the Republic of Congo. China is among the few autocracies that does not organize national elections. Congo, though a leading oil exporter, is so afflicted with high-level corruption that it routinely seeks debt relief from Western creditors, which require regular elections in return. Their propaganda strategies, we learned during years of field research, look dramatically different to readers. The CCP aims to dominate citizens; Denis Sassou Nguesso, who has ruled Congo for all but five years since 1979, must persuade them.

### 1.1.1 Propaganda as Persuasion: The Republic of Congo

Sassou Nguesso is among the world's most corrupt autocrats. As of 2012, in France alone, Sassou Nguesso owned more than 30 properties, 112 bank accounts, and a fleet of luxury vehicles. In

2016, a Canadian court ruled that the Sassou Nguesso family was "a criminal organization." Sassou Nguesso has so badly mismanaged the economy that in 2017, just six years after it received debt relief from the IMF and World Bank, the government's debt/GDP ratio reached $130 \%$.

Congolese citizens are aware of Sassou Nguesso's corruption, and many loathe him for it. Yet they also read his propaganda newspaper, Les Dépêches de Brazzaville, or "Dispatches from Brazzaville." To be sure, Les Dépêches is Congo's easiest newspaper to access. It is printed daily, subsidized by the government to keep its purchase price low, and printed in color. In each of these respects, Les Dépêches is more attractive than its competitors. La Semaine Africaine has long been regarded as Congo's vieille dame: its "gray lady," a reference to The New York Times. Founded as a church newsletter in the 1950s, La Semaine Africaine became Congo's newspaper of record during the democratic transition in the early 1990s. It now publishes twice weekly and, though its journalists self-censor, it remains independent. Many other independent newspapers dot newsstands, some more critical of the government and routinely punished for it.

Why do citizens who loathe Sassou Nguesso consume his propaganda? The answer is not uncertainty about its ownership. Although Les Dépêches is neither state-run nor legally affiliated with Sassou Nguesso's Parti Congolais du Travail (PCT), there is no doubt it is Sassou Nguesso's mouthpiece. The answer is also not that citizens have no other options. Citizens are not forced to purchase Les Dépêches and boycott La Semaine Africaine. Having moderated its editorial line, La Semaine Africaine is now regarded as an "acceptable" independent newspaper. Perhaps as a result, it has also attracted enough consumers to remain in print.

The answer, many citizens say, is that Les Dépêches publishes a substantial amount of legitimate news, which they want to read. It is, indeed, a professionally run media organization. It recruits top students from Congo's flagship university, who are lured by salaries substantially higher than its competitors. It has foreign bureaus in Kinshasa and Paris. It prints a daily Kinshasa edition and is sold at several Paris newsstands. Its French editor, Jean-Paul Pigasse, was previously a senior figure at several widely respected French publications, including Les Echos, L'Express, and Jeune Afrique, before he was lured to Brazzaville out of pecuniary interest. Pigasse is reportedly part of Sassou Nguesso's money laundering operation. ${ }^{1}$

The journalistic integrity of Sassou Nguesso's propaganda apparatus should not be overstated. It is propaganda, and it exists to advance Sassou Nguesso's interests. Its coverage is consistently, if subtly, skewed in his favor. Sassou Nguesso figures prominently in the account of Congo's history that Les Dépêches narrates for readers. The newspaper publishes roughly 35 articles per day, distributed across topics that readers of The New York Times would find familiar: current affairs, finance, sports, culture, and classified ads. Each day, Sassou Nguesso appears in about three of these articles, mostly in connection with the economy or foreign affairs. Les Dépêches, we show in Chapter 4, covers Sassou Nguesso about as positively as Fox News covers the Republican Party.

[^1]His political rivals receive some coverage，but，upon reflection，a bit less．These rivals are seldom criticized explicitly．

Congolese citizens read Sassou Nguesso＇s propaganda by choice．It is skewed，but not so heavily that citizens refuse to consume it．

## 1．1．2 Propaganda as Domination：The People＇s Republic of China

Few Chinese citizens enjoy reading the People＇s Daily，though more than half report doing so reg－ ularly．${ }^{2}$ China＇s most disliked newspaper sits prominently on every newsstand．Persuaded that propaganda was＂the most important job of the Red Army，＂Mao Zedong routinely edited the People＇s Daily himself．${ }^{3}$ For citizens，reading it was＂a political obligation．＂${ }^{4}$ Government offices were until recently required to subscribe．The People＇s Daily is the CCP＇s flagship newspaper， and its content frequently appears in other platforms，since all Chinese media outlets are majority owned by the state．Journalists are required to pass ideological exams and，later，attend the Propa－ ganda Department＇s＂refresher courses．＂${ }^{5}$ Most journalists are Party members，and non－members are forbidden from covering politics．${ }^{6}$

The People＇s Daily seeks not to persuade readers，but to dominate them．Huang（2015b，420） puts it succinctly：＂Such propaganda is not meant to＇brainwash＇people with its specific content about how good the government is，but rather to forewarn the society about how strong it is via the act of propaganda itself．＂Its effusively pro－regime content，as well the threats it occasionally issues to citizens，make this clear．On April 26，1989，the People＇s Daily published a now infamous editorial：＂We Must Take a Clear－cut Stand against Disturbances．＂The editorial condemned the student protests in Tiananmen Square，and newspapers across the country were required to place it on their front pages．An＂extremely small number of people with ulterior motives＂had taken advantage of the students，who were engaged in a＂conspiracy＂to＂plunge the whole country into chaos．＂It concluded with a warning：

If we are tolerant of or conniving with this disturbance and let it go unchecked，a seriously chaotic state will appear．．．．Our country will have no peaceful days if this disturbance is not checked resolutely．${ }^{7}$

The massacre came on June 4，when the People＇s Liberation Army（PLA）killed roughly 2，000 citizens．＂Stability overrides everything，＂Deng Xiaoping announced in the massacre＇s aftermath and again，in a front page editorial，on its one year anniversary．${ }^{8}$ Several People＇s Daily reporters

[^2]joined the Tiananmen protests，with signs that read：＂We don＇t want to lie anymore．＂They were purged．${ }^{9}$ Though open discussion of Tiananmen is forbidden in the press，the CCP now reminds China＇s urban class each June 4 of its brutal campaign of repression against ethnic Uyghers in Xinjiang region，the better to underscore the fate that awaits potential dissidents．

The CCP is quite clear about its propaganda objectives．In 2013，journalist Gao Yu leaked an internal Party directive，known as Document 9，that described China＇s＂ideological situation＂as＂a complicated，intense struggle．＂Media must be＂infused＂with the＂spirit of the Party＂and＂promote the unification of thought．＂The Party must＂allow absolutely no opportunity for incorrect thinking to spread．＂${ }^{10}$ Though Gao was sentenced to seven years in prison，CCP officials occasionally say the same thing．In 2009，Jiangxi party secretary Su Rong told journalists that＂stability is our principle task．＂＂Particularly in the case of sudden－breaking news and mass incidents＂－protests，that is－ ＂we must get in faster，forestalling our opponents by a show of strength．＂${ }^{11}$ In 2010，the Propaganda Department simply banned bad news from the front pages of newspapers．${ }^{12}$ Consequently，as exiled novelist Ma Jian puts it，Chinese propaganda is＂filled with absurdities．＂${ }^{13}$ In 2017，the People＇s Daily claimed that Xi Jinping＇s contributions to Chinese diplomacy had＂transcended 300 years of western theory on foreign affairs．＂Not to be outdone，one state－run television network ran a six episode series on Xi＇s＂Major Country Diplomacy．＂＂Wherever he goes，＂claimed one episode，＂Xi Jinping sets off a whirlwind of charisma！${ }^{14}$

The People＇s Daily does obvious violence to the truth，and hence to the experiences of Chinese citizens．For this，many loathe it，as the People＇s Daily various and vulgar sobriquets make clear．${ }^{15}$ The newspaper is routinely called Riren Minbao，or＂Raping People Daily，＂a phonetic play on Renmin Ribao．${ }^{16}$ One anonymous activist even created an eponymous Twitter account that retweets articles that are particularly offensive．The People＇s Daily，the Twitter account observes，is the ＂newspaper no one is willing to read，＂in which the＂news content and opinions are the opposite of the public＇s perception．＂${ }^{17}$ It＂is nonsense and does violence to the people．＂${ }^{18}$

The CCP＇s propaganda bears virtually no resemblance to Sassou Nguesso＇s：in its stridency，its use of absurd narratives，and the extent to which it threatens citizens．${ }^{19}$

[^3]
### 1.2 Antecedents, Empirical and Theoretical

These two propaganda strategies - persuasion and domination - appear to be at odds. For one, propaganda is powerful when subtle: when citizens are largely unaware of how they are being manipulated. For the other, propaganda derives its power from absurdity: from forcing citizens to consume information they know to be false, and to be seen doing so publicly. However inconsistent they are, these two propaganda strategies also have deep historical origins. Students of propaganda, and its practitioners, have long sought to understand the principles that make each strategy effective.

### 1.2.1 Propaganda as Persuasion: Joseph Goebbels, Bayesian

"Propaganda," Joseph Goebbels wrote, "becomes ineffective the moment we are aware of it." 20 This conviction permeated his work atop the Nazi propaganda apparatus. ${ }^{21}$ Since broadcasting exclusively positive news would "fairly compel the German public to listen to foreign and enemy broadcasts," Goebbels instructed state media to report bad news and policy failures. Goebbels insisted on truth, "otherwise the enemy or the facts might expose falsehoods." He routinely employed "black propaganda": "word of mouth" campaigns waged by "faithful citizens, which were successful as long as the citizens targeted by these campaigns were unaware of them." ${ }^{22}$ Harold Lasswell (1938, 110, 203), who pioneered the study of propaganda in the American academy, endorsed a similar approach to wartime propaganda: "Reveal losses when they come. ...It is ridiculous to pretend that the enemy never wins a point."

Propagandists have long imputed Bayesian rationality to their audiences and tailored their propaganda accordingly. ${ }^{23}$ To recruit soldiers for the First Crusade, in 1065 Pope Urban II implored Christians to "wrest that land from the wicked race, and subject it to yourselves." He planted individuals in the audience to cry out "God wills it!" throughout the speech. ${ }^{24}$ Otto von Bismarck employed a dedicated propaganda secretary, whose work Bismarck reviewed to ensure its style and syntax would resonate with its intended audience. ${ }^{25}$ To build support in London, Napoleon Bonaparte quietly founded the Argus newspaper, which was fronted by an Englishman but surrep-

[^4]titiously produced by the French Foreign Office. Erich Ludendorff, a German general during World War I, wrote that good propaganda must "mold public opinion without appearing to do so." ${ }^{26}$ Ludendorff's foes across the English Channel agreed. According to one British propagandist: "The art of propaganda is not telling lies, but selecting the truth you require and giving it mixed up with some truths the audience wants to hear." ${ }^{27}$ Scholars in the mid-20th century were so impressed by the ability of propagandists to strategize with the tools of Bayesian rationality that they sought to explain why modern man was so susceptible to manipulation. ${ }^{28}$

Much contemporary scholarship on autocratic propaganda is motivated by Goebbels' core insight: that to persuade citizens of the regime's merits, propaganda must occasionally concede the regime's failings. Formal theorists have led this research agenda. ${ }^{29}$ By mixing factual reporting with useful fictions, propaganda apparatuses can acquire a reputation for credibility, and hence the capacity to shape citizens' beliefs. ${ }^{30}$ If citizens are not completely rational, the scope for propaganda to manipulate their beliefs is more profound. Citizens may underestimate the biases in media content, ${ }^{31}$ be constrained by memory limitations, ${ }^{32}$ or double count repeated information. ${ }^{33}$

It is unclear whether Jean-Paul Pigasse, the architect of Denis Sassou Nguesso's propaganda apparatus, has read Goebbels' diaries. He has probably not studied the formal models of modern political science. But their approaches to propaganda are identical.

### 1.2.2 Propaganda as Domination: Hannah Arendt Goes to China

China's People's Daily would be puzzling to Goebbels, and is puzzling in the context of formal theories of persuasion. It would be deeply familiar to students of totalitarianism. For Hannah Arendt, propaganda in totalitarian dictatorships served to force citizens to submit to the regime's historical narrative, despite what they knew to be true. ${ }^{34}$ As Levy (2016) put it:

The great analysts of truth and speech under totalitarianism - George Orwell, Hannah
Arendt, Vaclav Havel - can help us recognize this kind of lie for what it is. ...Saying something obviously untrue, and making your subordinates repeat it with a straight face in their own voice, is a particularly startling display of power over them. It's something that was endemic to totalitarianism. ...Being made to repeat an obvious lie makes it

[^5]clear that you're powerless; it also makes you complicit.
Authoritarian regimes display this form of power in a range of ways. In North Korea, households must keep radios tuned to the state-run radio station. They can be turned down, but never off. Independent media were illegal in the Soviet Union, as in contemporary China. In the 1930s, all Soviet cities had loudspeakers on the streets, which broadcast propaganda. Every day started with the national anthem and ended with it. The Soviet government outlawed radios that could access independent stations and photocopiers that could print anti-regime pamphlets. ${ }^{35}$ This domination gave rise to some of the 20th century's most enduring literature. The "struggle of man against power," Czech novelist Milan Kundera wrote, is "the struggle of memory against forgetting." For Kundera, resistance is the individual's effort to insist on what she knows to be true in the face of an informational environment that claims otherwise. As Vaclav Havel and Milan Kundera recede from the spotlight, a new generation of Chinese luminaries - Yan Lianke, Ma Jian, and Ai Weiwei chief among them - is reminding the world about the struggle of memory against forgetting.

Arendt's insights helped contemporary scholars make sense of the 20th century's most repressive dictatorships. In Hafez al-Assad's Syria, Wedeen (1999) writes, "power manifests itself in the regime's ability to impose its fictions upon the world. No one is deceived by the charade, but everyone ...is forced to participate in it." Syrian citizens were not required to believe the "mystifications" the regime put forth. Rather, they were required to act as if they did. In so doing, Wedeen quotes Vaclav Havel approvingly, they live "within the lie." They "confirm the system, fulfill the system, make the system, are the system." ${ }^{36}$ Wedeen continues:

By [saying something manifestly spurious], each [citizen] demonstrates the regime's power to dominate him. The [citizen] comes to know about himself, and about others, that each can be made to subordinate to state authority not only his body, but also his imagination.

Wedeen's account of Assad's Syria echoes Richard Rorty's study of Animal Farm: "The only point in making Winston believe that two and two equals five is to break him., ${ }^{37}$

Huang (2015b, 2018)'s work on Chinese propaganda should be understood in this context. As in Arendt's Soviet Union, Kundera's Czechoslavakia, Orwell's Animal Farm, and Wedeen's Syria, the CCP's propaganda is designed to signal to citizens, not persuade them:

By being able to afford significant resources to present a unified propaganda message and impose it on citizens, a government that has a strong capacity in maintaining social control and political order can send a credible signal about this capacity and

[^6]distinguish itself from a weak government, hence implicitly intimidating the masses who may otherwise contemplate regime change. ${ }^{38}$

Propaganda compels citizens to view the government as strong, Huang finds, not good. For this, as the People's Daily's various and vulgar sobriquets make clear, many Chinese citizens loathe it. This is propaganda as domination.

### 1.3 Our Explanation

### 1.3.1 Institutions and Uncertainty

Why do different autocrats employ different propaganda strategies? Our theory, which we develop with the aid of a formal model in Chapter 2, rests on two foundations. First, most autocrats now govern with political institutions that look democratic from afar. There are regular elections, national parliaments, opposition parties, and a handful of independent newspapers. The left panel of Figure 1.1 illustrates this. Since the collapse of the Berlin Wall in 1989 , roughly $80 \%$ of the world's autocrats have governed with nominally democratic institutions. These electoral institutions are more binding in some autocracies than others. Some autocrats can engineer so much fraud that elections are completely meaningless, as in Uzbekistan, while other autocrats can tilt the electoral playing field only to a degree. This variation may be driven by many factors. Some autocrats are more vulnerable to international pressure to respect citizens' basic rights. ${ }^{39}$ Some autocrats may have less control over security forces ${ }^{40}$ or key sectors of the economy. ${ }^{41}$ Some autocrats may confront strong civil societies, which can credibly threaten protest. ${ }^{42}$ In our view, the world's autocrats exist along a continuum, from totally unconstrained by electoral institutions, as in China or Uzbekistan, to potentially quite constrained.

Our theory's second foundation is uncertainty, which, in autocracies, is pervasive. Autocratic governments disclose information selectively and restrict media freedom. ${ }^{43}$ Journalists self-censor. ${ }^{44}$ Citizens know that saying the wrong thing to the wrong person may lead to incarceration or worse. ${ }^{45}$ In China, this is so common that citizens have euphemisms for it: to be "invited to tea" or to be

[^7]"harmonized." Together, these forces foster a culture of distrust among citizens, which discourages affection among neighbors and sometimes within families. ${ }^{46}$


Figure 1.1: Political institutions in the world's autocracies since 1945. The vertical line marks the fall of the Berlin Wall in 1989. The dashed line gives the share of all governments that are autocracies. The data are drawn from Gandhi (2008) and Svolik (2012).

### 1.3.2 Persuasion, Welfare, and Honest Propaganda

Our theory focuses on two sources of uncertainty. First, citizens are uncertain about the link between government policies and the outcomes around them. ${ }^{47}$ They can observe the latter: whether incomes are rising, whether instruction in public schools is improving, whether crime is under control. Citizens cannot, however, observe precisely what the autocrat did: whether he implemented sound policies or, instead, is incompetent or corrupt. As a result of this uncertainty, if living standards fail to improve, citizens are unsure precisely why. Although the regime may be incompetent or corrupt, it is also possible that its policies are sound, that these issues are difficult and require time to resolve, and that the government's policies will soon yield gains. Alternatively, it is also possible that there was some exogenous shock, which was outside the government's control and prevented its otherwise sound policies from working.

If citizens are unhappy with the autocrat's performance, then, where autocrats organize regular elections, they can vote against him. This possibility leads to our theory's first use of propaganda. An autocrat can employ propaganda to persuade citizens that whatever frustrating outcomes they observe are not due to government failures, and that the government is working to improve things. Here, the propaganda apparatus aims to cultivate genuine support, despite the frustrations citizens

[^8]may have. To do so, however, the propaganda apparatus must have a reputation for credibility among citizens. For as long as the author of propaganda is also its chief beneficiary, citizens will be inclined to discount it, unless the propaganda apparatus has a history of providing some objective coverage. To persuade citizens of useful fictions, propaganda apparatuses must have a reputation for occasionally reporting damaging facts. This is Goebbels' core insight and a key result of formal theories of propaganda. ${ }^{48}$ We refer to this reputation as credibility capital and the damaging facts required to build it as honest propaganda.

This is propaganda as persuasion. Denis Sassou Nguesso employs it when his propaganda apparatus covers a devastating fuel shortage, despite Congo's status as Africa's fourth leading oil producer. Russian President Vladimir Putin employs it when his TV networks cover economic downturns. ${ }^{49}$

### 1.3.3 Domination, Common Knowledge, and Absurd Propaganda

Citizens may also attempt to remove an autocrat through mass protests. When autocrats can fully tilt the electoral playing field or simply refuse to hold elections, this is citizens' chief recourse. In deciding whether to protest, citizens consider a range of factors: the probability an alternative government implements better policies, the autocrat's capacity for repression, and their compatriots' beliefs about all these. ${ }^{50}$ Our theory focuses on the autocrat's capacity for repression. Citizens may have a sense for this capacity, but they do not know it with certainty. ${ }^{51}$ This constitutes citizens' second source of uncertainty.

Autocrats can signal their capacity for violence in a range of ways. They can incarcerate dissidents, block independent media, and fill the streets with police. ${ }^{52}$ They can commit human rights abuses that the international community condemns, which underscores their capacity to withstand international pressure. These forms of repression aim not just to suppress dissent, but also to signal its consequences to citizens. Similarly, autocrats can employ absurd propaganda: content that everyone knows is false, and that everyone knows everyone knows is false. Absurd propaganda is premised on common knowledge of the possible. While citizens may not know the precise rate of economic growth or public health spending, there exist claims that citizens know are absurd, either because of direct observation or universally held conventional wisdom. This constitutes the second role of propaganda in our theory. By covering the regime in an absurdly positive way, the autocrat's propaganda apparatus signals that his capacity for violence is so unconstrained that he has no need to build popular support. He has no need to persuade citizens of the regime's merits.

This is propaganda as domination, and its chief feature is absurdity. It was documented by

[^9]Wedeen (1999) in Hafez al-Assad's Syria, by Arendt (1951) in the Soviet Union, and by Huang $(2015 b, 2018)$ in contemporary China. By broadcasting propaganda that everyone knows to be false, the autocrat makes his power - his capacity for violence - common knowledge among citizens.

### 1.3.4 Why Electoral Constraints Matter

This framework helps explain why different autocrats employ different propaganda strategies. Where an autocrat's limited capacity for fraud and repression constrain his ability to tilt the electoral playing field, the autocrat is forced to generate some amount of popular support to compensate. In our theory, this has two effects. First, constrained autocrats must invest more in public policy. They must figure out which policies are best, invest more in them, and monitor appointees who are charged with implementation. Second, constrained autocrats must persuade citizens of regime merits: in particular, that policy failures observed by citizens are not always the regime's fault. These two effects are complements. When the autocrat invests more in public policy, citizens are more willing to believe that bad news and policy failures are not the regime's doing. However, this requires a reputation for credibility, which requires occasionally conceding bad news and policy failures. Autocrats must employ a propaganda strategy that concedes damaging facts to persuade citizens of useful fictions. To be clear, these concessions are potentially costly. They help create common knowledge among citizens about the government's policy failures and may provide focal moments for unrest. ${ }^{53}$ They also facilitate coups by regime insiders, who may decide their interests are better served by toppling the incumbent. ${ }^{54}$

When an autocrat's capacity for fraud and repression is so substantial that he can fully tilt the electoral playing field, his incentives are different. First, he wants citizens to know this: to deter anti-regime protests. For mass protests are always costly to repress. The violence required to suppress them may provide focal moments around which citizens can coordinate future protests. ${ }^{55}$ The autocrat may also be prosecuted by the International Criminal Court or future governments for the atrocities his security forces commit. ${ }^{56}$ This compels the autocrat to employ propaganda that citizens know to be false. This is a signal: The regime's hold on power rests not on their assent, but on their submission, which is induced by the threat of violence. Second, since conceding regime failures is costly - doing so provides focal moments for coups by regime insiders and protests by frustrated citizens - the autocrat prefers not to do so. Since his electoral constraints are nonbinding, he has no incentive to concede the sorts of policy failures that are necessary to build a reputation for credibility.

