Incapable of change?

State capacity as a moderating variable in the study of human rights, terrorism and COVID-19

Seung Hoon Chae

Department of Politics and International Relations

Nuffield College

University of Oxford



Thesis submitted in partial fulfilment of the requirements for the degree of DPhil in Politics in the Department of Politics and International Relations at the University of Oxford

June 15th 2022

Word count: 42,269

Abstract

It goes without saying that a well-functioning state is crucial for a government to successfully implement its political will. Indeed, more capable states can discourage rogue agents from committing unauthorised violations of human rights by providing them with greater incentives to abide by the central government's orders. For democracies, this leads to more human rights protection; in autocracies, more capacity presents the dictator with the tools to efficiently implement intentional rights abuses. Importantly, however, the state's ability to deliver the government's intended policy outcomes can also affect the strategic behaviours of political agents. A domestic terrorist organisation, for instance, could accomplish more with its attacks when the state capacity of an intermediate regime is low: because the regime cannot effectively curtail the democratic freedom of its citizens, it suffers from higher audience costs, incentivising the terrorists. In the context of the ongoing COVID-19 pandemic, higher capacity means that governments could target health restrictions upon small sections of society – as opposed to imposing population-wide measures. The state, then, can be much more than a mere executor of the executive's will. Instead, state capacity may be a key strategic consideration in many contexts. Therefore, while the dissertation only presents state capacity's moderating effects for studies of human rights, terrorism, and COVID-19, state capacity is full of explanatory potential. And even though there are notable issues with conceptualising and measuring state capacity in a theoretically relevant manner, the dissertation hopes to encourage more researchers to explore the moderating effects of state capacity.

Acknowledgements

I am deeply thankful to my two wonderful supervisors, Professor Nancy Bermeo and Professor Ben Ansell. I am forever grateful for their guidance and wisdom. I would also like to thank the cadets and faculty at Korea Military Academy. Due to mandatory military service, I spent three years as a lecturer at the Academy. The experience became a turning-point in my research, as it sparked my interest in the state. I am particularly indebted to two colleagues I met in the Army – Professor Wukki Kim and Doctor Hyung Jun Park – with whom I enjoyed the privilege of co-authoring several interesting papers. Finally, I would like to thank my family. I thank my loving wife, Mi-Jin Kim, and my in-laws for their warm and caring support. Above all, I am especially thankful to my parents, Hye Sun Kim and Kyeong Seon Chae, whose endless and unfaltering confidence in my potential granted me the courage and perseverance to complete this dissertation.

Table of contents

Introduction

Chapter 1. A review of the literature

Chapter 2. Are stronger states more humane? A re-evaluation of exemplary villains

Chapter 3. State capacity matters in “the middle”: a new perspective on domestic terrorism

Chapter 4. State capacity and COVID-19 responses

Conclusion

Bibliography

Introduction

In September 2020, the South Korean government announced its decision to pour approximately 1.7 billion USDs into the development of artificial intelligence (Ryu, 2020). Naturally, the military academy where I was undergoing mandatory service was also pressured to make progress in the field of artificial intelligence. One day, the dean of the academic board convened an interdisciplinary faculty meeting. He had good news: the Academy just managed to purchase an expensive robot arm from a private company to showcase its "development" of AI. Worth tens of thousands of dollars, the machine's main function was to make a decent cup of coffee. When I questioned whether this outsourced robot arm is indeed what the central government is ordering its agents to accomplish, the dean, a Brigadier General, replied, "I know this is not ideal, but if *we* don't do something now, the *Ministry of Defense* will soon intervene, and this could harm the academy's interests". At that moment I realised that nobody seriously thought that the robot arm was going to become a pillar of AI development in the military; the arm was merely a prop that they bought to pre-empt an active and invasive set of interventions from above.

The state's ability and willingness to implement a government's policies is critical for the attainment of a political outcome. Specifically, the dissertation will explore two mechanisms through which the state's capacity can affect the fate of a polity. First of all, when the interests of the principal differ from those of the agents, whether a government's initiative translates into tangible outcomes depends crucially on the government's ability to control the state's operatives. A state operates through the coordinated efforts of its

numerous employees. Without a functioning network of state employees, the political will of a government cannot be implemented, as it is often observed in weak or failed states. Yet state employees have spirits of their own, and consequently the political will of the nation often clashes with the individual will of its bureaucrats. As Mitchell (2004) observes, for instance, prison guards in India abused inmates with the expectation of receiving bribes because the state provided weak incentives to follow its rules. Abusing inmates, of course, is far from the Indian government's official policy, but with little means to enforce the state's rules upon its agents, prison guards act according to what suits their own interests best.

Second of all, apart from reducing agency loss, the capacity of the state can also shape the strategic calculations of political agents. When a state's agents are more capable at implementing the government's policies, the political agents who are affected by the state's ability to implement these policies may become inclined to act in ways that are different from how they would have behaved in the absence of this capacity. In Singapore, for example, the government has managed to ban media reports of terrorist incidents. A successful implementation of this policy would severely limit the audience of a terrorist attack; and since terrorists seek to speak to an audience beyond those immediately affected by their attack, a terrorist organisation will have a smaller incentive to carry out a terror attack when it faces such a high-capacity state. The Singaporean state's capacity to restrict the audience of terrorist attacks can, therefore, critically affect the strategy of the terrorist.

Meanwhile, state capacity is a multifaceted and contested concept. In the literature, scholars have variously associated state capacity with one or more dimensions of a state's

power (such as fiscal, coercive, legal, administrative, transformative and political capacity). Some of the more recent additions to this list include intelligence (Winward, 2021) and information (Brambor et al., 2020) capacity. However, as Hanson & Sigman (2021) point out, narrowing the concept down to one of these aspects could unduly reflect normative judgements about what a state ought to do. In light of such concerns, the dissertation will understand state capacity to be broadly defined as the causal strength between a policy and an outcome (Lindvall & Teorell, 2016). By defining state capacity in this way, we could attempt to distance ourselves from any particular perspective on what capacity is meant to accomplish and simply measure the agents' ability to execute their principals' will, no matter what that will is or who the principals are.

The three papers that comprise this dissertation will each investigate how variations in the state's capacity to fulfil policy objectives critically affect human rights, domestic terrorism, and COVID-19. In Chapter 2, the principals wish to minimise unauthorised acts of rogue agents while effectively pursuing the government's ideological and political agenda; the paper will argue that the level of human rights abuse depends crucially on the state's ability to implement those goals. Chapter 3 parts from the principal-agent approach outlined in Chapter 2. Here, the government seeks to minimise its losses from a domestic terrorist attack, while the terrorist decides on the number of attacks based on how well the government manages to do so. The state's capacity to fight terror and control society, the chapter will demonstrate, shapes the behaviour of a domestic terrorist. Finally, Chapter 4 plans to examine the policy efforts to fight a global pandemic. It will be argued that the type of COVID-19 responses pursued vary by the state's ability to craft and administer policies in a credible manner. Citizens and governments act differently, according to the amount of state capacity.

Overview

The dissertation seeks to present state capacity as not only a factor that is necessary for the realisation of certain political outcomes but one that shapes the political behaviours of the agents involved. Specifically, the dissertation consists of three article-style research papers, each exploring areas of research that have experienced limited interactions with the state capacity literature. While human rights, terrorism and COVID-19 may seem like disparate fields of study, the following chapters will demonstrate that state capacity is a crucial moderating variable in all three areas of research.

Chapter 2, published in the *Journal of Peace Research*, builds upon Englehart's (2009) argument that state capacity positively affects human rights. According to Englehart, the primary source of human rights violations is the rogue agents of a state; and by resolving principal-agent problems, improved capacity can reduce the amount of human rights abuse committed by the state. The chapter polishes Englehart's intuition by exploring whether the effect of state capacity can be the same across different regimes: whereas capacity may enable democratic governments to prevent rogue agents from abusing rights, it can also empower autocratic governments to intentionally violate certain rights either to fulfil their ideological delusions or to satisfy Machiavellian needs.

If Chapter 2 demonstrates that a more effective state can facilitate the implementation of a political will, Chapter 3 explores how state capacity and regime type can jointly affect the strategic calculations of a domestic terrorist. In addition to existing mechanisms through which democracy affects terrorism, the chapter introduces the audience restriction (AR) effect. In anocracies, higher capacity tightens control over information, diminishing the audience cost of any given attack, whereas lower capacity loosens the

state's control, resulting in greater audience costs. By contrast, in fully democratic countries with unrestricted democratic practices or in fully autocratic regimes with no freedom at all, the marginal utility of a terror attack is relatively unaffected by state capacity. In the former case, there is a high audience cost even when the capacity of the state is low, whereas less capacity results in little loosening of societal control in the latter. As a result, for domestic terrorism, state capacity matters mostly in the "middle", where there is room for state capacity to affect the amount of audience restriction.

Chapter 4 seeks to understand whether a state's capacity shaped the type of policies it undertook during the COVID-19 pandemic. If certain policies were much more likely to appear in states with enough capacity to implement them, studies that set out to examine the effects of particular COVID-19 responses could suffer from serious endogeneity issues. For example, if contact-tracing was only possible among high-capacity states, scholars should be careful not to hastily attribute fewer infections to contact-tracing, as it may be a different factor characteristic of high-capacity states that caused the infections to fall rather than contact-tracing. This chapter will present a formal argument that governments with higher capacity will pursue COVID-19 responses that are less population-wide and more targeted to specific segments of the population.

Research Methods

In an attempt to avoid making any unwarranted assumptions about what functions the state *ought* to have, the dissertation will follow Lindvall and Teorell (2016) to define state capacity generally as the causal strength between a policy and an outcome. Moreover, it will accept that state capacity may not be measured directly and seek to estimate relevant aspects of capacity through the amount of "key" resources a state wields should it decide

to execute a certain policy (Brambor et al., 2020). Parting from Lindvall and Teorell's proposed approach, however, the dissertation will not assume that all key resources are fungible, because in many cases particular resources must be utilised for particular purposes. For instance, while Brambor, Goenaga, Lindvall & Teorell (2020) claim that information capacity is one such "key" resource that is applicable across multiple policy areas, their particular notion of information capacity fails to reflect the information-asymmetries contributing to the unauthorised human rights violations that Chapter 2 seeks to investigate: because Brambor, Goenaga, Lindvall & Teorell's (2020) concept of information only pertains to that about society, it does not necessarily capture the extent to which the state wields power over its own agents. Consequently, the chapters will each identify the particular set of resources that were key to shrinking the causal distance between the specific policies and outcomes of interest and use information about these resources to infer about the relevant capacity of the state.

In Chapter 2, the measure of state capacity is tax as a proportion of gross domestic product. Compared with other methods of revenue-raising (such as the sale of natural resources), taxation requires a great deal of bureaucratic organisation and control. The state's ability to tax, therefore, is closely associated with the state's control of its own agents (Roberts, 2010), which is the key theoretical mechanism in the chapter. Developing Englehart's (2009) argument, the paper theorises that capacity will affect human rights differently for democracies and autocracies. In democracies, greater capacity means that agents of the state rarely violate human rights against the state's policy. In dictatorships, however, a leader could violate the rights of citizens if it is necessary for maintaining power (Machiavellian motives), or if violence is inevitable for the pursuit of a dictator's ideological agenda (the Grand Inquisitor type). As a result, state capacity's effect on

human rights is rather ambiguous in an authoritarian context. The chapter examines the empirical merit of this hypothesis through a series of cross-sectional statistical analyses upon no fewer than 142 countries in between 1981 and 2002. The main models are a series of ordered logistic regressions that include interaction terms between state capacity and a binary regime type variable. With PTS (Political Terror Scale) scores as the dependent variable, the model includes a number of control variables that are typically included in related studies. The same analysis is also conducted using different measures of human rights from Cingranelli, Richards & Clay's (2014) CIRI index.

In Chapter 3, Hendrix and Young's (2014) latent measure of bureaucratic capacity will be used to operationalise state capacity. Because the core mechanism in Chapter 3 involves the control of information, the state's administrative functions are the most theoretically relevant aspect of state capacity. Among studies of terrorism, however, state capacity is often measured using the Composite Index of National Capacity (CINC) (version 4.0) score (Singer, 1987; Singer et al., 1972). CINC is a measure of the material capability of a nation that is developed using six capability elements: military expenditure, military personnel, energy consumption, iron and steel production, urban population and total population. Therefore, CINC, together with Hendrix and Young's (2014) latent measure of military capacity, will be used as alternative measures of capacity. It must be noted, nevertheless, that a nation's military capability could be endogenous to terrorism. For instance, studies have argued that terrorist attacks could prompt the military's involvement in politics (Aksoy et al., 2015; Bove et al., 2020). This chapter is co-authored with Professor Wukki Kim at Korea Military Academy. Building upon Gaibulloev, Piazza, and Sandler's (2017) formal model, the paper develops a two-player simultaneous game where the government determines the level of counterinsurgency efforts and the terrorist

determines the amount of terror attacks. In addition to existing mechanisms through which democracy may affect terrorism, the paper introduces a fourth mechanism relating to state capacity and regime type: the "audience restriction" (AR) effect. Developing existing observations that terrorists tend to seek large audiences, we assess whether state capacity could affect the audience cost of terrorism in anocracies more than in full democracies and autocracies. Indeed, once the AR is incorporated into the game, the equilibrium outcome becomes contingent on both regime type and state capacity. As state capacity increases, the equilibrium number of terror attacks falls dramatically in anocracies, but less so in fully autocratic or democratic regimes. In other words, state capacity's effect on domestic terrorism matters most in "the middle". Empirically, this theoretical argument is evaluated with a series of negative binomial and Poisson regressions upon a time-series cross-sectional dataset of no fewer than 108 countries from 1971 to 2007. The dependent variable is the number of domestic terror incidents that involved casualties, drawn from the Global Terrorism Database (GTD) (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2019). The main model includes state capacity's interactions with the polity score and with the squared polity score.

Finally, Chapter 4 will primarily use the World Bank's government effectiveness index (Kaufmann & Kraay, 2020) to evaluate whether the capacity of a state determined its response to COVID-19. The government effectiveness index is designed to capture "perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies" (Kaufmann & Kraay, 2020). The index is used because the state's ability to craft and

enforce quality restrictions in a credible manner was crucial in the pandemic context. The theoretical argument is that specific, targeted restrictions are pursued by effective governments, while more generic, population-wide restrictions are sought by the less effective governments. The chapter will develop its theoretical case with a two-player simultaneous game between a government and its citizens. The government chooses a targeted or population-wide restriction with the aim of minimising its loss and cost from COVID-19; in the meanwhile, the citizens decide on a level of social distancing that maximises their utility minus the costs. Empirically, the chapter will examine the theoretical argument with a series of ordered logistic regressions, designed to assess whether government effectiveness increases the likelihood of more targeted restrictions.

Chapter 1.

A review of the literature

Research on state capacity has come a long way since Tilly's (1975) seminal work on state formation. The literature could be classified into largely two complementary efforts. On the one hand, a group of scholars have studied the determinants of rises and falls in state capacity. Perhaps more relevant to the dissertation, on the other hand, is another set of studies that have sought to understand state capacity's implications for development, growth and conflict. By comparison, interest in state capacity was limited in the areas of research the dissertation seeks to address. State capacity is a relatively new variable among human rights scholars, and less than a handful of terrorism studies directly assess the implications of state capacity; studies of COVID-19 have also been limited in their analysis of state capacity, even though the variable had been central to the public health scholarship.

Before moving onto the main literature review, it is important to first clarify the debates on how to conceptualise and measure state capacity. Scholars have variously investigated how different aspects of state capacity are associated with different outcomes. These attempts have engendered a number of subsidiary concepts seeking to capture specific attributes of a state's capability: coercive (Fearon & Laitin, 2003; Geddes, 1996; Skocpol, 1985; Tilly, 1975), fiscal (Besley & Persson, 2009; Geddes, 1996; Levi, 1988; Tilly, 1975), administrative (Centeno, 2002; Geddes, 1996; Huntington, 1968; Skocpol, 1985), transformative (P. Evans, 1995; Weiss, 1998) territorial (Fearon & Laitin, 2003; Migdal, 1988), legal (Acemoglu et al., 2011; Besley & Persson, 2009; Fukuyama, 2004),

infrastructural (Mann, 1986; Soifer & vom Hau, 2008), and political (Acemoglu et al., 2011; Centeno, 2002). Some of the more recent additions to these conceptualisations include intelligence (Winward, 2021) and information (Brambor et al., 2020; M. Lee & Zhang, 2017) capacity.

Many of these concepts are either directly or indirectly built upon Weber's vision of the state as an institution that could create and implement rules (Weber, 1968) as well as Mann's (1984, 2008) distinction between "despotic" and "infrastructural" power, which is explored in greater detail by Soifer (2008, 2013). In their comprehensive review of the literature, Berwick and Christina (Berwick & Christia, 2018) classify these various notions of capacity into extractive, coordination, and compliance capacities, which are often codependent in the context of modern states. Hanson and Sigman (2021) warns, however, that directing our attention to such specific notions of capacity may generate normative biases about the functions of the state. Furthermore, the measurements that are used are often distant from the concepts they seek to capture (Berwick & Christia, 2018).

Since there is no clear consensus on how to appropriately conceptualise and measure state capacity, the dissertation will adopt Lindvall and Teorell's (2016) definition, which broadly characterizes capacity as the causal strength between a policy and an outcome. Moreover, state capacity will be measured indirectly, with the amount of "key" resources that are required for executing a policy (Brambor et al., 2020). This approach also echoes Mann's (1993) definition and measurement of infrastructural power. To clarify, however, the dissertation will not narrow its focus, as Lindvall and Teorell (2016) does, on the state's power to get *society* to do what the state wants. Focusing on a state's control over society would not be appropriate for research that seeks to analyse the state's control over

its own agents (Chapter 2), which, as Soifer (2008) poignantly argues, is a crucial aspect of a state's power.

Studies of the state are mainly rooted in Weberian conceptions of the modern state, where "its administrative staff successfully upholds the claim to the monopoly of the legitimate use of physical force in the enforcement of its order" (Weber, 1968, p. 54). According to Weber, the "purest form" of a modern bureaucracy 1) is personally free and subject to authority only with respect to official duties, 2) is organised in clear office hierarchies, 3) has clearly defined spheres of competence, 4) has free contractual relationships that ensure freedom of selection, 5) has candidates selected on the basis of their technical qualifications, 6) offers fixed salaries as renumeration, 7) is treated as a full time and sole occupation, 8) constitutes a career, 9) is separated from ownership, and 10) is subject to strict discipline and control (Weber, 1968, pp. 220–221). How did such bureaucracies come about? Tilly's (1975, 1992) seminal works historically examine how the demand for warmaking capability led to more centralised, capable states in Western Europe. To Tilly, a central feature of stateness is the state's ability to collect tax. Theda Skocpol is another pioneer in the study of the state. Her study of revolutions delineates how the structure of the state affects revolutions and how revolutions then shape processes of state formation (Skocpol, 1979). In another work with Finegold, Skocpol compares two post-depression government programmes in the United States, concluding that capable administration was critical for the success of the Agricultural Adjustment Act. Meanwhile, not all early works on state capacity are centred around the autonomous state. Migdal (1988), for one, finds that the structure of the state is determined by the society it seeks to control.

Inspired by these earlier works, scholars from various fields have studied the causes and effects of state capacity. To start with, there has been a great deal of research about the origins of state capacity. Centeno (2002) and Thies (2005) find that Tilly's (1975, 1992) mechanism does not sufficiently explain state-building in Latin America. Rather, whether wars can strengthen state capacity is conditional on how the state finances conflict (Centeno, 2002; Queralt, 2019). Indeed, the idea that external conflict leads to state-building has encountered numerous theoretical and empirical challenges. Acharya and Lee (2018), for instance, proposes an alternative theoretical mechanism for European state-building. According to their work, the emergence of territorial states is comparable with of that of economic cartels: states agree upon territorially defined monopolies of governance in order to prevent revenues from dropping. Abramson (2017) also argues that war was not the primary driver of state-building in even European states; instead, economic development and urbanization, he argues, explains why some polities became large territorial states.

Thus, the decision to increase or decrease state capacity is often an economic problem, with distributional consequences (M. Lee, 2021; Suryanarayan, 2017). For instance, because the state's capacity can be utilised by political opponents in the future, the decision to increment capacity depends on the present and future value of public goods (Besley & Persson, 2008, 2009) as well as the amount of group-bias (how much weight is given to the private consumption of the ruling group) (Cárdenas & Tuzemen, 2011). A number of economists also focus on the state's enforcement of property rights, identifying the conditions under which inefficient states are born and perpetuated (Acemoglu et al., 2011; Acemoglu & Verdier, 1998).

Meanwhile, political scientists have formulated state-building as a collective action problem (Geddes, 1996; Levi, 1988) and a prisoner's dilemma (Geddes, 1996). Consequently, state capacity is negatively affected by erosions of inter-personal trust (Rothstein, 2005) and globalisation (Peters, 1996). Democracy's effect on governance is less straightforward, with studies identifying non-linear (Bäck & Hadenius, 2008; Montinola & Jackman, 2002; Sung, 2004), conditional (Charron & Lapuente, 2010; Keefer, 2007; Keefer & Vlaicu, 2008) and multidimensional (McMann et al., 2020) effects. Finally, Ansell and Lindvall (2020) point to variations in non-extractive functions of the state that began to develop in the industrial-era. Here, political conflicts over horizontal (secular-religious, religious-religious) and vertical (central-local) distributions of power could explain the degree to which each area of public service became centralised.

But perhaps more relevant to the dissertation is the wide range of scholarship regarding the implications of better governance. First of all, scholars such as Peter Evans and Linda Weiss have examined how the state could nurture the right conditions for economic development. Evans (1995) posits that the state can actively help modern economies if its bureaucrats maintain both external connections with key businesses and internal coherence. Developing Evans's argument, Weiss (1998) creates a distinction between distributive and transformative capacities of the state. Through her case studies of Taiwan, Japan, South Korea, Sweden and Germany, Weiss concludes that it is transformative, rather than distributive, capacities that promotes development. Akin to the literature on development is a line of research concerning the role of governance for economic growth in general. Evans and Rauch (1999) and Rauch and Evans (2000) find that economic growth has strong associations with the "Weberianness" of the bureaucracy. Using state antiquity as a proxy for capacity, Bockstette, Chanda and Putterman (2002) show that

early state formation works as an advantage for economic growth. Hamm, King and Stuckler (2012) and Hamm and King (2010) find that foreign direct investment's effect on growth depends on the level of state capacity. Meanwhile, Dincecco and Katz (2016) and Dincecco and Prado (2012) argue that the capacity of the state channelled economic performance in Europe.

Then there is the work by conflict scholars following incidents of state failure and collapse in the early 21st century. Fearon and Laitin (2003), De Rouen and Sobek (2004), Fearon (2005), and Sobek (2010) each demonstrate the centrality of state capacity for studies of internal conflict. Braithwaite (2010) argues that weak states are more prone to suffer from the conflicts in neighbouring nations, as they are less capable of resisting the spill-over of affected migrants. DeRouen et al. (2010) find that state capacity was an important factor behind the implementation of 14 different peace agreements. Finally, using a dynamic game-theoretic model, McBride, Milante and Skaperdas (2011) demonstrate that peace is self-enforcing only under sufficiently capable states. By contrast, Thies (2010) challenges the literature's prevalent assumption about the predatory nature of the state. Using simultaneous equation models to address endogeneity issues, Thies finds that state capacity has no direct effect on the onset of conflict but that civil wars do reduce state capacity. More recently, Melissa Lee (2021) examines the distributional consequences of internationally imposed state-building directives, underlining the relevance of side-payments and rents for the functioning of post-conflict states.

The main goal of the dissertation is to study the effects of state capacity in areas of research where the role of the state has not garnered as much interest. For one, state

capacity has only recently gathered the attention of human rights scholars. Initially, scholars sought to understand human rights through economic, political and legal structures. McNamara (1966) argued that poor countries are more susceptible to rights abuse, while Huntington (1968) contended that it is the modernization of states rather than development per se that lead to rights violations. Chomsky and Herman (1979), meanwhile, argued that economic ties between rich and poor nations engender violence in poor countries. Regime type was also considered an important variable (Davenport, 1999, 2004, 2007; Davenport & Armstrong, 2004; Englehart, 2009, 2017; Escribá-Folch, 2013; Mitchell, 2004; Poe et al., 1999). Most studies find democracy to have a positive, linear effect on human rights, but some suggest the possibility of a non-linear relationship (Bueno de Mesquita, Bruce Downs et al., 2005; Davenport & Armstrong, 2004; Fein, 1995; Regan & Henderson, 2002). Lastly, a number of studies such as Henkin (1990) and Bobbio (1996) argue that the main hurdle for human rights is legal, focusing on the role of international organisations and international human rights treaties.

The problem with these earlier works, however, is that there have been no observable improvements to human rights indices over time, despite the spread of democracy, diffusion of international human rights laws and norms, and economic development (Englehart, 2017). Consequently, more recent works take state capacity into consideration (Acemoglu et al., 2010; Butler et al., 2007; Fearon & Laitin, 2003; Sullivan, 2012). Human rights, these studies find, are more prone to violations when the state is unable to protect its citizens.[1] Notably, Englehart (Englehart, 2009, 2017) identifies a strong

[1] A notable exception, however, is Carey et al.'s (2022) recent paper, where the authors find that exogenous positive shocks to state capacity (oil discoveries) can lead to preventative state

negative relationship between state capacity and human rights abuse. The main argument here is that "petty despots" (rogue agents of the state), rather than "exemplary villains" are the main perpetrators of human rights abuse; more capability could prevent petty despots from falling out of line and thus improve the human rights conditions of a country. Chapter 2 will examine whether this argument extends across different types of regimes and types of rights violations.

Among scholars of terrorism, the state has received even less attention. Whereas state capacity is included as a control in most statistical analyses, the literature's longstanding focus has been on regime types (Abadie, 2006; Braithwaite & Li, 2007; Chenoweth, 2010, 2013; Dreher & Fischer, 2010; Eubank & Weinberg, 1994, 2001; Eyerman, 1998; Gaibulloev et al., 2017; Hamilton & Hamilton, 1983; Kim & Sandler, 2020; Lai, 2007; Li & Schaub, 2004; Pape, 2003; Piazza, 2007, 2008; San-Akca, 2014; Weinberg & Eubank, 1994). Yet the literature has also observed substantial variations within same regime types, depending on the various institutional features of each country (Aksoy & Carter, 2014; Chenoweth, 2010; Findley & Young, 2011; Li, 2005; Piazza, 2010; Young & Dugan, 2011).

Few works explore state capacity's effect on terrorism. Blankenship (2018) found that weaker states were more likely to fall into a provocation trap. A less capable government could overreact to a terrorist attack, unintendedly causing more dissidents to empathise with the terrorist's message. Hendrix and Young (2014) argues that different aspects of a state's capacity can affect terrorism differently. Whereas administrative capability may

---

repression.

reduce the attractiveness of terrorism, a stronger military capability could leave dissidents no other option but to resort to terrorism. Apart from these works, there is currently no theoretical or empirical framework to examine how the capability of a state affects terrorism. Chapter 3 will address this gap in the field by theoretically and empirically demonstrating state capacity's crucial role in explaining domestic terrorism.

Finally, the effect of state capacity remains unclear among studies of COVID-19. Before the pandemic, studies of public health had found state capacity to be crucial for the attainment of various policy goals. More capable states, for example, experienced lower infant and child mortalities (Dawson, 2010; Hanson, 2015) and higher life expectancies (Burkle, 2006). Importantly, state capacity improved responses to various epidemic outbreaks (E.-L. Anderson & Beresford, 2016; Brown et al., 2018; Burkle, 2006; Rull et al., 2015; WHO, 2018). By contrast, the effects of state capacity remained ambiguous throughout the pandemic. If some studies argued that enhanced governance led to fewer COVID-19 related deaths (Cepaluni et al., 2020; Serikbayeva et al., 2021; Winkelmann et al., 2021), not all capable states seem to have managed the pandemic successfully (Kavanagh & Singh, 2020; Weiss & Thurbon, 2021). Moreover, while some scholars argue that capable states were able to promptly implement strict restrictions (Capano et al., 2020; González-Bustamante, 2021), Cronert (2020) convincingly argues that capable states were actually prone to postpone drastic measures as much as they can. Chapter 4 will contribute to this debate by examining how state capacity affects COVID-19 responses.

In short, the dissertation speaks to a longstanding cross-disciplinary interest in the state's capability to implement policy. Economists, sociologists, historians and political

scientists have variously explored the causes and effects of state capacity. Further expanding existing discussions about capacity, the dissertation addresses the literature on human rights, terrorism and COVID-19. While state capacity is increasingly recognised as a key variable in the human rights literature, Chapter 2 draws attention to the variations in state capacity's effect according to the type of regime. In the literature on terrorism, state capacity has received even less interest. Although the variable is often used as a control, there are surprisingly few studies directly analysing the effects of state capacity on terrorism. Consequently, Chapter 3 will study how state capacity and regime type could jointly determine the amount of domestic terrorism. Finally, studies of COVID-19 do not present a clear picture on how state capacity affected government responses to the pandemic. Although the public health scholarship finds state capacity to improve the delivery of health outcomes, some of the countries worst affected by the COVID-19 pandemic were also some of the most capable states in the world. Chapter 4 will thus examine state capacity's influence on the pandemic. Specifically, it will explore whether the capacity of the state shaped the type of responses pursued by governments.

Chapter 2.

Are stronger states more humane? A re-evaluation of "exemplary villains"

In general, the human rights scholarship finds stronger states to be more humane (Acemoglu et al., 2010; Butler et al., 2007; Englehart, 2009, 2017; Fearon & Laitin, 2003; Sullivan, 2012). In particular, Englehart's (2009, 2017) recent book and article assert that "petty despots" (low-ranking government agents), rather than "exemplary villains" (dictators and their close allies), are the real culprits behind the abuse of rights. However, some exemplary villains are truly exemplary; providing them with greater powers will only intensify human rights abuses. Indeed, the idea that even dictatorships would better protect rights when stronger contradicts some of the most well-known cases of mass-murder that occurred in powerful authoritarian states, which begs the question: are stronger states invariably more humane?

For democracies, the answer is rather simple: ceteris paribus, a stronger state would protect rights more effectively than a weaker state, as its policing efforts can prevent state agents from committing *unauthorised* acts of abuse. In non-democracies, however, the problem is more complex. More power to the state could, on one hand, protect its citizens from any *unauthorised* abuse perpetrated by "petty despots"; it could, on the other hand, also increase a state's ability to purposefully oppress certain areas of rights by *authorising* violations. As a result of these complications, increased state capacity may not necessarily improve human rights when a regime is non-democratic. Put differently, the literature's apparent discrepancy with common knowledge may have arisen from the fact that existing studies do not test for any interactions between state capacity and regime type.

While state capacity does matter, it may matter differently for dictatorships and democracies.

This paper will carefully assess the hypothesis that state capacity may not yield as positive an effect on human rights in autocracies as it does in democracies. To validate this argument, this paper will conduct thirty-six ordered logistic regressions with a time-series cross-sectional dataset that encompasses no fewer than 142 countries from the period of 1981 to 2002. The empirical analysis provides solid support for the theorised relationship among human rights, state capacity, and regime type. As predicted, state capacity improves human rights in democracies but not necessarily so in autocracies.

In short, "exemplary villains" deserve another close look. Depending on the circumstances, empowering dictators may not be the answer, because "petty despots" are not always the main cause of human rights abuse.

Literature review

Why do states infringe human rights? Initial investigations into this topic found that a state's tendency to violate rights are largely shaped by economic, political, and legal conditions. In more recent times, however, scholars started to wonder whether some states are actually *incapable* of protecting human rights even if they intended to. Enforcing human rights standards requires concentrated law enforcement efforts that are unhindered by information asymmetries; but research finds that weak states have been simply unable to achieve those ends without the proper means. This paper seeks to take one step further in this direction, exploring when state capacity can improve rights and when it cannot. Specifically, it aims to investigate whether state capacity enhances human rights prospects regardless of regime type. Although some scholars have already made note of the

possibility that state capacity's effects on human rights are contingent on the type of regime, empirical evidence in this area has been far from satisfactory.

Earlier studies of human rights tended to focus on three structural variables: economic development, regime type, and human rights legislation. For many scholars, the economic well-being of a nation was considered necessary for the pursuit of human rights. McNamara (1966), for instance, argued that poor countries are more prone to human rights violations, since the violation of rights is an innately "backward" behaviour. Huntington (1968) suggested that the relationship between development and human rights is a little more complex than that. In his view, it was the modernization of states that put human rights under risk, rather than poverty per se. Thus, the very poor and the very rich nations are the least susceptible to violations of rights, whereas those in the middle – struggling to modernize – are more vulnerable. In an altogether different approach, some scholars found the variation to arise from external economic relationships among countries. For example, Chomsky & Herman (1979) argued that economic ties between rich and poor countries may end up creating more violence in poor nations, as the less well-off seek to formulate conditions receptive to foreign investment.

Another often explored structural element is the political conditions of a nation. In particular, regime type was considered a central variable. In autocracies, the rights of citizens are often violated in the interests of the authoritarian leadership (Davenport, 1999, 2004; Escribá-Folch, 2013; Poe et al., 1999). Different types of nondemocracies – military, totalitarian, and authoritarian – have all been found to be prone to human rights violations (Mitchell, 2004, p. 15). Democratic governments, to the contrary, are more accountable to its citizens; and the costs of violating human rights are greater than they are in

autocracies. Accordingly, scholars have found democracies to be more protective of human rights than dictatorships. For instance, Poe & Tate (1994) and Poe, Tate & Keith (1999) point to a positive, linear relationship between human rights and democracy, whereas Davenport (1999, 2004, 2007) and Davenport & Armstrong (2004) find the level of repression to be significantly lower in democracies than in autocracies. Englehart's (2009, 2017) quantitative studies also find that the Polity IV score has positive, linear effects on human rights, specifically political and civil rights.

A few scholars have suggested more complex relationships between regime type and human rights. First of all, it has been argued that specific dictatorships benefit from violating particular types of human rights. As an example, Escriba-Folch (2013) argues that there exist two different types of repression – restrictions on civil rights and violation of physical rights – and that the effectiveness of each depends on the type of threat a dictatorship faces. Secondly, echoing Huntington's argument that "modernization", rather than poverty itself, is the cause of human rights violations, Fein (1995) finds that more murder occurs "in the middle," when a country is in between a democracy and an autocracy. Similarly, Regan & Henderson (2002) argue that more human rights violations occur under hybrid or mixed regimes, while Davenport & Armstrong (2004) and Bueno de Mesquita et al. (2005) suggest that democracy could have non-linear effects on human rights. These scholars explore the possibility of there being a "tipping point", or a minimum level of democracy from which human rights are well-kept.

Finally, a group of scholars have emphasized the role of legal devices in the pursuit of human rights. Henkin (1990), as an example, claims that the concept of human rights has become "universal as well as international" and argues that the domain of rights no longer

belongs to nation states alone. Relatedly, Bobbio (1996) asserts that the primary challenge in the international human rights regime is "legal". As with Henkin, Bobbio is convinced that human rights has now achieved "universality" (Bobbio, 1996, p. 12). These studies emphasise the role of international organisations, as their central concern lies with the enforcement of international human rights laws.

These earlier approaches suffer from a crucial drawback: no matter how prosperous and democratic a country is, or how well-abiding it is to international legal norms, a state might be simply incapable of enforcing human rights. There is a significant variation in the ability of states to implement domestic and international regulations. From failed states like Somalia to strong, bureaucratic states like the Republic of Korea, states can be placed along a wide spectrum of capabilities. And, as Englehart & Miller (2014) demonstrate through their analysis of women's rights, enforcing drastic cultural and social change has not been easy for even powerful states. Without the right amount of state capacity then, protecting human rights can be a greater challenge. Variations in state capacity could lead to meaningful differences among states in their protection of human rights, since legal and political commitments cannot be taken seriously in states with low capabilities (Englehart, 2017, p. 16).

Indeed, a quick glance at the history of human rights records will show that the state needs more than just economic prosperity, democracy and regulations to protect rights. No matter how economically developed or democratic a country is, or how well international and domestic laws articulate provisions for protecting human rights, citizens could still remain prone to violence if the state cannot enforce rules. Despite global economic growth, the spread of democracy and the large amount of human rights legislation created

since the end of World War II, neither of the two main human rights indices (PTS scores and the CIRI physical integrity index) improved over time (Englehart, 2017). While Fariss (2014) argues that this apparent stagnation in human rights progress is actually due to a "systematic change" in the way human rights indicators are measured, a large body of cross-national studies maintain that the spread of international human rights treaties and legislation alone has not been effective at improving human rights worldwide (Englehart, 2009; Hafner-Burton & Tsutsui, 2007; Hathaway, 2002; Hill, 2010; Keith, 1999; Neumeyer, 2005). Taken together with the contrastingly positive findings of qualitative researchers (Brysk, 2005; Lutz & Sikkink, 2000; Risse et al., 1999), these studies indicate that the structural variables explored by some of the earlier studies in the literature may improve human rights in some areas but not necessarily in others; they demonstrate that "human rights successes are not inevitable; some countries are better candidates than others" (Hafner-Burton & Ron, 2009, p. 368).

More recent studies have, therefore, included state capacity in their analyses. Where state capacity was included as a variable, scholars have found it to affect human rights in a positive direction. In their cross-national study of sexual violence, Butler, Gluch & Mitchell (2007) find that sexual violence was lower when agents of the state were subject to tighter control. While not addressing state capacity per se, the authors shed light on the importance of a state's control over its agents, which is a crucial component of state capacity. Analysing civil conflicts, Acemoglu, Ticchi & Vindigni (2010), Fearon & Laitin (2003), and Sullivan (2012) suggest that human rights violations persist when state institutions are not strong enough to end conflict. In the absence of strong, centralised states, property rights are not properly enforced, tax revenues are not sufficiently collected, and public goods are not well provisioned. In such circumstances, state and

non-state actors alike have incentives to use violence to secure property, tax, and public goods. Finally, time-series cross-sectional analyses from Englehart (2009) and Englehart (2017) also suggest that state capacity can reduce the likelihood of human rights violations. The author argues that, since most of the violations are caused by "petty despots", a more capable state can better protect rights by circumscribing these everyday extortions.

It must be recognised, however, that state capacity can be a double-edged sword. As Foweraker & Landman (1997, p. 3) mention in their analysis, we must remember that "citizenship both depends upon and is threatened by the state, because what the state gives it can also take away". As a matter of fact, 71% of all mass killings in the last 200 years were carried out by governments of three arguably very capable states: Nazi Germany, Stalin's USSR, and China (Easterly et al., 2006). So, when are capable states protective of human rights, and when are they destructive? This paper will argue that state capacity's effect on human rights depends on the type of regime: whereas more capable democracies become better at protecting human rights, this is not necessarily true for more capable autocracies. Although some scholars may have already noted this possibility, to my knowledge there has not been any attempt to *empirically* assess this claim on a global scale. In other words, while the human rights implications of democracy and state capacity have each been studied in the past, there has been a lack of attention towards the possibility that state capacity and regime type could *jointly* affect human rights.

In sum, while the literature has come a long way, not enough research has been done to reveal how regime type could affect state capacity's effect on human rights. Considering the high number of human rights abuses that occurred in arguably some of the most

powerful autocracies in history, there is reason to suspect that an interaction between state capacity and regime type will beget interesting and meaningful results.

Exemplary villains and petty despots: authorised vs. unauthorised rights abuse

Englehart (2017) makes a good example of the state of the literature. The author argues that, controlling for other structural factors like economic development and the level of democracy, state capacity can positively affect human rights, because the gist of human rights violations are committed by "petty despots" rather than "exemplary villains". "Much of the human rights abuse", Englehart argues, "is committed not by exemplary villains but by petty despots, including grasping landlords, corrupt minor officials, local party bosses, gangs of armed thugs and bigoted individuals" (Englehart, 2017, p. 3). A stronger modern state, with tighter control over its bureaucracy and a monopolisation of violence, can thus significantly improve human rights by policing these unauthorised acts of abuse. Consequently, Englehart (2017, p. 3) places great emphasis on a state's ability to police its agents and enforce its laws. A state that fails to effectively keep petty despots in check ends up having high levels of abuse.

However, Englehart (2017) depicts only part of the picture. Human rights violations can be either authorised or unauthorised by the state. Englehart (2017) mainly deals with *unauthorised* human rights violations that are perpetrated by "petty despots": low-level government bureaucrats, law-enforcement officers and military personnel.[2] States that can enforce rules effectively will be better at preventing these misbehaviours. Yet a key

[2] Note that the scope of the analysis does not extend to human rights violations caused by non-state agents.

distinction between a dictatorship and a democracy is that, unlike a democracy, a dictatorship also has certain types of human rights it deliberately violates. As opposed to *unauthorised* human rights violations, these *authorised* human rights violations occur because the government – or an "exemplary villain" – wishes to do so. Mitchell (2004) presents two reasons why a government might intentionally seek to violate human rights. First, a dictator may have Machiavellian motives. To mitigate threats against his tenure, a dictator could employ necessary forces against his foes and their (potential) supporters. Second, a dictator of the "Grand Inquisitor" type may utilise force to pursue his ideological agenda (Mitchell, 2004). For example, it is well documented that North Korean women have been forced to abort children of mixed-race, to ensure that the regime could maintain what is believed to be Korea's ethnic purity (Myers, 2010; UN Human Rights Council, 2014). Such type of rights violations should be considered "a policy" (Mitchell, 2004, p. 48). It is an agenda that is dexterously carried out by a regime in order to achieve a goal considered crucial by its rulers, and state capacity will not necessarily moderate it.

Table I. Authorised versus unauthorised violations

	Authorised violations	Unauthorised violations
Root cause	"Exemplary villains" (Principals)	"Petty despots" (Agents)
Principal-Agent interests	Aligned	Not necessarily aligned
Examples	Machiavellian motives Grand Inquisition	Looting Demanding bribes

What follows is that, while state capacity does matter, it matters differently for dictatorships and democracies. The two categories of rights abuse (*authorised* and *unauthorised*) are affected differently by changes in state capacity, and this discrepancy

renders state capacity's net effect to vary by regime type. While state capacity decreases *unauthorised* human rights violations in both dictatorships and democracies alike, it does not necessarily reduce *authorised* human rights violations that are pursued by autocracies. *Unauthorised* violations become infrequent as a state becomes more powerful, because the government can resolve principal-agent problems by effectively gathering information about any unwanted wrongdoings and punish them accordingly. This aspect of state capacity's effect on human rights has been well documented by the existing literature. The effect on *authorised* human rights violations, on the other hand, has not been sufficiently explored. The argument presented here in this paper is that a more capable authoritarian regime will more adroitly execute *authorised* violations. Thus, resolving a dictator's agency loss may exacerbate some areas of human rights even while improving rights in others. To bring us back to North Korea's example, a stronger North Korean regime may become able to more efficiently detect the so-called "impurities" created by mixed-ethnicity children and murder these unborn babies without failure. The existence of such purposeful human rights violations resonate the words of Rummel, who writes that "power kills; absolute power kills absolutely" (Rummel, 1997, p. 9).

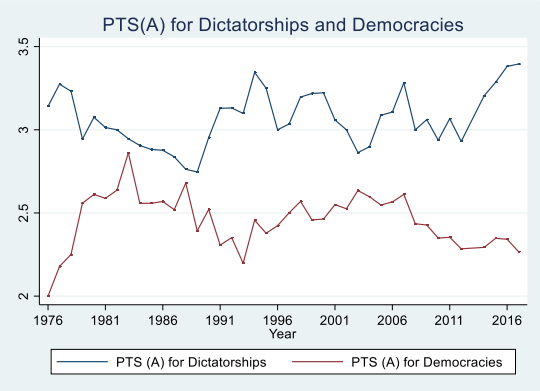
Put together then, the effects of state capacity for human rights would be contingent on the type of regime. For democracies, human rights are better in all respects when a state is more capable. For dictatorships, however, the effect of state capacity is rather ambiguous: it may improve rights that had unintentionally been violated under a weaker state, but enhanced state capacity will not necessarily improve rights that a state deliberately wishes to infringe. (Table II)

Table II. Human rights violations by regime type and state capacity

	Democracy	Dictatorship
Low Capacity	Authorised violations: infrequent Unauthorised violations: frequent	Authorised violations: infrequent Unauthorised violations: frequent
High Capacity	Authorised violations: infrequent Unauthorised violations: infrequent	Authorised violations: frequent Unauthorised violations: infrequent

What follows is that state capacity's effect on human rights is conditional on the type of regime. In democracies, the relationship between state capacity and human rights violations is strictly negative, since the majority of rights abuses are *unauthorised* in nature. On the other hand, the association is rather complex in autocracies. Firstly, if the dictator is a "Grand Inquisitor" type , infringing rights for the sake of imposing his ideals, improved state capacity would only exacerbate human rights conditions by providing the despot with the administrative means to accomplish his ends. Secondly, if the autocratic leader has more Machiavellian inclinations, he will seek to minimise both *authorised* and *unauthorised* violations, since "cruelty is not pursued for any other goals or for its own sake, and it must be handled carefully as it carries potential costs in political support" (Mitchell, 2004, p. 29). In this case, the effect of state capacity is ambiguous and context-dependent. In times when the Machiavellian dictator finds violence crucial for his own survival, state capacity may increase the overall amount of human rights abuse. But even that would depend on that particular nation's leniency towards *unauthorised* human rights violations, since some nations may simply have naturally higher levels of human rights violations, whereas others are less inclined to abuse rights in the first place.

Figure 1. PTS (Amnesty International) and PTS (U.S. State Department) yearly trajectories



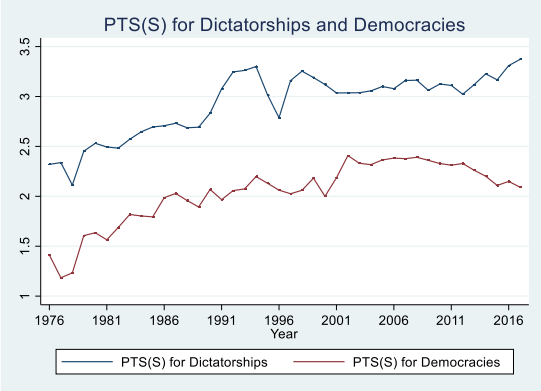
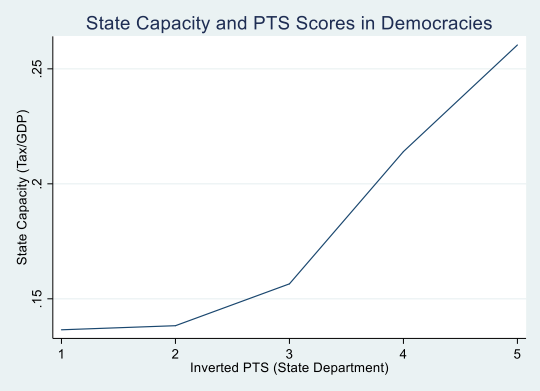


Figure 2. State capacity and physical integrity violations by regime type



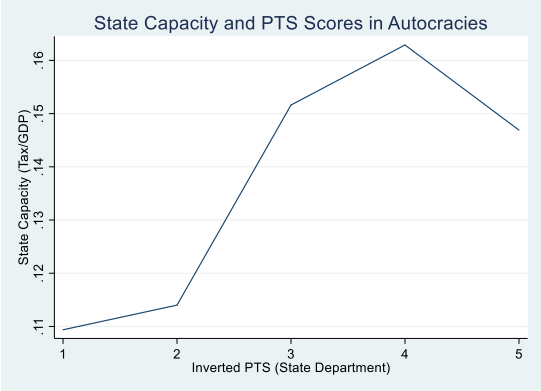
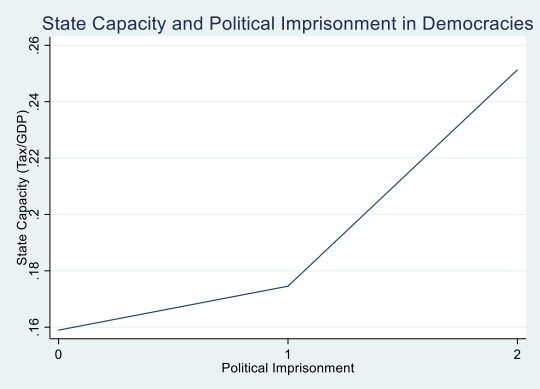
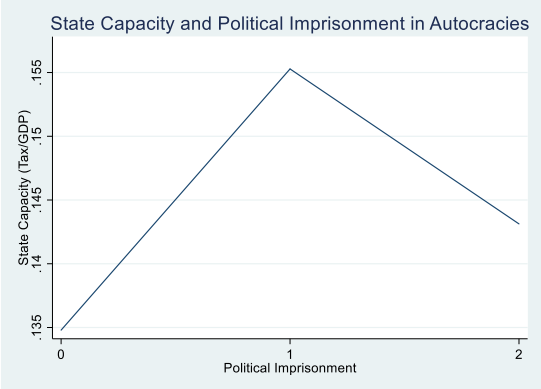


Figure 3. State capacity and authorised violations by regime type





Empirically, even a cursory glance at the human rights data indicates clear contrasts between dictatorships and democracies. To measure "state terror", or "violations of physical or personal integrity rights carried out by a state (or its agents)", Gibney & Dalton (1996) created the Political Terror Scale (PTS). As it is the most commonly used measurement of human rights, Gibney's most updated PTS scores will be mainly used for creating the summary statistics (Wood & Gibney, 2010, p. 369). Because the dependent variable of interest is the level of *respect* for human rights, rather than the amount of human rights *violations*, the PTS scores have all been inverted so that higher scores indicate better protection of rights. In addition to the PTS, two indices from Cingranelli, Richards & Clay's (2014) CIRI index will be analysed. Another widely used indicator of human rights, the CIRI has the upside of having coded different types of human rights violations separately. Using the CIRI will thus make it possible to compare the patterns of *authorised* versus *unauthorised* human rights abuses.

Overall, PTS scores exhibit some interesting patterns. First of all, the time trends differ by regime type (Figure 1). Gibney created two PTS scores using different sources: Amnesty International and the U.S. State Department. Figure 1 shows that, for both of these, the time trends are not the same in democracies and in dictatorships. To give an example, according to both indices, human rights from 2011 onwards improved in democracies but deteriorated in dictatorships. These diverging trends add weight to the suspicion that state capacity could have different implications for human rights depending on the type of regime. Furthermore, as summarised in Figure 2, when PTS scores are juxtaposed against state capacity, the relationship differs depending on the type of regime. Among democracies, state capacity correlates positively with the inverted PTS. Among non-democracies, however, the relationship is more complex. The most capable states are

not necessarily the most respectful of its citizens' rights.

While every measurement of rights violations used in this article is a mixture of both *authorised* and *unauthorised* ones, we could expect some indices to vastly reflect *authorised* violations and others to mostly represent *unauthorised* ones. If so, human rights indices can be further disaggregated into rights most likely violated by the state and rights less likely to be violated by the state, in order to make some initial assessments about this article's proposed theoretical argument.[3] For one, political imprisonment is a rights abuse that is likely to have been *authorised* by the state. To imprison a large group of citizens for political reasons requires the combined efforts of a state's judiciary and its prison system; it is thus unlikely to be the product of some rogue agents. By comparison, women's social rights (such as freedom from female genital mutilation) are more often than not violated by rogue agents, because most of the time the state legally bars its agents from doing so: according to the CIRI data, women's social rights are legally protected in approximately 83% of country-years in the sample.

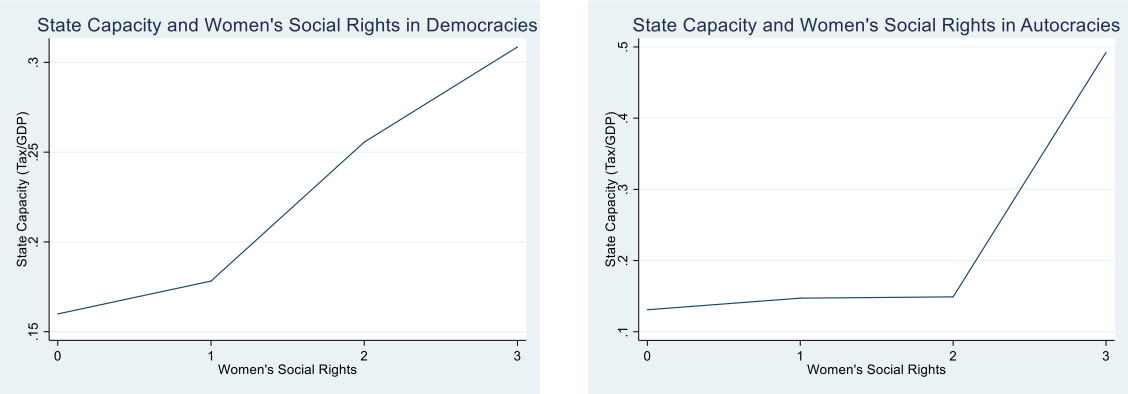
What do these indices tell us about the theory at hand? *Authorised* rights violations tend to show different patterns by regime type. As seen in Figure 3, no political imprisonment (2) is associated with higher state capacity in democracies but not in autocracies. To the contrary, *unauthorised* rights abuses tend to drop where state capacity is higher, regardless of the type of regime. Figure 4 illustrates how the social rights of women are correlated

[3] Figures 2, 3, 4 and 5 use a Polity score of '0' as the cut-off point. Alternatively, it is possible to use '-6' as the cut-off point, since the Polity project defines regimes with scores lower than '-6' as autocracies. However, doing so does not meaningfully alter the shapes of the graphs presented in Figures 3, 4 and 5.

with higher state capacity in both democratic and authoritarian regimes.[4] In both cases, the average level of state capacity is higher in countries with greater social rights for women.

As such, the descriptive statistics substantiate the theoretical conjecture that stronger authoritarian states can curb *unauthorised* violations of human rights but not necessarily reduce infringements that are *authorised*. If, as Englehart (2017) argues, a capable authoritarian state has better chances of protecting human rights than a failed state, it is unlikely for such variations to arise from the type of regime or from the kind of human rights. There is good reason to suspect that the relationship between state capacity and human rights is more complex.

Figure 4. State capacity and unauthorised human rights violations by regime type



[4] Scores above '0' measure the extent to which women's social rights were violated by state agents, even though the state's laws explicitly banned such actions. '1' represents gross violations, whereas '3' represents high respect for women's social rights. Country-years that were given '0's are ones that lack even legal provisions for women's social rights.

Re-evaluating exemplary villains

The literature in its present condition is thus missing a critical distinction. It has not put to test the possibility that state capacity can have different effects on different types of rights in different types of regimes. To fill this gap, this article will empirically evaluate state capacity's effects on diverse types of rights by the type of regime. It is expected that state capacity will reduce both *authorised* and *unauthorised* human rights violations in a democracy but (if at all) only partially improve human rights in a non-democracy. In an effort to validate this argument, this article will conduct a series of regressions on a global time-series cross-sectional dataset that encompasses no fewer than 142 countries from the period of 1981 to 2002. Ordered logistic regressions will be employed, because the dependent variables are categorical; and Huber-White standard errors will be used to mitigate for the fact that the dataset was not drawn from a random sample; finally, year dummies will be included in the regressions to account for global trends in human rights protection, but these will not be displayed in the tables. The findings provide strong support for the hypothesised relationship among human rights, state capacity and regime type.

Dependent variable: human rights

The dependent variable will be measured with two of the most widely used datasets in the field – PTS and CIRI.

Gibney's most updated PTS scores will be used as measurements of overall, aggregate levels of human rights violence in a given country-year (Gibney & Dalton, 1996). The PTS will be used here instead of CIRI, because Cingranelli, Richards and Clay's (2014) dataset uses a potentially problematic technique to aggregate different rights into one

index: by summing up the frequency of different categories of rights abuse, the dataset's aggregation method leads the user to assume that "an act of torture is equivalent to a disappearance or that an extrajudicial killing is equivalent to an instance of arbitrary imprisonment" (Wood & Gibney, 2010, p. 377). Moreover, as the most widely used dataset in the human rights scholarship, PTS scores are known for their consistency. Having had Mark Gibney as its principal coder since 1984, the coding process reduces the chance of new subjective biases being introduced over time (Wood & Gibney, 2010, p. 372). Gibney and Dalton created two types of PTS scores based on two different sources: the U.S. State Department's annual reports on human rights and Amnesty International's annual reports. As the two measurements will have different biases, both of them will be used in the analyses. For ease of comparison with other human rights indices, the PTS scores here are inverted, so that high scores represent improved human rights conditions.

To investigate the independent variable's impact on specific types of human rights, empirical discussions will also employ the CIRI dataset (Cingranelli et al., 2014). Like PTS, CIRI measures "state terror", and, like PTS, it is coded using the U.S. State Department's annual reports on human rights and Amnesty International's annual reports. What makes the CIRI data stand out is that it allows us to look into specific *types* of rights. CIRI separately codes a number of different human rights violations: disappearances, extrajudicial killings, political prisoners, torture, freedom of movement, worker's rights, and women's economic, social, and political rights. For the purposes of this article, the analyses will specifically deal with CIRI data on extrajudicial killings, political prisoners, torture, worker's rights, women's economic rights, women's social rights, and women's political rights. For all CIRI indices, higher scores indicate better human rights conditions.

Thus, in total, the empirical analysis will use eight different measures of human rights as its dependent variable: PTS, extrajudicial killings, political imprisonment, torture, worker's rights, women's economic rights, women's social rights, and women's political rights.

Independent variable: state capacity

As with many political concepts, state capacity is a fuzzy and complex idea that is hard to operationalise. This chapter will use a measure that is widely used by scholars of state capacity: tax as a proportion of gross domestic product (Fauvelle-Aymar, 1999; Lieberman, 2002).

In the state formation literature, the collection of tax is considered a major task of the state that requires a great deal of agency. During the process of state-building, a state's ability to raise a strong military (and thereby protect its territory) is highly dependent on its capacity to collect tax revenue (Brewer, 1989; Hintze, 1975; Tilly, 1975, 1992, 2003). Importantly, as opposed to other methods of raising revenue (such as the sale of natural resources), the collection of tax requires extensive use of a state's bureaucratic apparatus, since states with less agency loss and greater transparency will be able to collect more of its revenue through tax (Roberts, 2010). As such, the state's ability to collect tax is a core measure of its capability to maintain control over its agents, which is the chapter's proposed theoretical mechanism through which the state's capacity can affect human rights. It should be noted that measuring capacity with tax as a proportion of GDP has certain limitations. Importantly, the measure may reflect a government's intent or ideological proclivity to collect taxes, which has little to do with the government's control over its agents. Nonetheless, because this measure of capacity has been widely used in

existing works on human rights, using it will also allow for maximum comparability with the literature. For instance, because this article's argument directly addresses that of Englehart (2009, 2017), using the same measure of capacity would be instrumental for comparing the results. The chapter will use the best estimates of tax as a proportion of gross domestic product drawn from the World Bank's World Development Indicators, the African Development Indicators, IMF Country Reports, and the Asian Development Bank.

Interaction variable: autocracy

Whereas regime type has been included in many previous quantitative studies, to the author's knowledge it has never been used as an interaction variable. To put it differently, existing works have not fully explored the possibility that state capacity may affect human rights differently depending on whether a country is democratic or not. To facilitate comparisons with preceding works in the literature – Englehart (2009, 2017) in particular – this article will create a dichotomous "autocracy" variable from the combined Polity IV score. The variable is created as a dichotomous '0', '1' variable so that it can be interacted with the continuous "state capacity" variable.

As this article is transforming the continuous Polity IV scale into a dichotomous variable, the precise cut-off point from which a country is classified as an autocracy may significantly affect the results of the statistical analyses. While no method may completely overcome this issue (as indeed the authors of the Polity IV scale never intended it to be used as a dichotomous measure), this article will use two different definitions of autocracy to mitigate the problem. In order to increase the number of autocratic countries in the sample, one set of analyses uses an "autocracy" variable that classifies countries as

autocracies if their Polity IV scores fall below '1'. However, since an autocracy as defined by Polity IV is, strictly speaking, a country whose Polity IV score falls below '-5', another set of analyses will use an "autocracy" variable that classifies a country-year as "autocratic" if the Polity IV score is less than '-5'.

By interacting "state capacity" with these "autocracy" variables, the regressions will reveal whether state capacity affects human rights indices differently in autocracies.

Control variables

A couple of control variables will be included so that the empirical analyses reflect important developments in the human rights literature. All statistical models will control for civil and international conflict, level of economic development and relations with the international human rights regime. In addition, the models will also include the (logged) size of a country's population to adjust for the event-based nature of Amnesty International and State Department reports. Finally, the models control for a country's amount of resource rent, since tax as a proportion of GDP may not sufficiently reflect the capacity of rentier states.

Conflict (both domestic and international) has been found to significantly affect human rights abuse (Poe et al., 1999; Poe & Tate, 1994; Tilly, 2003). Not only can the combatants commit abuse against civilians, but even non-combatant state agents may take advantage of the anarchy and abuse members of the public for their own private benefits. This article will use Lacina & Gleditsch's (2005) dataset on battle-deaths to account for this variance rather than use dummies for the presence of war, since the "number of deaths" data could also cover variations in the intensity of conflict.