Our theory generates a number of comparative statics. It suggests that honest propaganda is

[^10]more likely when autocrats preside over weak states, which make public goods provision relatively inefficient. It suggests that the effect of censorship on propaganda depends on the autocrat's repressive capacity. When repressive capacity is low, censorship lets the autocrat employ less honest propaganda. When repressive capacity is high, censorship has no effect on propaganda, but lets the autocrat reduce public investment. It also suggests that when autocrats are vulnerable to elite threats, propaganda is more effusive.

At this book's core is a paradox. The autocrats who most need propaganda - who are forced to seek public support by the electoral institutions they confront - are most constrained in their ability to deploy it.

### 1.4 Data, Empirical Approach, and Key Findings

In Parts II and III of this book, we use our theory to explain the substance of propaganda across autocracies. In Part IV, we study the effect of propaganda on collective action. Table 1.1 presents a summary of our theory's observable implications by chapter. Our theory has implications for the nature of pro-regime propaganda, coverage of the regime's opponents, and the narratives that constitute the first draft of a country's history. It also has implications for what propaganda apparatuses tell citizens about the international community, the regime's engagement with it, the timing and substance of propaganda campaigns, and even coverage of ethnic minorities who want regime change.

### 1.4.1 A Global Dataset of Autocratic Propaganda

This book draws on the first global dataset of autocratic propaganda, which we introduce in Chapter 3 . Our collection of state-run newspapers contains over eight million unique articles from 65 newspapers drawn from 59 countries in six major languages: Arabic, Chinese, English, French, Russian, and Spanish. By population, our dataset encompasses a set of countries that represents $88 \%$ of all people who live under autocracy. As we discuss in Section 1.5, the early 21st century has changed autocratic politics in several ways, including one that makes this book possible. The vast majority of the world's autocrats make their propaganda newspapers freely available online, often with extensive historical archives. Propaganda is most useful when consumed, after all, and the digital analog to subsidized newsprint appears to be a freely available online archive.

After collecting this propaganda, we measured its content. We employed computational techniques to identify the topics of each article: the economy, public goods, electoral politics, foreign policy, international news, sports, and some two dozen others. We also measured the number of references in each article to the autocrat and ruling party, as well as to the political opposition. This required constructing day-level rosters for each country in our sample. For the opposition, these rosters include every candidate who competed in a national election, the senior leaders of
every party that competed in a legislative election, political dissidents, political prisoners, and civil society activists. For the autocrat and ruling party, these rosters include an autocrat's various honorifics. In total, our rosters contain some 10,000 executive and opposition identifiers. Our computational techniques identified these references with accuracy rates of around $90 \%$.

We measure the valence of propaganda with dictionary based semantic analysis. The key idea is that some words have an intrinsic valence: some positive or negative sentiment. We use techniques from computational linguistics to measure the aggregate valence of each propaganda article, as well as the words immediately surrounding each reference to the autocrat, ruling party, and political opposition. The result is an article-level dataset that records the rate and valence of pro-regime coverage, the rate and valence of opposition coverage, the range of topics each article covers, and each article's aggregate valence. This conception of propaganda - as spin, not lies - accords with how scholars and practitioners have long understood it. ${ }^{57}$ Critically, since our dataset distinguishes between the frequency of regime coverage and its valence, we make no assumption that the frequency of regime coverage is a proxy for its valence, as do Qin, Strömberg and Wu (2018). We regard this as a hypothesis to be tested, not assumed.

This dataset lets us test our theory with a range of statistical tools, but it also creates a dilemma: How can our measures of propaganda be intuitively scaled? We resolve this in two steps. As a baseline for comparison, our dataset includes state-affiliated newspapers from democracies. Many of these newspapers are holdovers from a previous autocratic regime and widely credited for their journalistic integrity. This lets us measure differences in bias: how much more effusive pro-regime propaganda is in some autocracy relative to a democratic baseline. We then situate these differences in bias in a context that many readers intuitively understand: how Fox News covers Republicans relative to Democrats. We measure the valence difference between these two, and we refer to it as our Fox News index. This helps us overcome a problem that, Groeling (2013) observes, is intrinsic to empirical studies of propaganda: the "absence of suitable baselines against which to assess bias." This index also provides a measure of what amount of bias may be persuasive and what amount is so extreme that it invalidates itself. DellaVigna and Kaplan (2007) show that exposure to Fox News persuaded viewers to vote Republican in the 2000 presidential election, and Martin and Yurukoglu (2017) find its effect was even stronger in the 2008 presidential election. Ash and Galletta (2019) show that Fox News exposure leads to more conservative local policy, such as lower taxes and less redistribution. Fox News even persuaded viewers to take the COVID-19 pandemic less seriously. ${ }^{58}$ By situating propaganda apparatuses in the context of Fox News, we distinguish content that aims to persuade from that which is absurd.

[^11]Table 1.1: Our theory's observable implications by chapter

| Unconstrained Autocracies | Constrained Autocracies |
| :---: | :--- |
| Chapter 4: The Politics of Pro-Regime Propaganda |  |
| Absurdly positive. | $\begin{array}{l}\text { Honest propaganda. Relatively neutral, concedes } \\ \text { failures. }\end{array}$ |
| Chapter 5: Narrating the Domestic |  |
| Absurdly positive economic coverage. Covers |  |
| democracy as a principle. Neutral references to |  |
| a general, unnamed opposition. Sports coverage |  |
| includes absurd claims about regime engagement. |  |\(\left.\quad \begin{array}{l}Concedes economic challenges, but highlights ef- <br>

forts to address them. Covers electoral politics. <br>
Neutral references to specific opposition leaders. <br>

Sports coverage intended to attract readers.\end{array}\right]\)| Critical coverage of comparison set countries, with |
| :--- |
| Chapter 6: Narrating the World |
| Critical coverage of comparison set countries, with |
| sensitive topics selectively omitted. Advertises |
| immunity from international pressure. |

### 1.4.2 Pro-Regime Propaganda and Narrative Subtleties

In Chapter 4, we probe the politics of pro-regime propaganda. Using a series of statistical techniques, we show that pro-regime propaganda in electorally constrained autocracies is about as positive as Fox News's coverage of Republicans. By contrast, where autocrats are totally unconstrained, pro-regime propaganda is roughly four times more positive than the difference between Fox News's coverage Republicans relative to Democrats. As robustness checks, we exploit the propaganda records of two countries for which we have data that extend back decades: Gabon and China. When the Berlin Wall fell and the Third Wave of Democracy forced President Omar Bongo to concede a series of liberalizing reforms, his propaganda strategy changed as our theory predicts. We observe no such change in China, where the Third Wave of Democracy occasioned no such reforms. Our data let us write a history of Chinese propaganda, which, we find, is driven by politics, not economics or access to information. With Xi Jinping poised to rule indefinitely, CCP propaganda is now more effusive than at any point since the Cultural Revolution.

Our view of propaganda in constrained autocracies may be uncontroversial, for students of
autocratic politics typically view propaganda as intended to persuade citizens of regime merits. ${ }^{59}$ This is consistent with quasi-experimental evidence that state TV in Vladimir Putin's Russia coded by Marshall and Jaggers (2005) as a constrained autocracy - is indeed strikingly persuasive. ${ }^{60}$ Our view of propaganda in unconstrained autocracies may be more controversial, especially among students of Chinese politics. Many scholars have suggested that CCP propaganda also aims to persuade citizens of the regime's merits, rather than, as we and Huang (2015b, 2018) contend, intimidate them into submission. ${ }^{61}$ In Chapter 4, we resolve this debate - and we confirm that our hypothesized mechanism is correct - with the first of this book's several survey experiments, based on nationally representative samples. We selected an article from the People's Daily in July 2020 that was characteristically effusive about Xi Jinping and the CCP. The article was appealing, in part, because it also appeared in several of the CCP's commercial newspapers, including the Beijing News. We find that this article - whether in the People's Daily or the Beijing News made respondents less likely to protest against the government because they fear the consequences of doing so. It also made them less likely to believe the government works for the people and that China's system of government is best. Crucially, we employ list experiments to accommodate the possibility of preference falsification. This, we show, is widespread: some 2.5 times as prevalent as Frye et al. (2017) estimate in Russia. ${ }^{62}$ We also show that the CCP's commercialized local newspapers cover the regime just like the People's Daily flagship, even though their non-regime coverage is more neutral.

Propaganda is more than just the rate and valence of regime coverage. It also entails narratives: the topics covered and omitted, and the account of current events that constitutes history's first draft. These narratives are the focus of Chapters 5 and 6 . Five issue areas, we find, account for $80 \%$ of propaganda content: the economy and public goods provision; electoral politics, democracy, and the opposition; sports; international news; and international engagement. Chapter 5 focuses on the first three, all domestic. Chapter 6 focuses on the last two, both international. To capture the subtleties of propaganda narratives, we adapt a measure of semantic distinctiveness from computational linguistics. The key idea is that, across any two corpora of documents, words that are common to both are uninformative. These common words generally include conjugations of the verb "to be," question words like "who" and "where," and other building blocks of speech.

[^12]Similarly, across any two corpora of documents, words that are uncommon to both are also uninformative. These words are peculiarities. Words that are common in one corpora but uncommon in another are distinctive. They convey something meaningful about content in one corpora relative to another. Semantic distinctiveness is useful for capturing the subtleties embedded within millions of propaganda articles. It lets the data speak freely.

In Chapter 5, this empirical strategy yields novel insights. In the absence of electoral constraints, propaganda apparatuses trumpet the regime's democratic credentials, yet omit the stuff of democratic politics: electoral campaigns and the opposition. Propaganda apparatuses cover a general, unnamed "opposition" rather than the actual opposition, since doing so would undermine absurd claims of universal support and potentially help citizens coordinate around particular protest leaders. They cast the autocrat as the champion of national sports teams. We observe none of these tactics where autocrats confront electoral constraints, but neither do we observe them systematically denigrating their opposition rivals. Doing so would undermine claims of credibility. Rather, electorally constrained autocrats acknowledge policy failures: fuel crises, vaccine shortages, and persistently high infant mortality rates. They acknowledge the government has failed to adequately invest in the country's athletes.

Citizens generally know less about international news than domestic conditions. As a result, international news propaganda is analytically distinct from its domestic counterpart. First, recall that absurd propaganda requires common knowledge of the possible: a shared sense among citizens for what claims are absurd. This condition is easily satisfied for domestic affairs, but not for international news. Second, the constraints on honest propaganda are weaker, and so propaganda apparatuses can be more critical in their coverage about international news without undermining their reputations for credibility. Theoretically, these two forces render international news propaganda across autocracies more similar than domestic propaganda. Where electoral constraints are binding, propaganda apparatuses can be more critical without undermining their credibility. In the absence of electoral constraints, propaganda apparatuses have no access to absurd propaganda, for what constitutes absurdity is unclear. Chapter 6 documents two tactics in international news propaganda that are common across autocracies: selective coverage and comparison sets. The former entails omitting events that might inspire protests. The latter entails criticism of the countries against which citizens judge their own.

In Chapter 6, we expand our methodological approach to include tools from network analysis. We combine our global dataset with a paired comparison of Russia and China, the two most geopolitically important autocracies. Their international news coverage, we show, is dominated by the United States, and is critical but sophisticated. We record information about each international news article: the countries and international institutions that are referenced, and the range of topics that are covered. We treat these entities as nodes in a network and the number of articles in which they co-occur as edges among them. The result is a set of weighted network graphs that visualize propaganda narratives. These network graphs yield a range of observations, including
one of historical importance. The Russian propaganda apparatus uses Donald Trump as a tool to vindicate its longstanding international narrative: about the impending collapse of the European Union, the prevalence of terrorism, the political allegiances of Crimeans, the misadventures of America's foreign policy, and the shortcomings of American democracy. The Chinese propaganda apparatus is less enamored with Trump, but covers the same issues: the corruption of American democracy by special interests, including the National Rifle Association, which, the CCP claims, is partly responsible for America's gun violence epidemic.

However similar international news narratives are, Chapter 6 finds striking differences in how propaganda apparatuses across autocracies cover their international engagements. We again combine cross-country regressions with a series of paired comparisons. The first pairs Russia and China, which lets us understand how propaganda narratives about international news are related to propaganda narratives about an autocrat's foreign policy. The second paired comparison focuses on Congo and Uzbekistan. Each government has a close relationship with the CCP and was recently visited by former US Congressman Dana Rohrabacher, who was suspected by his own Congressional allies of taking money from Vladimir Putin. Where electoral constraints are binding, we find, propaganda apparatuses emphasize the regime's pursuit of the national interest: their efforts to partner with the international community to advance living conditions or fight terrorism. By contrast, in the absence of electoral constraints, propaganda apparatuses emphasize the regime's immunity from international pressure, either because the world's Great Powers support the regime or because, as in China, the regime is so powerful that it is reshaping the international order. We show that CCP propaganda is narrating a new "hub and spoke" international order, with the CCP at its center and "national sovereignty" - rather than human rights - as its key principle.

Our theory regards absurd propaganda as implicitly threatening, intended to signal to citizens the regime's capacity for violence and to make this capacity common knowledge. Chapter 7 explores whether autocrats use their propaganda apparatuses to explicitly threaten repression. These threats, our field research in China and Congo taught us, are often issued via codewords that are sensitive in one country but innocuous elsewhere. These codewords trigger painful historical memories, which recall the regime's capacity for violence. But they are costly as well. Threatening citizens with repression makes persuading them of regime merits more difficult, and may endow certain moments or actions with even more popular salience. Using a series of paired comparisons, we show that propaganda-based threats of repression are more common in the absence of electoral constraints. Even as Zine El Abidine Ben Ali was losing power in Tunisia, for instance, his La Presse propaganda newspaper chose to concede citizen frustrations and emphasize the government's determination to do better, rather than advertise the military's loyalty, training, and technological prowess, all routinely cited during the succession crisis in Uzbekistan. We find that Cameroon's Paul Biya issues threats in English, but not in French; his political in-group is francophone, his out-group anglophone. We find that the CCP is far more likely to explicitly threaten repression in the Xinjiang Daily, which targets the ethnic Uyghur out-group, and on the anniversaries of ethnic
separatist movements.

### 1.4.3 Understanding Calendars of Propaganda

Chapters 4 through 7 document, among other things, how propaganda apparatuses in constrained autocracies seek credibility. They do so to exploit it: to persuade citizens of useful fictions. Chapter 8 studies the propaganda campaigns that characterize their efforts to do so. Where autocrats confront at least somewhat binding electoral constraints, election seasons are critical to the autocrat's survival. They offer citizens an opportunity to vote against him and a focal moment to coordinate mass protests. These electoral propaganda campaigns are critical for regime survival, yet, precisely because they recur, are easiest for citizens to discount. We refer to this tension as the propagandist's dilemma, and it is acute where autocrats confront relatively binding electoral constraints. To understand how autocrats manage the propagandist's dilemma, we combine our data with field research in Congo. These propaganda campaigns, we find, begin months before election day, slowly build, and attempt to simultaneously cast the electoral outcome as uncertain and yet prepare citizens to accept the autocrat's "legitimate" victory. Where autocrats confront no electoral constraints, by contrast, the propaganda spike occurs immediately before election day, and in some cases the post-election spike is even greater.

In the absence of electoral constraints, the chief moments of political tension are often the anniversaries of a regime's crimes against its citizens. In Chapter 9, we combine our data with field research in China to understand how propaganda apparatuses respond. Theoretically, we identify a trade-off. Propaganda spikes intended to threaten citizens are useful to deter protest, but they call attention to events or memories that the regime might prefer its citizens forget. How do the most repressive governments resolve the tension between propaganda strategies that keep memories alive and censorship strategies that attempt to force forgetting? We emphasize three forces: whether some politically sensitive moment implicates the regime in historical crimes, whether the moment has any tangible present manifestation, and whether forgetting is even possible. The first conditions the value of forgetting to the regime; the second and third condition its plausibility. The CCP, we find, goes to extraordinary lengths to scrub the anniversaries of failed pro-democracy movements from the public consciousness. Consequently, it reserves propaganda spikes and explicit threats of violence for major political events and the anniversaries of failed ethnic separatist movements.

There is one exception to this: one pro-democracy anniversary that is so powerful that the CCP knows citizens will not forget. On June 4, 1989, the CCP massacred some 2,000 citizens in Beijing's Tiananmen Square, who had spent weeks demanding democratic reforms. Two decades later and thousands of miles away, the marginalized ethnic Uygher community in Xinjiang region staged a 10,000 person protest, known now as the Xinjiang Uprising of 2009. The CCP's subsequent crackdown killed hundreds, injured thousands, and culminated in a network of detention centers that now holds between $10 \%$ and $30 \%$ of China's 11 million Uyghers. Since then, on each anniversary
of the Tiananmen massacre, the CCP has used its propaganda apparatus to remind Beijing's urban class of its brutal campaign of repression against ethnic Uyghers. Using another nationally representative survey experiment, we show that this content has no effect on anti-Uygher racism, the CCP's popularity, or citizens' views about what issues are most pressing. Rather, this content makes politically engaged citizens less likely to engage in anti-regime protests due to fear of repression. Again, to mitigate the possibility of preference falsification, we employ list experiments. Most broadly, Chapter 9 suggests that the CCP's ethnic violence in Xinjiang has its origins, in part, in Beijing: in the CCP's incentives to ensure the urban elite does not again demand change.

### 1.4.4 The Effects of Propaganda on Collective Action

The broader question, of course, is whether any of this matters. Does propaganda work? Using a range of natural experiments, scholars have found evidence that propaganda can shape citizens' beliefs about repressive governments. ${ }^{63}$ Chapter 10 uses our measures of propaganda to understand its effect on protests across the world's autocracies.

We first probe the effects of pro-regime propaganda. This is complicated by the fact that autocrats employ propaganda strategically. We confront two forms of selection bias. First, the regimes in which propaganda is employed frequently may be systematically different than those in which it is not, and in ways that are correlated with the rate of collective action. We refer to this as "unit selection bias," and it may occur for a variety of reasons. Most obviously, the regimes most likely to employ propaganda may exert particularly strong control over their countries' media environments, and this degree of control could be associated with higher or lower levels of collective action. Second, authoritarian regimes employ propaganda differently at different times of year, and these moments may be systematically associated with collective action. We refer to this as "temporal selection bias," and it too may emerge for a variety of reasons. The rate of propaganda may rise immediately before elections, when autocrats have a particularly strong incentive to manipulate the beliefs of their citizens. Additionally, autocratic propaganda apparatuses may provide more positive coverage when there is more genuinely good news: when the unemployment rate is lower or when the economy grows more quickly. If positive coverage indicates genuinely good news rather than pro-regime propaganda - and citizens are then less likely to protest - then an estimated relationship between propaganda and protest will be spurious.

To accommodate unit selection bias, we employ estimating equations with country-level fixed effects. In so doing, we ask how changes in the volume of propaganda on day $t-1$ condition the rate of collective action on day $t$. To accommodate temporal selection bias, we control for a range of time variant features that may condition whether autocrat $i$ employs propaganda on

[^13]a given day or during a given year. We find that pro-regime propaganda is associated with a substantively meaningful reduction in the rate of popular protest. By increasing the level of proregime propaganda by one standard deviation, contemporary autocrats have reduced the odds of protest the following day by between $7 \%$ and $11 \%$. This effect is relatively durable. Depending on the form of the decay function, the half-life of the effect is between two and five days. One month later, very little of the initial effect still persists. This temporal signature is strikingly consistent with political messaging in American politics. ${ }^{64}$ In short, propaganda in autocracies appears to condition collective action much as campaign advertisements in democracies condition voting.

Chapter 10 then shifts attention to the effects of propaganda-based threats of repression. Again, we confront the possibility of selection bias. Repressive governments may be more likely to threaten citizens with repression during politically sensitive moments and in response to protests on day $t-1$. This creates two competing effects on protests: a negative effect due to the threat and a positive effect due to tensions that compelled the threat. The calendar of popular protest in contemporary China, which we uncover in Chapter 7, suggests a novel identification strategy. We employ an instrumental variables (IV) estimator that rests on two features of China's political geography. First, propaganda in the Workers' Daily is set at the national level, but occasionally responds to local conditions, which are salient in one province but unknown in other provinces. As a result, citizens in one province are occasionally "treated" with propaganda content that is intended for citizens in geographically and culturally distant provinces. Second, because China is ethnically diverse and geographically sprawling, the ethnic separatist anniversaries in Tibet and Xinjiang that drive propaganda-based threats are salient only in those regions, and effectively unknown elsewhere. We argue that ethnic separatist anniversaries in Tibet and Xinjiang plausibly condition protest rates in geographically and culturally distant provinces only through the propaganda-based threats that the regime issues via the propaganda apparatus.

We present a range of evidence that this exclusion restriction is plausible: a nationally representative survey, an analysis of protest and repression by day and location, and a description of the language that protesters employ. As a further precaution, we exclude nine provinces where the exclusion restriction is mostly likely to be violated, which nonetheless leaves us with a sample that includes $88.5 \%$ of Chinese citizens. We find that propaganda-based threats have a plausibly causal effect on protest levels outside the nine provinces we drop. We employ Conley, Hansen and Rossi (2012)'s sensitivity analysis to show that these IV estimates are robust to non-trivial violations of the exclusion restriction.

[^14]
### 1.5 Beliefs, Nominally Democratic Institutions, and Autocratic Politics

This book is about autocratic propaganda. More broadly, however, it is about the struggle between citizens and repressive governments, the political institutions that mediate it, and how the international community can support citizens who wage it. Many scholars regard nominally democratic institutions as forces of autocratic stability and regime survival as secured with patronage and repression. Our approach is different. Politics in the world's autocracies have undergone fundamental changes since the Berlin Wall fell. The rate of elite coups has declined, popular protests have emerged as the chief threat to autocratic survival, and, with $80 \%$ of the world's autocrats governing with nominally democratic institutions, there is now less institutional variation in the world's autocracies than perhaps ever before.

These changes inform our approach to autocratic politics. We view citizens' beliefs as the central battlefield on which the struggle for political change is waged and nominally democratic institutions as constraints that autocrats struggle to loosen. Autocrats wage this battle with a range of tools, propaganda chief among them, but their propaganda strategies are conditioned by the institutions they confront. In privileging citizens' beliefs as key to autocratic survival, we return to how scholars understood it for much of the 20th century. In treating nominally democratic institutions as constraints that autocrats attempt to loosen, this book joins a growing literature that suggests these institutions are not as stabilizing as scholars once thought. ${ }^{65}$ This is among this book's key arguments. While nominally democratic institutions may yield some benefits to the world's autocrats, electoral constraints also force autocrats to wage the battle for their citizens' beliefs from a position of weakness.