The level of economic development (measured here as the logged GDP per capita in constant 2000 US dollars), has also been found to strongly affect human rights in a positive direction. Economic development decreases economic grievances, which is often a cause of petty crimes. Economic development also allows the government to prevent political challengers from arising, thereby diminishing an incumbent's need to resort to violence.

In addition, as scholars of the legalist tradition argue, the level of human rights in a country is (at least partially) affected by that country's exposure to international human rights laws. Following Englehart (2009), the models will include two variables to account for this variation. First, they will control for engagement with the international community using Pevehouse, Nordstrom & Warnke's (2003) intergovernmental organizations (IGOs) data. Countries are given different scores according to their level of engagement with IGOs: observers are given a score of '1', associates are given a score of '2' and full members are given a score of '3'. The scores are then added up for each country-year and divided by that year's global average to create an "IGO involvement" variable. Second, a dummy variable on whether a country, in a given year, had ratified the first optional protocol of the International Covenant on Civil and Political Rights (ICCPR) will be included in each model. The ICCPR's first optional protocol allows individuals from each signatory country to file complaints to the UN Human Rights Council when their rights have been violated. Signing the protocol thus strongly binds a country to international human rights standards.

Finally, the models will control for the logged population size and resource rent. The logged population size variable is included to adjust for attributes of each dependent

variable. Population size, for instance, may affect the number of human rights abuses recorded by both the State Department and Amnesty International. Meanwhile, resource rent (as percentage of GDP) should account for different sources of state revenue. For example, a rentier state with high resource revenues may not have high levels of tax relative to its GDP but could nevertheless be highly capable.

Empirical analysis

In the main analysis, eighteen ordered logistic regressions have been developed to empirically evaluate this paper's argument. The statistical models lend firm support to the hypothesised relationships among human rights, state capacity and regime type.

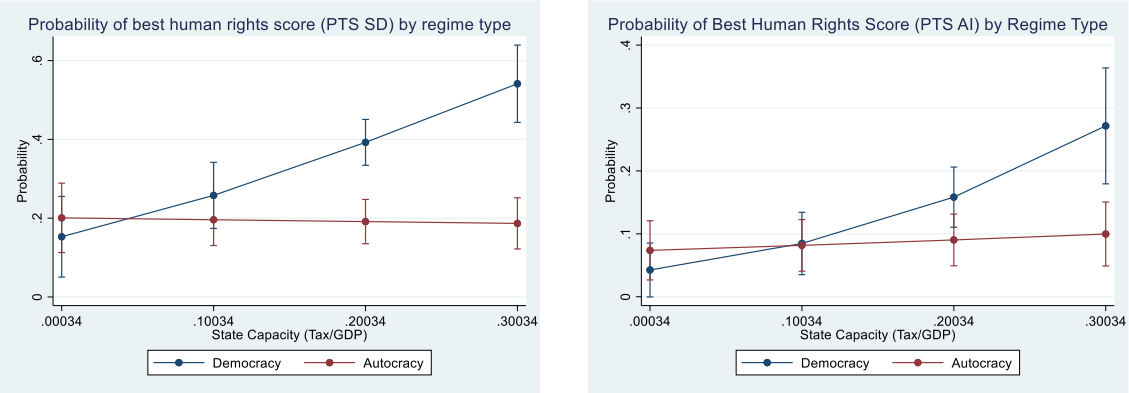
For this article's theoretical argument to stand, state capacity's effect on the *overall* level of human rights should be positive for democracies but not necessarily so for autocracies. In addition, the proposed theory will gain further empirical ground if state capacity's relationship to different types of *specific* human rights violations – extrajudicial killing, political imprisonment, torture, worker's rights, women's economic rights, women's social rights, and women's political rights – also exhibit disparities between democracies and non-democracies. Therefore, Models 1, 2, 10 and 11 have been designed to evaluate state capacity's effects on *overall* levels of human rights violations, while the other models have been formulated to measure state capacity's impact on specific types of human rights. The difference between Models 1 to 9 (Table III) and Models 10 to 18 (Table IV) is that an "autocracy" in Table III is defined as a country whose Polity IV score is below or equal to '0', whereas an "autocracy" in Table IV is more narrowly defined as "institutionalised autocracies", whose Polity IV score is under or equal to '-6' (Center for Systemic Peace, 2018).

Overall levels of human rights

Empirical analyses regarding overall levels of human rights (inverted PTS scores) reveal that state capacity's positive effects are rather limited in authoritarian regimes. In all models, the interaction terms between state capacity and autocracy have negative coefficients, even though the coefficients on state capacity are positive and consistently significant at the 5% level.[5] Put together, the results imply that the positive effects of state capacity on human rights are reduced when a regime is autocratic. As a matter of fact, in Model 1, state capacity makes PTS (State Department) scores *even worse* in autocracies. In Model 1, the effect of state capacity is '8.53' for countries with Polity IV scores above '0' but '-0.39' for those with Polity IV scores below or equal to '0'. Even when we apply a stricter definition of autocracy (*Polity IV* ≤ -6), the negative effects of authoritarianism on state capacity's influence on human rights remains noticeable. According to Model 10, the effect on state capacity is '8.69' for countries with Polity IV scores that are higher than '-6' but '0.16' for countries with Polity IV scores under or equal to '-6'. In both models, the interaction terms are significant at the 1% level. As seen in Models 2 and 11, the effects are more modest and less significant when PTS (Amnesty International) is used instead as the dependent variable. Still, the directions of the coefficients are in line with those of Models 1 and 10.

[5] To address concerns about multicollinearity, I conducted variance inflation factor tests on all models. None of the models flagged a problem.

Figure 5. Marginal effects of state capacity on PTS scores



As the coefficients of ordered logits are not readily interpretable, marginal effects will be used here to explain the impacts of state capacity in interaction with regime type. According to Model 1, a standard deviation ('0.10') around the mean value of state capacity ('0.19') increases the probability that a country's inverted PTS score is highest (best human rights record) by '0.281' in a democracy but *reduces* it by '0.058' in an autocracy. According to Model 2, a standard deviation around the mean value of state capacity increases the probability of receiving the highest PTS score by '0.179' in democracies but only by '0.018' in non-democracies. Figure 5 provides visual summaries of these marginal effects across a wider range of state capacity. It is worth noting how state capacity's marginal effects compare with those of other variables explored in the literature. In Model 1, for instance, a standard deviation ('1.56') around the mean value of Log (GDP/capita) ('7.42') results in a '0.148' increase in the probability that a country has the highest human rights score (PTS), which is smaller than state capacity's effect in democracies.

Specific types of rights abuse

Since the CIRI dataset separately codes specific types of rights abuse, it is possible to take a closer look at how state capacity comes into play in different areas of human rights. Interestingly, models whose dependent variables are *specific* types of human rights display patterns comparable to those of the above models that analyse *overall* levels of human rights. Among regimes that are democratic, state capacity has consistently positive effects across different types of rights. By contrast, in non-democratic regimes, the effects of state capacity are rather ambiguous. Put together, these results add further support to the theory at hand. Across diverse types of human rights, state capacity has positive effects in democracies but not necessarily in autocracies.

The effect of state capacity is positive when the regime is democratic but, in general, either negative (Models 5, 14 and 15) or near-zero (Models 3, 4, 6, 8, 12 and 13) in non-democracies. In terms of marginal effects, a standard deviation (‘0.10’) around the mean value of state capacity (‘0.19’) increases the probability of a country-year having no extrajudicial killings by ‘0.25’ in democracies but only by ‘0.03’ in non- democracies. (Model 3) Similarly, a standard deviation around the mean of state capacity increases the probability of no political imprisonment by ‘0.293’ in democracies but only by ‘0.002’ in non-democracies. (Model 4) The disparity between democracies and non-democracies is greatest for the dependent variable ‘torture’. The marginal effects of a standard deviation around the mean of state capacity is ‘0.199’ (Model 5) and ‘0.152’ (Model 14) for democracies but ‘-0.066’ (Model 5) and ‘-0.078’ (Model 14) for non-democracies. Figure 6 presents the marginal effects for all the specific human rights variables analysed, across a wider range of state capacity.

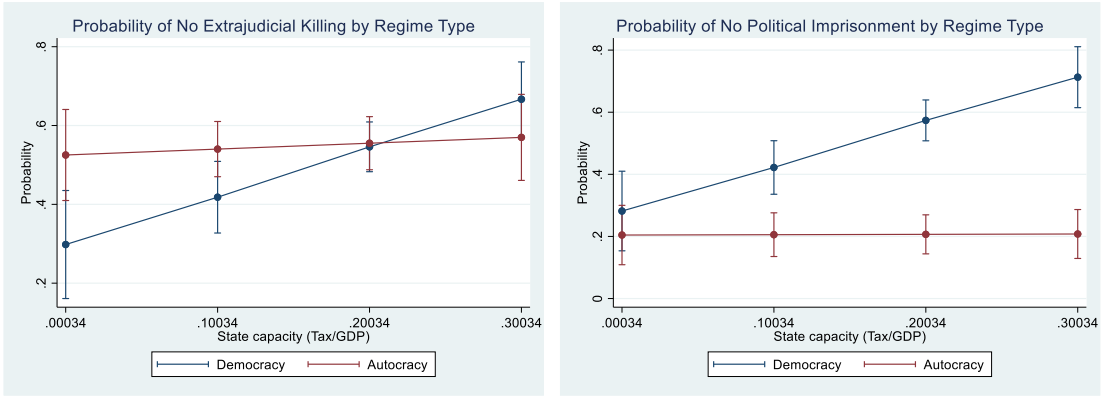
Table III. Logistic regressions (Autocracy = 1 if Polity < 1). Robust standard errors in parentheses. ** p<0.01, * p<0.05, † p<0.1.

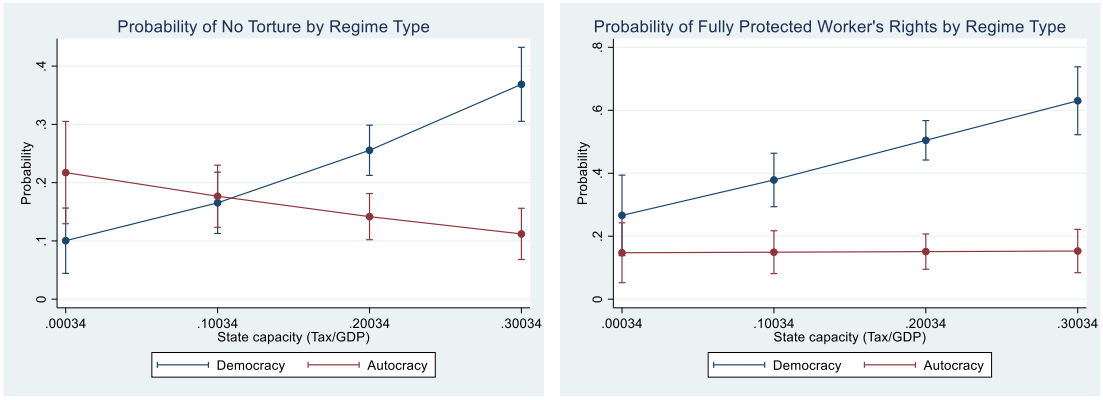
	Overall levels		*Specific types of rights violations*						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PTS (SD)	PTS (AI)	Extrajudicial Killing	Political Prison	Torture	Worker's Rights	Women's Economic	Women's Social	Women's Political
State capacity	8.53**	7.75**	6.65**	7.42**	6.92**	5.88**	5.97**	7.46**	8.15**
	(2.19)	(2.32)	(1.90)	(1.83)	(1.44)	(1.81)	(1.58)	(1.84)	(2.25)
Autocracy (Polity < 1)	0.43	0.62	1.22**	-0.49	1.12**	-0.82+	-0.04	0.49	-0.53
	(0.44)	(0.43)	(0.37)	(0.39)	(0.39)	(0.45)	(0.46)	(0.53)	(0.46)
State capacity	-8.92**	-6.57**	-5.87**	-7.34**	-10.15**	-5.73*	-2.02	-6.92*	-0.48
*Autocracy	(2.45)	(2.42)	(1.95)	(2.17)	(1.90)	(2.23)	(2.08)	(2.86)	(2.48)
Resource rent	-0.02+	-0.01+	-0.02+	-0.00	-0.02	-0.02+	-0.03*	-0.05**	-0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Civil war deaths	-0.00*	-0.00*	-0.00**	-0.00	-0.00*	0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Intl' war deaths	-0.00**	-0.00**	-0.00+	-0.00	-0.00*	-0.00	-0.00+	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Log (GDP/capita)	0.34**	0.30*	0.40**	0.22*	0.27**	0.04	0.42**	0.29*	-0.19
	(0.11)	(0.12)	(0.11)	(0.11)	(0.10)	(0.10)	(0.11)	(0.14)	(0.15)
Log (population)	-0.58**	-0.39**	-0.38**	-0.53**	-0.49**	-0.30**	-0.24*	-0.18+	0.00
	(0.10)	(0.11)	(0.10)	(0.11)	(0.09)	(0.09)	(0.10)	(0.11)	(0.13)
IGO Involvement/Global	0.90+	0.28	-0.08	0.58	0.56	1.57**	1.12*	1.25*	1.35*
	(0.47)	(0.49)	(0.51)	(0.47)	(0.43)	(0.48)	(0.54)	(0.61)	(0.65)
ICCPR membership	-0.23	-0.17	-0.08	0.02	-0.26	0.11	0.42	0.70**	0.49+
	(0.24)	(0.24)	(0.23)	(0.22)	(0.20)	(0.22)	(0.26)	(0.27)	(0.30)
AIC (with interaction)	5805.019	5565.264	3511.739	3668.406	3765.283	3770.751	3188.174	3997.523	3324.191
AIC (without interaction)	5899.342	5609.3	3536.054	3710.692	3855.559	3797.944	3189.241	4037.092	3322.354
Observations	2,790	2,216	2,250	2,250	2,227	2,229	2,193	2,185	2,220

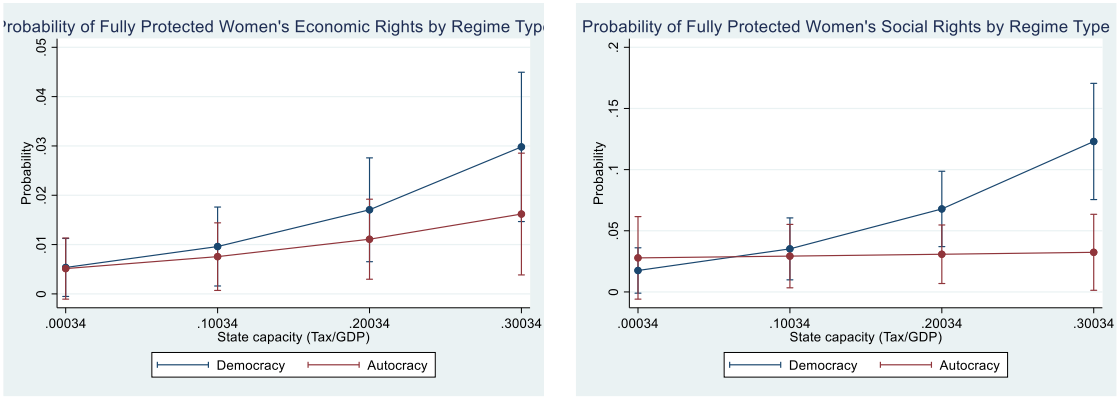
Table IV. Logistic regressions (Autocracy = 1 if Polity < -5). Robust standard errors in parentheses. ** p<0.01, * p<0.05, † p<0.1.

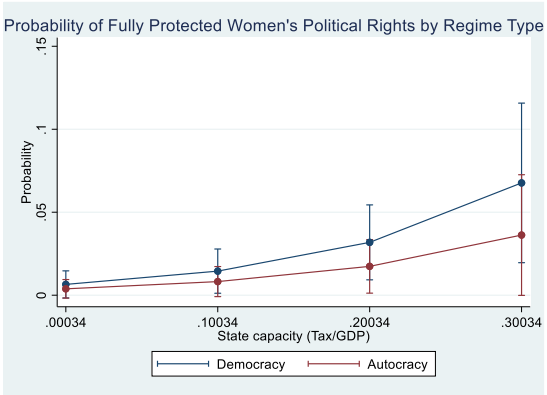
	Overall levels		*Specific types of rights violations*						
	(10) PTS (SD)	(11) PTS (AI)	(12) Extrajudicial Killing	(13) Political Prison	(14) Torture	(15) Worker's Rights	(16) Women's Economic	(17) Women's Social	(18) Women's Political
State capacity	8.69**	7.23**	5.92**	5.95**	6.44**	5.60**	6.03**	6.64**	6.98**
	(1.96)	(2.16)	(1.76)	(1.59)	(1.30)	(1.53)	(1.53)	(1.72)	(1.98)
Autocracy (Polity < -5)	0.87*	0.73+	1.08**	-0.70*	1.19**	-1.18*	0.18	0.43	-1.08*
	(0.41)	(0.42)	(0.35)	(0.36)	(0.38)	(0.46)	(0.44)	(0.55)	(0.52)
State capacity	-8.85**	-5.35*	-5.45**	-4.77*	-10.39**	-5.75*	-2.41	-5.65+	2.91
*Autocracy	(2.29)	(2.38)	(1.95)	(1.95)	(1.76)	(2.40)	(2.21)	(3.20)	(3.14)
Resource rent	-0.02*	-0.02+	-0.02	-0.00	-0.02	-0.02+	-0.03*	-0.05**	-0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Civil war deaths	-0.00*	-0.00**	-0.00**	-0.00	-0.00**	-0.00	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Intl' war deaths	-0.00**	-0.00**	-0.00+	-0.00	-0.00+	-0.00*	-0.00+	-0.00	-0.00+
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Log (GDP/capita)	0.39**	0.33*	0.37**	0.28*	0.26**	0.06	0.43**	0.30*	-0.18
	(0.12)	(0.13)	(0.10)	(0.12)	(0.10)	(0.10)	(0.11)	(0.13)	(0.14)
Log (population)	-0.51**	-0.34**	-0.37**	-0.49**	-0.46**	-0.26**	-0.21+	-0.13	0.03
	(0.10)	(0.11)	(0.10)	(0.11)	(0.09)	(0.09)	(0.11)	(0.11)	(0.14)
IGO Involvement/Global	0.74	0.25	-0.03	0.59	0.56	1.55**	1.15*	1.31*	1.47*
	(0.48)	(0.49)	(0.50)	(0.51)	(0.43)	(0.46)	(0.54)	(0.60)	(0.66)
ICCPR membership	-0.05	-0.05	-0.08	0.09	-0.23	0.14	0.46+	0.77**	0.48
	(0.25)	(0.25)	(0.23)	(0.23)	(0.21)	(0.21)	(0.27)	(0.27)	(0.29)
AIC (with interaction)	5623.253	5452.241	3504.006	3762.62	3742.011	3680.544	3110.574	3933.9	3265.588
AIC (without interaction)	5708.078	5478.489	3522.433	3778.18	3825.303	3704.048	3112.419	3955.895	3268.845
Observations	2,568	2,148	2,195	2,195	2,172	2,174	2,138	2,130	2,165

Figure 6. Marginal effects of state capacity on specific types of human rights









There are five exceptions to the pattern: Models 7, 9, 16, 17 and 18. In each of these models, the effect of state capacity is positive for democracies and non-democracies alike. While it is not within the scope of this chapter to investigate exactly why these models differ from the others, it is worth pointing out how these results do not necessarily contradict the theory under scrutiny.

According to Models 7, 9, 16, 17 and 18, state capacity improves women's economic and political rights in non-democracies as well as in democracies. One reason for this variation could be that dictatorships sometimes seek to obtain legitimacy by promoting women's rights. For example, there is a general tendency for left-wing dictatorships to purport gender equality, while right-wing authoritarians are more inclined to maintain traditional, patriarchal social systems. Without taking these policy preferences into account, the interaction effects of authoritarianism will remain fuzzy. Relatedly, another reason might be that women's rights are more likely to be violated by the *unauthorised* actions of state agents compared to other rights (such as political imprisonment or torture) that, to be infringed, require the joint-efforts of various government bureaucracies. If women's economic rights improve in more capable autocracies as well as in more capable democracies, it may simply imply that the violation of women's economic rights are mainly *unauthorised* than *authorised*. To see whether this is indeed the case, we should disaggregate CIRI's original coding into *authorised* versus *unauthorised* instances of abuse against women's economic rights. However, for the purposes of this article, it suffices to demonstrate that these findings do not present a challenge to the present theory unless augmented with further proofs to that end.

Robustness checks

Three sets of robustness checks are conducted. First, lagged dependent variables are included to address serial autocorrelation. Second, the Composite Index of National Capability (CINC) is used as an alternative measure of state capacity (Singer, 1987). Third, Hendrix and Young's (2014) latent measure of bureaucratic capacity is employed as another alternative measure of state capacity. The World Bank's Government Effectiveness index could not be used as an alternative measurement of capacity, because of data availability. Government effectiveness is recorded annually from 2002, the final year of this chapter's study period.

As displayed in Tables V to VII, the robustness checks generally provide support to the main analysis, with a few exceptions. First, the analysis using CINC as an alternative state capacity measure produces different results for the PTS (State Department) scores, women's rights, and workers' rights. Some of this difference may be attributable to the nature of state capacity CINC tends to capture. Because CINC captures a state's war-making capabilities, it would be more relevant for the state's control over its coercive apparatus. Because violations of women's and workers' rights are committed by civil as well as coercive institutions, it is unlikely that higher CINC would improve rights in these areas.

Second, according to Model 39, higher bureaucratic capacity results in fewer extrajudicial killings regardless of regime type. However, this result does not necessary contravene the theory. First of all, because extrajudicial killings may often occur without the principal's authorisation, increasing the principal's control over its agents could result in fewer killings. Second of all, more capable dictatorships may find such overt acts of violence

Table V. Logistic regressions with lagged dependent variables (Autocracy = 1 if Polity < -5)

	Overall levels		*Specific types of rights violations*						
	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
	PTS (SD)	PTS (AI)	Extrajudicial Killing	Political Prison	Torture	Worker's Rights	Women's Economic	Women's Social	Women's Political
State capacity	4.76**	4.27**	4.46**	4.65**	4.18**	3.95**	5.84**	4.21**	3.73*
	(1.23)	(1.32)	(1.21)	(1.14)	(0.98)	(1.13)	(1.61)	(0.98)	(1.53)
Autocracy (Polity < -5)	0.23	0.47+	0.84**	-0.27	0.74**	-0.33	-0.07	0.37	-0.10
	(0.24)	(0.25)	(0.26)	(0.26)	(0.28)	(0.27)	(0.47)	(0.28)	(0.37)
State capacity	-5.34**	-4.06**	-3.88**	-4.29**	-5.96**	-3.91*	-1.99	-4.96**	-1.37
*Autocracy	(1.29)	(1.42)	(1.39)	(1.53)	(1.34)	(1.53)	(2.12)	(1.50)	(2.03)
Resource rent	-0.01+	-0.01	-0.01	0.00	-0.02*	-0.01+	-0.03*	-0.03**	-0.01
	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Civil war deaths	-0.00+	-0.00**	-0.00**	-0.00+	-0.00	-0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Intl' war deaths	-0.00	-0.00*	-0.00	0.00	-0.00	-0.00+	-0.00+	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Log (GDP/capita)	0.19**	0.19**	0.27**	0.12+	0.20**	0.01	0.44**	0.13*	0.02
	(0.06)	(0.06)	(0.07)	(0.06)	(0.07)	(0.06)	(0.11)	(0.06)	(0.07)
Log (population)	-0.28**	-0.15*	-0.24**	-0.30**	-0.34**	-0.17**	-0.24*	-0.09	-0.01
	(0.06)	(0.06)	(0.06)	(0.07)	(0.06)	(0.05)	(0.10)	(0.06)	(0.07)
IGO Involvement/Global	0.48+	0.11	0.01	0.37	0.42	1.00**	1.06+	0.62*	0.72*
	(0.25)	(0.27)	(0.33)	(0.30)	(0.29)	(0.28)	(0.56)	(0.30)	(0.34)
ICCPR membership	-0.21	-0.10	-0.03	0.08	-0.16	0.10	0.41	0.31*	0.48**
	(0.13)	(0.12)	(0.15)	(0.13)	(0.14)	(0.13)	(0.26)	(0.15)	(0.18)
AIC (with interaction)	4027.458	3761.357	2766.713	2805.167	3104.507	2837.398	3039.44	2055.494	1181.935
AIC (without interaction)	4052.447	3772.107	2774.208	2814.736	3128.212	2846.1	3040.196	2064.45	1180.341
Observations	2,667	2,006	2,139	2,136	2,117	2,119	2,095	2,055	2,106

Robust standard errors in parentheses. ** p<0.01, * p<0.05, † p<0.1. Lagged dependent variables and year dummies are included in the models but not shown in the table.

Table VI. Logistic regressions with CINC as the measurement of state capacity (Autocracy = 1 if Polity < -5)

	Overall levels		*Specific types of rights violations*						
	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
	PTS (SD)	PTS (AI)	Extrajudicial Killing	Political Prison	Torture	Worker's Rights	Women's Economic	Women's Social	Women's Political
State capacity (CINC)	2.84*	3.44**	2.45**	3.30*	1.16**	-0.34	0.82	0.80	0.02
	(1.35)	(0.85)	(0.94)	(1.34)	(0.41)	(0.62)	(0.68)	(0.52)	(0.62)
Autocracy (Polity < -5)	75.07	210.89**	170.89*	224.94+	85.53+	241.91	-21.64	-83.13+	-213.05**
	(123.24)	(81.62)	(79.00)	(124.44)	(46.78)	(269.60)	(64.22)	(46.25)	(51.93)
State capacity	-0.79	-2.20**	-1.78*	-2.36+	-0.90+	-2.54	0.22	0.86+	2.21**
*Autocracy	(1.28)	(0.85)	(0.82)	(1.30)	(0.49)	(2.81)	(0.67)	(0.48)	(0.54)
Civil war deaths	-0.00**	-0.00*	-0.00**	-0.00+	-0.00+	-0.00	0.00	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Intl' war deaths	-0.00*	-0.00**	-0.00+	0.00	-0.00+	-0.00	-0.00+	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Log (GDP/capita)	0.43**	0.31**	0.45**	0.21*	0.32**	0.10	0.43**	0.32*	-0.06
	(0.08)	(0.09)	(0.10)	(0.09)	(0.09)	(0.10)	(0.14)	(0.16)	(0.18)
Log (population)	-0.70**	-0.54**	-0.52**	-0.76**	-0.56**	-0.29**	-0.35**	-0.32**	-0.13
	(0.09)	(0.09)	(0.10)	(0.10)	(0.09)	(0.09)	(0.12)	(0.12)	(0.14)
IGO Involvement/Global	1.12**	0.39	0.17	0.93*	0.73+	1.65**	1.19*	1.47**	1.47*
	(0.41)	(0.43)	(0.41)	(0.39)	(0.41)	(0.41)	(0.50)	(0.53)	(0.57)
ICCPR membership	0.12	0.24	0.23	0.33	0.08	0.22	0.57*	0.85**	0.61*
	(0.24)	(0.23)	(0.21)	(0.20)	(0.20)	(0.22)	(0.25)	(0.24)	(0.25)
AIC (with interaction)	7232.179	6897.101	4244.143	4289.293	4611.799	4550.776	3989.803	4902.514	4190.059
AIC (without interaction)	7232.59	6923.764	4254.32	4302.981	4612.574	4555.352	3988.038	4905.369	4208.456
Observations	3,297	2,664	2,580	2,587	2,580	2,588	2,536	2,523	2,579

Robust standard errors in parentheses. ** p<0.01, * p<0.05, † p<0.1. Year dummies are included in the models but not shown in the table.

Table VII. Logistic regressions with bureaucratic capacity as the measurement of state capacity (Autocracy = 1 if Polity < -5)

	Overall levels		*Specific types of rights violations*						
	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)
	PTS (SD)	PTS (AI)	Extrajudicial Killing	Political Prison	Torture	Worker's Rights	Women's Economic	Women's Social	Women's Political
Bureaucratic capacity	2.23**	2.08**	1.46**	1.33**	1.51**	1.23**	1.28**	1.55**	1.12**
	(0.28)	(0.29)	(0.24)	(0.20)	(0.21)	(0.22)	(0.23)	(0.26)	(0.33)
Autocracy (Polity < -5)	-0.95**	-0.65*	0.14	-2.10**	-0.71**	-2.25**	-1.31**	-1.76**	-1.64**
	(0.30)	(0.30)	(0.26)	(0.29)	(0.23)	(0.34)	(0.32)	(0.41)	(0.41)
Bureaucratic capacity	-0.91**	-1.08**	-0.25	-1.23**	-0.76**	-1.11**	-0.73+	-1.30**	-1.47**
* Autocracy	(0.32)	(0.34)	(0.28)	(0.32)	(0.28)	(0.36)	(0.41)	(0.43)	(0.37)
Civil war deaths	-0.00**	-0.00*	-0.00**	-0.00	-0.00	0.00	0.00	0.00	0.00+
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Intl' war deaths	-0.00**	-0.00**	-0.00	0.00	-0.00*	-0.00+	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Log (GDP/capita)	0.05	-0.10	0.07	-0.05	-0.01	-0.36**	0.08	-0.11	-0.32
	(0.13)	(0.13)	(0.13)	(0.12)	(0.12)	(0.13)	(0.16)	(0.17)	(0.20)
Log (population)	-0.77**	-0.60**	-0.58**	-0.70**	-0.66**	-0.48**	-0.46**	-0.36**	-0.14
	(0.11)	(0.10)	(0.09)	(0.12)	(0.08)	(0.10)	(0.12)	(0.13)	(0.15)
IGO Involvement/Global	1.48*	0.85	0.75	0.98+	1.19**	2.30**	1.93**	2.19**	2.01**
	(0.57)	(0.55)	(0.57)	(0.59)	(0.45)	(0.56)	(0.66)	(0.70)	(0.71)
ICCPR membership	0.16	0.11	0.08	0.06	0.02	0.10	0.39	0.81**	0.58+
	(0.27)	(0.25)	(0.25)	(0.24)	(0.22)	(0.25)	(0.29)	(0.30)	(0.30)
AIC (with interaction)	3748.237	3868.381	2828.508	2933.371	2913.261	3063.335	2584.329	3167.617	2728.581
AIC (without interaction)	3787.42	3924.983	2829.025	2997.738	2936.54	3117.615	2601.599	3236.905	2815.19
Observations	1,866	1,623	1,831	1,835	1,830	1,833	1,804	1,796	1,826

Robust standard errors in parentheses. ** p<0.01, * p<0.05, † p<0.1. Year dummies are included in the models but not shown in the table.

unpalatable and instead resort to more subtle means of oppression at their disposal. Extrajudicial killing is not the only type of violation in a dictator's toolbox. As Mitchell (2004) poignantly argued, dictators can use various methods of violence depending on their needs, meaning that killings may not be the dictator's *preferred mode of authorised violence* in every situation. More stable, better institutionalised autocracies may prefer more nuanced, less noticeable forms of control (e.g. censoring the press or social media) than visible rights violations like the sustainment of massive prison camps.

Finally, according to Model 45, higher bureaucratic capacity in dictatorships result in greater oppression of women's political rights. The results may seem peculiar at first, because the theory expects state capacity to reduce *unauthorised* rights violations by petty despots. Yet Model 45 is not necessarily at odds with the theoretical expectations either. Compared to women's economic rights, the suppression of women's political rights might be what some dictatorships consider a key ideological objective. It may not be surprising, therefore, that more capable dictatorships are able to repress women's political rights with greater ease.

Conclusion

Are stronger states more humane?

The answer really depends on context. First of all, the relationship between rights and state capacity is contingent on the *type* of right under discussion. *Authorised* rights violations are not mitigated by enhanced state capacity. *Unauthorised* rights abuses, on the other hand, decrease when the state can keep its agents in check. Second of all, human rights violations vary by the type of regime. Rights abuse in democracies are mostly those of an *unauthorised* nature. By contrast, autocratic governments are not restrained by such

limitations. Consequently, *unauthorised* violations can be found in any political regime, but *authorised* human rights violations are characteristic of autocracies.

As a result of these two variations, state capacity is expected to improve overall levels of human rights in democracies, but in non-democracies the effect will depend on the relative amount of *authorised* violations vis-à-vis *unauthorised* ones. To assess this hypothesis, this article conducted ordered logistic regressions on a cross-sectional dataset with nine different human rights indices: PTS (State Department), PTS (Amnesty International), Extrajudicial Killing, Political Prison, Torture, Worker's Rights, Women's Economic Rights, Women's Social Rights, and Women's Political Rights. Empirical analysis provided solid support to the theoretical claims. Overall, the main statistical models showed how state capacity positively influences human rights in democracies but not necessarily so in non-democracies. In the models, state capacity affected not only overall indicators of human rights but also seven different types of *specific* human rights indices in the predicted directions, adding strong support to the theory.

There have been some exceptions to this pattern, but none of these critically undermined the logic of the theory. Due to limits of the data, it was not possible to gain a deeper understanding of the anomalies: as the original dataset did not record the nature (*authorised* or *unauthorised*) of each occurrence of abuse, it was impossible to investigate the reasons why state capacity positively affected women's economic rights in democracies and non-democracies alike. Even so, the empirical analyses at the very least highlighted some important complexities behind a relationship that has not been sufficiently explored. To properly investigate these intricacies, the scholarship might need to compile more data on *unauthorised* violations of rights. Once datasets like Cornett,

Haschke & Gibney's (2016) Societal Violence Scale (SVS) are in full bloom, future researchers might be able to draw a more accurate picture about the variation among different rights, different regimes, and different levels of state capacity.

Chapter 3.

State capacity matters in "the middle": a new perspective on domestic terrorism

When it comes to domestic terrorism, state capacity matters in "the middle".

Terrorism is "the premeditated use or threat to use violence by individuals or subnational groups against noncombatants to obtain a political objective through the intimidation of a large audience beyond that of the immediate victims" (Enders & Sandler, 2006, p. 3). Since the primary goal of terrorism is to intimidate an audience beyond the physical vicinity of an attack, terrorists seek to maximise the reach of their attacks by exposing themselves to a larger audience (Crenshaw, 2002; Hoffman & McCormick, 2004). What follows as a result is that regimes with larger audience costs (Weeks, 2008) tend to suffer more from domestic terrorist attacks (Conrad et al., 2014; Piazza, 2017; Wilson & Piazza, 2013). In contrast to full democracies, however, intermediary regimes can utilise state resources to suspend – or at least temporarily restrict – democratic practices. As a result, for those regimes, state capacity could substantially affect the audience costs of a terror attack. We dub this the "audience restriction" (AR) effect, because the size of the audience a domestic terrorist attack can address and the costs it seeks to generate may become restricted through the application of a state's power.

We focus on domestic as opposed to transnational terror since the key mechanism involved in our theoretical argument assumes that the terrorist is interested in affecting the host country's political outcomes such that given alternative avenues to do so a potential terrorist may instead resort to methods other than terror. The scope of this paper

is also limited to domestic terrorist attacks *with casualties*, which tend to target soft as opposed to hard targets, because such attacks can generate substantially higher audience costs for the incumbent political leadership than attacks on hard targets and suffer relatively less from underreporting issues.

We contend in this paper that this AR depends critically on both state capacity and the type of regime. In full dictatorships and full democracies, changes in state capacity make little difference to the AR. In full democracies, the terrorists already have maximum access to democratic institutions and practices. For instance, the Black September Munich Olympics terrorist attack in 1972, after receiving widespread media coverage, ended up encouraging thousands of Palestinians to join the terrorist organisation (Hoffman, 1998). Even if Germany's capability as a state were higher, Black September would have received no less attention from the public. In full dictatorships too, changes in a state's capability have little or no implications for the AR. In 2017, as an example, Turkmenistan (a low capability authoritarian state) was reportedly at risk of being attacked by an extremist Islamist terror group (Pannier, 2017). To this day, however, it is impossible to know whether actual attacks took place, highlighting how terrorists could hope to inflict little audience cost to full dictatorships, no matter how incapable it is. Without civil society or an independent media, a terrorist attack cannot create high audience costs even in a low capability state such as Turkmenistan.

By contrast, state capacity could tremendously affect the amount of AR exercised after a terrorist attack if the attack takes place in "the middle." In anocracies, where there are a mix of democratic and autocratic elements, changes to a state's capacity can greatly affect the size of the AR. Higher capacity implies more control over information, meaning that

news about a terrorist incident can affect a smaller audience. And since anocracies permit some degree of democratic practices such as elections, civil societies and journalism, the state's control over these areas can significantly affect the amount of audience cost inflicted by a terrorist attack. Singapore, for example, introduced the "Public Order and Safety (Special Powers) Act" in 2018, allowing the Ministry of Home Affairs to completely ban media coverage of terrorist events. Such total ban on media coverage would not be possible without a strong and capable state apparatus. Importantly, Singapore's reaction to terrorism contrasts with that of a full democracy such as the United States, where even a reporter, who terrorists held hostage for five additional years due to the media's coverage of his release deal, insists that "censorship by government officials would be a grievous mistake" (T. Anderson, 1993).

Building upon this intuition, we present a formal argument as well as a thorough empirical evaluation of whether state capacity and regime type could *jointly* affect domestic terrorism. This paper's contribution to the literature is twofold. First, it brings together the two apparently separate strands of terrorism research: one concerning the effects of regime type and another concerning the effects of state capacity. On the one hand, a large body of research has focused on investigating democracy's effect on terrorism. On the other hand, a relatively smaller group of researchers sought to examine whether terrorism is affected by varying levels of state capacity. Importantly, there is no evident bridge connecting the scholarship's relatively recent interest in the state capacity variable with its more traditional focus on regime types and political institutions. Our analysis proposes to address this critical gap in the field. While studies of regime type's relation to terrorism often include state capacity as a control variable (and vice versa), to our knowledge ours is the first attempt to explore how the two variables may interact with each other in their

effect on terrorism. Second, our paper sheds a new perspective on the debate about democracy's relationship with terrorism. If previous studies have purported linear, U shaped, and inverted-U shaped links between the two variables, our study finds that the shape of the relationship is contingent on the level of state capacity. Specifically, we find that democracy's relationship with domestic terrorism is an inverted-U shape among states that lack capability but gradually turns into a U shape as states under consideration become more and more capable.

This chapter consists of six sections. The next section reviews the existing literature. In the third section we illustrate the importance of state capacity for studies of terrorism. The fourth section presents a game-theoretical model to buttress the intuition brought forward in the previous section. Afterwards, in the fifth section we describe the data, methods, and results of our empirical analysis. We conduct a series of negative binomial and poisson regressions upon a time-series cross-sectional dataset of no fewer than 108 countries from 1970 to 2007. Finally, in the last concluding section, we summarise our findings and discuss their potential implications for future studies as well as policymakers.

Literature Review

Regime type has been a central variable to many scholars of terrorism. From the early 1980s (Hamilton & Hamilton, 1983), scholars have sought to understand whether democracy renders terrorism more likely or less. On the one hand, proponents of "strategic influence" posit that terrorism would thrive in the midst of the relative freedoms and many political constraints that characterise democracies. Civil liberties could lower the marginal costs of terrorism (Eyerman, 1998; Schmid, 1992), while a free press adds publicity to terrorist attacks (Eubank & Weinberg, 1994; Wilkinson, 1986). Indeed, the

vast majority of empirical studies have found democracy to positively affect the frequency of terrorist events (Braithwaite & Li, 2007; Chenoweth, 2010, 2013; Dreher & Fischer, 2010; Eubank & Weinberg, 1994, 2001; Lai, 2007; Li & Schaub, 2004; Pape, 2003; Piazza, 2007, 2008; San-Akca, 2014; Weinberg & Eubank, 1994).

A different school of thought argues that democracy could deter terrorism by providing dissidents with "political access" (Eyerman, 1998). As democracies are more inclusive than autocracies, they provide alternative, non-violent avenues through which potential terrorists could foster the political change they desire (Hamilton & Hamilton, 1983; Ross, 1993). While this approach has been met with relatively limited empirical success, it illustrates how the relationship between regime type and terrorism could be more complex than the "strategic influence" school may have it. Empirically, studies have pointed out how findings of the "strategic influence" school may have been affected by underreporting and sampling bias. As Drakos and Gofas (2006a) reveal, studies of terrorism and regime type tend to suffer from underreporting, where the number of terrorist incidents are "scaled down" in countries with restricted freedom of press. Similarly, Gaibulloev, Piazza and Sandler (2017) point out that many of the studies use pre-2000 sample periods where democracies suffered heavily from leftist terrorists. Compared to more recent periods when religiously driven terrorism has become more prominent, the 1900s sample is bound to find a more positive association between democracy and terrorism. Perhaps such limitations of data can explain why some empirical studies have failed to find any relationship between regime type and terrorism at all (Gassebner & Luechinger, 2011; Kim & Sandler, 2021; Savun & Phillips, 2009; Wade & Reiter, 2007).

A number of studies have also suggested a quadratic relationship between terrorism and democracy. A small set of studies report a U-shaped relationship between terrorism and democracy. For example, in his study of 37 Muslim nations, Testas (2004) finds a U-shaped relationship between Freedom House's democracy scores and terrorism. By contrast, a larger body of research found support for an inverted U-shaped relationship, where terrorism is most frequent in the middle (Abadie, 2006; Bandyopadhyay & Younas, 2011; Drakos & Gofas, 2006b; Gaibulloev et al., 2017; Kim & Sandler, 2020; Kurrild-Klitgaard et al., 2006). Notably, Gaibulloev, Piazza and Sandler (2017) provides a detailed formal model about how strategic interactions between the terrorists and the state ultimately result in an inverted U-shaped relationship between terrorism and democracy, and the authors test this theory upon a wide range of terrorism indicators. In addition to the "strategic influence" and "political access" theories, Gaibulloev, Piazza and Sandler (2017) posit that democracies could prevent terror by exerting more counter terrorism efforts.

Notwithstanding the prominence of regime types in the terrorism literature, scholars have long recognised that the effects of democracies and autocracies are quite heterogeneous. In other words, regime type's effects on terrorism are conditional upon various institutional factors. For instance, judiciaries (Findley & Young, 2011), electoral systems(Aksoy & Carter, 2014; Piazza, 2010), democratic participation (Li, 2005), and the number of veto players (Chenoweth, 2010; Young & Dugan, 2011) have been found to affect the number of terrorist events among democracies. In addition to the increasing pertinence of these democratic institutions for terrorism, there is a growing interest in whether authoritarian political institutions may also affect a regime's exposure to terrorism. Aksoy, Carter, and Wright (2012) argue that, in the absence of legislatures,

active opposition parties resort to terrorism. Meanwhile, Wilson and Piazza (2013) find that single party dictatorships face less domestic and transnational terrorism compared to other types of dictatorships. Importantly, a group of scholars have found that regimes with higher audience costs were more likely to experience terrorist attacks (Conrad et al., 2014; Piazza, 2017; Wilson & Piazza, 2013).

Compared to regime types, state capacity received relatively modest attention from scholars of terrorism. Research on regime types and terrorism often include state capacity as one of their controls (Findley et al., 2012; Gaibulloev et al., 2017; Koch & Cranmer, 2007; Li, 2005; Young & Findley, 2011). In these studies, state capacity is sometimes found to have a positive association with terrorism. In Li (2005) as well as in Koch and Cranmer (2007), the "government capability" control variable (Li & Schaub, 2004) positively affects transnational terrorist incidents in most of the statistical models. Yet this relationship does not seem to be universal. In Young and Findley's (2011) review, the government capability control (Li & Schaub, 2004) has no statistically meaningful effect on terrorism. Similarly, in Gaibulloev, Piazza and Sandler (2017), the Composite Index of National Capacity (Singer, 1987) had no significant effect on terrorism. Finally, Findley, Piazza, and Young (2012) find "capability ratios" (Bremer, 1992) to have an ambivalent effect on terrorism.

Considering the lack of consensus on the matter, it is surprisingly rare to find a study dedicated to investigating state capacity's effect on terrorism. Blankenship (2018) finds that less capable states are more prone to fall into the provocation "trap", where the government overreacts to a terrorist attack, thereby encouraging more dissidents to use terrorism in the first place. Meanwhile, influenced by the literature on civil wars, Hendrix

and Young (2014) propose a two-dimensional conceptualisation of state capacity. The two dimensions are: "military capacity, or the ability to project conventional military force, and bureaucratic/administrative capacity, or the ability to collect and manage information." According to the authors' empirical analysis, greater bureaucratic capacity reduces terrorism, but higher military capacity only serves to increases it. Because terrorism is a "weapon of the weak" (Crenshaw, 1981), it is an attractive option for a political adversary facing a militarily capable government; to the contrary, when a government is equipped with bureaucratic capacity, it can effectively and credibly detect and deter terrorist intentions, making terrorism less appealing to a political opponent. The two dimensions' implications for terrorism, however, are still a matter of debate. Larue and Danzell (2020) argue, for instance, that neither concept retains statistical significance once additional aspects of state capacity - "political fragmentation" and "law and order" - were added to the empirical analysis.

In short, the literature in its current state remains full of interesting yet underexplored questions. What is the relationship between terrorism and state capacity? Could the nature of this relationship depend on the type of regime? So far, a group of scholars explore terrorism's relationship with regime types, whereas another - albeit smaller - group seeks to understand terrorism's relationship with a state's bureaucratic and military capacity. However, there is ample reason to believe that the effects of a state's administrative and defensive capability may depend on the type of regime. If Gaibulloev, Piazza and Sandler (2017) argue that different regimes create different incentive structures for the state as well as for potential terrorists, could not the distinct strategic environments of dictatorships, anocracies, and democracies affect the implications of state capacity for terrorism?

How does state capacity matter?

If previous studies have considered "strategic influence" (Eyerman 1998), "political access" (Eyerman 1998) and "democratic protection" (Gaibulloev, Piazza and Sandler 2017) as determinants of government and terrorist strategies, we contend that there exists another influential yet underexplored factor: "audience restriction" (AR).

Terrorists seek to bolster the effectiveness of their attack by obtaining a larger audience (Hoffman & McCormick, 2004; Pries-Shimshi, 2007; Rohner & Frey, 2007; Wilkinson, 1997). Following the argument of Weeks (2008), we contend that authoritarian regimes differ in the extent to which their political institutions incur audience costs. And, as a number of recent studies have uncovered, we argue that regimes with higher audience costs will suffer from more terrorist attacks (Conrad et al., 2014; Piazza, 2017; Wilson & Piazza, 2013). In authoritarian regimes where ordinary people have even limited rights to express their thoughts in public (for example, by participating in civil society or elections), news about a terrorist attack can generate high audience costs against an incumbent regime. Our novel contribution to this existing insight, however, is that we incorporate state capacity into the theory. While autocracies with limited democratic practices suffer from relatively higher audience costs, capable anocratic states could effectively reduce the audience costs by temporarily suspending – or at least restraining – democratic practices. We dub this the "audience restriction" (AR) effect.

Importantly, we argue that the AR of a domestic terrorist plot jointly depends on a state's capacity and the type of regime. Our focus here is on domestic rather than transnational terrorism, because our theoretical mechanisms assume that potential terrorists have domestic political motives: a premise that does not usually extend to transnational

terrorists (Aksoy & Carter, 2014). The utility that results from each additional terror attack is referred to as the marginal utility of terrorism. Let us compare state capacity's effects on marginal utility by the type of regime. As briefly outlined above, in intermediary regimes, the marginal utility of a terrorist attack rises quickly with decreases in state capacity, owing to the AR. Consider, for instance, a competitive authoritarian regime (Levitsky & Way, 2002), where elections are regularly held but the opposition has no serious chance of winning. In these states, elections serve to enhance the regime's legitimacy while providing the ruling party with estimates about their performance. With a capable state apparatus at hand, the leadership could effectively control information, suspend opposition activities, and restrict civil society activism to restrict the audience of any terrorist attack. Imagine that – due to some exogenous shock - the capacity of the state falls drastically overnight. The marginal gains from terrorism would rise steeply, as the pseudo-authoritarian state no longer has the means to suppress the political reactions that spark from a successful terrorist attack. News about each terrorist incident (which will quickly spread in the absence of a capable censorship apparatus) can have far-reaching repercussions for the citizens who are accustomed to participating in pseudo-democratic activities: the leadership will have to face an audience that is greatly unsatisfied with the way it handled the security of the nation. Specifically, it could prompt the political opposition to voice concerns over the government's stability, obtain international attention through foreign media, or spur a nationwide movement against the regime; at the very least, it can encourage voters to show support for the opposition in the next election.

In full autocracies and democracies, on the other hand, the marginal utility of terrorism does not rise as much with diminishing state capacity. First of all, because full

dictatorships lack mechanisms to hold their leaders accountable for domestic terror attacks, their audience restriction (AR) effect is more limited.[6] Even without a very effective state apparatus, information about each terror attack would not spread as quickly or widely as in intermediary regimes, nor would the citizens have enough experience with democratic norms to hold their leader accountable for an attack. Turkmenistan's response to an alleged terrorist ploy exemplifies how little state capacity affects the marginal utility of terrorism. In 2017, sources from inside the Turkmenistan regime leaked information to foreign press that the regime could be under threat of extremist Islamist terror attacks. It is impossible, however, to know whether actual attacks took place, highlighting the low marginal utility terrorists would gain from attempting an attack at even such a low capacity state (Pannier 2017). For political dissidents in full democracies too, a fall in the state's capacity brings about no strong AR effect. In fully free countries, there are already no unwarranted restrictions on political participation, and leaders are held accountable for their actions. As a result, even when a fully democratic state becomes weaker, ceteris paribus, any additional gain that the terrorist reaps is miniscule in comparison with the anocratic context.

In the following section, we will provide a formal game-theoretic model about how all these strategic considerations combined affect the equilibrium level of terrorist attacks.

Game-theoretic model

Based on Gaibulloev, Piazza, and Sandler (2017), we employ a simultaneous two-player

[6] We recognise that audience costs may also vary among full dictatorships, as Conrad et al. (2014) argues, but our goal here is to compare full dictatorships with intermediate regimes.

game between a terrorist group and a government.[7] The two players simultaneously determine their actions: while the terrorist group chooses the number of attacks (a), the government determines the amount of counterterrorism effort (e). When the terrorist group decides on the number of attacks, it seeks to maximize its utility (u) given the cost (c):

$$\max_a \left[u(a, \delta, s) - c(a, e, \delta, s) \right], \tag{1}$$

where δ is the regime index[8] and s is a state's capacity. For notational convenience, we will use subscripts to denote partial derivatives. Double subscripts refer to second-order partial derivatives. The utility function has a positive and diminishing marginal utility with respect to attack so that $u_a > 0$ and $u_{aa} < 0$. We assume that the marginal utility of terrorist attacks falls as state capacity rises ($u_{as} < 0$). More state capacity can diminish the marginal gains from a terrorist attack by decreasing the audience cost inflicted by an attack. We also assume that both the number of attacks and the amount of counterterrorism effort positively affect the cost function at an increasing rate ($c_a > 0, c_e > 0, c_{aa} > 0,$ and $c_{ee} > 0$). Importantly, it is assumed that the marginal cost of an attack increases with greater counterterrorism efforts ($c_{ae} > 0$) and decreases with lower state capacity ($c_{as} > 0$). Counterterrorism efforts increase the marginal cost of

[7] Gaibulloev, Piazza, and Sandler (2017) consider the relationship between regime types and terrorism with a two-player game, finding an inverted U-shaped relationship. Our theoretical model follows their well-organized model but we introduce state capacity as a new variable that affects terrorism.

[8] A higher regime index indicates a more democratic regime.

terror attacks, as these efforts are designed to make the terrorist's job more difficult. Lower state capacity decreases the marginal cost, in line with the classical model of crime and punishment. According to Becker (1968), the cost of committing a crime is jointly determined by the severity of punishment and the probability of getting caught. As states with low capacity find it difficult to effectively investigate and capture every single plotter of terrorism, the probability of apprehending terrorists is low, resulting in a lower marginal cost of attack.

For the terrorist to maximize its utility, the first-order condition (FOC) of equation (1) is as follows:

$$u_a - c_a = 0. \tag{2}$$

It indicates that the terrorist group chooses the level of attack so that the marginal cost equals the marginal utility. Using equation (2), we can derive the terrorist's best response (BR) strategy, which is $BR^T = a(e)$. Then, we could calculate the slope of the strategy by the implicit function rule. The slope, which is negative against counterterrorism efforts, could be expressed as the following:

$$\frac{\partial BR^T}{\partial e} = \frac{\partial a}{\partial e} = \frac{c_{ae}}{u_{aa} - c_{aa}} < 0. \tag{3}$$

From now on, we focus on how the terrorist group's strategy shifts as we change the level of state capacity. Applying the implicit function rule to equation (2), for each change in *s*, we get the following shift in the terrorist's best response strategy:

$$\frac{\partial BR^T}{\partial s} = \frac{\partial a}{\partial s} = \frac{c_{as} - u_{as}}{u_{aa} - c_{aa}} < 0. \tag{4}$$

The changes in equation (4) depend on the size of the numerator, which differs by the type of regime. In democracies and autocracies, as expanded in the previous section, the audience restriction (AR) effect is barely affected by changes in the state's capability. In other words, the marginal utility of an attack is not substantially affected by state capacity. In intermediary regimes with both democratic and authoritarian elements, however, state capacity dramatically affects the amount of AR. This means that, in anocracies, state capacity affects the marginal utility to a greater degree. Based on these observations, we could expect state capacity's effect on the best response function to be largest in anocracies, compared to democracies and autocracies (See Figure 1).

Moving on to the government's side of the game, a targeted government considers two factors: (1) the loss inflicted by terrorism (*l*) and (2) the costs of counterterrorism efforts (*C*). The government seeks to minimize the combination of the two:

$$\min_{e}\left[l\left(e,a,s,\delta\right)+C\left(e\right)\right]. \tag{5}$$

Raising the counterterrorism effort decreases the loss at a diminishing rate of reduction ($l_e < 0$ and $l_{ee} > 0$). We assume that counterterrorism's marginal effect on loss increases with state capacity and the number of terrorist incidents, so that $l_{es} < 0$ and $l_{ea} < 0$. We also assume that the costs of counterterrorism increase at an increasing rate ($C' > 0$ and $C'' > 0$).

The FOC of equation (5) is

$$l_e + C' = 0. \tag{6}$$

From equation (6), we can derive the government's *BR* strategy ($BR^G = e\left(a\right)$), which is

$$\frac{\partial BR^G}{\partial a} = -\frac{l_{ea}}{l_{ee} + C''} > 0. \quad (7)$$

Equation (7) implies that the government will raise its counterterrorism effort as the number of attacks increases. We could also derive from equation (6) state capacity's influence on the government's *BR* strategy:

$$\frac{\partial BR^G}{\partial s} = -\frac{l_{es}}{l_{ee} + C''} > 0. \quad (8)$$

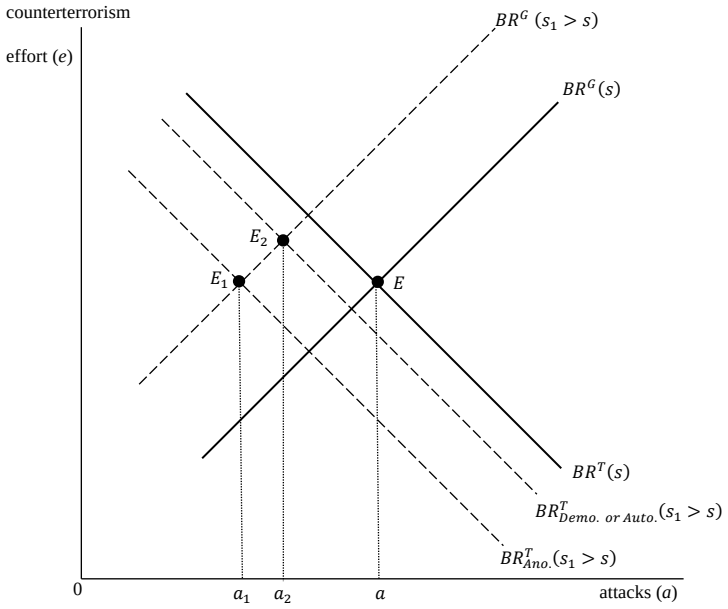
As capacity increases, the curve shifts upward and to the left. In other words, more capacity results in more counterterrorism effort, holding the level of attacks constant.

We can now simultaneously solve equations (2) and (6) to obtain the Nash equilibrium of attacks and counterterrorism efforts, represented by the intersection between the two players' best-response paths. In our analysis, we are interested in how this intersection of the two players' reaction paths move as we alter the level of state capacity. In particular, as with Gaibulloev, Piazza, and Sandler (2017), we are interested in changes to the equilibrium level of terrorist attacks.

The effect of state capacity is clear-cut (Figure 1): the government suffers from fewer terrorist attacks as the state's capacity increases, but the size of the effect depends on the regime type (a_1 or a_2). The initial equilibrium point lies at *E*. In democracies and autocracies, the reduction in terrorist attacks as state capacity increases ($s_1 > s$) is smaller than that of anocracies, because in democracies or autocracies the terrorist's best response is less sensitive to alterations in state capacity than in anocracies ($|BR_{\text{Demo. or Auto.}}^{T}| < |BR_{\text{Ano.}}^{T}|$). As a result, state capacity reduces terrorist attacks by a

greater amount in anocracies than it does in fully democratic or autocratic regimes ($a_2 > a_1$).

Figure 1. State capacity's effect on the equilibrium number of attacks by regime type



For better comparison with existing empirical work in the literature, this relationship could be also understood in terms of state capacity's effect on the relationship between regime type and terrorism. State capacity determines whether terrorism has a U-shaped or inverted-U shaped pattern vis-à-vis democracy. For full dictatorships and democracies, the state's capability has a small effect on the number of terror attacks; for anocracies, however, there are substantially more terrorist attacks in low capacity states than in high capacity states. As a result, among low capability states, the average number of terrorist attacks is higher in the middle, whereas among high capability states the number is lower in the middle. Combining these tendencies, we could also expect democracy to have an inverted-U shaped effect on terrorism among low capacity states and a *U* shaped effect among high capacity states.

Empirical Analysis

To assess the theorised relationship between terrorism, regime type, and state capacity, we conduct a series of negative binomial and poisson regressions upon a time-series cross-sectional dataset of no fewer than 108 countries from 1971 to 2007. All models include year dummies. All in all, our statistical analysis lends strong support to the hypothesis that state capacity and regime type jointly affect terrorism. Specifically, the models confirm the theoretical argument that state capacity affects domestic terrorism in the "middle". Relatedly, the statistical analysis illustrates how democracy's marginal effect on terrorism may also depend on state capacity. The relationship between terrorism and democracy follows an inverted-U shaped pattern for states with low capacity, whereas the relationship gradually becomes a U shape as states become more capable.

Dependent variable

Our empirical models operationalise terrorism using the Global Terrorism Database (National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2019). Of all terrorist incidents reported by the Global Terrorism Database (GTD), we focus on domestic - as opposed to transnational - incidents that resulted in casualties (Enders et al., 2011). We limit our attention to domestic terrorism because, theoretically, we are analysing whether state capacity's control over democratic institutions can reduce the domestic audience costs of terrorism. The proposed mechanism does not necessarily apply to transnational terrorism, because, as Aksoy and Carter (2014, p. 183) argue, democratic institutions may have no effect on terrorists' marginal benefit when the terrorist groups could not obtain their goals through political representation in the first place.

Table I. Comparing the extent of underreporting across different measures of terrorism

	All terrorist incidents		Incidents with casualties	
	Mean	SD	Mean	SD
Democracies	15.942	49.446	8.006	26.057
Non-democracies	5.478	25.849	3.357	15.760

Table II. Summary statistics

	Count	Mean	SD	Min	Max
Domestic terrorism	6585	5.162	29.739	0	1130
Bureaucratic capacity	2933	57.514	25.400	0	100
Military capacity	5292	63.973	11.960	0	100
CINC	5730	3.103	9.482	0.004	100
Regime durability	6621	23.061	28.724	0	203.000
Conflict intensity	5652	0.232	0.538	0	2
Ln (*Population*)	5774	8.907	1.694	4.244	14.086
Ln (*GDP per capita*)	5768	8.337	1.157	5.139	11.343
Econ. Globalization	5589	49.504	19.451	9.240	99.160
Polit. Globalization	6155	55.500	22.780	3.990	98.430
Ln (*Military expenditure*)	5618	12.373	3.097	0	20.130
Polity scores	6497	0.549	0.372	0	1

Notes: *CINC* stands for Composite Index of National Capacity

Importantly, we also circumscribe the scope of our analysis to terrorist incidents with *casualties*. The reasoning here is twofold. First of all, there is reason to believe that casualty-free terrorist incidents are less reliable measures of terrorism than those involving casualties. Because inconsequential threats and hoaxes are often vague, casualty-free incidents involve a great deal of noise and generate randomness (Enders et al., 2011; Enders & Sandler, 2000, 2002, 2006). Secondly, our empirical analysis seeks to minimise the underreporting problem identified by Drakos and Gofas (2006a), where countries with limited freedom of press record fewer terrorist incidents. As Hoffman and McCormick (2004) argue, terrorist incidents that involve casualties are more likely to gain media attention due to their newsworthiness. Indeed, in countries with limited freedom of press, terrorists have been found to commit particularly more atrocious attacks to gain media attention (Crenshaw 2002 as quoted in Piazza 2009). Moreover, while

capable non-democracies may attempt to control the narrative and framing of such terrorist incidents, it would be challenging for them to fabricate basic factual information such as the existence of civilian casualties. The CCTV's (China Central Television) coverage of the Kunming Attack of 2014, for instance, relied almost exclusively on reports from Xinhua News Agency, a Chinese Communist Party mouthpiece, and condemned the domestic separatist groups allegedly responsible for the attack (Du & Li, 2018). Even though the government was able to control the narrative (especially for the domestic audience), it remained evident that the attack resulted in heavy civilian casualties. Compared to casualty-free incidents, then, we could expect casualty-involving terrorist incidents to suffer less from underreporting.