### 1.5.1 Autocracy, its Problems, and How to Solve Them

Autocracy has been the most common form of government in human history, ${ }^{66}$ and scholars have long sought to understand its dynamics. These understandings have evolved over time, often in ways that reflect prevailing geopolitical conditions.

In the mid-20th century, with the United States locked in a Cold War against the Soviet Union, scholars probed how totalitarianism was distinctive. All autocracies were repressive, scholars observed, but totalitarianism assaulted citizens' beliefs with the tools of modern technology. Buchheim (1968) described this assault with the same disturbing metaphor that Chinese citizens reserve for the People's Daily: "the creeping rape of man by the perversion of his thoughts." In the Origins of Totalitarianism, Arendt (1951) wrote about the cognitive scars this assault leaves on citizens:

[^15]The result of a consistent and total substitution of lies for factual truth is not that the lie will now be accepted as truth and truth be defamed as a lie, but that the sense by which we take our bearings in the real world - and the category of truth versus falsehood is among the mental means to this end - is being destroyed.

This cognitive assault was enshrined in the era's literature. In The Power of the Powerless, Vaclav Havel $(1978,9)$ described "life in the system" as "permeated with hypocrisy and lies," where "banning independent thought becomes the most scientific of world views." In Life is Elsewhere, Milan Kundera described the era as when "the poet reigned along with the executioner." Poet was Kundera's euphemism for propagandist.

Whether citizens' beliefs were actually reshaped was a matter of debate. Friedrich and Brzezinski (1956) registered their skepticism, as did Kirkpatrick (1981, 123):

Have they managed to reform human consciousness? Have they managed to educate Soviet citizens so that they would freely choose to live according to the norms of Soviet culture if the constraints of coercion were removed? The answer of course is that we do not know.

The Soviet Union's collapse effectively answered these questions. Scholars responded by treating autocratic politics as chiefly about repression. "What reproduces consent is the threat of force," Przeworski $(1986,51)$ observed, "and short of moments of true desperation this threat is sufficient." Quite appropriately, repression remains central to the study of autocracy. Scholars have sought to understand its effects on those who experience it, ${ }^{67}$ how political institutions and modern communication technologies condition it, ${ }^{68}$ whether the international community can prevent it, ${ }^{69}$ and how bureaucracies are organized to wield it. ${ }^{70}$ Dictators have accomplices, of course, and so scholars have also sought the non-coercive foundations of autocratic survival, patronage in particular. ${ }^{71}$

In the early 2000 s, scholars advanced our understanding of autocratic politics in two ways. First, scholars more clearly defined the threats to autocratic survival. Autocrats, in Svolik (2012)'s formulation, must secure the cooperation of a ruling elite and the acquiescence of citizens. These groups threaten autocrats in different ways: elites via coup, citizens via revolution. Tullock (1987) argued that elite coups were more threatening than popular revolutions, Geddes (2005) agreed, and

[^16]Svolik (2009) demonstrated it empirically for the post-World War II period. ${ }^{72}$ Second, scholars identified another tool that autocrats wield: institutions, especially robust political parties. ${ }^{73}$ By providing an "institutional setting that generates political power and long-term security," Brownlee (2007) writes, "ruling parties ...bridle elite ambitions and bind together otherwise fractious coalitions." Similarly, for Slater (2010), "ruling parties ...[prevent] elite defection" by creating a "political wilderness" with no "alternative routes to the political summit." These dominant parties emerge, Reuter (2017) finds, where autocrats and elites need each other to maintain power. ${ }^{74}$

Meanwhile, other scholars argued that nominally democratic institutions constitute forces for autocratic stability as well. These institutions, the arguments go, enable autocrats to credibly commit to revenue sharing agreements with regime insiders or policy compromises with other prominent figures. ${ }^{75}$ Elections may enable autocrats to equitably distribute regime patronage, ${ }^{76}$ locate pockets of popular discontent, ${ }^{77}$ and identify effective party cadres. ${ }^{78}$ In locating the origins of autocratic survival in nominally democratic institutions, scholars turned a longstanding assumption on its head. If nominally democratic institutions are actually forces for autocratic stability, then, by requiring them in exchange for development aid and debt relief, Western governments have rendered the world's autocrats more secure, not less. Lust-Okar (2006) put it simply: "The logic of authoritarian elections should lead us to question the value of pressing for, and applauding, the introduction of elections in authoritarian regimes." ${ }^{79}$

### 1.5.2 Autocratic Politics in the Early 21st Century

In the early 21st century, the relative salience of Svolik (2012)'s two problems of autocratic rule changed, as did the relative accessibility of the tools with which autocrats solve them. These changes have made understanding autocratic propaganda more critical than any point since the mid-20th century. The collapse of the Berlin Wall - and, with it, America's ascension to global hegemony - had three related consequences for the world's autocrats. First, most were forced

[^17]to adopt nominally democratic institutions as a final effort to placate frustrated citizens, whose protests were driven by rising food prices, inspiration from revolutions abroad, and signals from Western democracies that development aid would be tied to democratic reforms. Since then, the international community has generally required nominally democratic institutions in exchange for development aid and debt relief. ${ }^{80}$ With a few notable exceptions - China among them - autocrats no longer have easy access to the single party regimes that helped stabilize their 20th century predecessors.

Second, the regular elections occasioned by nominally democratic institutions force autocrats to subject themselves to recurring opportunities for collective action. ${ }^{81}$ During election seasons, citizens are engaged in politics and aware of their neighbors' discontent. ${ }^{82}$ Opposition leaders coordinate protests and alert citizens to electoral fraud. ${ }^{83}$ By affirming the possibility of a postregime future, elections decrease the costs to regime elites of defecting from the coalition and joining the opposition. ${ }^{84}$ Hale (2005) concludes that revolutions in Georgia, Kyrgyzstan, and Ukraine succeeded, in part, because security officials refused to suppress opposition leaders who "might be the authorities of the future." Elite defections helped end Senegalese President Abdoulaye Wade's ambitions for his son, catalyzed the Burkinabé Revolution of October 2014, and gave rise to Jean Ping's candidacy against Gabonese President Ali Ben Bongo in 2016. As a result, as the left panel of Figure 1.2 illustrates, the daily rate of protest across autocracies rises steadily as election day approaches, and on election day itself is three times greater than any other day of the year. ${ }^{85}$ These protests have consequences. In post-Cold War Africa, Aidt and Leon (2015) find, as the number of annual protests rises, so too does the probability of democratic change.

Third, popular protests now constitute the chief threat to autocratic survival, as the right panel of Figure 1.2 makes clear. Marinov and Goemans (2014) locate the decline of the coup in the same forces that compelled the rise of nominally democratic institutions. Pressured by Western donors to quickly transfer power to elected governments, would-be coup plotters view coups as less attractive than they once did. Western pressure appears to have amplified threats from the street by making repression costly. Carnegie and Marinov (2017), for instance, find that positive conditionality from the European Union has reduced human rights violations. Carter (2016b) finds that Africa's autocrats were less likely to employ violence against citizens during debt relief negotiations with the Bretton Woods institutions, and, recognizing this, their citizens have been more likely to protest. A range of scholars have found that development aid sustained and international pressure can foster

[^18]political liberalization. ${ }^{86}$
The threat of popular protest has been reinforced by modern communications technologies, which enable citizens to share information about regime crimes, organize mass protests, and ultimately topple governments. Just before the Arab Spring, Diamond (2010) dubbed them liberation technologies. Afterwards, Steinert-Threlkeld et al. (2015) and Howard and Hussain (2011, 2013) found that they were critical to its success. Manacorda and Tesei (2016) and Christensen and Garfias (2018) measured their effects around the world. In the most closed autocracies, protests are notoriously difficult for scholars to record for posterity. But, again, the available evidence suggests that the rate of protest is rising. The CCP records protests across China to locate pockets of discontent and identify local governments that fail to curb it. The government made these data public until 2005, when the protest rate rose so high that it made the depth of popular frustration common knowledge among citizens.


Figure 1.2: The left panel records the daily rate of protest across Africa's autocracies as elections approach. The right panel visualizes how the world's autocrats have lost power since 1945; the vertical line indicates the Berlin Wall's collapse.

[^19]
### 1.5.3 Propaganda, Institutions, and the Politics of Belief

As autocratic politics has changed, so too has how scholars study it. With popular protests increasingly the chief threat to autocratic survival, ${ }^{87}$ scholars have sought to understand their dynamics: who protests, ${ }^{88}$ when, ${ }^{89}$ how they organize, ${ }^{90}$ which tactics they employ, ${ }^{91}$ and which tactics are most effective. ${ }^{92}$ Scholars have also sought to understand how the world's autocrats attempt to censor their citizens' informational environments, ${ }^{93}$ deploy bots to shape social media conversations, ${ }^{94}$ and block internet access altogether. ${ }^{95}$ Still other scholars have sought to measure propaganda's effects. Just as political communication in democracies routinely shapes citizens' beliefs, ${ }^{96}$ there is mounting evidence that autocratic propaganda can persuade citizens of regime merits. ${ }^{97}$

Common to much of this scholarship is a tacit conviction that citizens' beliefs are the central battlefield on which the struggle for political change is waged. This conviction - about the centrality of belief - is how scholars understood autocratic survival for much of the 20th century, before the Soviet Union fell and the institutionalist approach to autocratic survival gained prominence.

[^20]This conviction compelled the American government to drop "leaflet bombs" over Soviet territory during the Cold War, the African National Congress (ANC) to drop "ideological bombs" over South African townships during the struggle against apartheid, and a young Mao to describe propaganda as the "most important job" facing his insurgent movement. It animated the enduring prose of George Orwell, Vaclav Havel, Milan Kundera, Yan Lianke, and Ma Jian. It was central to Crassweller (1966)'s remarkable account of Rafael Trujillo and Kapuscinski (1989)'s equally remarkable account of Haile Selassie. It was even central to Wintrobe (1998, 20)'s pathbreaking formal models of autocratic politics, before he chose to privilege patronage and repression rather than the power of citizens' beliefs. The "one thing even dictatorial powers cannot give," Wintrobe wrote, is "the minds of their subjects." ${ }^{98}$ In turn, autocrats attempt to shape their citizens' beliefs. They do so with a range of modern technologies, as recent scholarship makes clear: sophisticated censorship operations, social media campaigns, and internet shutdowns.

Perhaps most importantly, however, autocrats employ propaganda. This book is the first to measure and explain the dramatic variation in propaganda across autocracies. We trace the origins of divergent propaganda strategies across autocracies to differences in electoral constraints. In so doing, this book challenges how scholars understand the forces that condition media bias. Joseph Pulitzer located the origins of journalistic freedom in economics. "Advertising means money," he observed, "and money means independence." ${ }^{99}$ Many scholars agree. As potential advertising revenues expand, the arguments go, media platforms have incentives to attract more readers, and do so by reporting objectively. ${ }^{100}$ In 19th century America, Petrova (2011) shows, areas with larger advertising markets had more politically independent newspapers, which emerged as government watchdogs. ${ }^{101}$ Newspaper circulation is associated with better disaster relief in India, ${ }^{102}$ more public goods in New Deal America, ${ }^{103}$ and less public corruption in late 19th century America. ${ }^{104}$ This was all anticipated by Thomas Jefferson, who wrote in 1781: "Were it left to me to decide whether we should have a government without newspapers or newspapers without a government, I should not hesitate a moment to prefer the latter."

Several scholars have extended this argument to China, where the commercially oriented, local media has expanded dramatically over the last 40 years. ${ }^{105}$ Over time, Qin, Strömberg and

[^21]Wu (2018, 2474) suggest, "economic development [will reduce] audience exposure to propaganda." Similarly, Guriev and Treisman (2018) argue that "economic modernization, and in particular the spread of higher education," forces autocrats into a less biased propaganda strategy. If they are right, then the implications are profound, a modernization theory for the Information Age. As economies grow and citizens are better educated, repressive governments will confront powerful incentives to soften the biases in propaganda. With citizens better informed, political reform may well follow. ${ }^{106}$ These arguments were anticipated by Inglehart and Welzel (2005, 22,29,46), who described "the causal primacy of socioeconomic development." "The evolution of mass media and modern information technology," they argue, "gives people easy access to knowledge, increasing their informational autonomy" and ultimately their capacity to force political change. ${ }^{107}$

Our theory suggests otherwise, for ours is a political theory of autocratic propaganda. ${ }^{108}$ The chief driver of variation in propaganda - both across countries and over time - is the set of electoral constraints that autocratic governments confront. This book thus advances a different view of nominally democratic institutions in autocracies. We regard them not as forces of stability, but as constraints that autocrats aim to loosen. In 2016 alone, for instance, five of Africa's autocrats Pierre Nkurunziza of Burundi, Idriss Déby of Chad, Paul Kagame of Rwanda, Denis Sassou Nguesso of Congo, Ali Bongo of Gabon, and Joseph Kabila of the Democratic Republic of Congo - either removed term limits or suspended elections altogether. To be sure, autocrats attempt to use these institutions to their advantage whenever possible. Autocrats "best respond" to their institutional constraints. But there is a profound difference between choosing nominally democratic institutions and making the best of them.

Nominally democratic institutions create new challenges for the world's autocrats. Regular elections constitute recurrent opportunities for collective action, ${ }^{109}$ provide elites with an opportunity to defect from the elite coalition, ${ }^{110}$ and enable potential rivals to gain notoriety. ${ }^{111}$ This book shows that even weak electoral institutions, such as those confronted by Denis Sassou Nguesso, force autocrats to wage the battle for their citizens' minds from a position of weakness. To persuade citizens of their regimes' merits, electorally constrained autocrats must acknowledge policy failures, which are occasionally are damning. As we show in Chapter 5, Denis Sassou Nguesso was forced to cover a catastrophic fuel shortage, despite presiding over Africa's fourth leading oil producer. His propaganda apparatus covers malnutrition, infant mortality, and vaccine shortages. These admissions risk confirming citizens' frustrations and coalescing this frustration into collective

[^22]action. But admit he must, for his electoral constraints require it.

## Chapter 4

## The Politics of Pro-Regime Propaganda

### 4.1 Empirical Strategy

Our theory's key prediction is this: The electoral constraints an autocrat confronts determine the propaganda strategy he employs. When an autocrat's capacity for fraud and repression is so substantial that he can fully tilt the electoral playing field, pro-regime propaganda is absurdly positive. It makes claims about the regime's performance that citizens know to be false. Where an autocrat's limited capacity for fraud and repression constrain his ability to tilt the electoral playing field, propaganda apparatuses must seek credibility. They must concede bad news and policy failures to acquire some capacity to persuade citizens of regime merits. They must admit damaging facts to persuade citizens of useful fictions.

This chapter tests this key prediction. Across estimation and measurement strategies, the results are consistent with our theory. Where autocrats are constrained to generate some amount of popular support, pro-regime propaganda is roughly as pro-regime as Fox News is pro-Republican. Where Where autocrats confront no electoral constraints and can fully secure themselves with repression, pro-regime propaganda is roughly four times more pro-regime than Fox News is pro-Republican. For two reasons, we treat these cross-country results with caution. First, these results may be driven by reverse causality. If propaganda is successful, then propaganda may actually condition electoral constraints. Higher levels of pro-regime propaganda may diminish political competition or make a country's electoral institutions less binding. In this reading, increases in propaganda lead to declines in electoral constraints. Second, the results may be driven by omitted variable bias. Although we control for a range of features that may be correlated with both changes in electoral constraints and changes in propaganda strategies, there may be features that remain unobserved. It is possible, for instance, that changes in electoral constraints may coincide with changes in political leadership, and that new political leadership may simply have different tastes for propaganda or
less control over the propaganda apparatus.
To ensure that neither possibility is driving our results, we exploit a rapid, exogenous change in the electoral constraints confronted by many autocrats: the fall of the Berlin Wall on November 9, 1989. With the Cold War over, Africa's autocrats lost the ability to pit the United States against the Soviet Union. When Western governments attached genuine political conditions to development aid and debt relief, Africa's autocrats were largely forced to comply. ${ }^{1}$ For two countries we have propaganda data from before 1989: Gabon since 1974 and China since 1946. We show that the fall of the Berlin Wall had a plausibly causal effect on Gabonese President Omar Bongo's propaganda strategy, and we identify the strategy change as having occurred just before the first multi-party legislative election since 1967. We observe no such change in China, where the government was less exposed to the geopolitical shift. With no change to the government's capacity for repression - and no meaningful electoral constraints - its propaganda did not moderate. Quite the contrary. After the 1989 Tiananmen Square massacre, the CCP invested heavily in its repressive apparatus. As our theory predicts, its propaganda apparatus grew more effusive. Since ascending to power in 2012, Xi Jinping has purged 30,000 officials under the guise of a politically motivated anti-corruption campaign, placed over a million citizens in forced labor camps, and abolished the term limits that have bound China's paramount leaders since 1982. He has consolidated personal authority to an extent that rivals only Mao Zedong. Strikingly, we find, pro-regime propaganda in the People's Daily has returned to Cultural Revolution levels.

These two cases also enable us to probe whether economic and informational features are associated with propaganda in autocracies, as a range of scholars have suggested. Although we control for these features in our cross-country regressions, it may be the case that these trends, slow moving as they are, moderate autocratic propaganda slowly over time. If these theories are correct, we should observe a reduction in the CCP's pro-regime propaganda. Since World War II, the Chinese economy has grown dramatically. As it did, the government laid more broadband cable than anywhere else in the world, part of an equally dramatic change in its informational environment. Consistent with our theory, however, we find that trends in the People's Daily, the CCP's flagship newspaper, have been driven by politics, not economic or social change. Some scholars have suggested these changes are apparent in China's commercial newspapers, which circulate widely in their respective provinces and aim, these scholars argue, to persuade rather than intimidate. ${ }^{2}$ To test this, we collected several of the CCP's commercial newspapers, reproduced our measures of propaganda, and then compared them with the People's Daily. The CCP's commercial newspapers indeed cover non-regime content much more neutrally than the People's Daily. However, the CCP's commercial newspapers cover the regime with the same effusiveness as the People's Daily. As in the People's

[^23]Daily, this effusiveness has increased over time.
We conclude the chapter with a pair of survey experiments. To confirm that CCP propaganda - in the People's Daily and its commercial newspapers alike - serves to intimidate citizens rather than persuade them of the regime's merits, we fielded a nationally representative survey in late 2020. Since these topics are so sensitive, respondents may have powerful incentives to misrepresent their true beliefs about the CCP. To accommodate this, we employ list experiments. As our theory suggests, the CCP's pro-regime propaganda makes citizens less likely to protest due to fear. If anything, we find, the CCP's pro-regime propaganda makes it less popular, not more. We find the same effects for the CCP's commercial newspapers as we do for its People's Daily flagship.

This chapter proceeds as follows. Section 4.2 introduces our measures of electoral constraints and presents cross-country descriptive statistics. Section 4.3 uses a series of estimation strategies to probe the relationship between pro-regime propaganda and electoral constraints. Section 4.4 shows how the fall of the Berlin Wall had a plausibly causal effect on the decline of pro-regime propaganda in Gabon. Section 4.5 documents the history of Chinese propaganda in the People's Daily since 1946, analyzes the CCP's commercial newspapers, and presents the results of a survey experiment that verifies the cognitive mechanisms through which CCP propaganda conditions citizens' beliefs.

### 4.2 Descriptive Statistics

### 4.2.1 Measuring Electoral Constraints

Our theory locates the origins of an autocrat's propaganda strategy in his capacity to tilt the electoral playing field via fraud and repression. Reflecting the breadth of these constraints, we use a series of variables as proxies.

Our first two explanatory variables adopt a particularly broad view of electoral constraints. Marshall and Jaggers (2005) describe the Polity score as capturing "a spectrum of governing authority that spans from fully institutionalized autocracies through mixed, or incoherent, authority regimes to fully institutionalized democracies." Gleditsch and Ward (1997) describe the Polity score as "fundamentally a reflection of decisional constraints on the chief executive." The Varieties of Democracy (V-Dem) project's Polyarchy index is perhaps the leading alternative to the Polity score, ${ }^{4}$ and measures the strength of electoral democracy: "the core value," as V-Dem puts it, "of making rulers responsive to citizens." The Polity index consists of whole numbers on between - 10 and 10 , while the Polyarchy index is continuous on the $[0,1]$ interval. By employing both, we seek to ensure that our results are robust to alternative measures of an autocrat's ability to tilt the electoral playing field. In our sample, the Polity and Polyarchy measures are tightly correlated, with a correlation coefficient of 0.93 .

[^24]The V-Dem Project also measures several subcomponents of electoral democracy. Our third and fourth explanatory variables, both drawn from V-Dem, focus on the autocrat's capacity for repression. V-Dem's physical integrity index measures "freedom from political killings and torture by the government." V-Dem's civil liberties index measures "the absence of physical violence committed by government agents and the absence of constraints of private liberties and political liberties by the government." These two variables, like the Polyarchy index, are measured on the $[0,1]$ interval.

Our fifth and sixth explanatory variables provide more fine-grained measures of institutional constraints. V-Dem defines government accountability "as constraints on the government's use of political power through requirements for justification for its actions and potential sanctions." Crucially, this measure encompasses citizens' ability "to hold its government accountable through elections," as well as "checks and balances between institutions." This includes, for instance, the ability of the legal system to bind the executive to electoral outcomes. V-Dem also measures legislative constraints on the executive, which it defines as the "extent [to which] the legislature and government agencies [are] capable of exercising oversight over the executive." Theoretically, this reflects the extent to which an autocrat is subject to constraints by other elected representatives. Each of these is tightly related to our theory's view of electoral constraints as the set of conditions that binds the autocrat to electoral outcomes. Again, these two variables are measured on the $[0,1]$ interval.

### 4.2.2 Pro-Regime Propaganda

For each country in our dataset, we compute the mean values of our two measures of pro-regime propaganda: Positive Coverage Standardized: Executive ${ }_{i j t}$ and Article Valence: Regime $i_{i j t}$. We then compute each country's mean Polity score during our sample period. The associated bivariate scatterplots appear in Figure 4.1. For clarity, we overlay fitted OLS regression lines. For scale, we plot the mean coverage valence for Democrats and Republicans in Fox News. The Online Appendix includes analogous bivariate scatterplots with V-Dem's Polyarchy index along the $x$-axis.

These descriptive statistics suggest two preliminary observations. First, there is a clear crosscountry relationship between electoral constraints and pro-regime propaganda. Where electoral constraints are more binding, pro-regime coverage is less positive. Many of the most repressive countries - China, Uzbekistan, Eritrea, and The Gambia - report on incumbents four times as positively as Fox covers Republicans. Second, a range of autocracies in the middle of the Polity scale employ propaganda that covers their regimes much like Fox News covers Republicans. Perhaps most notably, Fox News reports on Republicans about as favorably as Russian state media reports on Vladimir Putin. Across countries, this reflects a substantial amount of variation in in how propaganda apparatuses cover the regimes that fund them: much more than the ostensibly polarized editorial lines in the United States.

Many Americans acknowledge that Fox News is biased in favor of Republicans, as our measure confirms. This bias, however, is apparently not so great that it invalidates its ability to persuade. DellaVigna and Kaplan (2007) exploit the randomness in Fox News's initial rollout to show that the network convinced $3 \%$ to $28 \%$ of viewers to vote Republican, and Martin and Yurukoglu (2017) find its effect was even stronger in the 2008 presidential election. Ash and Galletta (2019) show that Fox News exposure leads to more conservative local policy, such as lower taxes and less redistribution. These findings are consistent with a range of quasi-experimental research that underscores the capacity of Russia's state media to persuade citizens of Vladimir Putin's merits. Enikolopov, Petrova and Zhuravskaya (2011), for instance, exploit random variation in the strength of independent TV station signals to show that state-run TV yielded an additional nine percentage points to Putin's United Russia in the 1999 legislative elections. White, Oates and McAllister (2005) reach similar conclusions.


Figure 4.1: Electoral constraints and pro-regime propaganda. The left panel uses the mean country value for Positive Coverage Standardized: Executive ${ }_{i j t}$. The right panel uses the mean country value for Article Valence: Regime ijt . Country abbreviations are shaded by language group.

### 4.3 Pro-Regime Propaganda in Global Perspective

### 4.3.1 Country-Year Level Estimation

The descriptive statistics above focus on variation across countries. Now, we focus on withincountry variation over time. When a country's electoral institutions change, does the incumbent's
propaganda strategy change as well? We estimate a series of models of the form

$$
\begin{equation*}
Y_{j s}=\alpha+\beta X_{j s}+\phi W_{j s}+\gamma_{j}+\epsilon \tag{4.1}
\end{equation*}
$$

where $j$ indexes country, $s$ indexes year, $X_{j s}$ measures electoral constraints, and $W_{j s}$ is a vector of controls that may be correlated with changes in both electoral constraints and pro-regime propaganda. To accommodate unobserved differences by country, we include country fixed effects, given by $\gamma_{j}$. Since our measures of electoral constraints are observed annually, we compute country-year means for our outcome variables, Positive Coverage Standardized: Executive ${ }_{i j t}$ and Article Valence: Regime $_{i j t}$, which are measured at the article level. By using country-year averages, we ensure that our measures of electoral constraints and pro-regime propaganda are observed at the same time scale. Since these outcomes are continuous, we employ OLS, with robust standard errors clustered by country.

We include a range of variables in the vector $W_{j s}$ that may be associated with changes in both electoral constraints and pro-regime propaganda. Economic growth may compel citizens to press for democratic reforms and generate more positive regime coverage. Accordingly, we control for country $j$ 's GDP per capita in year $s$, as well as the share of its GDP from trade. We also control for the share of country $j$ 's GDP from natural resource revenue in year $s$, since increases in resource revenue could compel an autocratic government to more to consolidate power and compel more proregime propaganda. We attempt to control for features of country $j$ 's informational environment that might favor democratic reforms and constrain a government's ability to employ propaganda. For this, we use country's $j$ 's internet penetration rate in year $s$ : the share of its citizens who enjoy access to the internet.

In addition to accommodating any unobserved differences by country, the country fixed effects serve another purpose. Linguists have long documented that some languages are more expressive than others. Some languages, that is, express more sentiments per word or character. Our first measure of pro-regime propaganda, Positive Coverage Standardized: Executive ${ }_{i j t}$, is sensitive to this. By extracting the same number of words surrounding each identifier across languages, it is possible that our measure will overstate pro-regime propaganda in more expressive language groups. We may observe systematic differences across language groups for a second reason. It is possible that some linguistic dictionaries are simply of higher quality than others: that some dictionaries simply recognize more words than others, and so generate higher values of our propaganda measures than linguistic dictionaries of poorer quality. For these two reasons, the cross-country descriptive statistics in Section 4.2 should be treated with caution. By employing models with country fixed effects, we accommodate these linguistic differences.

Table 4.1: Regime codings

| Regime Type | Polity Score | Representative Countries |
| :--- | :---: | :--- |
| Dictatorship | $[-10,-6]$ | China, Uzbekistan. |
| Constrained Autocracy 1 | $[-5,0]$ | Congo, Tunisia under Ben Ali, Uganda. |
| Constrained Autocracy 2 | $[1,5]$ | Russia, Zimbabwe. |
| Democracy | $[6,10]$ | Argentina, Chile, Ghana, Senegal. |

### 4.3.2 Regime Transitions

The Polity score and V-Dem's various indices impose a linear relationship on changes in electoral constraints and changes in pro-regime propaganda. That is, equation (4.1) assumes that the effect of moving from a Polity score of -9 to -5 on pro-regime propaganda is the same as moving from 5 to 9 . By imposing a linear relationship between electoral constraints and propaganda, equation (4.1) obscures the possibility that pro-regime propaganda in electorally constrained autocracies may more closely resemble state-affiliated newspapers in democracies than pro-regime propaganda in dictatorships.

We adopt a more flexible estimation strategy by partitioning the Polity space. This partition appears in Table 4.1. Following Polity's standard partition, we label countries with Polity scores between -10 and -6 as full dictatorships, which, in our theory, correspond to the set of autocracies where electoral constraints are non-binding. Likewise, we label countries with Polity scores between 6 and 10 as full democracies. Polity treats countries with scores between -5 and 5 as "anocracies," with elements of both dictatorship and democracy. To avoid aggregating countries with -5 and 5 Polity scores, we divide this category into two. We refer to Polity scores between -5 and 0 as "Constrained Autocracy 1", and to Polity scores between 1 and 5 as "Constrained Autocracy 2." We regard countries in this range as akin to Levitsky and Way (2010)'s competitive authoritarian regimes, where autocrats confront at least somewhat binding electoral constraints. Note, however, that the statistical results in Section 4.3.4 are robust to defining full dictatorships and full democracies more narrowly, as follows: Dictatorship (-10 to -7), Constrained Autocracy 1 ( -6 to 0 ), Constrained Autocracy 2 ( 1 to 6 ), and Democracy ( 7 to 10 ). ${ }^{5}$

[^25]
### 4.3.3 Article Level Estimation

As a final robustness check, we exploit the fact that our global dataset records propaganda content at the article level. In particular, we confirm that all country-year estimation results are consistent with trends at the article level. This offers a range of important advantages. First, if electorally constrained autocracies are more likely to reference the political opposition, and that coverage is negative, then any observed decline in pro-regime propaganda may reflect opposition coverage rather than moderated pro-regime propaganda. In turn, this could bias the country-year results. To ensure this is not the case, we control for the number of opposition references in article $i$. Second, since we observe articles on specific days, we can control for day-level factors that may compel the world's autocrats to amplify pro-regime propaganda and that are associated with electoral constraints. In particular, we control for whether article $i$ is published on an election day, or within the 15 days before or after an election day, which we refer to as an election season.

Employing article-level data also creates a challenge. Since our explanatory and outcome variables are measured at different intervals - the former at the year, the latter at the day - observations within country-years are no longer independent. Ignoring this dependence, as standard fixed effects estimators do, yields standard errors that are considerably smaller than they should be. ${ }^{6}$ To account for these features, across estimating equations we employ a full set of country-level random effects. Random effects estimators depart from fixed effects estimates in several respects. Like fixed effects estimators, random effects estimators let intercepts vary by unit: in this case, the executive. Unlike fixed effects estimators, random effects estimators assume that unit intercepts arise from a normal distribution with finite variance. Because these unit intercepts are estimated directly from the data, random effects models can also estimate the effect of variables that are set at the unit level, such as political institutions. In this context, employing a random effects estimator is imperative to avoid overstating confidence.

In these models, we also include a full set of language fixed effects. These language fixed effects were unnecessary in the standard fixed effects models above, since, by considering only withincountry variation, the country fixed effects implicitly accounted for language differences across countries. In a random effects setting, however, we can directly estimate whether propaganda apparatuses in some languages are more positive or negative than others. We do so for two reasons, as we described above. First, there may be systematic differences across the language dictionaries we employ. Some, that is, may be more thorough than others. Second, there is also variation across languages in the amount of meaning that can be conveyed in 20 words, which, from Chapter 3, we use as the length of our concordance segments to generate measures of propaganda. Language fixed effects accommodate the possibility, for instance, that 20 words in Chinese include more meaning than 20 words in English or French.

[^26]Our baseline article level model is

$$
\begin{equation*}
Y_{i j t}=\alpha+\beta X_{i s}+\kappa Z_{i t}+\phi W_{i s}+\gamma_{k}+\gamma_{i}+\epsilon \tag{4.2}
\end{equation*}
$$

where the vector $X_{i t}$ gives the day-level control variables discussed above, the vector $W_{i s}$ gives the year-level control variables from equation (4.1), $\gamma_{k}$ gives a full set of language fixed effects, and $\gamma_{i}$ a full set of country random effects. For continuous outcome variables, we employ mixed effects linear models. For dichotomous outcome variables, we employ mixed effects logit models.

### 4.3.4 Results

The results appear in Tables 4.2 through 4.5. Recall from Chapter 3 that the mean value of Fox News for Positive Coverage Standardized: Republican is 0.44 and for Positive Coverage Standardized: Democrat is 0.31 . One unit of our Fox News index is thus 0.13 . Likewise, the mean value of Fox News for Article Valence: Republican is 0.09, and for Article Valence: Democrat is 0.2 . Here, one unit of our Fox News index is 0.11.

Table 4.2 presents the results for the Polity score and Polyarchy index, using the country-year and article as the units of analysis. Models 1 through 4 focus on Polity, which spans the $[-10,10]$ interval; Models 5 through 8 use Polyarchy, which spans the [0, 1] interval. The Polity results suggest that, for every unit increase, the annual mean of Positive Coverage Standardized: Executive ${ }_{i j t}$ falls by -0.032 and the annual mean of Article Valence: Regime $i_{i j t}$ falls by -0.015 . More intuitively, moving from -5 to 5 on the Polity scale is associated, respectively, with a reduction in pro-regime propaganda of $\frac{-0.032 \times 11}{0.13}=-2.71$ and $\frac{-0.015 \times 11}{0.11}=-1.5$ units of our Fox News index. These are large effects, and the results from the article level models are substantively similar. This is important, for it makes clear that moderated pro-regime propaganda as electoral constraints grow more binding is not simply driven by references to the political opposition. The Polyarchy results are similar as well. Moving from 0.25 to 0.75 - an analogous distance to the Polity shift - is associated with a reduction in pro-regime propaganda of $\frac{-0.972 \times 0.5}{0.13}=-3.74$ and $\frac{-0.180 \times 0.5}{0.11}=-0.82$ units of our Fox News index, respectively.

Table 4.3 and Table 4.4 present the results for the four V-Dem subcomponents. Again, across specifications, we find that more binding electoral constraints are associated with declines in proregime propaganda. We find that more repressive autocrats engage in more effusive propaganda. Note, however, that the two repression subcomponents in Table 4.3 have larger estimated effects than the institutional constraint subcomponents in Table 4.4, which yields an important theoretical implication: Among the conditions that bind governments to electoral outcomes, the most important moderator of pro-regime propaganda appears to be the government's capacity for violence against citizens, and hence the extent to which it must seek their support. For the physical integrity index, moving from 0.25 to 0.75 is associated with a reduction in pro-regime propaganda of $\frac{-1.982 \times 0.5}{0.13}=-7.62$ and $\frac{-0.253 \times 0.5}{0.11}=-1.15$ units of our Fox News index. For the civil liber-
ties index, moving from 0.25 to 0.75 is associated with a reduction in pro-regime propaganda of $\frac{-2.303 \times 0.5}{0.13}=-8.86$ and $\frac{-0.383 \times 0.5}{0.11}=-1.74$ units of our Fox News index.

As we discussed in Section 4.3.2, these models impose a linear relationship on our measures of electoral constraints and pro-regime propaganda. We relax this linearity assumption by using the Polity partition from Table 4.1. These results appear in Table 4.5, and they suggest that the relationship between electoral constraints and pro-regime propaganda is not linear. The Positive Coverage Standardized: Executive $i_{i j t}$ models suggest that propaganda apparatuses in dictatorships, on average, include between 0.9 and 1.4 more positive words from among the 20 surrounding each identifier. This is equivalent to between 6.9 and 10.8 units of our Fox News index. For the Article Valence: Regime ${ }_{i j t}$ models, the marginal effect in dictatorships is equivalent to between 2.8 and 4.2 units of our Fox News index. Again, the article level results, which appear in Models 4 and 8, make clear that these results are not driven by differences in opposition coverage across regimes. Put simply, pro-regime propaganda in the absence of electoral constraints is effusive.

By contrast, propaganda apparatuses in constrained autocracies cover the incumbent in a way that is not profoundly different than state-affiliated newspapers in democracies. The point estimates suggest that the difference between pro-regime coverage in constrained autocracies and democracies is approximately equal to a single unit of our Fox News index: roughly the difference between how Fox News covers Republicans and how it covers Democrats. Constrained autocracies engage in proregime propaganda, for sure, but do so in a way that is reminiscent of Fox News. These estimates obtain for both our measures of pro-regime propaganda. In the Online Appendix, we adjust our partition of the Polity space to ensure that these results are robust to small changes in regime classifications.

Other coefficient estimates are equally noteworthy. We find little evidence that pro-regime propaganda changes with per capita GDP, trade openness, or internet penetration. These estimates are sensitive across models and not consistently significant. This suggests that pro-regime propaganda is driven by politics, not economics or access to information.

### 4.3.5 The Broader Informational Environment

The statistical models above accommodate the broader informational environment by controlling for internet penetration. Readers may be concerned that this measure is insufficient. Therefore, we control for a broader set of informational factors that may condition propaganda in autocracies. Our first measure is a well known index of press freedom. The Freedom House Freedom of the Press Index is a composite of legal, political, and economic factors. Legal factors assess legal restrictions on the press. Political factors include the government's political control of the media through methods like intimidation, detention, jailing, and assault. Economic factors include the structure of the media market, like concentration, entry costs, transparency, government advertising, and bribery. For ease of interpretation, we transformed this variable so that a higher index value
Table 4.2: The politics of pro-regime propaganda (continuous variables)

| Outcome Variable <br> Unit of Analysis <br> Estimator | Dependent variable: |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Positive Coverage Standardized |  | Article Valence |  | Positive Coverage Standardized |  | Article Valence |  |
|  | Country-Year | Article | Country-Year | Article | Country-Year | Article | Country-Year | Article |
|  | OLS <br> (1) | Mixed <br> (2) | OLS <br> (3) | Mixed <br> (4) | OLS <br> (5) | Mixed <br> (6) | OLS <br> (7) | Mixed <br> (8) |
| Polity | $\begin{aligned} & -0.032 \\ & (0.043) \end{aligned}$ | $\begin{gathered} -0.072^{* * *} \\ (0.003) \end{gathered}$ | $\begin{gathered} -0.015^{* * *} \\ (0.003) \end{gathered}$ | $\begin{gathered} -0.015^{* * *} \\ (0.0004) \end{gathered}$ |  |  |  |  |
| Polyarchy |  |  |  |  | $\begin{gathered} -0.972^{* * *} \\ (0.224) \end{gathered}$ | $\begin{gathered} -1.500^{* * *} \\ (0.051) \end{gathered}$ | $\begin{gathered} -0.180^{* * *} \\ (0.052) \end{gathered}$ | $\begin{gathered} -0.190^{* * *} \\ (0.006) \end{gathered}$ |
| Trade | $\begin{aligned} & 0.0004 \\ & (0.004) \end{aligned}$ | $\begin{aligned} & 0.001^{* *} \\ & (0.0003) \end{aligned}$ | $\begin{gathered} -0.0004 \\ (0.001) \end{gathered}$ | $\begin{gathered} -0.0001^{* * *} \\ (0.00004) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.004) \end{gathered}$ | $\begin{aligned} & 0.002^{* * *} \\ & (0.0002) \end{aligned}$ | $\begin{gathered} -0.0003 \\ (0.001) \end{gathered}$ | $\begin{gathered} 0.00005 \\ (0.00003) \end{gathered}$ |
| Log GDP Per Capita | $\begin{aligned} & -0.001 \\ & (0.440) \end{aligned}$ | $\begin{gathered} 0.464^{* * *} \\ (0.030) \end{gathered}$ | $\begin{aligned} & -0.011 \\ & (0.060) \end{aligned}$ | $\begin{gathered} 0.022^{* * *} \\ (0.004) \end{gathered}$ | $\begin{gathered} 0.031 \\ (0.462) \end{gathered}$ | $\begin{gathered} 0.373^{* * *} \\ (0.029) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.080) \end{gathered}$ | $\begin{gathered} 0.011^{* * *} \\ (0.004) \end{gathered}$ |
| Natural Resources | $\begin{aligned} & -0.001 \\ & (0.008) \end{aligned}$ | $\begin{gathered} -0.012^{* * *} \\ (0.001) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.001^{* * *} \\ & (0.0001) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.008) \end{aligned}$ | $\begin{gathered} -0.009^{* * *} \\ (0.001) \end{gathered}$ | $\begin{gathered} 0.002 \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.001^{* * *} \\ & (0.0001) \end{aligned}$ |
| Civil War | $\begin{gathered} -0.00001^{* * *} \\ (0.00000) \end{gathered}$ | $\begin{aligned} & 0.0005 \\ & (0.026) \end{aligned}$ | $\begin{gathered} -0.00001^{* * *} \\ (0.00000) \end{gathered}$ | $\begin{gathered} 0.013^{* * *} \\ (0.003) \end{gathered}$ | $\begin{gathered} -0.00001^{* * *} \\ (0.00000) \end{gathered}$ | $\begin{aligned} & -0.024 \\ & (0.026) \end{aligned}$ | $\begin{gathered} -0.00001^{* * *} \\ (0.00000) \end{gathered}$ | $\begin{gathered} 0.010^{* * *} \\ (0.003) \end{gathered}$ |
| Internet Penetration | $\begin{gathered} 0.00003 \\ (0.00004) \end{gathered}$ | $\begin{gathered} -0.00003^{* * *} \\ (0.00001) \end{gathered}$ | $\begin{aligned} & -0.00001 \\ & (0.00001) \end{aligned}$ | $\begin{gathered} -0.00001^{* * *} \\ (0.00000) \end{gathered}$ | $\begin{gathered} 0.00004 \\ (0.00004) \end{gathered}$ | $\begin{aligned} & -0.00000 \\ & (0.00000) \end{aligned}$ | $\begin{aligned} & -0.00000 \\ & (0.00001) \end{aligned}$ | $\begin{gathered} 0.00000^{* *} \\ (0.00000) \end{gathered}$ |
| Election | $\begin{gathered} 0.018 \\ (0.056) \end{gathered}$ |  | $\begin{gathered} 0.005 \\ (0.009) \end{gathered}$ |  | $\begin{gathered} 0.012 \\ (0.060) \end{gathered}$ |  | $\begin{gathered} 0.002 \\ (0.008) \end{gathered}$ |  |
| Election Season |  | $\begin{aligned} & -0.003 \\ & (0.011) \end{aligned}$ |  | $\begin{gathered} 0.020^{* * *} \\ (0.002) \end{gathered}$ |  | $\begin{aligned} & -0.004 \\ & (0.011) \end{aligned}$ |  | $\begin{gathered} 0.019^{* * *} \\ (0.002) \end{gathered}$ |
| Opposition References |  | $\begin{gathered} -0.024^{* * *} \\ (0.0005) \end{gathered}$ |  | $\begin{gathered} -0.009^{* * *} \\ (0.0001) \end{gathered}$ |  | $\begin{gathered} -0.024^{* * *} \\ (0.0005) \end{gathered}$ |  | $\begin{gathered} -0.009^{* * *} \\ (0.0001) \end{gathered}$ |
| Constant | $\begin{gathered} 0.244 \\ (4.335) \\ \hline \end{gathered}$ | $\begin{gathered} -4.535^{* * *} \\ (0.394) \\ \hline \end{gathered}$ | $\begin{gathered} 0.211 \\ (0.603) \\ \hline \end{gathered}$ | $\begin{gathered} 0.123^{* *} \\ (0.050) \\ \hline \end{gathered}$ | $\begin{gathered} 0.350 \\ (4.539) \\ \hline \end{gathered}$ | $\begin{gathered} -3.069^{* * *} \\ (0.383) \\ \hline \end{gathered}$ | $\begin{gathered} 0.007 \\ (0.797) \\ \hline \end{gathered}$ | $\begin{gathered} 0.320^{* * *} \\ (0.052) \\ \hline \end{gathered}$ |
| Country Effects <br> Language Fixed Effects | Fixed | Random $\checkmark$ | Fixed | Random $\checkmark$ | Fixed | Random $\checkmark$ | Fixed | Random <br> $\checkmark$ |
| Observations | 197 | 396,851 | 193 | 980,632 | 197 | 402,720 | 193 | 991,182 |
| $\mathrm{R}^{2}$ | 0.776 |  | 0.957 |  | 0.782 |  | 0.951 |  |
| Note: |  |  |  |  |  |  | ${ }^{\text {p }}<0.1 ;{ }^{* *} \mathrm{p}<0$ | ${ }^{* *} \mathrm{p}<0.01$ |