Indeed, we find that limiting our attention to casualty-inflicting terrorist incidents substantially bridges the gap in terrorism reports between democracies and non-democracies. As summarised in Table I, the mean number of *all* terrorist incidents is nearly three times higher and the standard deviation is almost twice as large in democracies than in non-democracies; by contrast, when we restrict the data to *casualty-inflicting* terrorist incidents only, the mean is '2.4' times higher and the standard deviation '1.7' times greater in democracies compared to non-democracies.

Independent variables

The statistical analysis includes three independent variables: regime type, state capacity and their interaction terms. For state capacity, our models use three different measures. As the main operationalisation of state capacity, we use Hendrix and Young's (2014) latent measure of bureaucratic capacity. In this chapter, we argue that intermediate regimes can utilise bureaucratic capabilities to prevent the spread of certain information

and circumscribe democratic practices in times of crisis, diminishing the audience costs they suffer from domestic terror attacks. Because the core mechanism of this chapter involves the control of information, the state's administrative functions are the most theoretically relevant aspect of state capacity. In addition to the main variable, we also use Hendrix and Young's (2014) latent measure of military capacity and the Composite Index of National Capacity (CINC) (version 4.0) (Singer, 1987; Singer et al., 1972). CINC evaluates state capacity in terms of a nation's military expenditure and personnel, population size, energy consumption levels, and metals production and is widely used among studies of terrorism. While CINC and military capacity are widely used among scholars of terrorism as a proxy of state capacity, a nation's warmaking functions could be endogenous to terrorism. Bove et al. (2020) argue, as an example, that terrorist attacks may encourage the militarisation of politics. This is another reason why the chapter uses Hendrix and Young's (2014) measure of bureaucratic capacity as its main measure of state capacity. As robustness checks, state capacity is also operationalised using tax as a proportion of GDP (World Bank, 2021) and the World Bank's government effectiveness scores (Kaufmann & Kraay, 2020). All state capacity variables have been normalised to range between '0' and '100'.

Regime type is primarily operationalised using Polity IV's composite score, which places the type of a country's regime on a scale of '-10' to '10' (Marshall et al., 2014). We normalised this measure to range between '0' and '1'. And since we expect the type of regime to non-linearly affect state capacity's influence on terrorism, we also include a square term of this normalised value. As a robustness check, we also use a categorical regime type variable in one of our models. As in Chapter 2, a country-year is considered

"authoritarian" if the Polity score (in its original scale) is below or equal to '-6'. In addition, because this chapter seeks to identify effects in the "middle", a regime is considered "anocratic" if the Polity score is in between '-6' and '6' and "democratic" only if the Polity score is equal to or greater than '6'. In the robustness checks, we also use Freedom House's measure of political rights as a proxy for democracy. Freedom House's political rights score ranges from '1' to '7', with '7' indicating worst political rights conditions and '1' indicating the best guarantees of political rights.

Control variables

In addition to these main variables, our statistical models also include a set of controls. In the main models, we control for regime durability, conflict intensity, military expenditure (logged), economic globalisation, political globalisation, population size (logged), and GDP per capita (logged). Since more durable regimes would experience fewer terrorist

Table III. The effects of state capacity on domestic terrorism (main models)

State capacity measurement =	Model 1 Bureaucratic	Model 2 Military	Model 3 CINC	Model 4 Bureaucratic	Model 5 Military	Model 6 CINC
Capacity	0.027*** (0.008)	0.040*** (0.014)	0.044*** (0.015)	0.022*** (0.007)	0.037*** (0.013)	0.044*** (0.015)
Polity Score	5.886*** (1.485)	9.091*** (3.357)	3.539*** (0.561)	5.662*** (1.435)	9.941*** (3.231)	3.814*** (0.551)
Polity Score Squared	-3.888*** (1.356)	-6.938** (3.023)	-2.698*** (0.519)	-3.618*** (1.309)	-8.210*** (2.905)	-2.913*** (0.509)
Polity Score× Capacity	-0.106*** (0.031)	-0.095* (0.050)	-0.249*** (0.077)	-0.091*** (0.030)	-0.104** (0.048)	-0.280*** (0.076)
Polity Score Squared × Capacity	0.079*** (0.027)	0.074* (0.045)	0.223*** (0.066)	0.067*** (0.026)	0.091** (0.043)	0.253*** (0.065)
Regime durability	-0.004* (0.002)	-0.005*** (0.002)	-0.010*** (0.002)	-0.004** (0.002)	-0.006*** (0.002)	-0.010*** (0.002)
Conflict intensity	0.799*** (0.056)	0.823*** (0.044)	0.826*** (0.044)	0.825*** (0.055)	0.852*** (0.043)	0.857*** (0.043)
Ln (Population)	0.147** (0.069)	0.036 (0.053)	-0.006 (0.057)	0.210*** (0.066)	0.087* (0.051)	0.057 (0.055)
Ln (GDP per capita)	0.047 (0.109)	0.317*** (0.082)	0.306*** (0.082)	0.036 (0.101)	0.281*** (0.077)	0.280*** (0.077)
Econ. Globalization	-0.003 (0.005)	-0.008** (0.004)	-0.008** (0.004)	-0.004 (0.004)	-0.009** (0.003)	-0.009*** (0.004)
Polit. Globalization	0.001 (0.004)	0.007** (0.003)	0.008*** (0.003)	0.002 (0.003)	0.007** (0.003)	0.008*** (0.003)
Ln (Military expenditure)	0.113** (0.049)		0.102*** (0.038)	0.109** (0.047)		0.108*** (0.037)
Fixed effects	yes	yes	yes	no	no	no
AIC (with interaction)	6349.065	10344.21	10388.1	7464.736	11717.04	11761.66
AIC (without interaction)	6360.648	10344.42	10397.46	7474.792	11717.72	11776.05
Observations	2,321	4,359	4,421	2,523	4,561	4,642

* indicates $p < 0.10$ ** indicates $p < 0.05$, and *** indicates $p < 0.01$. Standard errors are in the parentheses. Constants are year-effects are not displayed in the table.

Table IV. Robustness checks

	Model 7	Model 8	Model 9	Model 10
	Negative Binomial		Poisson	
Democracy variable =	Categorical var.	Freedom House	Polity	Freedom House
Bureaucratic capacity	-0.02**	-0.00	0.07**	-0.00
	(0.01)	(0.01)	(0.00)	(0.00)
Regime type (categorical)				
Autocracy	-2.04**			
	(0.38)			
Democracy	0.85**			
	(0.33)			
Autocracy × Capacity	0.03**			
	(0.01)			
Democracy × Capacity	-0.01			
	(0.01)			
Regime type (continuous)				
Democracy		1.43**	10.40**	-0.27**
		(0.38)	(0.68)	(0.09)
Democracy Squared		-0.20**	-7.51**	0.01
		(0.05)	(0.60)	(0.01)
Democracy × Capacity		-0.02**	-0.25**	-0.01**
		(0.01)	(0.01)	(0.00)
Democracy Squared × Capacity		0.00**	0.18**	0.00**
		(0.00)	(0.01)	(0.00)
Regime durability	-0.01**	-0.01**	-0.00+	-0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Conflict intensity	1.65**	1.73**	0.76**	0.77**
	(0.09)	(0.09)	(0.02)	(0.02)
Ln (Population)	0.46**	0.58**	1.29**	1.40**
	(0.07)	(0.07)	(0.25)	(0.24)
Ln (GDP per capita)	0.23*	0.50**	1.08**	0.97**
	(0.11)	(0.12)	(0.10)	(0.09)
Econ. Globalization	0.00	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Polit. Globalization	0.00	-0.00	0.01**	0.01**
	(0.00)	(0.00)	(0.00)	(0.00)
Ln (Military expenditure)	0.30**	0.21**	0.04+	0.06**
	(0.06)	(0.06)	(0.02)	(0.02)
Fixed effects	no	no	yes	yes
AIC (with interactions)	8366.963	8365.907	13024.89	13163.36
AIC (without interactions)	8400.921	8371.034	13320	13173.56
Observations	2,539	2,517	2,321	2,324

* indicates $p < 0.10$ ** indicates $p < 0.05$, and *** indicates $p < 0.01$. Standard errors are in the parentheses. Year-effects and constants are not displayed in the table.

Table V. Robustness checks – continued

State capacity =	Model 11 Extractive capacity	Model 12 Government effectiveness	Model 13 Bureaucratic capacity	Model 14 Bureaucratic capacity
Capacity	-0.046	0.001	-0.010	-0.027
	(0.040)	(0.026)	(0.009)	(0.029)
Regime type (categorical)				
Autocracy	-0.204	-1.441	-2.105***	-5.758**
	(0.416)	(1.610)	(0.610)	(2.455)
Democracy	0.753**	0.728	0.320	-1.806
	(0.377)	(0.929)	(0.485)	(1.499)
Autocracy × Capacity	-0.054	0.015	0.031***	0.099*
	(0.047)	(0.045)	(0.011)	(0.052)
Democracy × Capacity	-0.054	-0.021	0.000	0.036
	(0.041)	(0.022)	(0.009)	(0.031)
Regime durability	-0.003	0.004	0.001	-0.001
	(0.002)	(0.009)	(0.002)	(0.010)
Conflict intensity	0.796***	0.826***	0.753***	0.709***
	(0.066)	(0.136)	(0.084)	(0.161)
Ln (Population)	-0.277***	0.213	-0.071	0.367
	(0.091)	(0.222)	(0.103)	(0.261)
Ln (GDP per capita)	0.168	-0.372	-0.197	-0.637
	(0.147)	(0.408)	(0.175)	(0.464)
Econ. Globalization	-0.015**	0.012	-0.006	0.014
	(0.006)	(0.016)	(0.007)	(0.020)
Polit. Globalization	0.011**	-0.013	0.003	-0.016
	(0.005)	(0.013)	(0.005)	(0.018)
Ln (Military expenditure)	0.209***	0.315**	0.254***	0.325*
	(0.064)	(0.153)	(0.074)	(0.168)
AIC (with interactions)	5177.36	948.855	3342.296	642.3326
AIC (no interactions)	5175.312	946.1248	3353.465	643.1684
Observations	1,901	399	1218	240

* indicates p < 0.10 ** indicates p < 0.05, and *** indicates p < 0.01. Standard errors are in the parentheses. Year-effects and constants are not displayed in the table.

attacks, we control regime durability with data from the Polity project (Marshall et al., 2014). As a nation's involvement in domestic conflicts may increase the risk of domestic terrorist attacks, we control for the intensity of any ongoing domestic armed conflicts (Gleditsch et al., 2002). For the armed conflict data, a value of '0' indicates no conflict, '1' indicates that the conflict has 25 to 999 battle deaths and '2' indicates 1000 and more battle deaths. Finally, we control for the amount of military expenditure (logged) (Singer, 1987; Singer et al., 1972), economic and political globalisation (from Gaibulloev, Piazza and Sandler 2017), as well as population size (logged) and GDP per capita (World Bank, 2021).

Results

Our main empirical analysis (Table III) conducts negative binomial regressions (Hausman, Hall and Griliches, 1984) upon a cross-sectional time-series dataset of domestic terrorist incidents from no fewer than 108 countries from 1970 to 2007. The main models (Models 1 to 3) include year dummies and country-fixed effects. Model 1 uses bureaucratic capacity as a measure of state capacity, whereas Models 2 and 3 use military capacity and CINC. The empirical models generally confirm our theoretical prediction that state capacity will reduce terrorism in the "middle" but not so much in the extremes. Moreover, state capacity seems to mediate democracy's effect on domestic terrorism: democracy's inverted-U shaped relation with terrorism found among low capacity states gradually transforms into a U-shaped curve as the states under concern become more capable. Using random-effects instead of the country-fixed effects (Models 4 to 6) leads to no substantial changes in the results.

Because the coefficients of negative binomial regressions are not readily interpretable,

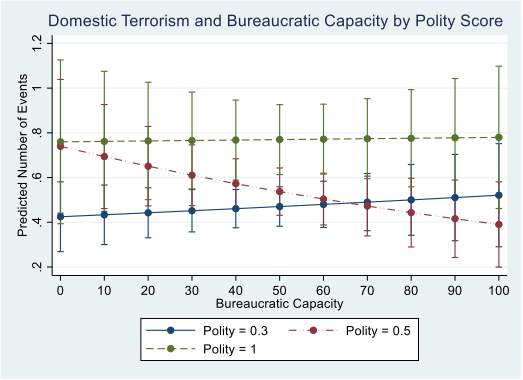
we will use predicted margins to explain the implications of our statistical models. Model 1 uses bureaucratic capacity as its measure of state capacity. Bureaucratic capacity reduces domestic terrorism in the "middle", but not so much in the extremes. If the Polity score is '0.5', increasing the state's administrative capacity from '20' to '60' reduces the expected number of domestic terror attacks by '0.147'. For Polity scores further away from the centre, on the other hand, bureaucratic capacity either has a weaker or even positive effects on terrorism. The same increment in capacity, for example, reduces the expected number of attacks by '0.127' if the Polity score is '0.9' and increases the expected number by '0.038' if the Polity score is '0.3'. Meanwhile, bureaucratic capacity seems to affect the Polity score's effects on domestic terrorism. When capacity is low, democracy has an inverted-U shaped relationship with domestic terrorism; when capacity is high, this association turns into a U-shape. When the bureaucratic capability score is '0', for instance, the expected number of domestic terror incidents rises by '0.297' as the Polity score moves from '0.2' to '0.4' but falls by '0.185' as the Polity score changes from '0.7' to '1'.

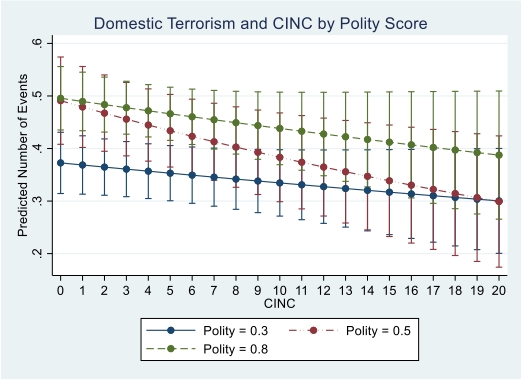
Models 2 and 3 use military capacity and CINC as alternative indicators of state capacity. Model 3 provides further confirmatory evidence of our theoretical analysis. CINC reduces terrorism by a substantial amount in anocracies, but not in fully democratic or autocratic regimes. When the Polity score is '0.5', for instance, increasing the CINC from '0' to '10' reduces the expected number of domestic terror incidents by '0.108'. For Polity scores '0.3' and '0.8', however, the expected number of domestic terror events fell by only '0.038' and '0.057' respectively. By contrast, according to Model 2, military capacity reduces the expected number of domestic terrorism for neither the extremes nor the "middle". Raising the military capability variable from '20' to '60' raises the expected

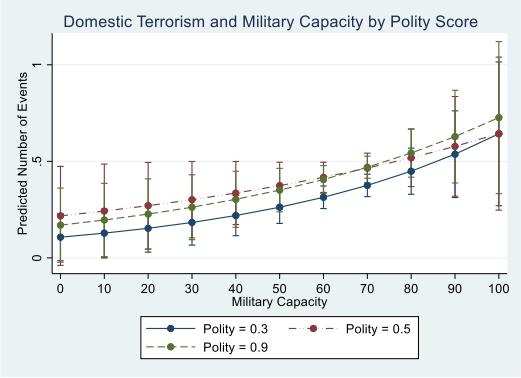
number of attacks by ‘0.154’, ‘0.147’, and ‘0.179’ for Polity scores ‘0.3’, ‘0.5’, and ‘0.9’ respectively. The results of Model 2 distinguish the AR mechanism from those involving military strength. The audience restriction effect is realised more through the state’s bureaucratic capability to control democratic practices, whereas sheer military capacity alone serves to increase terrorism (Hendrix & Young, 2014).

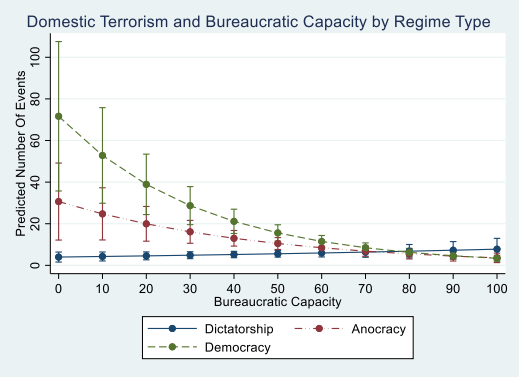
For both Models 2 and 3, state capacity again seems to shape democracy’s effect on terrorism. According to Model 3, CINC seems to condition the Polity score’s effect on domestic terror. Among low capacity states (CINC = 0), the expected number of domestic terror events rise by ‘0.14’ as the Polity score increases from ‘0.2’ to ‘0.4’ but decreases by ‘0.08’ as the Polity score moves from ‘0.7’ to ‘0.9’. Among high capacity states, however, this pattern is reversed. For instance, if ‘CINC = 20’, the expected number of terrorist events falls by ‘0.02’ as the Polity score moves from ‘0.2’ to ‘0.4’ but rises by ‘0.11’ when the Polity score changes from ‘0.7’ to ‘0.9’. The p-values for the interaction term using military capability as an alternative measure are significant only at the ten percent level, but the direction of the coefficients indicate a similar pattern. When military capability is ‘20’, the expected count of terror attacks climbs by ‘0.117’ as we increase the Polity score from ‘0.2’ to ‘0.4’ but falls by ‘0.082’ if the Polity score is brought up from ‘0.7’ to ‘0.9’. By contrast, the pattern is reversed at higher levels of bureaucratic or military capacity. If bureaucratic capacity is ‘100’, the expected number of domestic terror attacks falls by ‘0.247’ as the Polity score shifts from ‘0.2’ to ‘0.4’ but rises by ‘0.174’ as the score increases from ‘0.7’ to ‘0.9’. Likewise, if military capacity is ‘100’, the expected number falls by ‘0.011’ as the Polity score moves from ‘0.2’ to ‘0.4’ but increases by ‘0.097’ as the Polity score changes from ‘0.7’ to ‘1’. Since the number of

Figure 2. State capacity reduces terrorism in “the middle”









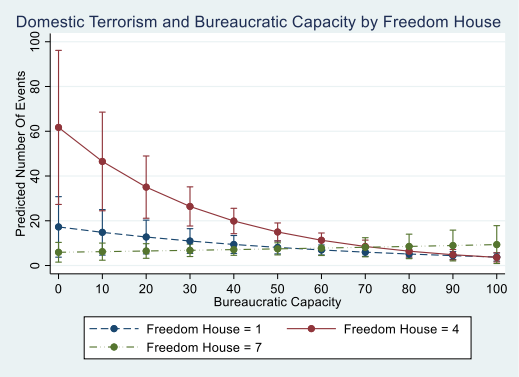
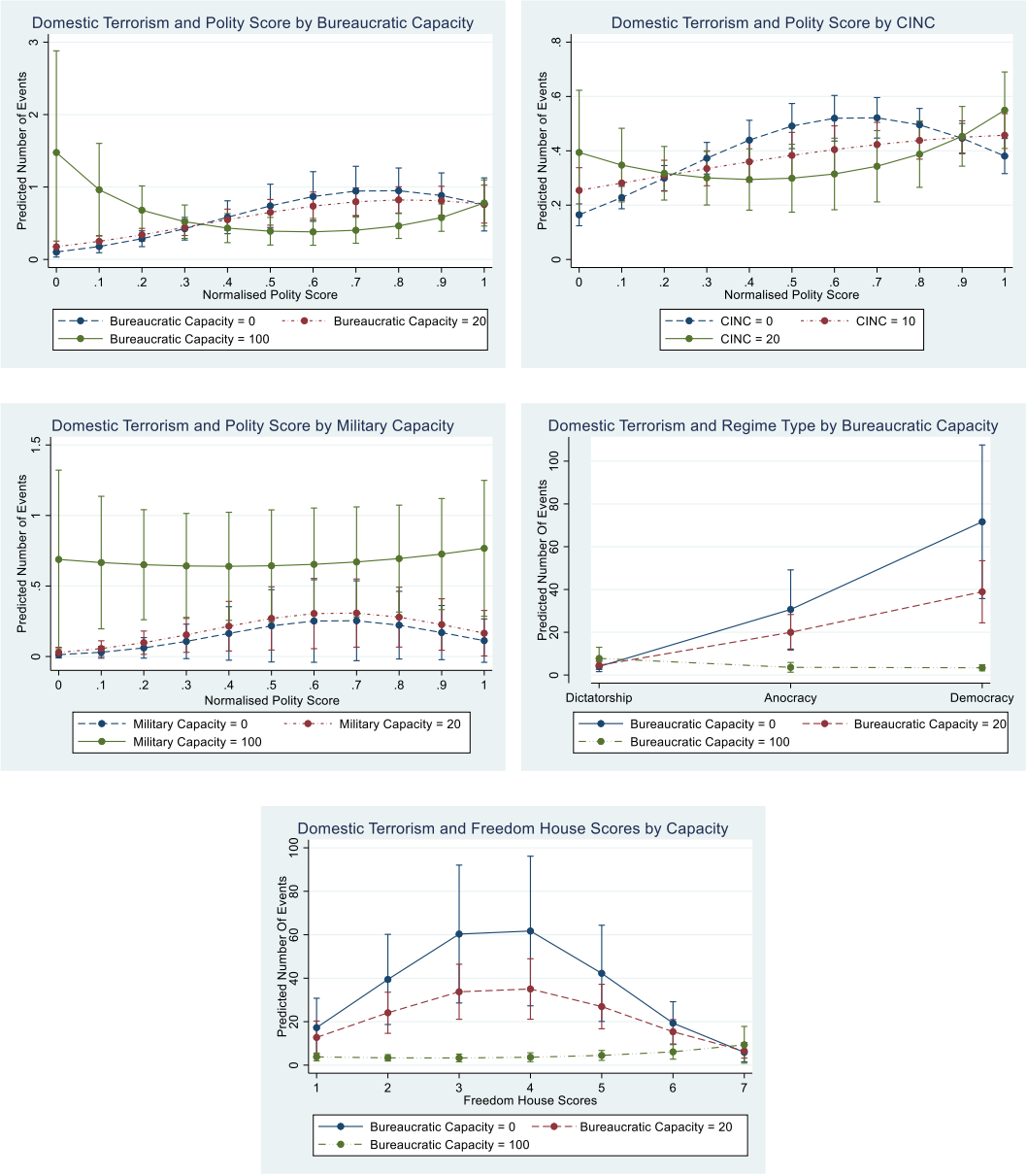


Figure 3. State capacity shapes democracy's effect on terrorism



observations varied greatly across the three models, we also re-estimated the models using the same sample periods; the results are consistent with the findings above.[9]

Figures 2 and 3 visually illustrate the above findings, assuming zero fixed effects. bureaucratic capacity and CINC have strong negative effects on the number of terror attacks in anocracies but not in fully autocratic or fully democratic regimes. By contrast, military capability positively affects terror attacks across all types of regimes. (Figure 2) In addition, state capacity seems to condition democracy's relationship with terrorism. For all indicators of state capacity, the polity score has an inverted-U shaped relationship with domestic terrorism in low capacity states only; as a state becomes more capable, democracy's effect on domestic terror gradually turns into a U-shaped pattern. (Figure 3) If existing works purported a U-shaped, linear, or inverted-U shaped pattern between terrorism and democracy, our empirical work demonstrates how the relationship may be contingent on an often-overlooked moderating variable: state capacity.

Robustness Checks

These results are replicated in eight different statistical models that are designed to assess the robustness of our main analysis (Tables IV and V). There have been concerns that negative binomial regressions could be problematic when combined with country fixed-effects (Allison & Waterman, 2002). Acknowledging this potential limitation, Models 7 and 8 run negative binomial regressions without country fixed-effects, using alternative indicators of democracy in their analysis. Model 7 uses a categorical regime type variable, whereas Model 8 uses the Freedom House political rights score. Models 9 and 10, on the

[9] Details on this alternative set of models are available in Table A1 of the Appendix.

other hand, are Poisson regressions with country fixed-effects. Finally, Models 11 to 14 assess whether the main empirical findings depend on using Hendrix and Young's (2014) latent variable as the measure of state capacity. Model 11 uses extractive capacity (World Bank, 2021) and Model 12 uses the World Bank's government effectiveness index (Kaufmann & Kraay, 2020) as their measures of state capacity. Models 13 and 14 use Hendrix and Young's measure of capacity, but run the analysis using the same sample as Models 11 and 12 respectively.

In Model 7, a categorical regime type variable is employed instead of a continuous one. Regimes are classified into either autocracies, anocracies, or dictatorships. Autocracies and democracies, bureaucratic capacity has no discernible effect on domestic terrorism. By contrast, for anocracies, the base category, a standard deviation increase in bureaucratic capacity results in a 0.508 reduction in the log of domestic terror. In Figures 2 and 3, bureaucratic capacity has a slightly positive effect on terrorism among dictatorships, and its effect has large confidence interval among democracies. Anocracies, on the other hand, show a clear negative effect on terrorism. Model 8 uses the Freedom House political rights scores as yet another alternative measure of democracy. Again, democracy and state capacity jointly affect domestic terrorism. Moving bureaucratic capacity from a standard deviation below and to a standard deviation above the mean results in a '18.93' change in the expected number of domestic terror attacks for countries in 'the middle' (Freedom House score = 4) but by '5.69' and '-1.79' change for full dictatorships (Freedom House score = 7) and democracies (Freedom House score = 1) respectively. This relationship between Freedom House scores, bureaucratic capacity and domestic terrorism is illustrated in Figures 2 and 3.

Poisson regressions also produce confirmatory evidence. Model 9 displays the coefficients of a fixed-effects Poisson regression that uses the Polity score as its measure of democracy. According to this Model, moving bureaucratic capacity up a standard deviation around the mean changed the expected number of attacks by '0.4' for 'Polity = 0.5', by '-3.7' for 'Polity = 0' and by '-0.08' for 'Polity = 1'. Model 10 uses the Freedom House political rights score as an alternative indicator of democracy. Here again, a similar pattern occurs. If bureaucratic capacity increases from '32.11' to '82.9', the expected number of attacks falls by '0.49' for Freedom House scores of '2', but by '0.42' and '-0.28' for Freedom House scores of '1' and '5'.

Models 11 and 12 examine whether the findings of the main model can be replicated using other measures of state capacity. Model 11 uses extractive capacity, operationalised as tax as a proportion of GDP (World Bank, 2021), whereas Model 12 uses the World Bank's government effective index (Kaufmann & Kraay, 2020). In either case, state capacity no longer conditions the effect of regime type. The two models, however, are crucially limited in their scope. Because of data availability, Model 11's coverage is limited to relatively wealthy nations, which suffer from fewer terrorist attacks. Moreover, government effectiveness is only available on an annual basis from 2002, severely curtailing the study period of Model 12. To assess the empirical repercussions of these restricted samples, Models 13 and 14 each use bureaucratic capacity as its measure of state capacity but conduct the analysis using the same country-years sampled in Models 11 and 12 respectively. The results of Models 13 and 14 illustrate that the problems with Models 11 and 12 are mainly attributable to coverage, rather than the type of state capacity measured.

Conclusion

"Weak governments", argued the forty-third President of the United States, "are vulnerable to terrorist networks and drug cartels" (Bush, 2002). The former UN Secretary General Kofi Annan also argued that, because "terrorists exploit weaknesses," "building capacity in all States must therefore be the cornerstone of the global counter-terrorism effort." (Annan, 2006, p. 15) Among policymakers, it is widely recognised that a state's administrative and military capability to implement the government's will critically affects the country's vulnerability to terrorist threats. The literature on terrorism in its current state, however, mostly revolves around the issue of how regime types may affect terrorism. While recognising the relevance of regime type for the analysis of terrorist attacks, we sought to weave it together with the literature's emerging academic interest in the state capacity variable. Specifically, our theoretical and empirical analyses demonstrate how state capacity determines regime type's relationship with domestic terrorism.

In the theoretical section, we presented a formal game-theoretic model involving two players: a government and a terrorist organisation. At the intersection of the government's and terrorist's best response functions lies the equilibrium level of terrorist attacks. This equilibrium level of terrorist attacks, we argue, depends critically on both state capacity and regime type. In full democracies and full dictatorships, state capacity has little effect on the equilibrium number of terrorist incidents; in anocracies, state capacity has a strong negative effect on terrorism.

Our theoretical argument was then empirically tested using a series of negative binomial and poisson regressions upon a time-series cross-sectional dataset of no fewer than 108

countries from 1970 to 2007. According to the models, state capacity mattered most in "the middle": state capacity reduced the most number of expected terror attacks in anocracies compared to full dictatorships and democracies. Additionally, our analysis indicates that state capacity may mediate democracy's effect on terrorism. Among states with low bureaucratic capacity, the Polity score had an inverted-U shaped effect on domestic terrorism. As states became more capable, this relationship gradually transformed to a U shape.

What could our findings imply for policymakers? If Kofi Annan implored the international community to support the building of capacity "in all States", (Annan, 2006, p. 15) our analysis illustrates how capacity may matter more for some states than for others. Particularly, the results demonstrate that, when it comes to countering domestic terrorism, state capacity matters more in regimes that involve a mixture of democratic and autocratic characteristics. Given this information, policymakers seeking to reduce domestic terrorism could expect to benefit more from enhancing the capacity of anocracies. Of course, policymakers may have reasons other than counterterrorism for building the capacity of a state. When the key consideration is tackling domestic terrorism, however, our paper clearly shows that state capacity matters almost exclusively in anocracies.