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Table 4.4: The politics of pro-regime propaganda (V-Dem institutional subcomponents)

| Outcome Variable <br> Unit of Analysis <br> Estimator | Dependent variable: |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Positive Coverage Standardized |  | Article Valence |  | Positive Coverage Standardized |  | Article Valence |  |
|  | Country-Year | Article | Country-Year | Article | Country-Year | Article | Country-Year | Article |
|  | OLS <br> (1) | Mixed <br> (2) | OLS <br> (3) | Mixed <br> (4) | OLS <br> (5) | Mixed <br> (6) | OLS <br> (7) | Mixed <br> (8) |
| Legislative Constraints | $\begin{gathered} -1.227^{* * *} \\ (0.273) \end{gathered}$ | $\begin{gathered} \hline-0.957^{* * *} \\ (0.036) \end{gathered}$ | $\begin{gathered} -0.261^{* * *} \\ (0.079) \end{gathered}$ | $\begin{gathered} \hline-0.183^{* * *} \\ (0.005) \end{gathered}$ |  |  |  |  |
| Government Accountability |  |  |  |  | $\begin{gathered} -0.458^{* * *} \\ (0.066) \end{gathered}$ | $\begin{gathered} -0.430^{* * *} \\ (0.014) \end{gathered}$ | $\begin{gathered} -0.096^{* * *} \\ (0.024) \end{gathered}$ | $\begin{gathered} -0.079^{* * *} \\ (0.002) \end{gathered}$ |
| Trade | $\begin{gathered} -0.0003 \\ (0.003) \end{gathered}$ | $\begin{aligned} & 0.001^{* * *} \\ & (0.0002) \end{aligned}$ | $\begin{aligned} & 0.0001 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.00002 \\ & (0.00003) \end{aligned}$ | $\begin{gathered} -0.00001 \\ (0.003) \end{gathered}$ | $\begin{aligned} & 0.002^{* * *} \\ & (0.0002) \end{aligned}$ | $\begin{aligned} & 0.0001 \\ & (0.001) \end{aligned}$ | $\begin{gathered} 0.0001^{*} \\ (0.00003) \end{gathered}$ |
| Log GDP Per Capita | $\begin{array}{r} -0.197 \\ (0.380) \end{array}$ | $\begin{gathered} 0.235^{* * *} \\ (0.029) \end{gathered}$ | $\begin{array}{r} -0.028 \\ (0.071) \end{array}$ | $\begin{gathered} -0.016^{* * *} \\ (0.004) \end{gathered}$ | $\begin{array}{r} -0.150 \\ (0.379) \end{array}$ | $\begin{gathered} 0.280^{* * *} \\ (0.029) \end{gathered}$ | $\begin{array}{r} -0.017 \\ (0.078) \end{array}$ | $\begin{gathered} -0.010^{* *} \\ (0.004) \end{gathered}$ |
| Natural Resources | $\begin{gathered} 0.001 \\ (0.008) \end{gathered}$ | $\begin{gathered} -0.008^{* * *} \\ (0.001) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.001) \end{gathered}$ | $\begin{aligned} & 0.002^{* * *} \\ & (0.0001) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.009) \end{aligned}$ | $\begin{gathered} -0.009^{* * *} \\ (0.001) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.001^{* * *} \\ & (0.0001) \end{aligned}$ |
| Civil War | $\begin{gathered} -0.00001^{* * *} \\ (0.00000) \end{gathered}$ | $\begin{gathered} 0.012 \\ (0.026) \end{gathered}$ | $\begin{gathered} -0.00000^{* * *} \\ (0.00000) \end{gathered}$ | $\begin{gathered} 0.014^{* * *} \\ (0.003) \end{gathered}$ | $\begin{gathered} -0.00001^{* * *} \\ (0.00000) \end{gathered}$ | $\begin{gathered} 0.020 \\ (0.026) \end{gathered}$ | $\begin{gathered} -0.00000^{* * *} \\ (0.00000) \end{gathered}$ | $\begin{gathered} 0.018^{* * *} \\ (0.003) \end{gathered}$ |
| Internet Penetration | $\begin{gathered} 0.00003 \\ (0.00004) \end{gathered}$ | $\begin{aligned} & -0.00000 \\ & (0.00000) \end{aligned}$ | $\begin{gathered} 0.00000 \\ (0.00001) \end{gathered}$ | $\begin{aligned} & 0.00000^{* *} \\ & (0.00000) \end{aligned}$ | $\begin{gathered} 0.00004 \\ (0.00004) \end{gathered}$ | $\begin{gathered} 0.00000 \\ (0.00000) \end{gathered}$ | $\begin{gathered} 0.00000 \\ (0.00001) \end{gathered}$ | $\begin{gathered} 0.00000^{* * *} \\ (0.00000) \end{gathered}$ |
| Election | $\begin{gathered} 0.027 \\ (0.054) \end{gathered}$ |  | $\begin{aligned} & -0.005 \\ & (0.020) \end{aligned}$ |  | $\begin{gathered} 0.042 \\ (0.053) \end{gathered}$ |  | $\begin{aligned} & -0.001 \\ & (0.019) \end{aligned}$ |  |
| Election Season |  | $\begin{aligned} & 0.0002 \\ & (0.011) \end{aligned}$ |  | $\begin{gathered} 0.023^{* * *} \\ (0.002) \end{gathered}$ |  | $\begin{gathered} 0.002 \\ (0.011) \end{gathered}$ |  | $\begin{gathered} 0.021^{* * *} \\ (0.002) \end{gathered}$ |
| Opposition References |  | $\begin{gathered} -0.024^{* * *} \\ (0.0005) \end{gathered}$ |  | $\begin{gathered} -0.009^{* * *} \\ (0.0001) \end{gathered}$ |  | $\begin{gathered} -0.024^{* * *} \\ (0.0005) \end{gathered}$ |  | $\begin{gathered} -0.009^{* * *} \\ (0.0001) \end{gathered}$ |
| Constant | $\begin{array}{r} 2.928 \\ (3.862) \\ \hline \end{array}$ | $\begin{gathered} -1.634^{* * *} \\ (0.361) \\ \hline \end{gathered}$ | $\begin{array}{r} 0.454 \\ (0.702) \\ \hline \end{array}$ | $\begin{gathered} 0.604^{* * * *} \\ (0.055) \\ \hline \end{gathered}$ | $\begin{gathered} 2.047 \\ (3.782) \\ \hline \end{gathered}$ | $\begin{gathered} -2.553^{* * *} \\ (0.364) \\ \hline \end{gathered}$ | $\begin{gathered} 0.258 \\ (0.783) \\ \hline \end{gathered}$ | $\begin{gathered} 0.461^{* * *} \\ (0.052) \end{gathered}$ |
| Country Effects <br> Language Fixed Effects | Fixed | Random | Fixed | Random | Fixed | Random | Fixed | Random |
| Observations | 196 | 400,262 | 193 | 985,302 | 197 | 402,720 | 194 | 991,182 |
| $\mathrm{R}^{2}$ | 0.795 |  | 0.833 |  | 0.795 |  | 0.832 |  |
| Note: |  |  |  |  |  |  | ${ }^{*} \mathrm{p}<0.1$; ${ }^{* *} \mathrm{p}$ < | ; ${ }^{* * *} \mathrm{p}<0.01$ |



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indicates more press freedom.
We draw other indicators from the V-Dem project. Government Censorship measures the extent to which media outlets are censored by the government, both directly and indirectly via financial incentives and regulatory obstruction. Critical Media records whether major media outlets represent a "wide range of political perspectives" compared to "only the government's perspective." Diverse Perspectives measures whether media outlets represent a wide range of political perspectives. Harassment of Journalists records whether individual journalists are threatened with libel, arrested, imprisoned, beaten, or killed while engaged in legitimate journalistic activities. Finally, Media Corruption measures whether journalists, publishers, or broadcasters accept payments in exchange for altering news coverage. For ease of interpretation, we transformed these variables so that higher values indicate a higher level of the variable in question. Together, these variables paint a broad picture of the information environment: whether citizens can access non-government perspectives online, in print, on the radio, or on television.

The results appear in Table 4.6. Models 1 through 4 focus on Positive Coverage Standardized: Executive. Models 5 through 8 focus on Article Valence: Regime. We present country-year and article-level results. Odd numbered models control for the Freedom House Press Freedom Index; even numbered models control for the more fine-grained indicators from the Varieties of Democracy project. Our core result is robust to including each of these alternative measures of a country's informational environment. There is no clear relationship between the Freedom House Press Freedom Index and propaganda in autocracies. There are, however, some correlations with the more fine-grained measures. Higher levels of pro-regime propaganda are associated government censorship and, to some extent, less critical independent media. This is consistent with our theory. As we discussed in Chapter 2, propaganda and censorship are complements. In the Online Appendix, we show that our results are also robust to controlling for another well known press freedom index from Reporters Without Borders, as well as a sophisticated new press freedom index developed by Solis and Waggoner (2020). As with Freedom House, the Reporters Without Borders index lacks a clear relationship with pro-regime propaganda. The Solis and Waggoner (2020) index suggests a robust inverse correlation between press freedoms and pro-regime propaganda.

### 4.3.6 Electoral Constraints and the Geddes, Wright and Frantz (2018) Typology

Geddes (1999) famously classified authoritarian regimes as monarchies, military-based, single parties, or personalists. This classification has been employed by Weeks (2008) to understand foreign policy in autocracies, by Escribà-Folch and Wright (2015) to understand when autocrats are vulnerable to international pressure, and by Geddes, Wright and Frantz (2018) to understand dynamics within ruling coalitions. Readers may wonder whether the effect of electoral constraints on proregime propaganda instead reflects some difference in autocratic regime type, as defined by Geddes (1999). Does the relationship between electoral constraints and pro-regime propaganda change


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Table 4．6：The politics of pro－regime propaganda（broader informational environment）
when these regime typologies are accounted for?
We are unaware of a theory that would link variation in pro-regime propaganda to variation in the Geddes regime typology. Still, to probe this, we reestimate the models in Table 4.5 with Geddes's regime typology. The results appear in the Online Appendix and are substantively unchanged. Across models, we consistently find that pro-regime propaganda is far more effusive where electoral constraints are non-binding. By contrast, Geddes's regime type variables add relatively little explanatory power, save for single parties, which are associated with more effusive regime coverage. In our sample, this result is driven by the Chinese government's propaganda apparatus, which, as we discuss in Section 4.5, is among the most effusive in our sample.

This is consistent with our theory. However contentious are politics within single party regimes, among their defining features is the absence of regular elections that witness competition between the ruling party and the political opposition. Insofar as single party regimes, by definition, proscribe political competition outside the party's confines, electoral constraints tend to be much weaker than where autocrats are forced to compete against opposition parties, however tilted the playing field. Put simply, the data suggests that variation in electoral constraints appears to drive variation in pro-regime propaganda.

### 4.3.7 Coverage Topics

Finally, we use the topic models introduced in Chapter 3 to illuminate the coverage topics with which propaganda apparatuses associates the autocrat and ruling party. These associations are partly the subject of Chapters 5 and 6 , which document propaganda narratives across autocracies. For now, Figure 4.2 displays a radar chart, with axes giving the share of all articles in which the autocrat is referenced that also touch on the coverage topics along the perimeter. To visualize how these coverage topics vary across regimes, we overlay a series of polygons.

The topics associated with the executive and ruling party differ dramatically across autocracies, often in surprising ways. First, the coverage topics that constrained autocracies associate with the executive are far more similar to those in democracies than in dictatorships. In the absence of electoral constraints, the executive is associated with a range of non-obvious topics. Roughly $5 \%$ of all executive coverage, for instance, is associated with sports, and nearly $10 \%$ with the international community. Executive coverage in dictatorships is also notable for what it omits. Propaganda apparatuses in dictatorships seldom associate dictators with electoral politics or democracy, and virtually never reference the autocrat alongside the opposition. This is consistent with a key result in Chapter 5: Where electoral constraints are non-binding, propaganda apparatuses are distinctive not for denigrating the opposition, but by pretending it simply does not exist. By contrast, some $30 \%$ of executive coverage in constrained autocracies also references the opposition, and some $15 \%$ features the executive engaging in electoral politics. Perhaps surprisingly, many topics constitute a relatively minor share of coverage: culture, nationalism, religion, military, and youth, among
others.


Figure 4.2: Topics associated with pro-regime coverage

### 4.4 The Berlin Wall as an Exogenous Shock: Gabon

Where electoral constraints are binding, autocrats are forced into a propaganda strategy in which they concede bad news and policy failures in order to have some capacity to manipulate citizens' beliefs. For two reasons, however, we treat the results above with caution. First, they may be driven by reverse causality. If propaganda is successful, as scholars have found, ${ }^{7}$ then it may actually loosen electoral constraints. Second, the results above may be driven by omitted variable bias. Although we control for a range of features that may be correlated with changes in both electoral constraints and pro-regime propaganda, some features may remain unobserved. It is possible, for instance, that changes in electoral constraints may coincide with changes in political leadership, and that new leadership may have different tastes for propaganda or less control over the propaganda apparatus.

[^27]
### 4.4.1 The Berlin Wall

To ensure that the results above are not driven by reverse causality or omitted variable bias, we exploit a rapid, exogenous change in the electoral constraints confronted by many of the world's autocrats: the fall of the Berlin Wall on November 9, 1989. The Berlin Wall's collapse marked a profound change for Africa's autocrats. During the Cold War, they could pit the United States and the Soviet Union against each other, and hence secure finance and weapons in exchange for membership in the Western or Eastern bloc. They lost this leverage when the Berlin Wall fell. When Western governments began to attach political conditions to development aid and debt relief, Africa's autocrats were largely forced to comply. ${ }^{8}$

In francophone Africa, this new world is associated with June 20, 1990, when French President François Mitterand announced in La Baule that France would henceforth tie foreign aid to democratic reforms:

Democracy is a universal principle. ...When I say democracy, ...I naturally have a plan in mind: a representative system, free elections, multiparty politics, freedom of the press, independent judiciary, rejection of censorship. ...This is the direction that must be followed.

Mitterand's speech, delivered to African presidents themselves, was widely covered in the press. The New York Times put his statement succinctly: "France Ties Africa Aid to Democracy." ${ }^{9}$ In a sense, however, the real shift occurred several months earlier. In November 1989, citizens in Benin demanded the resignation of dictator Mathieu Kérékou, in power since 1972. Bankrupt and deprived of Soviet support, Kérékou's government conceded a range of reforms to mollify protesters. Opposition parties, banned since 1975, proliferated, as did independent newspapers. Political prisoners were freed. A National Conference was convened in February 1990, where delegates declared themselves sovereign and effectively toppled Kérékou. The National Conference organized genuinely democratic elections in March 1991, which were won by Nicéphore Soglo. ${ }^{10}$

Benin's transition to democracy was the first in a wave that swept the continent. Of the 42 autocracies in Sub-Saharan Africa in 1988, 16 held democratic elections by December 1994. ${ }^{11}$ But even this understates the extent of political reform during the Third Wave of Democracy. Figure 4.3 displays two maps: one in 1985 and one in 1995. Democracies appear in white; autocracies that banned all political parties appear in light blue; autocracies with a single legal party appear in turquoise; and autocracies that governed with nominally democratic institutions appear in dark blue. Prior to the Third Wave, less than a quarter of Africa's autocracies governed with nominally democratic institutions. After, less than a quarter did not. Of the 37 constitutions in force by 1994,

[^28]

Figure 4.3: Political institutions in Africa, before the fall of the Berlin Wall and after.
all but four featured presidential term limits. By the end of 1992, only two countries - Liberia and Sudan - had avoided meaningful reforms.

The Berlin Wall's collapse predates much of our propaganda data. For two countries, however, our collection of extends further: for Gabon to the 1970s, and for China to the 1940s.

### 4.4.2 A Brief Introduction to Gabon

These geopolitical changes were felt acutely in Gabon. Upon taking power in 1967, Omar Bongo, then just 31 years old, outlawed opposition parties, save for his Gabonese Democratic Party (PDG). Bongo gave himself a handful of ministerial portfolios: Minister of Defense between 1968 and 1981, Minister of Information between 1967 and 1980, Minister of Planning between 1967 and 1977, Prime Minister between 1967 and 1975, and Minister of Interior between 1967 and 1970, among others. He ran unopposed in the 1973 elections, as did his handpicked deputies to the National Assembly; they were all "elected" with $99.56 \%$ of votes cast. He again ran unopposed in 1979, claiming $99.96 \%$ of the vote, and in 1986, with $99.97 \%$.

Bongo earned a reputation for massive graft. French President Charles de Gaulle, faced with an economy that had been devastated by World War II, sought to rebuild France by rebuilding its energy industry. De Gaulle created two companies: Total focused on North Africa and the Middle East, while Elf focused on Sub-Saharan Africa. ${ }^{12}$ Elf's CEO described the company this way:
[Elf was] under full state control to support [de Gaulle's] African policies. Elf was ...a parallel diplomacy to control certain African states, above all at the key moment of

[^29]decolonization. Opaque operations were organized to keep certain countries stable. ${ }^{13}$
Gabon was the system's centerpiece. In exchange for selling oil to Elf at below market value and financing Gaullist electoral campaigns in France, the French government made Bongo extraordinarily wealthy. For every barrel of crude oil that Gabon sold to Elf, the company received 57\% of the proceeds, the Gabonese state treasury received $25 \%$, and Bongo himself received $18 \% .^{14}$ Bongo amassed a vast real estate portfolio in France. In 2008, Le Monde reported that French investigators discovered 33 properties, including a mansion in the 8 th arrondissement purchased in 2007 for nearly 19 million euros. ${ }^{15}$ France guaranteed Bongo's personal security with a military installation that was connected by tunnel to the Presidential Palace. ${ }^{16}$

### 4.4.3 Electoral Constraints Tighten

French support was insufficient to insulate Bongo from the Third Wave of Democracy. Students at Omar Bongo University began protesting in January 1990, just two months after the Berlin Wall fell. Labor unions joined, launching a general strike that "shook the foundations" of the regime. ${ }^{17}$ Like Kérékou in Benin, Bongo made a series of concessions. He gave civil servants a raise and more generous health benefits. He legalized political parties and independent newspapers. He agreed to no longer require citizens to possess an exit visa to travel abroad. He also convened a National Conference in April 1990, which imposed a limit of two presidential terms, reduced presidential terms from seven years to five, and created an independent judiciary. Presidential elections were scheduled for December 1993. These new electoral constraints were reinforced by Mitterrand's Socialist government in France, which promised a new transparency in its relationships with African governments and whose electoral campaigns Bongo had not yet funded. "The PDG controls the government," Bongo acknowledged, "but the opposition controls the streets." ${ }^{18}$ Bongo also recognized the uprising's geopolitical origins. "The winds from the east," he observed at La Baule, "are shaking the coconut trees." ${ }^{19}$

Bongo confronted genuine electoral constraints as the 1993 elections approached. Opinion polls showed Bongo claiming only $40 \%$ of the vote, with the main opposition candidate, Rev. Paul MbaAbessolé, polling only slightly behind. He watched in March 1992 as his father-in-law, Denis Sassou Nguesso, was humiliated in Congo's post-Third Wave presidential election. The French government appeared poised to force Bongo to conduct a genuinely democratic election. ${ }^{20}$ Bongo once relied on repression. As the elections approached, he was forced to persuade citizens of the regime's merits.

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### 4.4.4 Electoral Constraints Loosen

Bongo narrowly survived, with just $51 \%$ of the vote. The outcome was fraudulent, and the French government was complicit. In 1993, when France joined the European Economic and Monetary Union, it was forced to meet a series of "convergence criteria," which limited annual budget deficits to $3 \%$ and debt/GDP ratios to $60 \%$. As a result, the French government could no longer afford to finance budget deficits in its former African colonies, which employed a CFA currency that was tied to the franc. The French government settled on a $50 \%$ devaluation, which required the unanimous consent of African presidents. The French government believed Bongo would acquiesce; they doubted Mba-Abessolé would. On the eve of the election, Mitterrand dispatched electoral experts to help Bongo falsify election results in Haut-Ogooué, his native province. The final tally gave Bongo $40 \%$ more votes than the province's voting age population. ${ }^{21}$

The results elicited major protests, and the opposition demanded new democratic reforms. In response, the French government forced Bongo to concede an independent electoral commission and relinquish control of the Presidential Guard, once the primary instrument of state repression. He stalled in the implementation, however, and in May 1995 received a reprieve. Jacques Chirac, whose electoral campaign Bongo financed and who once called African democracy a "political error," was elected French president. Chirac effectively gave Bongo carte blanche. In July 1996, Chirac said this: "Gabon has been under the direction of President Bongo: under the best management possible." ${ }^{22}$ The electoral constraints that Bongo confronted were gradually relaxed. In December 1998, Bongo claimed $67 \%$ of the vote, and in 2003, Bongo secured a change in the Constitution that lengthened presidential terms to seven years, from five, and allowed him to seek re-election indefinitely. In November 2005, Bongo claimed $79 \%$, giving him a seventh term in office. He died in 2009, 73 years old, having spent 42 of them as president.

Bongo confronted genuine electoral constraints only briefly: from the fall of the Berlin Wall through the late 1990s or early 2000s. Our theory suggests Bongo's propaganda strategy should have changed accordingly.

### 4.4.5 Descriptive Statistics and a Non-Parametric Smoother

Founded in 1973, the L'Union newspaper was Bongo's chief propaganda outlet. Our dataset encompasses its entire history: 125, 797 pages published between 1973 and 2017, amounting to nearly 300, 000 articles. Originally managed by a Frenchman, Fred Hidalgo, L'Union was first published weekly and, on December 30, 1975, began publishing daily. The left panel of Figure 4.4 presents Positive Coverage Standardized: Executive $i_{i j t}$, averaged by month m, between 1974 and 2015. For clarity, we include two dashed vertical lines. The first gives the fall of the Berlin Wall, and the second Bongo's re-consolidation of power around 2000. The right panel of Figure 4.4 employs a

[^31]regression discontinuity approach, treating the fall of the Berlin Wall as a discontinuity. We fit a non-parametric regression to Positive Coverage Standardized ${ }_{m}$ on either side of the discontinuity, which rules out the possibility of some pre-existing trend in propaganda that simply coincided with the Berlin Wall's collapse.

The results are striking in three respects. First, just before the Berlin Wall fell - as the winds from the east began to shake Libreville's coconut trees but before Mitterand delivered his La Baule speech - Bongo launched a propaganda campaign greater than any before. After the Berlin Wall fell, however, Bongo's propaganda apparatus moderated, as our theory predicts. Third, when Bongo reconsolidated power in the late 1990s and early 2000s - as his electoral constraints loosened - his propaganda apparatus responded by gradually returning to levels of the single party period.


Figure 4.4: The left panel gives monthly averages of pro-regime propaganda in Gabon. The right panel fits a non-parametric smoother; the $x$-axis gives the number of months until or since November 1989, which is represented as month 0 , and the $y$-axis gives the predicted level of Positive Coverage Standardized ${ }_{m}$. The shaded area represents a $95 \%$ confidence interval.

### 4.4.6 Regression

Next, we estimate models of the form

$$
\begin{equation*}
Y_{t}=\alpha+\beta\left(\text { Third } \text { Wave }_{t}\right)+\phi W_{t}+\epsilon \tag{4.3}
\end{equation*}
$$

where $t$ indexes day, Third $W^{2} e_{t}$ is the explanatory variable of interest, and $W_{t}$ is a vector of day-level controls. The explanatory variable of interest, $X_{t}$, assumes value 1 between November 9 , 1989, and July 15, 1996, when Jacques Chirac, newly elected, announced his unequivocal support for Bongo during a visit to Libreville. We control for dates that could be associated with particularly elevated levels of pro-regime propaganda, including the six presidential elections between 1973 and 2017, as well as for the 15 days before and after, which we refer to as an election season.