Appendix

Table A1. Robustness checks using the same sample period (1985-2007)

	Model 1 Bureaucratic Coefficient	Model 2 Military Coefficient	Model 3 CINC Coefficient
Capacity	0.027***	0.058***	0.047**
	(0.008)	(0.019)	(0.019)
Polity Score	5.886***	14.995***	2.978***
	(1.485)	(4.829)	(0.755)
Polity Score Squared	-3.888***	-13.328***	-1.826***
	(1.356)	(4.317)	(0.677)
Polity Score× Capacity	-0.106***	-0.195***	-0.301***
	(0.031)	(0.072)	(0.093)
Polity Score Squared × Capacity	0.079***	0.184***	0.257***
	(0.027)	(0.063)	(0.080)
Regime durability	-0.004*	-0.006***	-0.005*
	(0.002)	(0.002)	(0.003)
Conflict intensity	0.799***	0.823***	0.829***
	(0.056)	(0.055)	(0.055)
Ln (Population)	0.147**	0.126*	0.113
	(0.069)	(0.066)	(0.072)
Ln (GDP per capita)	0.047	0.035	0.050
	(0.109)	(0.108)	(0.108)
Econ. Globalization	-0.003	-0.004	-0.007
	(0.005)	(0.005)	(0.005)
Polit. Globalization	0.001	0.001	0.002
	(0.004)	(0.004)	(0.004)
Ln (Military expenditure)	0.113**		0.166***
	(0.049)		(0.051)
Fixed effects	yes	yes	yes
AIC (with interaction)	7212.76	6934.148	7186.756
AIC (without interaction)	7226.659	6932.214	7184.811
Observations	2321	2299	2321

* indicates $p < 0.10$ ** indicates $p < 0.05$, and *** indicates $p < 0.01$. Standard errors are in the parentheses. Year-effects are included in the regressions but not displayed in the table.

Chapter 4.

State capacity and COVID-19 responses

During the COVID-19 pandemic, "capable" states did not seem to have been particularly adept at handling the spread of the deadly virus. Since 31st December 2019, the European continent alone has seen over 89 million infections and 157 thousand deaths from SARS-CoV-2, whereas the United States as a single country recorded nearly 50 million infections and 79 thousand deaths (European Centre for Disease Prevention and Control, 2021). Why is it that some of the most powerful states with well-prepared health systems and effective bureaucracies appear to have failed to protect its citizens from this global pandemic? This visible failure is particularly perplexing given that the pandemic has also witnessed some state-of-the-art bureaucratic functioning, where capable states could direct its resources in a strikingly targeted manner. In Singapore, for instance, the TraceTogether smartphone application could identify via Bluetooth signals whether a person was within 2 meters of a COVID-19 patient for more than 30 minutes (Tham, 2020). With such technology at hand, the Singaporean government managed to keep the shops open, even as it surpassed 1,000 daily infections on 21st April 2020 (H. L. Lee, 2020). Meanwhile, when South Africa's daily infections hit the 1,000 mark, police fired rubber bullets to enforce a nationwide lockdown (Burke, 2020). Thus the pandemic presents us with an interesting but complicated puzzle. Did more capable states resort to different types of responses than less capable states? How effective were these responses at containing the virus?

According to existing works in the field, state capacity facilitates the implementation of

the government's intentions, increasing the likelihood of attaining desirable policy outcomes. For instance, capacity has been associated with economic growth (Bockstette et al., 2002; Dincecco & Katz, 2016; Dincecco & Prado, 2012; P. Evans, 1995; P. Evans & Rauch, 1999; Hamm et al., 2012; Rauch & Evans, 2000; Weiss, 1998), peace (Braithwaite, 2010; de Rouen & Sobek, 2004; Fearon, 2005; Fearon & Laitin, 2003; McBride et al., 2011; Sobek, 2010) and the protection of rights (Acemoglu et al., 2010; Butler et al., 2007; Englehart, 2009, 2017; Fearon & Laitin, 2003; Sullivan, 2012). Among studies of health, state capacity has been linked to lower infant and child mortality (Dawson, 2010; Hanson, 2015) as well as higher life expectancy (Burkle, 2006) and better control of epidemic outbreaks (E.-L. Anderson & Beresford, 2016; Brown et al., 2018; Burkle, 2006; Rull et al., 2015; WHO, 2018). Depending on the research question, studies have variously focused on specific aspects of state capacity such as extractive (Besley & Persson, 2009; Geddes, 1996; Levi, 1988; Tilly, 1975), coercive (Fearon & Laitin, 2003; Geddes, 1996; Skocpol, 1985; Tilly, 1975), and informational (Brambor et al., 2020; M. Lee & Zhang, 2017) capacity. In the pandemic context, the ability to craft and implement quality policies while retaining the public's confidence has arguably been key to the effective management of the crisis. As a result, one of the most widely used measures of state capacity in the field has been the World Bank's government effectiveness index (Kaufmann & Kraay, 2020).

In line with this literature, studies of the recent pandemic find that capable states responded differently compared to less capable states. According to some studies, states with greater government effectiveness (Cepaluni et al., 2020; Serikbayeva et al., 2021; Winkelmann et al., 2021) and better quality of government (Cepaluni et al., 2020) suffered from fewer COVID-19 related deaths, while González-Bustamante (2021) and Capano et

al. (2020) find that state capacity accelerated the implementation of more stringent policies. However, there is also a substantial degree of variation among highly capable states in terms of how successful they were at handling the global pandemic (Kavanagh & Singh, 2020; Weiss & Thurbon, 2021). Furthermore, other studies have suggested that capable states were actually less likely to introduce drastic measures, since they could postpone population-wide measures until they are absolutely necessary (Cronert, 2020). Existing works, therefore, are limited in their ability to explain the two puzzles outlined above, where high-capacity states seemed to have resorted to more sophisticated and specific restrictions but were not palpably more effective at controlling the pandemic.

This paper proposes a theoretical framework that seeks to explain the first part of the puzzle. During the COVID-19 pandemic[10], more capable states were much more inclined to respond to the infections with strategies targeting a particular segment of the population. Because these strategies allowed governments to target public health restrictions upon a defined segment of the entire population, these restrictions will be referred to as *targeted* responses to the pandemic (Rose, 2001). Examples of targeted responses include measures such as efficient contact-tracing, vaccine passports, partial school closures, and conditional requirements of face-coverings, where different policies are applied to individuals depending on whether they are at high-risk or low-risk of infection. If targeted responses seek to restrict the activities of only high-risk individuals, at the other end of the spectrum are population-wide measures, which apply indiscriminately to the entire

[10] The study examines the first year of the pandemic. Without any vaccine or treatment, the virus was both infectious and deadly during the study period (30th January to 20th September 2020).

population (Rose, 2001). Nationwide lockdowns or mandatory face coverings in all public areas at all times serve as good examples of population-wide measures. The paper will argue that, in response to the same level of infections, a government equipped with a highly capable state is more likely to resort to targeted measures, whereas a government endowed with a less capable state is likely to stick with sweeping, nation-wide policies. This finding will be especially relevant for observational studies, since it highlights a potential endogeneity between COVID-19 responses and state capacity.

After advancing this theoretical argument, the paper then proceeds to evaluate the hypothesized predictions with empirical data. Using the OxCGRT (Oxford COVID-19 Government Response Tracker) data and daily estimates of the reproduction number (Arroyo-Marioli et al., 2021) from 30th January 2020 to 20th September 2020[11], the empirical section examines both parts of the theoretical argument. A series of ordered logistic regressions demonstrate that states with higher capacity were indeed more likely to resort to targeted responses. Thus, if scholars of the ongoing pandemic have emphasised the effects of democratic values (Bollyky et al., 2019; Bosancianu et al., 2020; Cepaluni et al., 2020; Engler et al., 2021; Karabulut et al., 2021), political institutions (Huberfeld et al., 2020; Rocco et al., 2020) and partisanship (Adolph et al., 2021; Allcott et al., 2020; Barrios & Hochberg, 2020), this paper underscores how state capacity may have also played a pivotal—albeit not so straightforward—role in the pandemic.

[11] The start dates vary depending on when the pandemic started to affect each country. More recent periods are not included in the study, since it is still unclear how the introduction of vaccines may have altered the strategic considerations of governments and citizens.

Literature Review

What determined government responses to the most recent pandemic? Scholars from various backgrounds have explored different avenues of thought regarding this question. One of the key areas of debate has been whether democracy (or more specifically liberal democracy) has been detrimental to timely and effective responses or whether some political institutions were more suited than others to respond to the pandemic. By comparison, the state's capability to deliver the intended goals of a government's policy has been relatively underexplored in the growing literature concerning the political determinants of COVID-19 outcomes. Consequently, the main focus of this paper shall be the capability of the state and how it affected the governments' responses to the COVID-19 pandemic.

Did democracy increase the efficacy of COVID-19 responses? According to Ruger (2005), democratic governments enhance the health of its population to increase its chances of electoral success, if not for the intrinsic moral value of health. Before the pandemic, studies had generally found support for Ruger's argument (Bellinger, 2018; Burroway, 2016; Gerring et al., 2015; Przeworski, 2004). During the pandemic, however, the relationship between democracy and health has been ambiguous at best. On the one hand, research has found that COVID-19 mortality was lower in countries with higher levels of democracy and political trust (Bollyky et al., 2019; Bosancianu et al., 2020). At the same time, democratic principles have been found to be inconsistent with some of the stronger interventions designed to tackle the virus (Engler et al., 2021), and autocracies seemed to perform better in terms of the number of infections (Cepaluni et al., 2020; Karabulut et al., 2021). The reason for this ambiguity could be that the mechanisms designed to secure

democratic accountability in normal times may not be as functional for preparing countries against crises, which far exceeds the short time horizons of elected officials (Dionne, 2011; Healy & Malhotra, 2009).

Studies have also assessed whether other political elements have affected the efficacy of health interventions. For instance, researchers have found partisanship to affect citizens' perceptions about the seriousness of COVID-19 (Allcott et al., 2020; Barrios & Hochberg, 2020), while structural racism (Bailey & Moon, 2020), female political leadership (Aldrich & Lotito, 2020), populist attitudes (Ansell et al., 2021), and federalism (Huberfeld et al., 2020) have arguably affected each government's response to the pandemic. For scholars of the United States, there has been particular attention to the effects of federalism. Critics argue that the United States suffered from greater losses during the pandemic owing to its decentralised form of governance. Because individual states were treated as just one of many other interest groups that were trying to lobby Congress, federal funds became "crowded out", (Rocco et al., 2020) and existing inequities were exacerbated during the crisis (Huberfeld et al., 2020). With the federal government refusing to release its stockpile of protective equipment, individual states had to compete against each other as well as with the federal government to gain access to medical supplies (Goelzhauser & Konisky, 2021). "The reliance on state and local actors in this pandemic", Knauer (2020, pp. 5–6) sums up, was "ill-suited to stop a novel virus in search of its next host". To aggravate matters further, partisan divide in the US even politicised COVID-19 responses, with conservative states taking significantly longer to adopt social distancing measures (Adolph et al., 2021).

State capacity, by contrast, has received relatively modest attention in the field, even

though existing works provide reason to believe that state capacity was critical for successful responses to the pandemic. The capacity of the state has been associated with the attainment of a number of desirable policy outcomes, including economic growth (Bockstette et al., 2002; Dincecco & Katz, 2016; Dincecco & Prado, 2012; P. Evans, 1995; P. Evans & Rauch, 1999; Hamm et al., 2012; Rauch & Evans, 2000; Weiss, 1998) and peace (Braithwaite, 2010; de Rouen & Sobek, 2004; Fearon, 2005; Fearon & Laitin, 2003; McBride et al., 2011; Sobek, 2010). More recently, the literature on human rights has found the capacity of a state to critically affect the protection of rights (Acemoglu et al., 2010; Butler et al., 2007; Englehart, 2009, 2017; Fearon & Laitin, 2003; Sullivan, 2012). Importantly, scholars have found strong associations between capacity and health in general. State capacity is linked to lower infant and child mortality (Dawson, 2010; Hanson, 2015) as well as higher life expectancy (Burkle, 2006). Outside of normal times, capacity has been central to the control of epidemics (Burkle, 2006; Rull et al., 2015; WHO, 2018), including the Ebola virus (E.-L. Anderson & Beresford, 2016) and the African swine flu (Brown et al., 2018).

During the recent pandemic, a limited number of studies have also found state capacity to affect the effectiveness of COVID-19 responses. Qualitative studies have identified how capacity (Hartley & Jarvis, 2020; Woo, 2020; Wu et al., 2019) or the lack thereof (Capano, 2020; McCormack & Jones, 2020; Woo, 2020) conditioned the successfulness of states' responses to the pandemic. Quantitative studies add further empirical support to the qualitative literature: higher government effectiveness (Cepaluni et al., 2020; Serikbayeva et al., 2021; Winkelmann et al., 2021) and quality of government (Cepaluni et al., 2020) led to fewer deaths from COVID-19. At the same time, however, there has also been a substantial variation among states that had been regarded to be highly capable

and well prepared against a global pandemic (Kavanagh & Singh, 2020; Weiss & Thurbon, 2021).

If the majority of studies exploring the relationship between state capacity and COVID-19 focused on the effectiveness of government responses, a small number of studies have also explored how the capacity of the state may shape the *type* of policies that governments pursue during a pandemic. According to Rose (2001), there are largely two approaches to prevention. The "individual based" strategy's goal is to identify the individuals most likely to be affected by a disease and offer them targeted protection. By contrast, the "population strategy" aims to control the determinants of the infection directly and lower the mean level of risks (Rose, 2001, p. 431). During the COVID-19 pandemic, more capable states, it has been argued, have been able to postpone the closure of schools as they "are in a better position to suspend drastic precautionary measures like school closures longer in favor of a more proportional strategy with less disruptive initial responses" (Cronert, 2020, p. 5). At the same time, González-Bustamante (2021) and Capano et al. (2020) find that state capacity accelerated the implementation of more stringent policies. Meanwhile, Weiss and Thurbon (2021) argue that the lack of relevant capacities led the British and Australian governments to seek creative solutions by repurposing other strengths of the state or by uncovering capacities that laid dormant.

Finally, it should be noted that studies of the state vary in their precise definition of the state's capacity. State capacity has been defined in connection with one or more aspects of a state's power: coercive (Fearon & Laitin, 2003; Geddes, 1996; Skocpol, 1985; Tilly, 1975), fiscal (Besley & Persson, 2009; Geddes, 1996; Levi, 1988; Tilly, 1975), administrative (Centeno, 2002; Geddes, 1996; Huntington, 1968; Skocpol, 1985),

transformative (P. Evans, 1995; Weiss, 1998), territorial (Fearon & Laitin, 2003; Migdal, 1988), legal (Acemoglu et al., 2011; Besley & Persson, 2009; Fukuyama, 2004), infrastructural (Mann, 1986; Soifer & vom Hau, 2008), political (Acemoglu et al., 2011; Centeno, 2002), intelligence (Winward, 2021) and information (Brambor et al., 2020). Among scholars of public health, the focus has predominantly been on the state's medical capacity, such as the number of hospital beds and the skills of the medical staff (for example, see Winkelmann et al., 2021). Before moving on any further, therefore, it is imperative to clarify exactly what aspect of capacity is relevant for the research question at hand. In doing so, it is important not to conflate capacity with particular political institutions (for example, see Shvetsova et al., 2020). The conceptualisation of capacity should also avoid becoming tautological.[12]

State capacity, broadly defined, is the causal connection between a policy and its intended outcomes (Lindvall & Teorell, 2016). The precise mechanism may vary depending on the policy and outcome under consideration. In the pandemic context, the state's ability to craft quality policies and implement them was crucial for the effective management of the crisis. If policies were not appropriate for the level and pattern of infection, not effectively enforced by the state, or lacked the public's confidence in them, the government could not curb infections to a manageable level. As a result, the paper will

[12] For instance, Weiss and Thurbon's (2021) "salutary capacity", which encompasses "the ability to control national borders, to enforce quarantine, communicate a public health threat, mandate public health measures, methodically test, trace, and isolate, mobilise health infrastructure, personnel and medical equipment, and ultimately to vaccinate the population", risks engendering a tautological argument that 'states responded effectively because they responded effectively', if it were employed for answering the research question at hand.

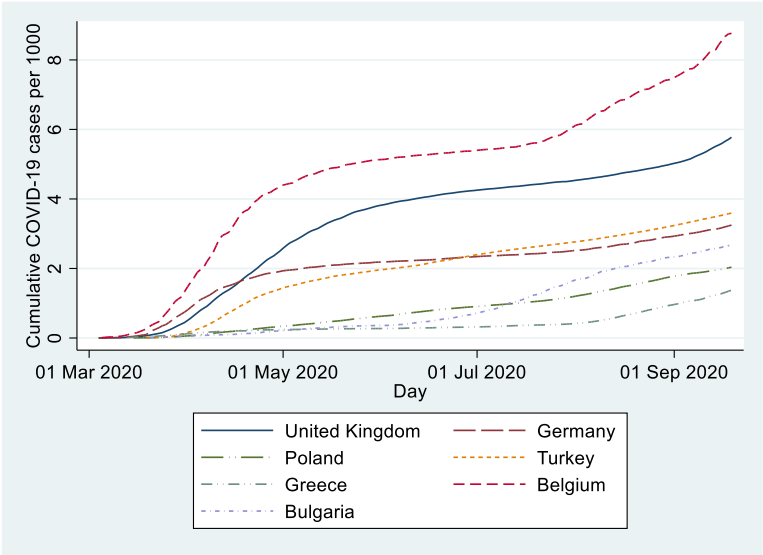
follow related studies in the field and mainly focus on the effectiveness of government (Cepaluni et al., 2020; Serikbayeva et al., 2021; Winkelmann et al., 2021) as its measurement of capacity. According to the World Bank, the government effectiveness index "captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies" (Kaufmann & Kraay, 2020).[13]

In short, the literature in its current state offers little in terms of answering the questions outlined at the beginning of this paper. Although there is ample reason to believe that the capacity of the state would have affected the government's responses to the pandemic, there has been limited attention to how variations in capacity affected COVID-19 outcomes. In an attempt to address this gap in the field, this paper proposes a novel theoretical framework that seeks to explain the intricate manner in which state capacity affected the course of the COVID-19 pandemic.

[13] The type of "political pressure" considered by the government effectiveness index refers to the political use of state functions that are typically entrusted to public servants. Specifically, the government effectiveness index captures whether 1) state infrastructure was extraordinarily shut down for political reasons, 2) monetary policy was controlled by politicians and 3) there were political interventions in business activities.

State capacity and public health restrictions

Figure 1. Cumulative COVID-19 cases in the European region



The literature as it stands views the state mainly as a facilitator of a government's intentions: more capacity means that the government's goals are better fulfilled, leading to improved public health outcomes. During the recent pandemic, however, there has been limited evidence in support of such expectations. High-capacity states have not been unambiguously successful in preventing the spread of the disease (Kavanagh & Singh, 2020). In Europe, for instance, some of the most capable states seemed to have experienced the largest and fastest spread of the disease (Figure 1). In an attempt to unpack this apparent conundrum, this section will carefully analyse how the capacity of the state affects the strategic decisions of governments and their citizens. If previous studies have highlighted the government's side of the story, this theoretical framework will examine how governments and citizens interact with each other when determining the type of health restrictions (targeted or population-wide) and the amount of social distancing. The key argument here is that COVID-19 responses are endogenous to state

capacity.

The government decides on the type of COVID-19 response it will impose, while citizens decide how much social distancing to conduct.[14] Let us start by first examining the government's response to COVID-19. Ceteris paribus, the government is less inclined to resort to population-wide measures when a) citizens maintain a *high level of social distancing* and b) when the state is *more capable*. First of all, *social distancing* renders population-wide measures unnecessary. Because the risk of infection is generally low, the government can focus on particular individuals whose risk of infection are high, owing, for example, to underlying illnesses, age, or high exposure to the disease. Moreover, social distancing increases the effectiveness of targeted measures, because individuals that fall into a government's targeted restriction (such as partial lockdowns and school closures) will comply better in societies where social distancing is the norm. Consider, for instance, a society where the norm is "no smoking": citizens will need much less convincing to refrain from smoking, compared with a society where smoking is the norm (Rose, 2001). Likewise, citizens will require less convincing to follow targeted restrictions if social distancing is the norm.

Second, all else being equal, *higher state capacity* means that governments are less inclined to pursue population-wide restrictions. As discussed in the literature review, the primary aspect of state capacity discussed in this paper is the state's ability to craft and

[14] The behaviour of citizens can influence the government's decision; likewise, the government's policies may influence the citizens' choice of actions. However, citizens and governments each have clearly defined roles. The decision to impose public health restrictions is ultimately the government's decision; the amount of social distancing conducted is ultimately the citizens' decision.

implement quality policies. As Cronert (2020) notes, states that have those resources could resort to less disruptive initial measures before considering drastic preventative strategies. Without the appropriate capacity to do so, the state may not know how to best target the restrictions or have the appropriate resources to implement the rules it crafted. In Italy, for example, contact tracing measures that were introduced in April 2020 did not effectively start until mid-June, because the state could not hire anyone to perform the contact tracing, and the app that was designed to contact-trace affected individuals was not functional (Capano, 2020). A more capable state, on the other hand, has a well-functioning public sector that can efficiently administer restrictions. Singapore's early introduction of contact-tracing serves as a case-in-point. By mobilizing personnel from other departments, such as investigative officers from the police and the military, Singapore was able to swiftly and effectively carry out contact-tracing operations (Woo, 2020). When the state can devise quality restrictions and implement them efficiently, it will find little need for disruptive, population-wide measures.

While governments decide on the type of public health restrictions, the citizens concurrently choose their level of social distancing. Citizens are less inclined to socially distance when a) the *restrictions are targeted* and b) *the state is incapable of detecting (non-)compliance*. First of all, *when the rules are targeted*, the perceived utility from social distancing is small. Consider a universe where smoking is not prohibited in public spaces, and the hospitals only advise a citizen not to smoke if the citizen is already ill or likely to become ill from smoking; in such a world, citizens who are not advised by doctors to quit smoking have little reason to adopt an anti-smoking attitude. Similarly, where the government only targets a particular segment of the population to apply restrictive measures, citizens outside of that targeted group are likely to assess – for the

better or for the worse – that their own risks from COVID-19 are minimal; as a result, citizens perceive the gains from social distancing to be low. Second of all, when restrictions are targeted, the opportunity costs from social distancing are large. When population-wide restrictions are employed, the range of activities citizens can engage in is small. For example, when governments order shops to close down, citizens might as well stay at home, as there is not much to do outside anyways. By contrast, when restrictions are targeted, citizens who socially distance are losing out on so many opportunities. Instead of staying at home, they could meet friends or earn money; as a result, the costs of distancing become tremendously high. The low gains from distancing combined with these high costs mean that citizens will not socially distance as much when the restrictions are targeted.

The capacity of the state is another factor that affects the citizens' decision to socially distance. Higher state capacity increases the utility of distancing while decreasing the costs. During the pandemic, governments introduced various measures to incentivize social distancing and induce costs for those who do not practice distancing. Without enough capacity, however, states cannot devise functioning (dis)incentive programs or efficiently deliver the promised (dis)incentives. For example, subsidies did not reach the people for months in Italy, and other socio-economic measures designed to reward and alleviate the costs of social distancing were delayed due to numerous bureaucratic hurdles and red tapes (Capano, 2020). The United Kingdom, by contrast, quickly repurposed its extractive capacity for distributive functions, managing to successfully administer furlough schemes (Weiss & Thurbon, 2021). When the state's ability to devise effective (dis)incentives and deliver them as promised vary as such, citizens facing a low-capacity state have less reason to socially distance. The costs are higher and gains lower, due to

the government's limited ability to devise and administer policies.

Provided these inclinations, the type of government restrictions is determined by a strategic interaction between the government and its citizens. Compared to less capable states, governments equipped with capable state apparatuses suffer from smaller costs and benefit from larger gains by opting for targeted restrictions. Moreover, higher capacity implies that citizens will maintain some level of social distancing for restrictions that are less population-wide, providing the government with further leeway to pursue more individualized and targeted strategies. As a result, the governments of capable states introduce public health restrictions that are much more targeted than those of less capable states. How do citizens respond when state capacity affects the behaviour of governments in this way? As described in the previous paragraphs, citizens are inclined to conduct less social distancing when restrictions are targeted, but at the same time more state capacity means that the state is better at devising and delivering the incentives and disincentives that are designed to promote social distancing. It is ambiguous, therefore, whether more capacity yields higher amounts of social distancing. If citizens are affected more by the (dis)incentives than they are by the rising opportunity costs and the diminishing utility of social distancing, the overall level of social distancing will be higher under more capable states.

In short, more capable states resort to more targeted restrictions. These expectations are in stark contrast with the those of the literature, where state capacity's effects on policy outcomes are understood to be more straightforward. The next section will present a game-theoretical model of the theorised relationship between state capacity, public health restrictions and social distancing. As expected, higher capacity results in more targeted

health restrictions.

Game-theoretical model

The game theoretical model will formally analyse the above theoretical narrative. It must be emphasized that the model examines the behaviour of agents in the early stages of a *pandemic*, where the likelihood of contracting a deadly disease is extraordinarily high, and when vaccines and cures are not available. The type of restrictions and amount of social distancing are determined by a simultaneous two-player game between the government and its citizens. The government chooses the population-wide-ness of public health restrictions ($g \in [0, 1]$), while citizens simultaneously determine the level of voluntary social distancing ($d \in [0, 1]$). For any type of restriction, the government could opt for a population-wide application, or a targeted application, with a range of options in between the extremes. For example, when closing down schools, a government could decide to close all schools nationwide for all age groups, to close schools for all age groups in only certain parts of the country, or to close schools for some age groups in only some parts of the country. For analytical purposes, it is assumed that g is differentiable. Social distancing among citizens also varies.[15] From not meeting anyone at all to meeting a large group packed within a small indoor facility, the level of distancing (d) varies along a wide spectrum of options. As with g, d is also assumed to be differentiable. The interests

[15] While the government could seek to shape citizens' behaviours – either through public health restrictions or the administration of various (dis)incentive programs – whether to socially distance or not (and to what extent) is ultimately the citizens' decision. The theory does not preclude a scenario, for instance, where a citizen decides to flaunt lockdown restrictions to maximise his or her net utility gains.

of the government and citizens can collide: whereas the government's goal is to minimize COVID-19 related losses (deaths, hospital beds, and strain on the economy) through public health restrictions, the citizens wish to reduce the economic and social costs generated by the government's restrictions. The following model is based on this inherent tension between a government and its citizens.

When a government determines the population-wide-ness of a public health restriction (g), it seeks to minimise the combination of its loss (l) and cost (C):

$$\min_{g} l(g, d, s) + C(g, d, s). \quad (1)$$

Loss refers to the reduction in utility that the government experiences from a pandemic, such as the shock to the economy, the number of deaths and infections, and the decline in political support that follows from high numbers of infections. Cost, on the other hand, refers to the administrative and budgetary costs of implementing public health restrictions. Both the loss and cost are dependent on the population-wide-ness of the restriction (g), citizens' level of social distancing (d) and the capacity of the state (s).

For notational convenience, we will use subscripts to denote partial derivatives. Double subscripts refer to second-order partial derivatives. It is assumed that $l_{gg} > 0$, or that the loss from the pandemic falls up to a certain point until the population-wide-ness of the restrictions become so detrimental to the economy that the loss starts to rise (Figure 2A). Given the same level of social distancing and state capacity, the government will experience more infections and deaths under more specific restrictions. By making restrictions more population-wide, the government will be able to control infections and reduce the fatality of severe cases (Rose, 2001), but the population-wide-ness of a

restriction also implies greater constraints on economic activity. Consequently, there is a point from which increasing the population-wide-ness of restrictions becomes counterproductive: at some point, the negative impact on the economy and society becomes so harsh that the epidemiological merit of population-wide restrictions gets cancelled out.

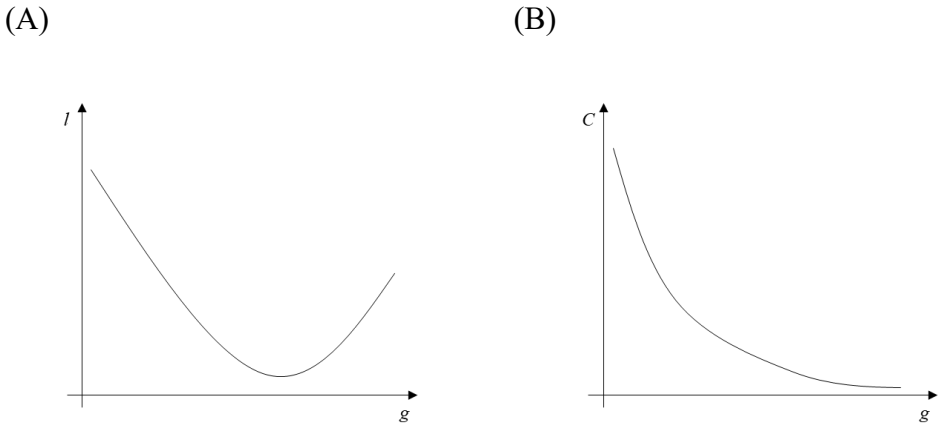
It is also assumed that $C_g < 0$ and $C_{gg} > 0$, or that the government's cost of enforcing restrictions falls but to a less extent as restrictions become more population-wide (Figure 2B). When specific and targeted restrictions are applied, state agents must identify the citizens to whom the restrictions apply and then enforce restrictions on these targeted individuals only, incurring high administrative and budgetary costs to the government. By contrast, when restrictions apply indiscriminately to the general public, there is no need for such administrative effort; the government only needs to deploy a relatively small number of state agents to see whether *anyone* breaches the population-wide restriction and then punish the violators. However, the fall in cost becomes smaller as the restriction becomes more population-wide. Once a restriction is general enough, having an even more population-wide restriction has little effect on the cost. For instance, it is not particularly less costly to enforce the closure of all schools than to enforce the closure of all primary and secondary schools.

Importantly, the model assumes that the marginal effects of population-wide-ness depend on the level of citizens' social distancing. Social distancing reduces the government's marginal loss and cost from imposing less population-wide (more targeted) restrictions, or $l_{gd} > 0$ and $C_{gd} > 0$. Given the same amount of state capacity, a government that seeks to increase the specificity of a restriction will incur smaller losses and costs if its

citizens maintained greater levels of social distancing. If, for instance, the government decides to require face-coverings for specific situations (such as indoors only), the government will suffer from fewer infections when citizens still maintain good distance from each other; the government will also sustain less cost from enforcing these specific measures, because, when social distancing is the norm, they could trust individuals to comply with the restrictions.