The results appear in Table 4.7. ${ }^{23}$ Again, we find, Bongo's propaganda strategy changed after the Berlin Wall fell. Prior to November 9, 1989, the daily mean of Positive Coverage Standardized ${ }_{i j t}$ was 0.45 . Between November 9, 1989, and Chirac's 1996 Libreville announcement, the daily mean value of Positive Coverage Standardized $d_{t}$ fell by $20 \%$. As expected, by the late 1990s, after his electoral constraints had loosened, Bongo's propaganda strategy returned to its 1980s levels.

Table 4.7: Evidence from Gabon

|  | Dependent variable: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Positive Coverage Standardized | Positive Coverage Per Day | Executive <br> References Per Day | Executive <br> References Per Page | Positive Coverage Per Page |
|  | (1) | (2) | (3) | (4) | (5) |
| Third Wave | $\begin{gathered} -0.116^{* * *} \\ (0.017) \end{gathered}$ | $\begin{gathered} -1.453^{* * *} \\ (0.235) \end{gathered}$ | $\begin{aligned} & -0.354 \\ & (0.339) \end{aligned}$ | $\begin{aligned} & -0.045 \\ & (0.032) \end{aligned}$ | $\begin{gathered} -0.216^{* * *} \\ (0.025) \end{gathered}$ |
| Post-Third Wave | $\begin{gathered} 0.018 \\ (0.015) \end{gathered}$ | $\begin{gathered} 3.964^{* * *} \\ (0.222) \end{gathered}$ | $\begin{gathered} 6.402^{* * *} \\ (0.320) \end{gathered}$ | $\begin{gathered} 0.038 \\ (0.028) \end{gathered}$ | $\begin{aligned} & 0.045^{* *} \\ & (0.022) \end{aligned}$ |
| Election | $\begin{aligned} & -0.262 \\ & (0.305) \end{aligned}$ | $\begin{gathered} 7.200 \\ (4.789) \end{gathered}$ | $\begin{gathered} 27.838^{* * *} \\ (6.911) \end{gathered}$ | $\begin{gathered} 2.178^{* * *} \\ (0.577) \end{gathered}$ | $\begin{gathered} 0.509 \\ (0.442) \end{gathered}$ |
| Election Season | $\begin{aligned} & -0.058 \\ & (0.051) \end{aligned}$ | $\begin{gathered} 6.760^{* * *} \\ (0.839) \end{gathered}$ | $\begin{gathered} 16.283^{* * *} \\ (1.211) \end{gathered}$ | $\begin{gathered} 0.933^{* * *} \\ (0.098) \end{gathered}$ | $\begin{gathered} 0.327^{* * *} \\ (0.075) \end{gathered}$ |
| Constant | $\begin{gathered} 0.549^{* * *} \\ (0.011) \\ \hline \end{gathered}$ | $\begin{gathered} 4.171^{* * *} \\ (0.158) \\ \hline \end{gathered}$ | $\begin{gathered} 7.517^{* * *} \\ (0.227) \\ \hline \end{gathered}$ | $\begin{gathered} 1.188^{* * *} \\ (0.021) \\ \hline \end{gathered}$ | $\begin{gathered} 0.662^{* * *} \\ (0.016) \\ \hline \end{gathered}$ |
| Observations | 6,364 | 10,176 | 10,176 | 6,397 | 6,397 |
| $\mathrm{R}^{2}$ | 0.011 | 0.063 | 0.071 | 0.020 | 0.023 |
| Note: |  |  |  | * $\mathrm{p}<0.1$; | $\mathrm{p}<0.05 ;^{* * *} \mathrm{p}<0.01$ |

### 4.4.7 Bayesian Change Point Models

Finally, we explore when precisely Bongo's propaganda strategy changed. Did it occur in November 1989, when the Berlin Wall fell? In February 1990, when citizens in Benin toppled Kérékou? In June 1990, when Mitterand delivered the La Baule speech? Or did it occur at some other moment?

Intuitively, we treat the positive words used to describe Bongo in the L'Union newspaper are generated by some underlying data generating process: the propaganda strategy itself. These positive words, moreover, occur at some rate. We then employ a Bayesian change point model to identify the precise moment at which this underlying data generating process changed. Poisson models require that the count being modeled is non-negative and whole. Since our chief measure of pro-regime propaganda, Positive Coverage Standardized: Executive ${ }_{m}$, is neither, we rescale it by shifting the entire set of values up by the absolute amount that the least value is negative, and

[^32]then multiplying this shifted distribution by 100 , so it is comprised exclusively of whole numbers. Formally, the model is
\[

$$
\begin{align*}
\text { Positive Coverage Standardized: Executive }_{m} & \sim \operatorname{Poisson}\left(\lambda_{m}\right)  \tag{4.4}\\
\lambda_{m} & =\exp \left(X_{m} \beta_{m n}\right) \tag{4.5}
\end{align*}
$$
\]

where $m$ indexes month and $n$ indexes propaganda regime. This lets the covariates in vector $W_{m}$, which are identical to those in equation (4.3), condition propaganda differently according to the prevailing propaganda regime. We estimate the model via Markov chain Monte Carlo, with conjugate prior distribution Gamma for the rate parameter $\lambda$. We assign an uninformative prior.


Figure 4.5: Posterior density from the change point models.

The results appear in Figure 4.5. For each month along the $x$-axis, the $y$-axis measures the probability that the propaganda strategy shift occurred then. The change point model assigns a 0.6 probability to the strategy shift occurring in September 1990, which coincides with the first multi-party legislative election since 1967. This election marked a profound shift in Gabon's political climate. Voting occurred in two rounds, with the first on September 16. As before, Bongo attempted to rig the election, though this time citizens responded with mass protests, ultimately forcing the annulment of results from more than $25 \%$ of electoral districts. The second round occurred on October 28, after which the government claimed 63 of the National Assembly's 120 seats. Although the results were almost certainly fraudulent, the election nonetheless marked the onset of genuine political competition. Figure 4.5 identifies a second candidate date for the propaganda strategy shift: March 1990, which coincides with two other critical events. The Benin National Conference concluded in late February, with Kérékou stripped of sovereignty and effectively toppled. In early March, Bongo announced that Gabon's National Conference would occur in April. Again, these two dates marked key changes in the electoral competition that Bongo confronted.

### 4.5 Causal Mechanisms, Alternative Explanations, and a Survey Experiment: China

The evidence from Gabon suggests that electoral constraints have a plausibly causal effect on proregime propaganda. Still, scholars have identified other factors that may condition propaganda in autocracies. If these alternative explanations are correlated with changes in electoral constraints, and if we have not adequately controlled for them, then these alternative explanations may drive the statistical results in Section 4.3. Therefore, we turn to China, since our collection of propaganda from the People's Daily dates from the 1940s. This temporal scope allows us to probe whether the CCP's pro-regime propaganda has moderated with China's extraordinary economic and social changes over the past 70 years. We find that it has not. The People's Daily under Xi Jinping is more stridently pro-regime than any point since the Cultural Revolution.

We turn to China for a second reason. In the absence of electoral constraints, our theory suggests, effusive propaganda serves to intimidate, not persuade. Yet several scholars have suggested that CCP propaganda, in fact, aims to persuade citizens of the regime's merits. Chinese citizens, the arguments generally go, are so inundated by CCP propaganda that they eventually accept its claims, a process described as "implicit persuasion" or "nondeliberative cognition." 24 To ascertain how CCP propaganda conditions citizens' beliefs, we conducted a nationally representative survey experiment. To accommodate the possibility that citizens' conceal their true feelings about the regime, we employ list experiments, which preserve respondents' anonymity. As our theory suggests, pro-regime propaganda in the People's Daily deters citizens from protesting against the government because they fear the consequences. It has no effect on their support for the CCP.

Throughout, we distinguish between the People's Daily, which is the CCP's flagship newspaper, and CCP-operated commercial newspapers. Though commercial newspapers may publish more engaging and relatively neutral coverage about a range of topics, as many scholars suggest, we show that pro-regime coverage in the CCP's commercial newspapers is nearly identical to that in the People's Daily. Moreover, our survey experiment reveals that political coverage in CCP commercial newspapers has the same effect as political coverage in the People's Daily.

### 4.5.1 Alternative Explanations: Has CCP Propaganda Moderated Over Time?

Economic Development, Information Access, and Educational Attainment
Scholars have proposed three primary alternative explanations for variation in pro-regime propaganda across autocracies. First, media bias may be constrained by market competition for advertising revenues. Where potential advertising revenues are higher, the logic goes, media platforms embrace relative objectivity to attract a broader readership and, in turn, more advertising

[^33]revenue. ${ }^{25}$ Scholars have extended these arguments to China: to explain the decline of media bias in the wake of Deng Xiaoping's 1980s reforms, ${ }^{26}$ and to understand variation in the CCP's local, commercial newspapers. ${ }^{27}$ For many scholars, the market forces unleashed by China's economic expansion will fundamentally reshape CCP propaganda. Over time, Qin, Strömberg and Wu (2018) conclude, "economic development [will reduce] audience exposure to propaganda." Shambaugh $(2007,27)$ anticipated their argument a decade earlier: "The overall power and efficacy of China's propaganda state today has declined a great deal, and ...commercialization has been one of the main factors in this declining capacity."

Lynch (1999) advanced a related argument: Economic growth would be accompanied by an expansion in internet access, which would force the CCP to moderate its propaganda. The availability of foreign news sources is partly why Goebbels routinely conceded bad news. Months before US President Bill Clinton announced that censoring the internet was "sort of like trying to nail Jello to the wall," Lynch $(1999,165)$ predicted that "eventually everyone [in China] with access to a telephone and more advanced technologies will be able to generate and circulate their own thought-work messages." This, Lynch argued, would amount to "pluralization in the extreme." ${ }^{28}$

Other scholars have suggested that education may enable citizens to resist propaganda. Geddes and Zaller $(1989,320)$ suggest that the citizens most susceptible to autocratic propaganda are those who are "heavily exposed" to it but "not sophisticated enough to ...resist." ${ }^{29}$ Similarly, Guriev and Treisman (2018) argue that "economic modernization, and in particular the spread of higher education," forces autocrats into a less biased propaganda strategy. If propagandists are constrained by what their citizens are willing to believe, then educational attainment may compel moderated propaganda. Education may also induce a change in journalists. As journalists receive more formal training, Shirk $(2011,10)$ writes, they may "think of themselves as professionals instead of as agents of the government," and hence be less willing to engage in propaganda.

[^34]
## What Mao Zedong and Xi Jinping Have in Common

We first test these arguments in the context of the CCP＇s flagship newspaper，the People＇s Daily， which publishes editorials and commentaries that are widely interpreted as the definitive CCP line． The People＇s Daily targets CCP members，government bureaucrats，and China＇s urban elite，whose protests have long been regarded by the CCP as profoundly threatening．The People＇s Daily is also widely read；some $51 \%$ of Chinese citizens，we found，reported reading it within the past week．${ }^{30}$ Its editorials and commentaries are routinely published under a small handful of pseudonyms， including Zhong Sheng，which itself is threatening．A homophone for＂Voice of China，＂its literal meaning is＂bell tone，＂drawn from the saying＂bell tone to warn the world．＂${ }^{31}$ During politically sensitive moments，other newspapers are required to reprint People＇s Daily content or，at the very least，follow its editorial line．After the Tiananmen Square massacre，the People＇s Daily was the platform through which Deng Xiaoping warned citizens that＂stability overrides everything＂； Deng＇s successor，Jiang Zemin，used the People＇s Daily to reiterate the warning．For these reasons， journalism professor turned dissident Jiao Guobiao likened the propaganda apparatus to＂a street bully that nobody dares to tell to stop．＂Far from persuading，CCP propaganda is＂the worst eroder of popular opinion about the government and the party．＂${ }^{32}$

We created an article－level dataset of the People＇s Daily that extends back to May 1946．The dataset encompasses $1,572,726$ articles from 24， 659 days．Figure 4.6 visualizes the history of the People＇s Daily．The left panel displays Positive Coverage Standardized：Executive $i_{i j}$ ，averaged by month，since 1946．The right panel displays economic and informational variables：logged GDP per capita，trade intensity，urbanization rate，internet users per capita，and total newspaper copies published，which we interpret as a measure of media market size．Since all Chinese newspapers are government owned，these data have been recorded since the 1950 s，${ }^{33}$ and so provide a unique opportunity to understand how propaganda has changed over the very long－term，as living standards rose and the media market expanded．

Again，we find，propaganda is driven by politics，with economic and informational trends either secondary or irrelevant．After founding the People＇s Republic of China in 1949，Mao spent the next decade consolidating power by expropriating the landed aristocracy and purging＂counter－ revolutionaries．＂As he did，pro－regime propaganda grew more effusive．These two trends climaxed with the high phase of the Cultural Revolution，between 1966 and 1969，when Mao had so consol－ idated power that he was able to send 17 million urban middle schoolers，generally the children of elites，to the countryside to learn communism from Chinese peasants．Among them：Xi Jinping， who was forced to do manual labor in Shaanxi for seven years．Xi，like others，lived in a cave．${ }^{34}$

[^35]

Figure 4．6：The history of propaganda，political institutions，economic growth，and the information environment in China．

Mao＇s death in 1976 set off a power struggle．The ultra－leftist Gang of Four，led by his wife Jiang Qing，hoped to oust his designated successor and return China to a state of perpetual revolution． It looked like they might succeed，and so Mao＇s struggling successor，Hua Guofeng，recalled the popular moderate Deng Xiaoping from exile．Within two years，Deng brought the Gang of Four to trial and sidelined Hua in a＂bloodless coup．＂This leadership struggle is evident in Figure 4．6．As soon as Mao died，propaganda skyrocketed，reflecting the Gang of Four＇s preference for repression and control of the Propaganda Department．${ }^{35}$ Once the Gang of Four was purged and Hua was sidelined，Deng proceeded with the moderate policies that made him popular．From 1978 onwards， he liberalized the economy and embraced collective decision－making among senior CCP officials． As he did，pro－regime coverage declined．

The Tiananmen Square massacre in 1989 marked a fundamental shift．Before ordering the People＇s Liberation Army to clear the Square，Deng predicted that 200 deaths would buy the CCP 20 years of stability．${ }^{36}$ Afterwards，he purged officials who sympathized with protesters．On the massacre＇s first anniversary，he reminded citizens on the front page of the People＇s Daily that ＂stability overrides everything．＂Pro－regime propaganda has risen steadily since．After assuming power in 1993，Jiang Zemin ordered newspapers to＂guide public opinion＂even more strictly．Hu Jintao＇s propaganda minister said that＂one of the primary tasks of journalists is to make the people loyal to the Party．＂${ }^{37}$ The exception to this trend is the temporary reset that occurs when

[^36]each new leader assumes power. Among their first priorities, Brady (2008, Ch. 3) observes, is to consolidate control of the Propaganda Department by appointing loyalists. Figure 4.6 reflects this. The effusiveness of pro-regime propaganda rises with each leader's time in office.

Xi Jinping took power in 2013 and quickly set about consolidating authority. He purged rivals with an "anti-corruption" campaign, ${ }^{38}$ disappeared leaders of China's \#MeToo movement, and sent over a million ethnic minorities to re-education camps. ${ }^{39}$ In 2018, Xi abolished the term limits that ensured elite rotation atop the CCP, emerging as the most powerful leader since Mao. Xi's propaganda strategy changed accordingly. Hong Kong University's China Media Centre recently showed that Xi has appeared on more front pages of the People's Daily than anyone since Mao himself. ${ }^{40}$ Our data yield the same conclusion. Under Xi, pro-regime propaganda has returned to its Cultural Revolution high point. The People's Daily is now more effusively pro-regime than at any point in the past 70 years.

Citizens have noticed, and resisted. One online meme depicted the People's Daily front page as two words repeated over and over: "Xi Jinping." VPN use rose, enabling citizens to circumvent the Great Firewall. In response, the CCP deployed software to monitor citizens' browsing habits, began enforcing the illegality of VPN use, and built a " 50 Cent Party," which floods social media with pro-regime content. ${ }^{41}$ In 2016, the regime began installing loudspeakers in rural villages, forcing residents to consume CCP propaganda whenever it chooses, generally three times per day. Each broadcast begins with this: "The Party's good voice singing in the new countryside." The Global Times, a CCP newspaper, acknowledged that the loudspeakers sought to combat the "negative side effects" of smartphones, which "more and more villagers own." The loudspeakers, citizens are told, should "[evoke] nostalgic memories." ${ }^{42}$ Village loudspeakers have not been used since the Mao era.

China's economic and informational landscape changed dramatically after 1949. Living standards rose, foreign trade grew, citizens moved to cities, the commercial newspaper market boomed, and the internet spread. The alternative explanations above suggest that pro-regime propaganda in the People's Daily should have declined. This has not happened. Despite China's exponential growth, the People's Daily now covers the regime even more effusively than during Cultural Revolution. Xi has resurrected many slogans from the Mao era, none more telling than this: "East, west, south, north, and center; Party, government, military, society, and education; the Party rules them all." ${ }^{43}$

[^37]
## Estimation

To probe the long-run relationship between propaganda and socio-economic change more systematically, we estimate models of the form

$$
\begin{equation*}
Y_{s}=\alpha+\beta X_{s}+\phi W_{s}+\epsilon \tag{4.6}
\end{equation*}
$$

where $s$ indexes year, $X_{s}$ gives China's Polity score, and $W_{s}$ gives year-level variables that reflect alternative explanations. Since these are measured annually, our outcome variable is the mean annual value of Positive Coverage Standardized: Executive ${ }_{i j t}$. Vector $W_{s}$ includes GDP per capita, trade intensity, the urbanization rate, and several measures of media market size: the number of published newspaper copies, the number of newspapers and magazines published, the kinds of newspapers published, newspaper copies per capita, and internet users per capita.

The results appear in Table 4.8. As expected, China's Polity score is negatively associated with pro-regime propaganda. By contrast, none of the economic or media market covariates has a consistent or substantively important effect. In Models 1 and 4, increases in GDP per capita are actually associated with more propaganda, not less. Neither the number of newspapers and magazines published nor internet users per capita is associated with pro-regime propaganda. ${ }^{44}$ Although Model 4 suggests that more newspaper copies per capita is associated with less proregime propaganda, the effect is substantively trivial. In 2016, China's National Bureau of Statistics reported that there were 28 newspaper copies per capita. It would require 100 additional copies per capita - an increase of some $350 \%$ - to reduce pro-regime propaganda by a single unit of our Fox News index. As China's economy expands and its media market grows, its local newspapers may indeed moderate, as Qin, Strömberg and Wu (2018) suggest. But these dramatic changes have had virtually no effect on the People's Daily, the regime's flagship propaganda newspaper. Its content is driven by politics, not economics.

### 4.5.2 The Mechanisms of Belief Change: Intimidation, not Persuasion

## Is CCP Propaganda Actually Persuasive?

Huang (2015b, 2018)'s understanding of CCP propaganda is consistent with ours: It serves to intimidate, not persuade. As a result, when citizens express support for the government, they do so because they fear the consequences of speaking out. This is known as preference falsification, and it is endemic in autocracies. ${ }^{45}$ This, in our view, is why surveys routinely find that over $90 \%$ of Chinese citizens support the CCP.

[^38]Table 4.8: The politics of pro-regime propaganda in China

|  | Dependent variable: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Positive Coverage Standardized |  |  |  |  |
|  | (1) | (2) | (3) | (4) | (5) |
| Polity | $\begin{gathered} -0.100^{* *} \\ (0.042) \end{gathered}$ | $\begin{gathered} -0.196^{* * *} \\ (0.046) \end{gathered}$ | $\begin{gathered} -0.163^{* * *} \\ (0.036) \end{gathered}$ | $\begin{gathered} -0.118^{* * *} \\ (0.044) \end{gathered}$ |  |
| Log GDP Per Capita | $\begin{gathered} 0.190^{* * *} \\ (0.056) \end{gathered}$ | $\begin{gathered} 0.073 \\ (0.056) \end{gathered}$ | $\begin{aligned} & -0.013 \\ & (0.063) \end{aligned}$ | $\begin{aligned} & 0.139^{* *} \\ & (0.053) \end{aligned}$ | $\begin{aligned} & -0.696 \\ & (0.630) \end{aligned}$ |
| Trade | $\begin{aligned} & -0.239 \\ & (0.219) \end{aligned}$ | $\begin{aligned} & -0.092 \\ & (0.233) \end{aligned}$ | $\begin{aligned} & -0.333 \\ & (0.241) \end{aligned}$ | $\begin{gathered} 0.071 \\ (0.234) \end{gathered}$ | $\begin{aligned} & -0.380 \\ & (0.806) \end{aligned}$ |
| Urbanization | $\begin{aligned} & -0.702 \\ & (0.592) \end{aligned}$ | $\begin{gathered} 0.198 \\ (0.679) \end{gathered}$ | $\begin{gathered} 0.962 \\ (0.691) \end{gathered}$ | $\begin{gathered} 0.132 \\ (0.576) \end{gathered}$ | $\begin{gathered} 5.203^{*} \\ (2.656) \end{gathered}$ |
| Log Total Copies | $\begin{gathered} -0.130^{* * *} \\ (0.040) \end{gathered}$ |  |  |  |  |
| Issues |  | $\begin{gathered} 0.00000 \\ (0.00000) \end{gathered}$ |  |  |  |
| Kinds |  |  | $\begin{aligned} & 0.0001^{* *} \\ & (0.0001) \end{aligned}$ |  |  |
| Copies Per Capita |  |  |  | $\begin{gathered} -0.016^{* *} \\ (0.007) \end{gathered}$ |  |
| Internet Per Capita |  |  |  |  | $\begin{gathered} 0.720 \\ (1.956) \end{gathered}$ |
| Constant | $\begin{gathered} 2.793^{* * *} \\ (1.025) \\ \hline \end{gathered}$ | $\begin{array}{r} -0.410 \\ (0.440) \\ \hline \end{array}$ | $\begin{gathered} 0.187 \\ (0.439) \\ \hline \end{gathered}$ | $\begin{aligned} & -0.022 \\ & (0.410) \\ & \hline \end{aligned}$ | $\begin{gathered} 6.290 \\ (4.823) \\ \hline \end{gathered}$ |
| Observations | 62 | 62 | 62 | 62 | 18 |
| $\mathrm{R}^{2}$ | 0.614 | 0.544 | 0.586 | 0.583 | 0.486 |
| Note: |  |  | * $\mathrm{p}<0$ | ${ }^{* *} \mathrm{p}<0.05$; | p $<0.01$ |

Other scholars disagree: about the aims of CCP propaganda and the extent of preference falsification. Chinese citizens, as Stockmann, Esarey and Zhang (2018, 1) put it, do not "misrepresent political trust in surveys out of political fear." ${ }^{46}$ In turn, many scholars take the CCP's $90 \%$ approval ratings seriously. This literature includes contributions from Chen, Zhong and Hillard (1997), Zhong, Chen and Scheb (1998), Shi (2000, 2001), Chen and Shi (2001), Chen (2004), Li (2004), Tang (2005), Wang (2005), Manion (2006), Chen and Dickson (2008), Kennedy (2009), Lewis-Beck, Tang and Martini (2014), Dickson (2015), and Guang et al. (2020). From this, many conclude, CCP propaganda must be persuasive. ${ }^{47}$

## A Survey List Experiment

To resolve this debate, we conducted a nationally representative survey of over 4,000 Chinese citizens in late November and early December 2020. ${ }^{48}$ To overcome the preference falsification problem, we employed a list experiment. We gave survey respondents a list of statements and asked not which they agreed with, but how many they agreed with. The key is that Group $A$ receives one more statement - the sensitive statement - than Group $B$. The quantity of interest is then equal to the difference in means between the two groups. Similar list experiments have been used in a variety of settings. Kuklinski, Cobb and Gilens (1997), for instance, used a list experiment to estimate that $42 \%$ of American Southerners would object to a Black family moving next door. Crucially, list experiments have proven effective in China. Robinson and Tannenberg (2019) employed a list experiment similar to ours, but with a non-representative online sample of 1,953 Chinese citizens. They found that, asked directly, $91 \%$ of respondents said they supported the CCP. Asked in the form of a list experiment, CCP support was no higher than $66 \%$. Consistent with our theory, this rate of self-censorship is 2.5 times greater than Frye et al. (2017) document in Putin's Russia.

To conduct the experiment, we partnered with a professional survey company. We balanced survey respondents according to the most recent national census, in 2010. ${ }^{49}$ We restricted attention to non-CCP members who passed a basic attention check embedded in the survey and who completed the survey in between the 10th percentile and 90th percentile of completion times. ${ }^{50}$ After asking respondents a range of demographic questions, ${ }^{51}$ we randomly assigned respondents to treatment and control groups. Respondents in the treatment group read the article in Figure 4.7, which was published in the People's Daily on July 16, 2020. ${ }^{52}$ This article was first published in Qiushi, a CCP ideological magazine whose name means "Seeking Truth." It was then given front page placement in the People's Daily and widely distributed throughout the rest of the propaganda

[^39]apparatus. Entitled "The Leadership of the Chinese Communist Party Is the Most Essential Characteristic of Socialism With Chinese Characteristics," it featured a list of 18 Xi Jinping quotes. It underscored the CCP's control of the country and Xi's control of the CCP. It is emblematic of CCP propaganda. Our theory suggests that citizens interpret it as threatening, not persuasive.


Figure 4.7: Treatment article

Next, we asked respondents a series of direct questions about their support for the CCP and their willingness to engage in anti-regime protests. These questions appear in Table 4.9. The CCP's reputation for online surveillance and for repressing dissent create powerful incentives for citizens to falsify their preferences, and so we expect Chinese citizens to answer these direct questions as they believe the CCP would have them. To accommodate the possibility of preference falsification, we then asked respondents the same questions in the form of list experiments. ${ }^{53}$ To implement the list experiments, within treated and control groups, we randomized respondents into two subgroups.

[^40]Table 4.9: Survey Questions

```
Regime Support
    I support Comrade Xi Jinping's leadership.
    Overall, the government is working for the people and is responsive to the needs of the people.
    China's system of government is better than any other I can think of.
    I approve of government propaganda work.
Protest-Related
    If someone vandalized a government building, the police would catch them.
    If given the opportunity, I would like to move abroad to study, live, or work.
    I would be willing to participate in a protest against the government.
            If No: Because I am afraid of the consequences.
                Because I support the government's policies.
```

One subgroup received a set of three nonsensitive statements from which they were asked to indicate all that applied to them. The other subgroup received the same three nonsensitive statements plus one sensitive statement, which correspond to the sensitive direct questions in Table 9.3. This permits respondents to express sensitive opinions indirectly, without actually having to state the sensitive opinion itself. We designed the list experiment carefully. To avoid design effects, we chose nonsensitive items that are unambiguous and for which respondents are likely to have strong opinions. We also varied the placement of the sensitive item. To mitigate concerns about online surveillance, we made the non-sensitive items as non-verifiable as possible. ${ }^{54}$ To avoid ceiling and floor effects, we chose nonsensitive items that are negatively correlated with each other. ${ }^{55}$ To accommodate the lack of precision intrinsic to list experiments, we recruited an especially large sample size. ${ }^{56}$

## Results: CCP Propaganda Threatens, Not Persuades

The results for direct questions appear in Figure 4.8. The pink bars represent the control group of respondents who read no article, and who therefore represent the baseline views of Chinese citizens, subject to preference falsification. The red bars represent the treatment group of respondents who read the People's Daily article. The orange bars represent an extension discussed in the next section: respondents who read the same article published in the Beijing News, a commercial newspaper.

The $x$-axis gives the survey questions. The first four questions focus on explicit support for the regime; the next four questions focus on protest-related preferences. Of the eight questions, five implicate the CCP directly. For each of these five, support for the regime hovered around $90 \%$. Xi Jinping's approval rating is $95 \%$; $95 \%$ of respondents say the government works for the people; $88 \%$ of respondents say China's system of government is best; and $90 \%$ approve of government propaganda. We asked respondents whether the police would catch individuals who vandalized

[^41]a government building; $95 \%$ of respondents said so. Just $40 \%$ of respondents said they wanted to move abroad. Just $10 \%$ of respondents said they would be willing to engage in anti-regime protests; of the $90 \%$ of respondents who answered no, $90 \%$ said this was because they supported the government. These results are strikingly consistent with the large literature that uses direct questions to measure political opinions in China.


Figure 4.8: Descriptive statistics for direct questioning

The results for the list experiments confirm that preference falsification is widespread. Figure 4.9 shows the views of respondents who read the People's Daily article compared to respondents who read no article. For each statement along the $x$-axis, the $y$-axis presents the estimated share of respondents in the treatment and control groups that agree, as well as the estimated difference between those two groups. When the confidence intervals of this estimated difference exclude 0 , the treatment effect is statistically significant. The results make clear that CCP propaganda intimidates rather than persuades. The only effect of the People's Daily is to discourage citizens from protesting because they fear the consequences of doing so. To be clear, these constitute ceilings for CCP support. Given the prevalence of preference falsification, it is possible that even these list experiments overstate CCP support.

These results are robust to a range of alternative specifications, which we discuss in the Online Appendix. We modify the completion time threshold. We check for evidence of design effects, which


Figure 4.9: The effect of official CCP propaganda on the views of Chinese citizens
occur when respondents' preferences over nonsensitive items change with the addition of a sensitive item. We also employ two statistical corrections. First, we account for ceiling and floor effects, which generally understate the extent to which respondents have an affirmative preference for the sensitive item. ${ }^{57}$ Second, we drop "satisficers": respondents whose answers to our list experiments were not consistent with their answers in direct questions. ${ }^{58}$ After these statistical corrections, we estimate several outcomes more precisely. Treated respondents support Xi Jinping less, are less likely to believe the government works for the people, and are less likely to believe China's system of government is best. And, again, they are less likely to protest because they fear the consequences of doing so.

[^42]
### 4.5.3 Are the CCP's Commercial Newspapers Different?

## Investigative Journalism in a Dictatorship

In Section 4.5.1, we showed that pro-regime propaganda in the People's Daily has not moderated, despite China's extraordinary economic and social changes since 1949. Some scholars argue, however, that it is the CCP's commercialized local newspapers and investigative television programs that have moderated in response to these extraordinary economic and social changes. Many of the CCP's commercial newspapers and investigative television programs have their origins in the decision to cut state subsidies to loss-making enterprises in the 1980s and 1990s, part of broader economic reforms. These newspapers were "cast to the sea" and forced to compete on the open market. In this reading, the People's Daily is anachronistic, unrepresentative of the propaganda that most Chinese citizens consume. Have the CCP's commercial newspapers moderated? Does their pro-regime content persuade citizens of regime merits?

These investigative television programs, Qian and Bandurski $(2011,41)$ argue, marked a new era of accountability in China. Focus, a CCTV television channel supported by Ding Guangen, the CCP's top propaganda official, "routinely shed light on social and political problems," including "administrative corruption." These reports have occasionally culminated in reform. In 2003, for instance, coverage of the death of Sun Zhigang, a young migrant worker, led to the end of the detention and repatriation system. According to Repnikova (2017b, 84), investigative journalists are "permitted to investigate social justice issues within bounds set by the state." ${ }^{59}$ Of course, these bounds are strict. Repnikova (2017b, 84) quotes an investigative journalist:

The most challenging part of my work is that I am often forced to give up on a story I would spend a long time working on because of an abrupt directive from the Central Propaganda Department. ...Half of the stories I investigate don't make it into print.

The commercial press is punished for its offenses. Following coverage of Sun Zhigang's 2003 death in police custody in 2003, several editors were detained indefinitely or given decades-long prison sentences. ${ }^{60}$

As a result of their occasional criticism, China's commercial media appears to enjoy some credibility among readers. ${ }^{61}$ Brady $(2008,75)$ describes them as "the newspapers people actually like to read." ${ }^{62}$ Her account of the Focus investigative television show is similar to our definition of honest propaganda: "The program has just the right sort of amount of critical material to provide a little cognitive dissonance aimed at strengthening support for the status quo." ${ }^{63}$

[^43]There is substantial evidence, however, that China's commercial newspapers and investigative television programs are also motivated by politics, rather than a changed economic or informational environment. Brady $(2008,110)$ argues that investigative journalism was primarily a tactic for political elites to wage internal power struggles, and has been "severely restricted" to "low level officials and solvable problems." ${ }^{64}$ Stockmann (2013)'s interpretation of the CCP's local newspapers goes further. The Beijing government, she argues, permits local journalists to report wrongdoing by local officials in an attempt to resolve the "dictator's dilemma": to gauge public opinion and monitor local governments. ${ }^{65}$ Critically, Stockmann (2013) distinguishes commercial local newspapers from the CCP's "official" newspapers, chief among them the People's Daily, its flagship. Commercial local newspapers emerged after 1978, rely on advertising revenue to survive, and are overseen by local governments. The People's Daily, by contrast, is subsidized by Beijing and supervised by the CCP Propaganda Department. ${ }^{66}$

## Commercial Newspapers vs. the People's Daily

If the CCP's commercial newspapers have moderated in response to social and economic changes, as some scholars suggest, then we should find substantial differences between their content and the CCP's flagship People's Daily. We should also find that the CCP's commercial newspapers are more persuasive than intimidating. To probe these alternative hypotheses, we collected the most historically expansive set of commercial newspapers that we could identify. Our corpus includes Caijing (2015-2019), Beijing News (2012-2019), Economic Observer (2003-2019), and Yangtse Evening Post (2012-2019). These count among China's most widely read commercial newspapers, though, to be sure, their reach is far less than the People's Daily. Our survey evidence indicates that $20 \%$ of Chinese citizens read Caijing, $16 \%$ read the Beijing News, $12 \%$ read the Economic Observer, and $17 \%$ read local newspapers like the Yangtse Evening Post. By contrast, some $51 \%$ of citizens report reading the People's Daily. These are also regarded as some of China's most liberal newspapers. ${ }^{67}$ For each newspaper, we created an article-level dataset. In total, our corpus includes 433,570 articles from commercial newspapers, published on 2, 709 days.

Figure 4.10 visualizes the history of China's commercialized newspapers (in red, orange, and blue) compared to the People's Daily (in black). In the top left panel, for each month along the $x$ axis, the $y$-axis records the mean value of Positive Coverage Standardized: Executive ${ }_{i j t}$. In the top right panel, the $y$-axis records the mean value of References: Executive $i_{i j t}$. For clarity, we overlay a lowess smoother for each propaganda newspaper. This yields two insights. First, the valence of pro-regime coverage was nearly identical in commercial newspapers and the People's Daily between

[^44]2012 and 2019. Several of China's hardest hitting outlets - famous for their investigative reporting, and whose editors were repeatedly sacked by the CCP - covered the regime just as positively as the People's Daily. The major difference is the amount of regime coverage. By 2017, on average, the People's Daily referenced Xi Jinping and the CCP six times as often as commercial newspapers outlets per day. ${ }^{68}$ The People's Daily covers the regime much more often than the commercial press, but the valence of coverage is now essentially identical.

The bottom panels show trends in article-level valence. In the bottom left panel, for each month along the $x$-axis, the $y$-axis records the mean value of Article Valence $i_{i j t}$ across all articles in a given propaganda newspaper. In the bottom right panel, the $y$-axis records the mean value of Article Valence: Regime $i_{i j t}$. We again overlay a lowess smoother for each propaganda newspapers. The results are striking. The aggregate valence of commercial newspapers is indeed lower than the People's Daily, which is perhaps why scholars regard these outlets as more credible. This difference, however, has diminished over time, and is now relatively small. Again, there is virtually no difference in Article Valence: Regime ${ }_{i j t}$ across commercial newspapers and the People's Daily.

The similarity of regime coverage across commercial newspapers and the CCP flagship should be surprising, both in light of our theory and how the CCP's commercial newspapers source their regime content. During politically sensitive moments, Roberts (2018) shows, the CCP requires propaganda newspapers - commercial and flagship - to publish content produced by Beijing's Propaganda Department. Regime coverage is coordinated. Despite its reliance on advertising revenues, the CCP's commercial newspapers have grown more effusive over time, like the People's Daily. In their pro-regime content, they are virtually indistinguishable.

## Another Survey List Experiment

We conclude with a second survey experiment: to confirm that pro-regime content in the CCP's commercial newspapers has the same effect on consumers as pro-regime content in the People's Daily. If the CCP's commercial newspapers really do have a reputation for credibility, as some scholars suggest, then perhaps their pro-regime content - though virtually identical to the People's Daily's - actually persuades citizens of regime merits. To test this, we exploit the fact that the article in Figure 4.7 appeared in many propaganda outlets: the Xinhua news agency, the CCTV evening news program Xinwen Lianbo, and provincial newspapers like Heilongjiang Daily, Sichuan Daily, and Yunnan Daily. It was also republished in major commercial outlets like Beijing News and Yangtse Evening Post, as well as metropolitan papers in Shanxi, Inner Mongolia, Xinjiang, Hangzhou, Zhejiang, Sichuan, and Jiangxi. For this survey experiment, respondents in the treatment group read the same article text, but with a large Beijing News masthead and byline. The control group was the same as above. ${ }^{69}$

[^45]

Figure 4.10: Official versus commercial coverage in China

The results appear in Figure 4.11. For each statement along the $x$-axis, the $y$-axis presents the estimated share of respondents in the treatment and control groups that agree, as well as the estimated difference between those two groups. The results are identical to those in Figure 4.9. Pro-regime content in the Beijing News has the same effect as in the People's Daily: It makes citizens less likely to protest because of fear. In the Online Appendix, we reproduce Figure 4.11 with satisficers omitted and ceiling and floor effects corrected for. The results are unchanged, though these statistical corrections increase the precision of the list experiment estimates. As for the People's Daily, this increased precision suggests that treated respondents are less likely to support Xi Jinping, less likely to believe that the government works for the people, and less likely to believe that China's system of government is best. Of those who prefer not to protest, treated respondents are more likely to cite fear and less likely to cite government support.


Figure 4.11: The effect of commercial CCP propaganda on the views of Chinese citizens

### 4.6 Conclusion

Pro-regime propaganda exhibits dramatic variation across the world's autocracies. This variation is driven by politics. Where autocrats confront no meaningful electoral constraints, pro-regime propaganda signals to citizens the consequences of dissent. Propaganda apparatuses describe the regime in terms that everyone knows are absurd. We find that these propaganda apparatuses are roughly four times more pro-regime than Fox News is pro-Republican. Where autocrats confront meaningful electoral constrains, we find that pro-regime propaganda is strikingly neutral: roughly as pro-regime as Fox News is pro-Republican. It is biased, of course, but not so egregiously that it loses its capacity to persuade. ${ }^{70}$ These results are consistent across estimation strategies and regardless of how we measure a country's informational environment.

The case studies in Sections 4.4 and 4.5 are theoretically and historically important. The Third Wave of Democracy imposed relatively binding electoral constraints on Africa's autocrats. In Gabon, Omar Bongo responded as our theory predicts: by dramatically moderating pro-regime propaganda. This gives us confidence that the cross-country evidence in Sections 4.2 and 4.3 are not driven by reverse causality or omitted variable bias. The year 1989 was pivotal in China as well, but for different reasons. Although Chinese citizens also demanded change, the CCP was less exposed to the geopolitical shift that rocked Eastern Europe and Sub-Saharan Africa. The Tiananmen Square protests ended with a massacre on June 4, 1989, which killed some 2,000 citizens. As we show in Chapter 9, the CCP propaganda apparatus responded by threatening citizens with violence and, after a profoundly threatening front page on the massacre's first anniversary, has since sought to remove the date from public memory. The history of China's flagship propaganda

[^46]newspaper is a reflection of prevailing political conditions, not long-term socio-economic change. These political conditions also shape coverage in the CCP's commercial newspapers, which, contrary to conventional wisdom, cover the regime as effusively as its flagship propaganda outlets. In the People's Daily and commercial newspapers, the CCP's pro-regime propaganda makes citizens less likely to protest due to fear. If anything, this content makes the CCP less popular, not more.

Propaganda is more than just how positively or negatively a regime is covered. It is also about the stories it tells citizens: what is emphasized, what is omitted, and how details are spun. These narratives constitute the first draft of a country's history, written, indeed, by its victor. These narratives are the focus of Chapters 5 and 6 .


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[^1]:    ${ }^{1}$ Le Parisien (2002).

[^2]:    ${ }^{2}$ We document this in Chapter 4.
    ${ }^{3}$ Mao Zedong（1929）．
    ${ }^{4} \mathrm{Yu}(1964,97)$ ．
    ${ }^{5}$ Brady（2008，81）．
    ${ }^{6}$ Brady（2008，116）．
    ${ }^{7}$ English translation available at http：／／tsquare．tv／chronology／April26ed．html．
    ${ }^{8}$ 稳定压倒一切，see People＇s Daily（1991）．

[^3]:    ${ }^{9}$ Bell（2014）．
    ${ }^{10}$ ChinaFile（2013）．
    ${ }^{11}$ Bandurski（2009）．
    ${ }^{12}$ New York Times（2010）．
    ${ }^{13}$ Ma Jian（2018）．
    ${ }^{14}$ Phillips（2017）．
    ${ }^{15}$ See，for example，Abad－Santos（2013）．One ditty goes：＂All conferences solemnly started and ended with glory／／ All speeches are important and the applause is warm／／All the work is finished with success and all the achievements are tremendous／／All the effort is thorough and remarkable＂（Miao Di 2011，105－107）．
    ${ }^{16}$ 人民日报 and 日人民报，respectively．See http：／／chinadigitaltimes．net／space／日人民报。
    17＂没有人民愿意看的日报．．．．新闻内容与观点通常与大众的认知成颠倒状态．＂＠FuckPeopleNews．
    ${ }^{18}$ 人民日报，胡说八道！人民日报，暴日人民！
    ${ }^{19}$ As we discuss in Chapter 4，there is substantial evidence that the CCP government permits local newspapers to occasionally criticize local governments．Stockmann（2013），Lorentzen（2014），and Repnikova（2017b）suggest that

[^4]:    this enables Beijing to monitor local officials or to otherwise gauge public opinion. Critically, we distinguish between local newspapers and the People's Daily, the CCP's flagship newspaper, which, our evidence suggests, serves to signal the CCP's strength rather than monitor local officials.
    ${ }^{20}$ Taylor (1998), Cunningham (2002).
    ${ }^{21}$ Longerich (2015).
    ${ }^{22}$ For a distillation of Goebbels' 6,800 page diary into 19 core principles, see Doob (1950).
    ${ }^{23}$ We use the term "Bayesian rationality" to refer to the idea that citizens will discount positive propaganda or political communication by how credible they view the messenger and how consistent it is with their past experiences. More generally, social scientists regard citizens as Bayesian if they update their beliefs in response to the information they consume.
    ${ }^{24}$ Thomson (1999), Jowett and O'Donnell (2012).
    ${ }^{25}$ Lasswell (1938).

[^5]:    ${ }^{26}$ Quoted in Lasswell (1938).
    ${ }^{27}$ Schramm (1955, 83).
    ${ }^{28}$ See Ellul (1973).
    ${ }^{29}$ For useful reviews of formal models of propaganda and a discussion of different theoretical conceptions of media bias, see Gentzkow, Shapiro and Stone (2014), Strömberg (2015), and Prat (2016). Groeling (2013, 131) also reviews a number of definitions of media bias.
    ${ }^{30}$ Gentzkow and Shapiro (2006), Gehlbach and Sonin (2014), Yu (2019).
    ${ }^{31}$ Cain, Loewenstein and Moore (2005), Eyster and Rabin (N.d.).
    ${ }^{32}$ Mullainathan, Schwartzstein and Shleifer (2008).
    ${ }^{33}$ DeMarzo, Vayanos and Zwiebel (2003).
    ${ }^{34}$ Arendt (1951).

[^6]:    ${ }^{35}$ Soldatov and Borogan (2015, 11-12).
    ${ }^{36}$ For more, see Havel (1978).
    ${ }^{37}$ See also Orwell (1949) and Rorty (1989).

[^7]:    ${ }^{38}$ Huang (2015b, 420). See also Shih (2008).
    ${ }^{39}$ McFaul (2007), Levitsky and Way (2010), Hyde (2011), Donno (2013), Hyde and Marinov (2014), Escribà-Folch and Wright (2015), Carter (2016b), Carnegie and Marinov (2017), Carothers (2018).
    ${ }^{40}$ Levitsky and Way (2010), Schedler (2010b).
    ${ }^{41}$ Greene (2009, 2010), Seeberg (2017), Dasgupta (2018).
    ${ }^{42}$ Lehoucq and Molina (2002), McFaul (2002, 2005, 2007), Bunce and Wolchik (2006, 2010, 2011), Howard and Roessler (2006), Lindberg (2006), Beaulieu and Hyde (2009), Schedler (2009), Diamond (2010), Magaloni (2010), Schedler (2010a), Donno (2013), Beaulieu (2014), Hyde and Marinov (2014), Trejo (2014), Steinert-Threlkeld et al. (2015), Brancati (2016), Christensen and Garfias (2018).
    ${ }^{43}$ Egorov, Guriev and Sonin (2009), Stier (2014), Hollyer, Rosendorff and Vreeland (2015), Whitten-Woodring and Van Belle (2015).
    ${ }^{44}$ Stier (2014), Sundaram (2016).
    ${ }^{45}$ Policzer (2009), Truex (2019), Lichter, Loëffler and Siegloch (2020), Thomson (2019).