Finally, state capacity conditions the government's loss and cost such that $l_{gs} > 0$ and $C_{gs} > 0$. In other words, state capacity reduces the marginal loss and cost of more targeted restrictions, since a more capable state can craft high-quality targeted responses (and thereby cut more losses) and implement them more efficiently (sustaining less cost). Given the same amount of social distancing, targeted restrictions result in higher infections and deaths in states that have less capability to draft good restrictions and enforce them. Moreover, with lower confidence in government programs, citizens may go about violating the government's regulations. Similarly, given the same amount of social distancing, lower capacity states will find it more costly to ensure its agents are properly enforcing the specific restrictions. Because the bureaucracy is inefficient, it costs more expenses and an extraordinary level of administrative focus to identify and enforce restrictions upon specific parts of the population.

Figure 2. The government's loss and cost from population-wide restrictions



Given these assumptions, it is now possible to derive relevant characteristics about the government's best response function. The first order condition (FOC) of equation (1) is

$$l_g + C_g = 0. \tag{2}$$

Equation (2) leads to the government's best response function, which is $BR^G = g(d)$. Then, by the implicit function rule, the slope of the best response function is

$$\frac{BR^G}{\partial d} = -\frac{l_{gd}+C_{gd}}{l_{gg}+C_{gg}} < 0. \tag{3}$$

According to equation (3), the government's optimum level of population-wide restrictions (g) diminishes with greater social distancing (d). Using the implicit function rule, it could be also shown that higher state capacity shifts the best response curve downwards and to the left:

$$\frac{BR^G}{\partial s} = -\frac{l_{gs}+C_{gs}}{l_{gg}+C_{gg}} < 0. \tag{4}$$

While the government decides on the population-wide-ness of restrictions, citizens simultaneously choose their level of social distancing (d) to maximise their utility minus

the costs:

$$\max_{d} u(g, d, s) - c(g, d, s). \quad (5)$$

The main utility gain from social distancing is the perceived prospect of avoiding an infection. The model examines the behaviour of citizens during a pandemic, where the probability of contracting a deadly disease is extraordinarily high – high enough that the representative citizen will undertake at least some level of social distancing at the cost of losing economic and social opportunities. More social distancing means that a person has a lower chance of catching the disease, but the law of diminishing marginal returns also dictates that the perceived epidemiological utility from social distancing increases at a diminishing rate ($u_d > 0$ and $u_{dd} < 0$) (Figure 3A). As an example, even mild social distancing such as avoiding handshakes and wearing face coverings could greatly reduce the chances of infection compared to doing no social distancing at all, but the gains from reducing the number of people one meets in a week from three to two is comparatively small.

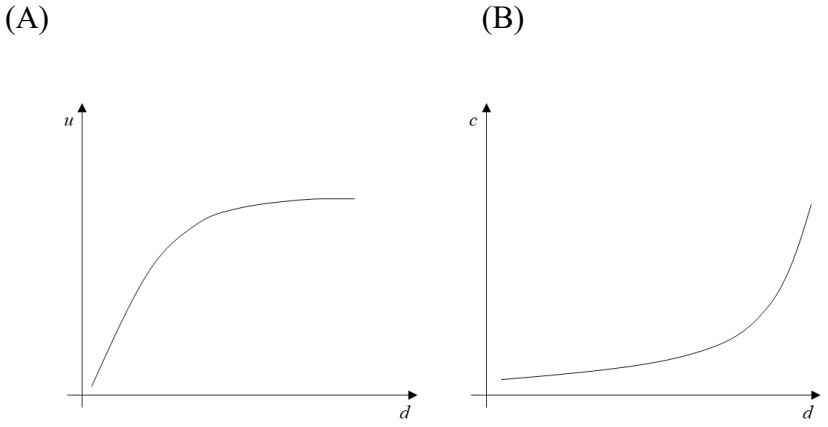
Although social distancing could benefit an individual by reducing the possibility of infection, it also costs a person's economic and social opportunities. It is assumed that the social and economic costs incurred from social distancing rise at an increasing rate ($c_d > 0$ and $c_{dd} > 0$) (Figure 3B). For instance, if one way of measuring social distancing is the number of close human contact per week, the additional social costs of meeting thirty-one people instead of thirty-five is small, whereas the added social cost of meeting only one person a week instead of five is substantial. Similarly, the added economic cost of going into work only three days a week instead of four is smaller than that of not going to work at all, since the latter could even lead to unemployment in certain occupations.

It will be argued that the marginal effects of social distancing depend on the population-wide-ness of public health restrictions. First, the marginal utility from social distancing is lower when rules are specific ($u_{dg} > 0$). Imagine, for instance, a situation where the government imposed a lockdown on one particular district of a city; with the government targeting restrictions toward a segment of the population that is more likely to have been infected, citizens outside that group have little to benefit from further social distancing. The marginal cost of social distancing, on the other hand, is smaller when rules are population-wide ($c_{dg} < 0$). As the government's restrictions become more population-wide, the representative citizen will have fewer activities that he or she is able to do. In other words, the opportunity cost of social distancing falls as restrictions become more population-wide. For example, consider a nation-wide lockdown, where all non-essential businesses are closed. Even if a citizen decides to not socially distance, there is not much that he or she could do.

Finally, state capacity conditions the citizens' strategy such that $u_{ds} > 0$ and $c_{ds} < 0$, because it affects the desirability of social distancing as well as the effectiveness of the incentives and disincentives designed to reduce the costs of distancing. A capable state can increase awareness about the consequences of getting infected (such as the mortality rate, long-term side-effects and economic costs of becoming infected with the disease) and subsequently increase the individual's perceived utility gains from further social distancing efforts. Meanwhile, capacity increases the marginal cost of *not* distancing, since states are better able to administer incentives and disincentives. The Republic of Korea, for instance, sought indemnity against individuals or organisations responsible for causing mass-infections (Yonhap News Agency, 2020). Capable states have also managed

to provide private incentives (such as furlough schemes) to those who do socially distance.[16]

Figure 3. The citizens' utility and cost from social distancing



The FOC of equation (5) is:

$$u_d - c_d = 0. \tag{6}$$

With equation (6), the citizens' best response function can be derived as $BR^C = d(g)$. Through the implicit function rule, the slope of this best response function is

$$\frac{BR^C}{\partial g} = -\frac{u_{dg} - c_{dg}}{u_{dd} - c_{dd}} > 0. \tag{7}$$

According to equation (7), the slope of the citizens' best response function is positive: the citizens' optimum level of social distancing increases with the population-wide-ness of

[16] Notice that the absolute size of *u* and *c,* as well as the marginal effects of distancing and state capacity will vary by the individual. A medically vulnerable person, for instance, will experience a much higher utility from social distancing. The analysis here, however, does not depend on these factors, as long as the signs of the second partials can be assumed to be consistent across different individuals.

government responses to the pandemic. The implicit function rule can also derive state capacity's impact on the best response function. State capacity shifts the citizens' best response curve downwards and to the right:

$$\frac{BR^C}{\partial s} = -\frac{u_{ds} - c_{ds}}{u_{dd} - c_{dd}} > 0. \quad (8)$$

Given these two best response functions, it is now possible to examine how the equilibrium level of population-wide-ness and social distancing moves as state capacity shifts from s_1 to s_2 ($s_1 < s_2$). In the following discussion, g_j and d_j denote the population-wide-ness of restrictions and the level of social distancing when state capacity is s_j ($j \in \{1, 2\}$). As Figure 4 illustrates, state capacity unequivocally reduces the equilibrium level of population-wide-ness from g_1 to g_2. In other words, more capable states apply more specific and targeted restrictions, whereas less capable states pursue more population-wide restrictions. State capacity's effect on the equilibrium level of distancing (d), by contrast, is ambiguous.

To see whether capacity increases or decreases the equilibrium amount of social distancing, we must first re-examine the slope of the citizen's best response function. From an individual citizen's point of view, the net marginal utility of distancing is affected more by the government's policy rather than the individual's own distancing: while further private efforts to socially distance will result in smaller marginal utilities and higher marginal costs of distancing, changes to a government's official policy can affect the marginal utility and marginal costs by a greater degree. For instance, if an individual is already restricting her social activity to meeting five people a day, the net marginal gains (marginal utility minus the marginal cost) from meeting only four people a day will

not be very different. By contrast, if the same individual continues to meet five people a day but now faces a more population-wide public health restriction such as "no gatherings of more than four people", the marginal opportunity cost of further distancing falls substantially, since it would now be difficult to meet five people anyway, and so the net marginal gains of distancing increases greatly. As a result, it could be assumed that changes to the targeted-ness of restrictions have a greater impact on a citizen's net marginal gains from distancing than changes to individual citizens' efforts at social distancing, or $\left|\frac{\partial(u_d - c_d)}{\partial g}\right| > \left|\frac{\partial(u_d - c_d)}{\partial d}\right|$.

From this assumption follows the below proposition:

Proposition 1. $\frac{BR^C}{\partial g} > 1$.

Proof

$$\left|\frac{\partial(u_d - c_d)}{\partial g}\right| > \left|\frac{\partial(u_d - c_d)}{\partial d}\right| \Leftrightarrow |u_{dg} - c_{dg}| > |u_{dd} - c_{dd}| \Leftrightarrow \frac{|u_{dg} - c_{dg}|}{|u_{dd} - c_{dd}|} > 1$$

$$\Leftrightarrow -\frac{u_{dg} - c_{dg}}{u_{dd} - c_{dd}} = \frac{BR^C}{\partial g} > 1 \quad \blacksquare$$

In other words, the slope of the citizen's best response curve is greater than 1. With this proposition in hand, it is now possible to identify the condition under which $d_1 > d_2$ is true.

Lemma. $d_1 > d_2$ if $\left|\frac{\partial BR^G}{\partial s}\right| > \left|\frac{\partial BR^C}{\partial s}\right|$.

Proof. Geometrically, $d_1 > d_2$ if $\left|\frac{\partial BR^G}{\partial s}\right| > \left|\frac{\partial BR^C}{\partial s}\right| \left|\frac{\partial g}{\partial BR^C}\right|$.

$\left|\frac{\partial BR^G}{\partial s}\right| > \left|\frac{\partial BR^C}{\partial s}\right|\left|\frac{\partial g}{\partial BR^C}\right| \Leftrightarrow \frac{\left|\frac{\partial BR^G}{\partial s}\right|}{\left|\frac{\partial BR^C}{\partial s}\right|} > \left|\frac{\partial g}{\partial BR^C}\right|$.

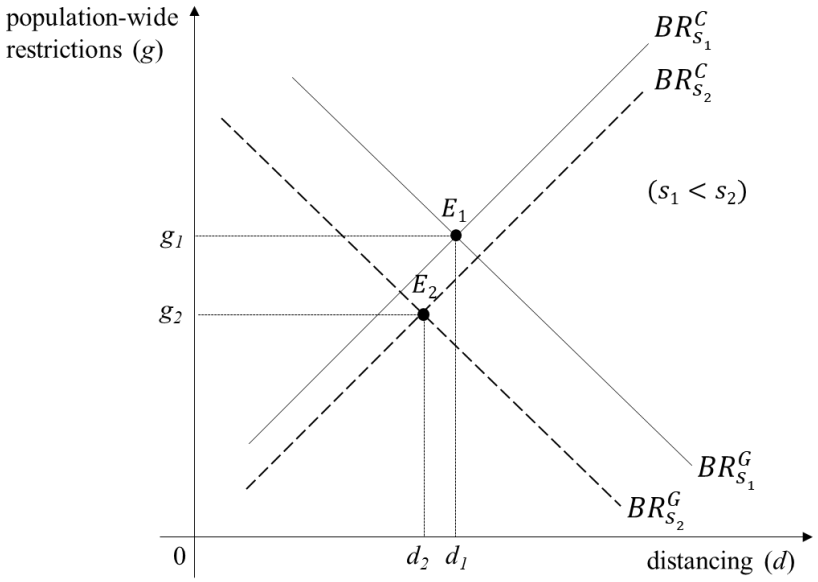
$\therefore d_1 > d_2$ if $\frac{\left|\frac{\partial BR^G}{\partial s}\right|}{\left|\frac{\partial BR^C}{\partial s}\right|} > \left|\frac{\partial g}{\partial BR^C}\right|$.

Since $\frac{BR^C}{\partial g} > 1$ (*Proposition 1*), $\left|\frac{\partial g}{\partial BR^C}\right| < 1$.

Consequently, if $\left|\frac{\partial BR^G}{\partial s}\right| > \left|\frac{\partial BR^C}{\partial s}\right|$, then $\frac{\left|\frac{\partial BR^G}{\partial s}\right|}{\left|\frac{\partial BR^C}{\partial s}\right|} > 1$, and then $\frac{\left|\frac{\partial BR^G}{\partial s}\right|}{\left|\frac{\partial BR^C}{\partial s}\right|} > 1 > \left|\frac{\partial g}{\partial BR^C}\right|$, and so $d_1 > d_2$ ■

Geometrically, the direction of change for social distancing (*d*) depends on whether state capacity vertically shifts the citizen's best response curve more than it does the government's. Whether higher capacity reduces or increases social distancing depends, therefore, on whether a change to state capacity shifts the government's best response curve further down than the citizen's ($\left|\frac{\partial BR^G}{\partial s}\right| \gtreqless \left|\frac{\partial BR^C}{\partial s}\right|$). In other words, state capacity's effect on social distancing is rather ambiguous.

Figure 4. State capacity's effect on restrictions and social distancing



In sum, higher capacity makes restrictions more targeted ($g_2 < g_1$), although its effect on social distancing remains ambiguous ($d_2 \gtrless d_1$). The significance of these findings is that, contrary to previous works in the literature, state capacity does not have a straightforwardly positive effect on a polity's protection against pandemics. While higher capacity does mean that states can pursue more targeted and sophisticated responses to the infective disease, these measures may also affect social distancing, possibly generating further infections.

Empirical Analysis

This section will examine the empirical merit of the above theoretical argument. Ten ordered logistic regressions are conducted to empirically assess whether stronger states were more inclined to pursue targeted as opposed to population-wide restrictions. All main empirical models use Huber-White robust standard errors. The study period ranges from 30th January 2020 to 20th September 2020, but the start dates vary depending on

when the pandemic started to affect each country. More recent periods are not included in the study, since it is still unclear how the introduction of vaccines may have altered the strategic considerations of governments and citizens. The unit of analysis is country-day.

Dependent variable

The Oxford COVID-19 Government Response Tracker's (OxCGRT) indicators for school closure, workplace closure, stay-at-home orders, mandatory face coverings, and restrictions on gatherings are used to code the extent to which a health restriction is targeted or population-wide (Hale et al., 2021). A restriction is understood to be more targeted if it applies to a more specific context (situational scope); and it is considered to be even more targeted if the restriction applies to certain geographic regions only (geographic scope).[17] Recommendations (such as government-recommended work from home) are excluded from the analysis. Because recommendations are not enforced by the state, the theoretical considerations in the previous section do not apply. Table I describes the coding criteria for all five health restrictions analysed in the empirical section.

Independent variable

The main independent variable is the capacity of the state, measured using the government effectiveness index from the World Bank's World Governance Indicators (World Bank, 2021), since government effectiveness is frequently used as a measure of

[17] For the purposes of this study, situational scope is the primary indicator of how targeted a restriction is. The assumption here is that applying restrictions by specific contexts requires more targeted attention from the state than applying restrictions by specific geographic locations, as geographic locations are more visible than situational contexts.

Table I. Coding the extent to which restrictions are targeted ('0' indicates least targeted)

Restriction	Situational scope	Geographic scope	Value
School closure	All schools	Nationwide	0
		Partial	1
	Some schools	Nationwide	2
		Partial	3
Workplace closure	All work	Nationwide	0
		Partial	1
	Some work	Nationwide	2
		Partial	3
Stay-at-home orders	Minimal exceptions	Nationwide	0
		Partial	1
	Exceptions for exercise, grocery shopping and "essential" trips	Nationwide	2
		Partial	3
Face-covering	Required outside home at all times	Nationwide	0
		Partial	1
	Required in all shared places or when social distancing is not possible	Nationwide	2
		Partial	3
	Required in some shared spaces or in some situations when social distancing is not possible	Nationwide	4
		Partial	5
Gathering restrictions	There are restrictions on even small gatherings up to 10 people	Nationwide	0
		Partial	1
	There are restrictions on larger gatherings between 11 to 100 people	Nationwide	2
		Partial	3
	There are only restrictions on very large gatherings that exceed 100 people or more	At any level	4

the state's capacity among studies of COVID-19 responses. In addition, the extractive capacity of the state, measured as the state's collection of tax as a proportion of GDP (World Bank, 2021), is used as an alternative independent variable. Both measures of capacity are lagged by one year and normalized to a range between '0' and '100'.

Control variables

The models include a number of control variables. First, the models include the lagged reproduction number (Arroyo-Marioli et al., 2021) to account for different levels of

infectivity. The lagged reproduction number is interacted with the state capacity variable to assess whether the effect of infectivity is conditional on the capacity of the state. Second, in light of recent studies arguing that COVID-19 restrictions were not compatible with liberal democratic practices (Engler et al., 2021), the models include a liberal democracy index from the Varieties of Democracy project (Coppedge et al., 2021), lagged by one year. Finally, a set of variables are included to account for the different circumstances under which each nation entered the pandemic: GDP per capita in 2019 (logged), population size in 2019 (logged), and the distance of a state's capital (in kilometers) from Beijing (Mayer & Zignago, 2011).

Table II. Ordered logistic regressions using government effectiveness

	(1)	(2)	(3)	(4)	(5)
Restrictions on:	School	Work	Home	Covering	Gathering
Government effectiveness	-0.0150**	-0.0226**	-0.0484**	-0.0363**	0.0135**
	(0.00318)	(0.00344)	(0.00359)	(0.00531)	(0.00240)
Reproduction number	-1.831**	-1.863**	-2.718**	-4.905**	-2.311**
	(0.153)	(0.161)	(0.187)	(0.277)	(0.109)
Government effectiveness	0.0220**	0.0244**	0.0304**	0.0745**	0.0389**
* Reproduction number	(0.00261)	(0.00285)	(0.00285)	(0.00454)	(0.00189)
Liberal democracy	1.211**	0.0392	0.350**	0.236**	-0.0323
	(0.0820)	(0.0778)	(0.126)	(0.0845)	(0.0721)
Log (GDP per capita)	-0.126**	-0.106**	-0.0341	-0.1000**	-0.719**
	(0.0200)	(0.0215)	(0.0244)	(0.0206)	(0.0181)
Log (population)	0.0686**	0.0162	0.228**	-0.176**	-0.0716**
	(0.00999)	(0.0111)	(0.0144)	(0.0108)	(0.00867)
Distance from Beijing	-0.0000**	-0.0000**	-0.0000**	-0.0000**	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
AIC (with interaction)	39437.47	35124.9	22214.75	41436.22	63467.27
AIC (without interaction)	39512.91	35203.15	22282.48	41902.89	63917.39
Observations / countries	18,520 / 135	16,464 / 128	10,471 / 110	16,216 / 131	23,728 / 140

** p<0.01, * p<0.05. Robust standard errors in parentheses.

Models 1 to 5 (Table II) demonstrate how state capacity conditions infectivity's effect on the targeted-ness of public health restrictions. In all models, the interaction term is

significant in the expected direction: while a higher reproduction number leads to less targeted (and more population-wide) restrictions, the effect of infectivity is smaller in more capable states. Even in the face of a rising reproduction number, stronger states are found to be less inclined to pursue population-wide measures. In terms of marginal effects, the models imply that the same increase in the reproduction number has a greater effect on the probability of introducing population-wide restrictions upon less capable states than it does on highly capable states (Figure 5). For instance, if the reproduction number rises from '1' to '1.5', a government at the mean level of government effectiveness experiences a '0.087' increase in the predicted probability of a complete nationwide closure of all schools. Meanwhile, the same change in the reproduction number results in a '0.036' rise in the probability of complete school closure if effectiveness is a standard deviation higher than the mean. As another example, when the reproduction number rises from '1' to '1.5', the probability of mandatory face coverings in all public areas rises by '0.076' for countries with the mean level of capacity, but the probability *falls* by '0.01' among countries whose effectiveness is a standard deviation higher than the mean.

Table III conducts the same set of analyses using an indicator of the state's extractive capacity instead of the government effectiveness index. Extractive capacity affects the likelihood of all population-wide restrictions under consideration: states with greater extractive capacity are less likely to implement population-wide measures in the face of a higher reproduction number.

Figure 5. Probability of population-wide restrictions by government effectiveness

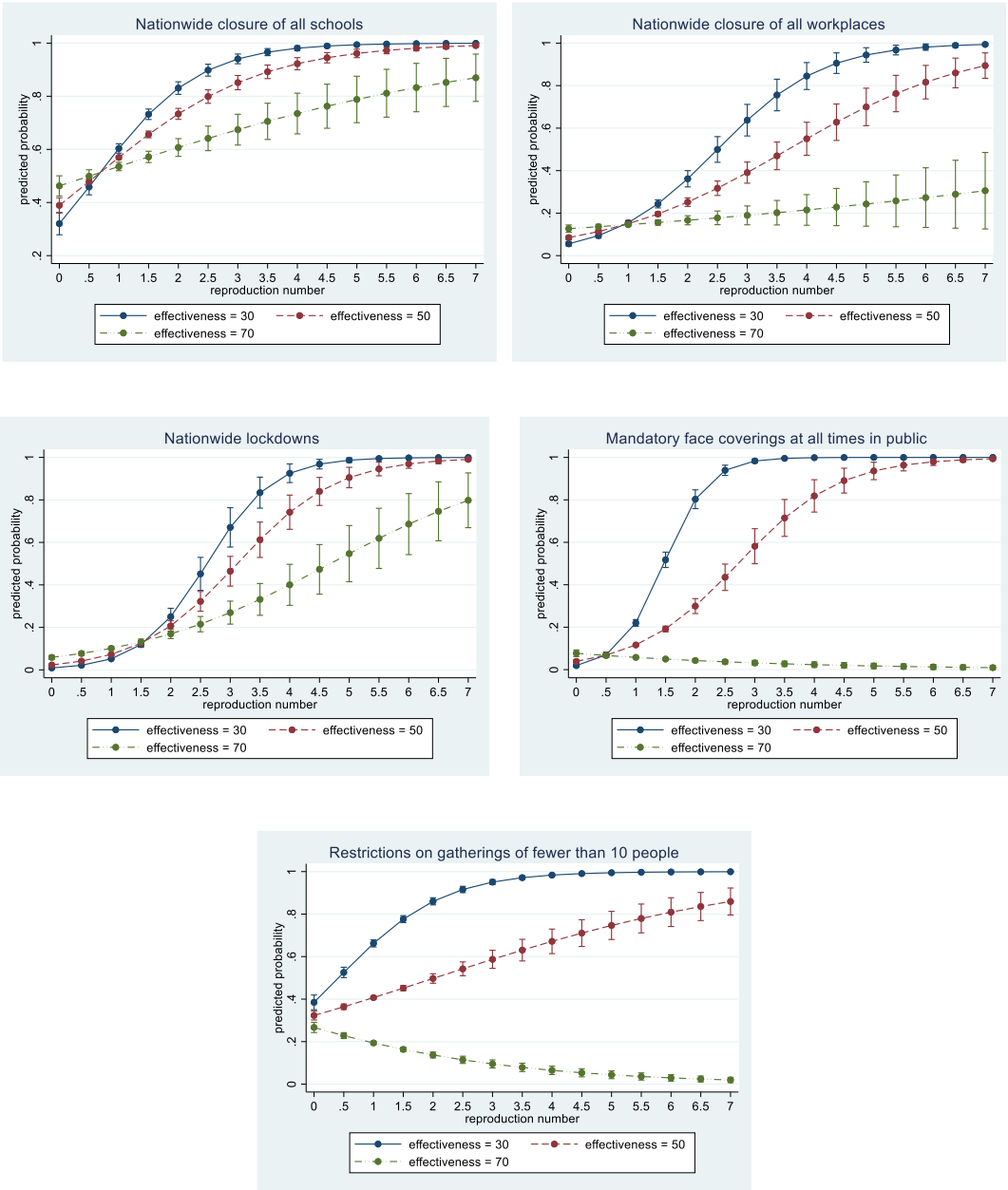


Table III. Ordered logistic regressions using extractive capacity

Restrictions on:	(6) School	(7) Work	(8) Home	(9) Covering	(10) Gathering
Extractive capacity	-0.00985**	-0.0325**	-0.0457**	-0.0165**	0.00468
	(0.00357)	(0.00449)	(0.00394)	(0.00619)	(0.00378)
Reproduction number	-0.971**	-1.523**	-2.265**	-1.304**	-0.115
	(0.174)	(0.226)	(0.205)	(0.298)	(0.187)
Extractive capacity *	0.0119**	0.0211**	0.0315**	0.0276**	0.00771*
Reproduction number	(0.00311)	(0.00393)	(0.00329)	(0.00547)	(0.00323)
Liberal democracy	1.431**	0.332**	1.583**	0.724**	0.146
	(0.109)	(0.119)	(0.170)	(0.114)	(0.0917)
Log (GDP per capita)	0.0689**	-0.165**	-0.0927**	0.402**	-0.0459**
	(0.0153)	(0.0175)	(0.0220)	(0.0152)	(0.0111)
Log (population)	0.105**	0.118**	0.235**	-0.269**	-0.100**
	(0.0149)	(0.0149)	(0.0175)	(0.0160)	(0.0118)
Distance from Beijing	-0.00005**	-0.00009**	-0.00007**	-0.00005**	-0.00002**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
AIC (with interaction)	28935.73	25299.08	14588.34	30275.87	47246.4
AIC (without interaction)	28946	25329.48	14634.62	30306.77	47251.65
Observations / countries	13,241 / 95	12,147 / 91	6,955 / 76	11,298 / 76	17,011 / 75

** p<0.01, * p<0.05. Robust standard errors in parentheses.

Both Tables II and III demonstrate substantial variations in the effects of state capacity, depending on the type of restriction. For each policy area, state capacity has a different effect on the probability of population-wide restrictions. For stay-at-home orders and the closure of schools and workplaces, high-capacity, medium-capacity and low-capacity states are all more likely to introduce population-wide restrictions as the reproduction number rises, although low-capacity states are even more likely than states with relatively higher capacity. The pattern is not the same for restrictions on face-coverings and private gatherings. While a rising reproduction number renders a low-capacity state more and more likely to introduce population-wide restrictions on face-coverings and gatherings, this is not the case among high-capacity states, where the line is flat. Among more capable states, the likelihoods of population-wide restrictions on face-coverings and gatherings remain low even as infectivity grows.

Indeed, some of the most capable governments in the study were hesitant to impose the most population-wide face-covering requirement, ‘mandatory face coverings at all times outside your home’ (category ‘0’ in Table I), despite rising infections. Instead, these countries opted for relatively less population-wide requirements such as ‘face coverings required nationwide in all shared places or when social distancing is not possible’ (category ‘2’ in Table I). Of the 2,623 country-days for governments with high effectiveness (over 70), only 62 imposed the strongest population-wide restriction. Among these highly capable governments, the most popular measure was a slightly more lenient population wide measure (category ‘2’). Even as the daily reproduction number exceeded 1.5, countries like Ireland and the United Arab Emirates maintained this relatively lenient requirement of face coverings.

Similarly, states with high government effectiveness were reluctant to impose the most indiscriminate population-wide restriction on gatherings, even as the reproduction number exceeded 1. Of the 3,593 country-days in which highly capable governments (over 70) faced an exponential growth in infections, only 874 country-days imposed ‘gathering restrictions for fewer than 10 people’ (category ‘0’ in Table I). An overwhelmingly large number of datapoints (1,249 country-days) had the least population-wide restriction: ‘restrictions on very large gatherings in only some regions of the country’ (category ‘4’ in Table I). For instance, in the early days of the pandemic, Switzerland introduced category ‘4’ restrictions on gatherings, even though the reproduction number soared above 2. Meanwhile, Austria maintained category ‘4’ gathering restrictions throughout June to mid-September of 2020, even though it experienced an exponential growth in infections during that same period.

These contrasting patterns highlight the complexity of state capacity's influence on the strategic considerations of citizens and governments. From the government's point of view, different levels and types of effort are required according to the type of restriction that is being imposed to the whole population; moreover, the extent to which a government can benefit from enhanced capacity also varies by the type of restriction. From the citizen's perspective too, state capacity's effect on the costs and benefits of abiding by a restriction differs according to the type of restriction. Based on our empirical observations, it seems that state capacity has a greater effect on the strategic behaviours of the government and its citizens when it comes to restrictions on personal choice. Whereas the state can easily observe adherences to school closures, workplace closures, and stay-at-home orders, the state's ability to monitor the wearing of masks and personal gatherings is more limited. Consequently, governments with low-capacity resort to population-wide covering and gathering restrictions to increase the visibility of violators, while more capable governments take on more targeted restrictions. For inherently more visible restrictions like school closures, workplace closures, and stay-at-home orders, by contrast, even a weak state does not have too much trouble enforcing targeted restrictions; and consequently state capacity has a smaller effect on the targeted-ness of these restrictions.

Robustness checks

Several robustness checks are conducted against the main models. In Table IV, IMF's (International Monetary Fund) measure of spending centralization is included as an additional control, and a categorical region variable is used in place of the "distance from Beijing" control variable. Spending centralization is included to address the possibility

that geographically targeted measures may primarily occur in decentralized states. The region variable is put in place of the "distance from Beijing" control, since different continents may have had distinct experiences that were characteristic of those regions. Neither centralization nor the region categorical variable has a consistent effect on the targeted-ness of restrictions. Meanwhile, with the exception of face coverings, the size and direction of the main coefficients are not substantially altered by the modifications. In Tables V and VI, the targeted-ness of restrictions is re-coded to ignore the geographic scope. In Table V, a country-day retains a value of '0' for the targeted-ness of a restriction when the most population-wide measure is imposed at any level of governance. According to this coding, even one region of a country going into a full lockdown would render the targeted-ness of a stay-at-home order to be '0'. As another way to disregard the geographic dimension, Table VI drops all geographically targeted restrictions from its analysis. In Table VI, only nationwide restrictions are considered to be relevant. These alternative measurements of targeted-ness are meant to further address concerns that political decentralization is a potential confounder. According to the two tables, the size and significance of the main effects are unaffected by the alternative measurements.