[^8]:    ${ }^{46}$ Lichter, Loëffler and Siegloch (2020).
    ${ }^{47}$ Egorov, Guriev and Sonin (2009).

[^9]:    ${ }^{48}$ Gentzkow and Shapiro (2006), Kamenica and Gentzkow (2011), Gehlbach and Sonin (2014), Yu (2019).
    ${ }^{49}$ Rozenas and Stukal (2018), Rosenfeld, Tertychnaya and Watanabe (2018).
    ${ }^{50}$ Little (2017).
    ${ }^{51}$ Edmond (2013), Huang (2015b).
    ${ }^{52}$ Truex (2019).

[^10]:    ${ }^{53}$ Egorov, Guriev and Sonin (2009), Rozenas and Stukal (2018).
    ${ }^{54}$ Nordlinger (1977), Galetovic and Sanhueza (2000), Casper and Tyson (2014), Kim (2016).
    ${ }^{55}$ Carter and Carter (2020a).
    ${ }^{56}$ Simmons (2009), Simmons and Danner (2010), Bergsmo and Yan (2012) Meernik (2015), Jo and Simmons (2016), Dancy and Montal (2017), Jo, Radtke and Simmons (2018).

[^11]:    ${ }^{57}$ Doob (1935), Ellul (1973), Chomsky and Herman (1988), Bogart (1995), Jowett and O’Donnell (2012), Welch (2014), Stanley (2015), Van Herpen (2016).
    ${ }^{58}$ Bursztyn et al. (2020), Jamieson and Albarracin (2020), Simonov et al. (2020).

[^12]:    ${ }^{59}$ McMillan and Zoido (2004), Lawson and McCann (2005), White, Oates and McAllister (2005), Egorov, Guriev and Sonin (2009), Enikolopov, Petrova and Zhuravskaya (2011), Jowett and O'Donnell (2012), Gehlbach and Sonin (2014), Yanagizawa-Drott (2014), Adena et al. (2015), Guriev and Treisman (2015), Chen and Xu (2015), González and Prem (2018), Qin, Strömberg and Wu (2018), Yu (2019).
    ${ }^{60}$ White, Oates and McAllister (2005), Enikolopov, Petrova and Zhuravskaya (2011). For more on the tactics employed by Putin's propaganda apparatus to persuade, see Gessen (2012, 2017), Judah (2013), Pomerantsev (2015b), Van Herpen (2016), Ostrovsky (2017).
    ${ }^{61}$ Brady (2002, 2006, 2008, 2012b), Stockmann (2010, 2013), Stockmann and Gallagher (2011), Esarey, Stockmann and Zhang (2017), Stockmann, Esarey and Zhang (2018), Roberts (2018), King, Pan and Roberts (2017).
    ${ }^{62}$ For more evidence of preference falsification in China, see Jiang and Yang (2016) and Robinson and Tannenberg (2019).

[^13]:    ${ }^{63}$ Adena et al. (2015), Yanagizawa-Drott (2014), Enikolopov, Petrova and Zhuravskaya (2011), White, Oates and McAllister (2005), Huang (2015b, 2018), Boas and Hidalgo (2011), McMillan and Zoido (2004), Greene (2011), Lawson and McCann (2005), Gentzkow and Shapiro (2006), Gentzkow (2005), González and Prem (2018). On media effects in democracies, see Strömberg (2015), Hayes and Lawless (2015), Arceneaux et al. (2016), Wang (2020).

[^14]:    ${ }^{64}$ Hill et al. (2013).

[^15]:    ${ }^{65}$ Carothers (2018), Jang and Huang (2019), Reuter and Szakonyi (2019), Meng (2020).
    ${ }^{66}$ Tullock (1987), Wintrobe (1998), Svolik (2012).

[^16]:    ${ }^{67}$ Balcells (2012), Escribà-Folch (2013), Rozenas, Schutte and Zhukov (2017), Simpser, Slater and Wittenberg (2018), Bautista et al. (2020), Young (2018), Zhukov and Talibova (2018), Rozenas and Zhukov (2019), Amat (2019), Xue and Koyama (2019), Desposato, Wang and Wu (2019), Wang (2019).
    ${ }^{68}$ Davenport (2007a, c,b), Bhasin and Gandhi (2013), Hill and Jones (2014), Frantz and Kendall-Taylor (2014), Christensen and Garfias (2018), Gohdes (2019).
    ${ }^{69}$ Escribà-Folch and Wright (2015), Carnegie and Marinov (2017), Carter (2016a).
    ${ }^{70}$ Policzer (2009), Sassoon (2012), Hassan (2016), Blaydes (2018), Geddes, Wright and Frantz (2018), Shen-Bayh (2018), Thomson (2019).
    ${ }^{71}$ Wintrobe (1998), Bueno de Mesquita et al. (2003), Acemoglu, Robinson and Verdier (2004), Padro i Miquel (2007), Arriola (2009), Albertus (2015), Roessler (2016), Albertus, Fenner and Slater (2018).

[^17]:    ${ }^{72}$ Relatedly, O'Donnell and Schmitter $(1986,19)$ traced successful revolutions to splits within the ruling regime: "There is no transition whose beginning is not a consequence - direct or indirect - of important divisions within the regime itself, principally along the fluctuating cleavage between hard-liners and soft-liners."
    ${ }^{73}$ Brownlee (2007), Slater (2010), Svolik (2012).
    ${ }^{74}$ Boix and Svolik (2013) make a related argument about power balances, but are more agnostic about the form that the resulting institutions take. Note that Meng (2019) provides evidence that strong ruling parties are much rarer than typically assumed, suggesting that some of the causal force attributed to them may be driven, in part, by Soviet support during the Cold War.
    ${ }^{75}$ Magaloni (2006, 2008), Gandhi and Przeworski (2007), Gandhi (2008), Wright (2008), and Geddes, Wright and Frantz (2018).
    ${ }^{76}$ Lust-Okar (2006), Blaydes (2008).
    ${ }^{77}$ Ames (1970), Magaloni (2006), Brownlee (2007), Blaydes (2008), Cox (2009), and Geddes, Wright and Frantz (2018).
    ${ }^{78}$ Birney (2007), and Blaydes (2008).
    ${ }^{79}$ For excellent overviews, see Gandhi and Lust-Okar (2009) and Pepinsky (2014).

[^18]:    ${ }^{80}$ Bratton and van de Walle (1997), van de Walle (2001), Dunning (2004), Levitsky and Way (2010), Marinov and Goemans (2014).
    ${ }^{81}$ Olson (1977), Granovetter (1978), DeNardo (1985), Tullock (1987), Przeworski (2006).
    ${ }^{82}$ Kuran (1991), Tucker (2007), Hollyer, Rosendorff and Vreeland (2015).
    ${ }^{83}$ Beissinger (2002), Javeline (2003), McFaul (2005), Radnitz (2010), Bunce and Wolchik (2011), Fearon (2011).
    ${ }^{84}$ Reuter and Szakonyi (2019).
    ${ }^{85}$ We draw protest data from the Social Conflict in Africa Dataset, introduced by Salehyan et al. (2012).

[^19]:    ${ }^{86}$ Dunning (2004), Brown (2005), Hafner-Burton (2008), Bearce and Tirone (2010), Kersting and Kelly (2014), Dietrich and Wright (2014), Gibson, Hoffman and Jablonski (2015), Escribà-Folch and Wright (2015).

[^20]:    ${ }^{87}$ With political institutions increasingly fixed, a separate strand of scholarship has focused on how autocrats use non-institutional strategies to induce elite loyalty. See, for instance, Arriola (2009), Francois, Rainer and Trebbi (2014), Sudduth (2017), Woldense (2018), Meng (2020).
    ${ }^{88}$ Branch and Mampilly (2015), Brancati (2016), Rosenfeld (2017).
    ${ }^{89}$ Beissinger (2002, 2007), Tucker (2007), Fearon (2011), Beaulieu (2014), Trejo (2014), Brancati (2016), Carter and Carter (2020a).
    ${ }^{90}$ Diamond (2010), Tufekci and Wilson (2012), Howard and Hussain (2013), Steinert-Threlkeld et al. (2015), Manacorda and Tesei (2016), Christensen and Garfias (2018), Fu (2018).
    ${ }^{91}$ Chen (2012), Chenoweth and Ulfelder (2015).
    ${ }^{92}$ Chenoweth and Stephan (2011), Beber, Roessler and Scacco (2014), and Enos, Kaufman and Sands (2019).
    ${ }^{93}$ King, Pan and Roberts (2013), Guriev and Treisman (2015), Shadmehr and Bernhardt (2015), Qin, Strömberg and Wu (2017), Gallagher and Miller (2019).
    ${ }^{94}$ King, Pan and Roberts (2017), Munger et al. (2016).
    ${ }^{95}$ Atabong (2017), Rydzak (2019b).
    ${ }^{96}$ See Zaller (1992), Jentleson (1992), Brody (1991), Zaller and Chiu (2000), Bennett, Lawrence and Livingston (2006), Behr and Iyengar (1985), Cohen (1995), Entman (1993), Iyengar and Valentino (2000), Rahn (1993), Cohen (2003), and Bullock (2011). Without elite cues, the relationship between ideological self identification and policy preferences is weak (Malka and Lelkes 2010; Popp and Rudolph 2011). Moreover, in the presence of media disagreement, citizens are more skeptical about leader statements (Iyengar and Kinder 1987; Krosnick and Kinder 1990; Larson 2000; Kuypers 1997; Graber 2002; Paletz 2002; Mueller 1973; Lee 1977; Brody 1991; Rahn 1993; Lupia and McCubbins 1998; Groeling and Baum 2008; Berinsky 2007). For a review, see Chong and Druckman (2007). The effects of persuasive communication quickly decay, which helps explain why political advertisements are most frequent in the weeks before an election (Cook and Flay 1978; Hill et al. 2013; Gerber et al. 2011). Research on the influence of casualty reports on war support reaches similar conclusions (Hayes and Myers 2009; Althaus, Bramlett and Gimpel 2012; Sides and Vavreck 2013).
    ${ }^{97}$ McMillan and Zoido (2004), Lawson and McCann (2005), White, Oates and McAllister (2005), Greene (2011), Enikolopov, Petrova and Zhuravskaya (2011), Adena et al. (2015), González and Prem (2018), Peisakhin and Rozenas (2018). On media effects in democracies, see Gerber, Karlan and Bergan (2009), Boas and Hidalgo (2011), Da Silveira and De Mello (2011), Strömberg (2015), Hayes and Lawless (2015), Arceneaux et al. (2016), Durante, Pinotti and Tesei (2019), Wang (2020).

[^21]:    ${ }^{98}$ Italics in the original. Wintrobe added: "The more general problem with ideology as an explanatory variable is simply that we do not understand it very well."
    ${ }^{99}$ Starr (2004).
    ${ }^{100}$ Besley and Prat (2006), McMillan and Zoido (2004), Corneo (2006), Gehlbach and Sonin (2014), Tella and Franceschelli (2011), Hamilton (2004), Gentzkow, Glaeser and Goldin (2006), Petrova (2008, 2011, 2012). Relatedly, scholars have also attributed the growth of unbiased media to population growth. See, for example, Besley and Prat (2006), Ellman and Germano (2009), and Gentzkow, Glaeser and Goldin (2006).
    ${ }^{101}$ For a formal treatment, see Besley and Prat (2006).
    ${ }^{102}$ Besley and Burgess (2002).
    ${ }^{103}$ Strömberg (2004).
    ${ }^{104}$ Gentzkow, Glaeser and Goldin (2006).
    ${ }^{105}$ Lee (1990), Zhao (1998), Lynch (1999).

[^22]:    ${ }^{106}$ Pei (1994), Hassid (2015).
    ${ }^{107}$ See also Inglehart (1997, 205-209), Inglehart and Welzel (2010, 561), Welzel and Inglehart (2009, 136-138), Welzel (2013, 38, 44, 268-269).
    ${ }^{108}$ Munck (2018) describes Inglehart and Welzel as "[rejecting] the view that political institutions could themselves affect cultural change." His response, which privileges political institutions as causally primary, anticipates ours.
    ${ }^{109}$ See Figure 1.2.
    ${ }^{110}$ Reuter and Szakonyi (2019).
    ${ }^{111}$ Jang and Huang (2019).

[^23]:    ${ }^{1}$ Bratton and van de Walle (1997), Levitsky and Way (2010).
    ${ }^{2}$ See for example, Brady (2002), Brady (2006), Brady (2008), Brady (2012b), Stockmann (2010), Stockmann and Gallagher (2011), Esarey, Stockmann and Zhang (2017), Stockmann (2013), Stockmann, Esarey and Zhang (2018), Roberts (2018), King, Pan and Roberts (2017).

[^24]:    ${ }^{3}$ See also Jones (2019).
    ${ }^{4}$ Coppedge et al. (2017).

[^25]:    ${ }^{5}$ In this, we follow Epstein et al. (2005), who define democracies as those countries with Polity scores between 8 and 10, partial democracies as countries with Polity scores between 1 and 7 , and autocracies as countries with Polity scores between -10 and 0 . Since we are interested in variation across autocracies, we further partition the Polity space into full autocracies and constrained autocracies.

[^26]:    ${ }^{6}$ For more, see Gelman and Hill (2006).

[^27]:    ${ }^{7}$ Enikolopov, Petrova and Zhuravskaya (2011), Yanagizawa-Drott (2014), Adena et al. (2015), Huang (2015b).

[^28]:    ${ }^{8}$ Bratton and van de Walle (1997), Levitsky and Way (2010).
    ${ }^{9}$ Riding (1990).
    ${ }^{10}$ Heilbrunn (1993), Magnusson and Clark (2005).
    ${ }^{11}$ Bratton and van de Walle (1997).

[^29]:    ${ }^{12}$ This account is largely drawn from Yates (1996), Shaxson (2007), Ghazvinian (2007), Heilbrunn (2014), and Carter (2018).

[^30]:    ${ }^{13}$ Le Floch-Prigent (2001).
    ${ }^{14}$ See the investigation by Complement d'Enquête at https://www.youtube.com/watch?v=YBlx6WSz5jg.
    ${ }^{15}$ Bernard (2008).
    ${ }^{16}$ Heilbrunn (2014).
    ${ }^{17}$ Decalo (1998, 165-167).
    ${ }^{18}$ Gardinier (1997).
    ${ }^{19}$ Gardinier (1997).
    ${ }^{20}$ Gardinier (2000).

[^31]:    ${ }^{21}$ Gardinier (2000).
    ${ }^{22}$ Gardinier (2000).

[^32]:    ${ }^{23}$ Because we digitized this newspaper from historical archives, Model 3 reports positive coverage at the page level rather than the article level.

[^33]:    ${ }^{24}$ Kennedy (2009), Arceneaux and Truex (2020).

[^34]:    ${ }^{25}$ McMillan and Zoido (2004), Corneo (2006), Gehlbach and Sonin (2014), Tella and Franceschelli (2011), Hamilton (2004), Petrova (2008, 2011, 2012). This view was articulated by Joseph Pulitzer, who said, "advertising means money, and money means independence." Scholars have also attributed the growth of unbiased media to population growth. See, for example, Besley and Prat (2006), Ellman and Germano (2009), and Gentzkow, Glaeser and Goldin (2006).
    ${ }^{26}$ Lee (1990); Zhao (1998); Lynch (1999). For more on the emergence of China's commercialized media in the reform period, see Brady (2008, 2012b); Bishop (1989); Fan (2001); Donald, Keene and Hong (2002); Jia, Xing and Heisey (2002); Jirik (2004); Lee (2000); Li (2001, 2002); Liu (1996); Mengin (2004); Zhao (2000a,b); Barmé (1999, N.d., 1998); Esarey (2006); Hong (1998); Zhang and Cameron (2004); Bandurski and Hala (2010), and Oksenberg (2002, 197). Scholars have also focused on media "conglomeration" or "convergence" in the 2000s. See, for example, Xiong and Zhang (2018), Shan and Liu (2017), and Yin and Liu (2014).
    ${ }^{27}$ Qin, Strömberg and Wu (2018).
    ${ }^{28}$ For more on how media can facilitate regime change, see Pei (1994) and Hassid (2015).
    ${ }^{29}$ See also De Keersmaecker and Roets (2017, 108).

[^35]:    ${ }^{30}$ People＇s Daily readers are disproportionately CCP members，better educated，wealthy，and politically engaged．
    ${ }^{31}$ The term is jingshi zhongsheng；see Bandurski（2018）．
    ${ }^{32}$ Jiao Guobiao 焦国标（2004）．
    ${ }^{33}$ We draw these data from the China＇s National Bureau of Statistics．
    ${ }^{34}$ Connor（2015）．

[^36]:    ${ }^{35}$ MacFarquhar（2011），Jiao Guobiao 焦国标（2004）．
    ${ }^{36}$ Cheng（2016）．
    ${ }^{37}$ Internal Propaganda Circular［Neibu Tongxun］（2006，16），quoted in Brady and Wang Juntao（2009）．

[^37]:    ${ }^{38}$ Lorentzen and Lu (2018).
    ${ }^{39}$ Fincher (2018), Duxfield and Burrows (2019), Kinetz (2018).
    ${ }^{40}$ Qian Gang (钱钢) (2014).
    ${ }^{41}$ Qian (2013), Huang and Zhai (2013), King, Pan and Roberts (2017).
    ${ }^{42}$ Chen (2019).
    ${ }^{43}$ For more on the rise of "gratitude education" under Hu Jintao and Xi Jinping, see Qian (2020).

[^38]:    ${ }^{44}$ Our measure of internet users per capita begins in 1996. Since China's Polity score has not changed since, it is omitted from Model 5.
    ${ }^{45}$ Kuran (1997), García-Ponce and Pasquale (2015), Jiang and Yang (2016), Tannenberg (2017), Li, Shi and Zhu (2018), Robinson and Tannenberg (2019), Blair, Coppock and Moor (2020).

[^39]:    ${ }^{46}$ See also Truex (2014a), Lei and Lu (2016), and Birney, Landry and Yan (2017).
    ${ }^{47}$ Truex (2014a), Stockmann and Gallagher (2011), Cantoni et al. (2017).
    ${ }^{48}$ This survey was granted "exempt" status by the University of Southern California's Institutional Research Board.
    ${ }^{49}$ Balance statistics appear in the Online Appendix.
    ${ }^{50}$ These are 5.4 and 24.7 minutes, respectively. The results are robust to a wide range of other cutpoints.
    ${ }^{51}$ We drew many demographic questions from Johnston and Quek (2018) and Carter, Johnston and Quek (2018).
    ${ }^{52} \mathrm{http}: / /$ paper.people.com.cn/rmrb/html/2020-07/16/nw.D110000renmrb_20200716_2-01.htm

[^40]:    ${ }^{53}$ To facilitate comparison with the direct questions, we included two list experiments about protest preferences: "I would not be willing to participate in a protest against the government because I am afraid of the consequences" and "I would not be willing to participate in a protest against the government because I support the government's policies.," respectively. There is no evidence that the ordering of direct and indirect questions affects results. In a survey of popular support for Putin in Russia, Frye et al. $(2017,11)$ ran two survey waves. In the first, the direct questions followed the list experiments. In the second, the list experiments followed the direct questions. Their results were "quite robust to this change in issue ordering."

[^41]:    ${ }^{54}$ Blair and Imai (2012).
    ${ }^{55}$ Glynn (2013).
    ${ }^{56}$ Corstange (2009).

[^42]:    ${ }^{57}$ Ceiling effects may occur when respondents' true preferences are affirmative for all nonsensitive items and the sensitive item. Floor effects may occur when all uniformly negative responses are expected for all items. In each case, respondents in the treatment group may fear that answering the question truthfully would reveal their true (affirmative) preference for the sensitive item. For more, see Kuklinski, Cobb and Gilens (1997), Kuklinski et al. (1997), Blair and Imai (2012), Glynn (2013).
    ${ }^{58}$ Satisficing occurs when respondents are overcome with the cognitive difficulty of counting items in a list experiment, and simply report a numerical value they think is reasonable. To check for satisficing, we use a robustness check proposed by Kramon and Weghorst (2012). We asked respondents three nonsensitive questions directly (whether respondents enjoyed hiking, travel, and whether they preferred urban life to rural life), and later asked respondents about these things in a list experiment. When those responses are inconsistent, we define the respondent as a satisficer. Kramon and Weghorst (2012) found a satisficing rate of roughly $40 \%$ in Kenya. Ours is $52 \%$.

[^43]:    ${ }^{59}$ For related arguments, see Tong (2011), Zhu (2014), Hassid (2008), and Hassid (2015).
    ${ }^{60}$ Brady (2008, 110).
    ${ }^{61}$ Steinhardt (2016), Repnikova (2017a, 2018, 2019), Hassid (2011), Polumbaum and Lei (2008), Zhao (2008), and Repnikova and Fang (2019). For a somewhat different view related to Xi Jinping's increasing control of the media, see Tong (2019) and Wang and Sparks (2019).
    ${ }^{62}$ See also Shambaugh (2007), Brady (2012b).
    ${ }^{63}$ Brady (2008, 82).

[^44]:    ${ }^{64}$ Relatedly, Shih (2008) finds that local officials use local newspapers to signal their loyalty to senior officials.
    ${ }^{65}$ See also Lorentzen (2014), Edney (2014).
    ${ }^{66}$ Piotroski, Wong and Zhang (2017, 174-175).
    ${ }^{67}$ Some other prominent liberal outlets do not maintain online archives. These include Southern Weekend, read by $13 \%$ of our survey respondents.

[^45]:    ${ }^{68}$ In terms of reference counts, Jaros and Pan (2017) suggest that provincial newspapers sit between official media and commercialized media. Between 2010 and 2014, Xi was mentioned with increasing frequency in provincial media.
    ${ }^{69}$ To be clear, our total respondent pool was split equally across these three survey wings.

[^46]:    ${ }^{70}$ DellaVigna and Kaplan (2007), Martin and Yurukoglu (2017), Ash and Galletta (2019), Bursztyn et al. (2020), Jamieson and Albarracin (2020), Simonov et al. (2020).