Table IV. Spending centralisation and region dummies

Restrictions on:	(1) School	(2) Work	(3) Home	(4) Covering	(5) Gathering
Government effectiveness	-0.0348**	-0.0171	-0.127**	0.265**	-0.00391
	(0.00807)	(0.00897)	(0.0128)	(0.00994)	(0.00723)
Reproduction number	-2.668**	-3.360**	-4.949**	1.534**	-0.757
	(0.421)	(0.489)	(0.678)	(0.549)	(0.388)
Government effectiveness	0.0234**	0.0365**	0.0609**	-0.0434**	0.0276**
* Reproduction number	(0.00624)	(0.00662)	(0.00881)	(0.00797)	(0.00525)
Liberal democracy	2.191**	0.140	5.733**	-3.850**	1.040**
	(0.195)	(0.242)	(0.356)	(0.213)	(0.146)
Log (GDP per capita)	0.105	-0.724**	0.00309	-2.131**	-0.136*
	(0.0692)	(0.0738)	(0.122)	(0.0830)	(0.0629)
Log (population)	0.204**	0.194**	0.639**	-0.482**	0.0963**
	(0.0236)	(0.0247)	(0.0360)	(0.0285)	(0.0183)
Spending centralisation	-1.537**	-2.291**	-3.535**	3.269**	0.564**
	(0.162)	(0.160)	(0.187)	(0.195)	(0.132)
Region (base = Africa)					
Americas	0.00928	0.101	1.057**	1.097**	-0.274**
	(0.145)	(0.102)	(0.104)	(0.0909)	(0.0962)
Asia	1.390**	1.314**	3.994**	-1.009**	1.040**
	(0.151)	(0.148)	(0.189)	(0.104)	(0.0927)
Europe	1.020**	1.111**	2.017**	3.661**	0.584**
	(0.154)	(0.122)	(0.128)	(0.128)	(0.111)
Oceania	2.085**	2.812**	5.988**	-3.358**	-0.311*
	(0.206)	(0.363)	(0.453)	(0.141)	(0.123)
AIC (with interaction)	12305.78	11526.31	6476.80	10747.71	20727.47
AIC (without interaction)	12317.49	11561.79	6526.52	10766.46	20759.23
Observations / countries	5,744 / 40	5,589 / 38	3,282 / 32	4,756 / 37	7,617 / 37

Standard errors in parentheses. Constants are not reported in the table. ** p<0.01, * p<0.05

Table V. No distinction of geographic scope

Restrictions on:	(1) School	(2) Work	(3) Home	(4) Covering	(5) Gathering
Government effectiveness	-0.0181**	-0.0181**	-0.0712**	-0.0240**	0.0132**
	(0.00329)	(0.00458)	(0.00527)	(0.00443)	(0.00236)
Reproduction number	-2.655**	-2.263**	-2.970**	-4.287**	-2.335**
	(0.160)	(0.224)	(0.276)	(0.202)	(0.106)
Government effectiveness	0.0370**	0.0286**	0.0329**	0.0678**	0.0393**
* Reproduction number	(0.00260)	(0.00367)	(0.00381)	(0.00388)	(0.00185)
Liberal democracy	1.166**	-0.724**	1.826**	0.260**	-0.152*
	(0.0930)	(0.1000)	(0.157)	(0.0874)	(0.0746)
Log (GDP per capita)	-0.264**	-0.179**	0.193**	-0.153**	-0.738**
	(0.0228)	(0.0259)	(0.0363)	(0.0203)	(0.0186)
Log (population)	-0.193**	-0.218**	0.103**	-0.267**	-0.157**
	(0.0116)	(0.0126)	(0.0187)	(0.0121)	(0.00950)
Distance from Beijing	-0.000**	-0.000**	-0.000**	-0.000**	0.000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
AIC (with interaction)	22298.27	17690.31	9074.23	29578.22	48137.97
AIC (without interaction)	22496.77	17760.49	9110.42	29970.94	48585.41
Observations / countries	19,744 / 137	16,464 / 128	10,471 / 110	16,216 / 131	23,728 / 140

Standard errors in parentheses. Constants are not reported in the table. ** p<0.01, * p<0.05

Table VI. No distinction of geographic scope – geographically partial restrictions dropped

Restrictions on:	(1) School	(2) Work	(3) Home	(4) Covering	(5) Gathering
Government effectiveness	-0.0204**	-0.00399	-0.0457**	0.00280	0.0242**
	(0.00361)	(0.00543)	(0.00580)	(0.00500)	(0.00270)
Reproduction number	-2.648**	-1.837**	-2.016**	-2.798**	-1.710**
	(0.168)	(0.271)	(0.319)	(0.239)	(0.114)
Government effectiveness	0.0392**	0.0194**	0.0207**	0.0452**	0.0333**
* Reproduction number	(0.00287)	(0.00424)	(0.00437)	(0.00425)	(0.00218)
Liberal democracy	1.407**	-0.790**	1.202**	0.642**	0.474**
	(0.0989)	(0.123)	(0.206)	(0.0923)	(0.0814)
Log (GDP per capita)	-0.368**	-0.365**	0.415**	-0.152**	-0.858**
	(0.0246)	(0.0328)	(0.0427)	(0.0212)	(0.0212)
Log (population)	-0.285**	-0.141**	0.130**	-0.134**	-0.107**
	(0.0134)	(0.0155)	(0.0266)	(0.0130)	(0.0114)
Distance from Beijing	-0.000*	-0.000**	-0.000	-0.000**	-0.000**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AIC (with interaction)	19103.6	12410.8	5217.93	24822.59	35898.24
AIC (without interaction)	19284.27	12433.15	5224.172	24952.05	36137.04
Observations / countries	17,626 / 133	12,729 / 121	6,528 / 92	14,134 / 121	18,543 / 133

Standard errors in parentheses. Constants are not reported in the table. ** p<0.01, * p<0.05

Conclusion

Some of the world's most capable states have failed their citizens greatly during the COVID-19 pandemic with shocking numbers of deaths and infections. The visible failure is especially vexing, since many of these highly capable states introduced innovative strategies to identify members of the population who were the most vulnerable to the disease and effectively administered restrictions upon these high-risk individuals. What strategies did high capacity states take in response to the pandemic? How did their citizens respond?

In an attempt to unpack these puzzles, state capacity, social distancing, and government restrictions were examined in a strategic context. From the government's point of view, higher capacity implies that targeted restrictions can cut more losses and sustain lower costs than population-wide measures. From the citizen's perspective, more targeted responses mean that there is less reason to socially distance, although higher capacity may increase the efficacy of incentives and disincentives designed to promote social distancing. Consequently, state capacity increases the government's proclivity to resort to targeted (as opposed to population-wide) restrictions. Meanwhile, state capacity's overall effect on social distancing remains unclear.

A series of empirical models were employed to evaluate the merit of the proposed theoretical mechanism. A set of ordered logistic regressions demonstrated that more effective governments and greater extractive capacity do increase the likelihood of states opting for more targeted restrictions. Interestingly, the size of state capacity's effect varied by the type of restriction. For school closures, workplace closures and stay-at-home orders, state capacity had a relatively small influence on the likelihood of the measures

being targeted. For these types of restrictions, higher reproduction numbers still increased the likelihood of population-wide restrictions among more capable states. By contrast, for restrictions on personal choice, such as face coverings and private gatherings, state capacity had a much stronger effect. For these restrictions, rising reproduction numbers had little or no effect on the probability of population-wide restrictions among high-capacity states.

What lessons can be learned from these results? First of all, contrary to previous works in the field, state capacity's relationship with COVID-19 is not so straightforward. While higher capacity leads to more targeted restrictions, this may or may not have affected COVID-19 infections. On the one hand, if targeted restrictions generate lower levels of social distancing than population-wide measures, it is possible that the fall in social distancing was responsible for the concerning number of COVID-19 infections in some high capacity states. On the other hand, targeted restrictions are not destined to bring down social distancing practices. According to the theoretical model, a higher level of social distancing can be maintained even under targeted restrictions if there are sufficiently effective (dis)incentives in place to promote social distancing. High-capacity states may, therefore, succeed in catching two birds (freedom of movement and social distancing) with one stone (targeted restrictions) if they are able to introduce effective (dis)incentive schemes for social distancing. Second of all, the models identify potentially fruitful areas for further research. In all three parts of the empirical analysis, the main effects vary depending on the type of restriction under consideration. It is possible, therefore, that different forces are at play for each respective field of restriction. If that is the case, each field of restriction may require theoretical and empirical models that are specific to that field.

Conclusion

In many ways, politics in the modern state is comparable to driving an automobile. Sitting inside are a number of individuals who have delegated their fate to a driver. In some settings, the individuals may take turns to be in charge of the steering wheel; in other settings, one driver stays on until the end of the journey. The driver, sometimes together with her passengers, determines what road the vehicle will take. Now, if the driver and her passengers are the decision-makers of the vehicle, we must not neglect the material capacity of the automobile itself. Some automobiles facilitate the driver's communication with her passengers, but others end up leaving the driver unaware of her passengers' needs; some have more built-in safety measures, whereas others are more fragile; some engines are designed for high speeds, while others may not be suitable for the fast lane.

How does the physical capacity of the vehicle affect the fate of those inside the car? Perhaps the most straightforward prediction is that better functioning vehicles will get everyone to their desired destination in a shorter period of time. While this may be true in many cases, we should also note how the physical attributes of a car may alter the desires of its driver and passengers. A more powerful engine, for instance, may prompt the driver to drive recklessly, which could in turn affect the attitudes and behaviours of her passengers. Likewise, a state's capacity to deliver the policy goals of a government may not only increase the likelihood that the government attains its desired outcome but shape the way political agents behave. This is the central thesis of the dissertation. The state is not only an executor of the executive's will but could become a key strategic consideration in many contexts. Specifically, the dissertation examines the role of state

capacity as a variable that moderates the protection of human rights, the fight against terrorism, and responses to COVID-19.

It is important to note that studying state capacity as a moderating variable brings forward a number of significant challenges. First of all, if state capacity is understood as the causal connection between a policy and its intended outcome (Lindvall & Teorell, 2016), it may seem trivial – and at times even tautological – to analyse its effects on the attainment of a political objective. Indeed, the relationships that some existing studies reveal appear to be rather unsurprising. Weiss and Thurborn (2021, p. 5), as an example, posits that higher "salutary capacity", defined as "the state's ability to correct and counteract the course of a national health emergency", explains why some states responded better to COVID-19 than others. It is not clear how their definition of state capacity is distinct from the outcome they seek to examine, especially since the authors also measure this capacity as "the ability to control national borders, to enforce quarantine, communicate a public health threat, mandate public health measures, methodically test, trace, and isolate, mobilise health infrastructure, personnel and medical equipment, and ultimately to vaccinate the population" (Weiss & Thurbon, 2021, p. 5). Better responses to COVID-19, which is the outcome they seek to understand, does not seem to be discrete enough from the authors' conceptualisation of state capacity (the ability to change the course of a national health emergency), measured as a list of COVID-19 responses.

It is critical, therefore, to theoretically and empirically distinguish the relevant capacity of the state from the policy output it contributes toward. State capacity, however, is a tricky concept to define, with numerous different definitions focusing on specific aspects of the concept. In the literature, the concept has seen a wide range of different

definitions such as coercive (Fearon & Laitin, 2003; Geddes, 1996; Skocpol, 1985; Tilly, 1975), fiscal (Besley & Persson, 2009; Geddes, 1996; Levi, 1988; Tilly, 1975), administrative (Centeno, 2002; Geddes, 1996; Huntington, 1968; Skocpol, 1985), transformative (P. Evans, 1995; Weiss, 1998), territorial (Fearon & Laitin, 2003; Migdal, 1988), legal (Acemoglu et al., 2011; Besley & Persson, 2009; Fukuyama, 2004), infrastructural (Mann, 1986; Soifer & vom Hau, 2008), political (Acemoglu et al., 2011; Centeno, 2002), intelligence (Winward, 2021) and information (Brambor et al., 2020; M. Lee & Zhang, 2017) capacity. To aggravate matters further, the measurements that are employed to operationalize these conceptualisations are often poorly constructed, having little connection to the variations they propose to capture (Berwick & Christia, 2018). As a result of these complications, studying the effects of state capacity in a non-trivial and theoretically clear manner is rather challenging.

While staying mindful of these potential hurdles, the dissertation has sought to uncover how state capacity could affect human rights, terrorism and COVID-19. Chapter 2, 3 and 4 each present a different aspect of state capacity affecting a different outcome. Chapter 2 examined Englehart's (2009, 2017) argument that state capacity improves the protection of human rights. According to Englehart, the lion's share of human rights violations is caused by rogue agents of the state; by resolving principal-agent problems, improved capacity can reduce the amount of human rights abuse committed by the state. The chapter refined Englehart's intuition by exploring whether the effect of state capacity would be uniform across different regimes. As opposed to democracies, the chapter argued, autocracies do not necessarily protect human rights when principal-agent issues are resolved. The theory is inspired by Mitchell's (2004) observation that authoritarian leaders can purposefully encroach human rights. A Grand Inquisitor type dictator may

have an ideological objective he wishes to accomplish through the violation of basic human rights, whereas a Machiavellian leader will violate rights if his leadership is at stake. The theorised relationship between state capacity, regime type, and human rights was examined with empirical data. Using human rights data from no fewer than 142 countries between the period of 1981 to 2002, the chapter conducted thirty-six ordered logistic regressions. State capacity in this chapter was conceptualised as a principal-agent problem, in which less capable states suffered from greater agency loss. Following Englehart (2009, 2017), the empirical section measured state capacity as the proportion of tax over gross domestic product. Despite its limitations, this measurement was selected based on the idea that the ability to extract a high amount of tax requires a great deal of agency (For example, see: Roberts, 2010). As expected from the theory, state capacity improved human rights among democracies but not among autocracies.

If Chapter 2 illustrated how a principal's political will (whether democratic or autocratic) is better implemented by the agents of a more capable state, Chapters 3 and 4 sought to examine how state capacity may affect the strategic calculations of political agents. Chapter 3 incorporated state capacity into an ongoing debate concerning regime type and terrorism. If existing studies have identified linear (Braithwaite & Li, 2007; Chenoweth, 2010, 2013; Dreher & Fischer, 2010; Eubank & Weinberg, 1994, 2001; Lai, 2007; Li & Schaub, 2004; Pape, 2003; Piazza, 2007, 2008; San-Akca, 2014; Weinberg & Eubank, 1994), U shaped (Testas, 2004) and inverted-U shaped (Abadie, 2006; Bandyopadhyay & Younas, 2011; Drakos & Gofas, 2006b; Gaibulloev et al., 2017; Kim & Sandler, 2020; Kurrild-Klitgaard et al., 2006) relationships between democracy and terrorism, this chapter proposed state capacity as a potential reason why scholars seem to have failed to agree upon the relationship between regime type and terrorism. When a domestic terrorist

attack inflicts casualties, some regimes suffer from more audience costs than others (Weeks, 2008; Conrad et al., 2014; Piazza, 2017; Wilson & Piazza, 2013). Importantly, as opposed to fully democratic or autocratic regimes, intermediate regimes can conduct audience restriction (AR) measures, depending on the amount of state capacity. Highly capable intermediate regimes could suspend or limit democratic institutions and practices to constrain the audience cost of a domestic terror attack; less capable intermediate regimes, by contrast, do not have the resources to restrict the audience of a domestic terror attack. Compared with intermediate regimes, in full democracies and dictatorships the AR mechanism is severely limited: in fully democratic regimes, higher capacity cannot reduce the audience costs by as much, since the incumbent leadership cannot easily order the state to shut down democratic practices; in full dictatorships as well, state capacity does not substantially alter the audience costs of a domestic terror attack, as the system already strictly limits freedom of expression. As a result, state capacity mattered mostly in the "middle", where it affects the marginal utility of a domestic terrorist attack via the AR mechanism. What followed from this argument was that the relationship between democracy and terrorism may vary depending on whether the countries under consideration are high or low in state capacity. The theoretical argument was empirically evaluated using a series of negative binomial and Poisson regressions upon a time-series cross-sectional dataset of no fewer than 108 countries from 1971 to 2007. The main measure of state capacity here is the Composite Index for National Capability (CINC) (Greig & Enterline, 2017). Because fighting against terrorism is akin to fighting a war, CINC – a measure of war-making capability – is widely used among studies of terrorism. The dependent variable – the number of domestic terror incidents with casualties – was created from the Global Terrorism Database (GTD) (National Consortium for the Study

of Terrorism and Responses to Terrorism (START), 2019). As the theory predicted, the models found that state capacity reduces terrorism most in intermediary regimes.

Finally, Chapter 4 argued that state capacity's relationship with public health may not be as straightforward as it may have seemed. Before the pandemic, state capacity had been generally associated with enhanced public health outcomes (Dawson, 2010; Hanson, 2015; Burkle, 2006; Anderson & Beresford, 2016; Brown et al., 2018; Burkle, 2006; Rull et al., 2015; WHO, 2018). In line with these findings, studies of the COVID-19 pandemic have also argued that state capacity yielded better outcomes (Cepaluni et al., 2020; Serikbayeva et al., 2021; Winkelmann et al., 2021; Cepaluni et al., 2020; González-Bustamante, 2021; Capano et al. ,2020). What these scholars argue, however, does not seem to be consistent with reality, where some of the most capable states have experienced visible failures. The chapter, in response, argued that state capacity may have affected the type of restrictions governments pursued in response to this global health crisis. According to Rose (2001), there are largely two strategies for preventing infections: population-wide and targeted. The amount of social distancing and the type (population-wide versus targeted) of restrictions are determined by the strategic calculations of a government and its citizens. For a government tackling a pandemic, higher capacity reduces the costs and increases the returns of targeted (as opposed to population-wide) responses. As a result, more capable states are inclined to implement restrictions that are targeted upon a specific segment of the population. The theorised relationship between state capacity and COVID-19 responses was empirically examined using data from no fewer than 75 countries between 30th January 2020 and 20th September 2020. The state's ability to devise and implement quality policies was crucial during the pandemic. Following some of the existing works in the field, state capacity was thus primarily

measured using the World Bank's government effectiveness index (Kaufmann & Kraay, 2020). Whether a restriction was targeted or population-wide was operationalised using the OxCGRT (Oxford COVID-19 Government Response Tracker) data (Hale et al., 2021). Using the data, ordered logistic regressions found that more capable states indeed sought to implement more targeted restrictions.

The academic implications of these chapters are threefold. First of all, the dissertation has sought to explore new areas of studies in which state capacity could serve as a central explanatory variable. State capacity has been predominantly featured in studies of conflict and studies of economic development and growth. Among scholars of conflict, state capacity has been found crucial for the prevention of internal conflict (de Rouen & Sobek, 2004; Fearon & Laitin, 2003; Sobek, 2010). Low capacity states, for instance, are prone to spill-overs from neighboring conflicts (Braithwaite, 2010) and find it more difficult to implement peace agreements (DeRouen et al., 2010). Meanwhile, among political economists state capacity has been found to nurture economic development (Evans 1995; Weiss 1988) and promote economic growth (Bockstette et al., 2002; P. Evans & Rauch, 1999; Hamm et al., 2012; Hamm & King, 2010). By exploring the relevance of state capacity outside these familiar territories of research, the dissertation shed light on the surprising amount of explanatory potential to be found in the state capacity concept. The capacity of the state has received relatively limited attention in studies of human rights (Englehart 2017; Acemoglu et al., 2010; Butler et al., 2007; Fearon & Laitin, 2003; Sullivan, 2012; Carey et al., 2022), terrorism (Blakenship, 2018; Hendrix & Young, 2014), and COVID-19 (Cepaluni et al., 2020; Serikbayeva et al., 2021; Winkelmann et al., 2021; Kavanagh & Singh, 2020; Weiss & Thurbon, 2021; Capano et al., 2020; González-Bustamante, 2021; Cronert, 2020). The three chapters of this dissertation thus sought to

contribute to these emerging interests in the state capacity concept within their respective fields.

Secondly, in its effort to address three disparate literatures, the dissertation openly embraced the multifaceted nature of the state capacity concept. As noted before, studies of state capacity have produced a plethora of conceptual definitions. Because of the wide audience that this dissertation seeks to address, however, there was no single conceptualisation of state capacity appropriate for all three chapters. Therefore, the dissertation adopted Lindvall and Teorell's (2016) broad definition of state capacity as the causal strength between a policy and its intended outcome. Moreover, the dissertation sought to measure relevant aspects of capacity by identifying the "key" resources necessary for executing a particular policy and evaluating the amount of these resources each state possesses (Brambor et al., 2020). In Chapter 2, the relevant attribute of state capacity was in relation to agency loss. Since efficient taxation tends to require a high level of agency (Roberts, 2010), the states' extractive capacity was employed as the chapter's main measure of state capacity. In Chapter 3, the relevant aspect of state capacity was the state's administrative capacity to control information and address grievances. Therefore, the chapter used Hendrix and Young's (2014) latent measure of bureaucratic capacity. Finally, in Chapter 4, the pertinent attribute of a state's capacity was the skills to create and implement quality policy. To capture this variation, the chapter used the World Bank's government effectiveness index (Kaufmann & Kraay, 2020), which has been widely adopted among studies of COVID-19.

Most importantly, the chapters revealed how state capacity may affect important political outcomes in unexpected and interesting ways. Specifically, in Chapters 3 and 4, state

capacity was not simply a facilitator of pre-determined policy goals but critically conditioned the strategic calculations of political agents. In Chapter 3, the capacity of the state affected the domestic terrorists' strategic calculations, depending on the type of regime. Because intermediate regimes could utilise its bureaucratic resources to control or reframe information and address grievances, high-capacity intermediate regimes could reduce the audience costs of a terror attack, lowering the utility gains of the terrorist. In fully democratic or autocratic contexts, by contrast, the level of capacity did not affect the audience cost inflicted by a terror attack. Finally, Chapter 4 illustrated how state capacity could critically shape the strategic interactions between governments and citizens going through a pandemic. From the government's perspective, more capacity increased the attractiveness of targeted responses to COVID-19; for citizens, however, more targeted restrictions could reduce the appeal of social distancing. Of course, this is not the first time that state capacity was analysed in this light. Ansell and Lindvall (2020), for one, describe how the vertical distribution of power over the provision of public services was affected by variations in the states' capacity. In the human rights literature, Carey et al.'s (2022) recent paper argues that positive exogenous shocks to state capacity could lead to preventative state repression, as the incumbent's political opponents will attempt to physically challenge the incumbent before it obtains a greater amount of capacity. Finally, studies of terrorism have also recognised that terrorists are conscious of a state's capacity, that terrorism tends to be a "weapon of the weak" (Crenshaw, 1981). It is hoped that the chapters of this dissertation would serve as meaningful additions to this line of research.

To conclude, the dissertation has examined state capacity as a moderating variable in the study of human rights, terrorism, and COVID-19. Chapter 2 examined how state capacity

affected the agents' commitments to their respective principals' policies on human rights. Chapters 3 and 4 illustrated how state capacity could also condition the strategic behaviours of relevant agents. In Chapter 3, state capacity reduced the utility domestic terrorists could expect to gain from an attack, in regimes where the state's resources can be used to control information. Finally, Chapter 4 demonstrated how the state's ability to craft and implement quality policies influenced its decision to opt for targeted or population-wide COVID-19 restrictions. While the chapters intended to underscore the value of state capacity in these three distinct fields, they also demonstrate the substantial challenges of analysing state capacity. It is particularly difficult to conceptualise and measure state capacity in a theoretically relevant and consistent way. Acknowledging this hurdle, each chapter carefully tried to identify the relevant aspect of capacity and use a measurement that is consistent with that attribute of state capacity. Even so, the dissertation was admittedly limited in its ability to address these concerns. The measures that were available for empirical analysis, for example, were constrained by data availability. And while the chapters sought to provide theoretical justifications for the concepts and measurements they chose, the ones used were – at the end of the day – in line with previous works in their respective fields. At the very least, however, the dissertation hopes to encourage more discussion about state capacity's effect in these various fields, including, of course, the critical conversation about conceptualisation and measurement.

Bibliography

Abadie, A. (2006). Poverty, political freedom and the roots of terrorism. *American Economic Review*, *96*(2), 50–56.

Abramson, S. F. (2017). The Economic Origins of the Territorial State. *International Organization*, *71*(1), 97–130. https://doi.org/10.1017/S0020818316000308

Acemoglu, D., Ticchi, D., & Vindigni, A. (2010). Persistence of civil wars. *Journal of the European Economic Association*, *8*(2–3), 664–676.

Acemoglu, D., Ticchi, D., & Vindigni, A. (2011). Emergence and persistence of inefficient states. *Journal of the European Economic Association*, *9*(2), 177–208. https://doi.org/10.1111/j.1542-4774.2010.01008.x

Acemoglu, D., & Verdier, T. (1998). Property rights, corruption and the allocation of talent: a general equilibrium approach. *Economic Journal*, *108*(450), 1381–1403. https://doi.org/10.1111/1468-0297.00347

Acharya, A., & Lee, A. (2018). Economic foundations of the territorial state system. *American Journal of Political Science*, *62*(4), 954–966. https://doi.org/10.1111/ajps.12379

Adolph, C., Amano, K., Bang-Jensen, B., Fullman, N., & Wilkerson, J. (2021). Pandemic politics: Timing state-level social distancing responses to COVID-19. *Journal of Health Politics, Policy and Law*, *46*(2), 211–233. https://doi.org/10.1215/03616878-8802162

Aksoy, D., & Carter, D. B. (2014). Electoral institutions and the emergence of terrorist groups. *British Journal of Political Science*, *44*(1), 181–204. https://doi.org/10.1017/S0007123412000282

Aksoy, D., Carter, D. B., & Wright, J. (2012). Terrorism in dictatorships. *Journal of Politics*, *74*(3), 810–826. https://doi.org/10.1017/S0022381612000400

Aldrich, A. S., & Lotito, N. J. (2020). Pandemic Performance: Women Leaders in the COVID-19 Crisis. *Politics & Gender*, *16*(4), 960–967. https://doi.org/10.1017/S1743923X20000549

Allcott, H., Boxell, L., Conway, J., Gentzkow, M., Thaler, M., & Yang, D. (2020). Polarization and public health: Partisan differences in social distancing during the coronavirus pandemic. *Journal of Public Economics*, *191*, 104254. https://doi.org/10.1016/j.jpubeco.2020.104254

Allison, P. D., & Waterman, R. P. (2002). Fixed–effects negative binomial regression models. *Sociological Methodology*, *32*(1), 247–265.

Anderson, E.-L., & Beresford, A. (2016). Infectious injustice: the political foundations of the Ebola crisis in Sierra Leone. *Third World Quarterly*, *37*(3), 468–486. https://doi.org/10.1080/01436597.2015.1103175

Anderson, T. (1993). *Terrorism and censorship: the media in chains*. *47*(1), 127–136.

Annan, K. (2006). *"Uniting against terrorism: recommendations for a global counterterrorism strategy" Report of the Secretary-General (Report No. A/60/825)*.

Ansell, B. W., Cansunar, A., & Elkjaer, M. A. (2021). Social distancing, politics and wealth. *West European Politics*, *44*(5–6), 1283–1313. https://doi.org/10.1080/01402382.2021.1917154

Ansell, B. W., & Lindvall, J. (2020). Inward Conquest. In *Rebuilding Social Democracy: Core Principles for the Centre Left*. Cambridge University Press. https://doi.org/10.1017/9781108178440

Arroyo-Marioli, F., Bullano, F., Kucinskas, S., & Rondón-Moreno, C. (2021). Tracking R of COVID-19: A new real-time estimation using the Kalman filter. *PLOS ONE*, *16*(1), e0244474. https://doi.org/10.1371/journal.pone.0244474

Bäck, H., & Hadenius, A. (2008). Democracy and state capacity: exploring a J-shaped relationship. *Governance*, *21*(1), 1–24. https://doi.org/10.1111/j.1468-0491.2007.00383.x

Bailey, Z. D., & Moon, J. R. (2020). Racism and the political economy of COVID-19: Will we continue to resurrect the past? *Journal of Health Politics, Policy and Law*, *45*(6), 937–950. https://doi.org/10.1215/03616878-8641481

Balla, M., Merugu, G. P., Pokal, M., Gayam, V., Adapa, S., Naramala, S., & Konala, V. M. (2020). A comprehensive approach is vital for diagnosing COVID-19: A case of false negative. *Journal of Clinical Medicine Research*, *12*(5), 315–319. https://doi.org/10.14740/jocmr4173

Bandyopadhyay, S., & Younas, J. (2011). Poverty, political freedom, and the roots of terrorism in developing countries: an empirical assessment. *Economics Letters*, *112*(2), 171–175. https://doi.org/10.1016/j.econlet.2011.03.029

Barrios, J., & Hochberg, Y. (2020). *Risk Perception Through the Lens of Politics in the Time of the COVID-19 Pandemic*. https://doi.org/10.3386/w27008

Becker, G. S. (1968). Crime and punishment: an economic approach. *Journal of Political Economy*, *76*(2), 169–217.

Bellinger, N. M. (2018). Democracy and infant mortality within India: from whether to why. *European Political Science Review*, *10*(1), 3–28. https://doi.org/10.1017/S1755773916000138

Berwick, E., & Christia, F. (2018). State Capacity Redux: Integrating Classical and Experimental Contributions to an Enduring Debate. *Annual Review of Political*

Science, *21*, 71–91. https://doi.org/10.1146/annurev-polisci-072215-012907

Besley, T., & Persson, T. (2008). Wars and state capacity. *Journal of the European Economic Association*, *6*(2–3), 522–530. https://doi.org/10.1162/JEEA.2008.6.2-3.522

Besley, T., & Persson, T. (2009). The origins of state capacity: property rights, taxation, and politics. *American Economic Review*, *99*(4), 1218–1244. https://doi.org/10.1257/aer.99.4.1218

Blankenship, B. (2018). When do states take the bait? state capacity and the provocation logic of terrorism. *Journal of Conflict Resolution*, *62*(2), 381–409. https://doi.org/10.1177/0022002716645656

Bobbio, N. (1996). *The age of rights* (C. Allan, Ed.). Polity.

Bockstette, V., Chanda, A., & Putterman, L. (2002). States and markets: the advantage of an early start. *Journal of Economic Growth*, *7*, 347–369. https://doi.org/10.1023/A:1020827801137

Bollyky, T. J., Templin, T., Cohen, M., Schoder, D., Dieleman, J. L., & Wigley, S. (2019). The relationships between democratic experience, adult health, and cause-specific mortality in 170 countries between 1980 and 2016: an observational analysis. *The Lancet*, *393*(10181), 1628–1640. https://doi.org/10.1016/S0140-6736(19)30235-1

Bosancianu, C. M., Dionne, K. Y., Hilbig, H., Humphreys, M., KC, S., Lieber, N., & Scacco, A. (2020). *Political and Social Correlates of Covid-19 Mortality*. https://doi.org/10.31219/osf.io/ub3zd

Braithwaite, A. (2010). Resisting infection: how state capacity conditions conflict contagion. *Journal of Peace Research*, *47*(3), 311–319. https://doi.org/10.1177/0022343310362164

Braithwaite, A., & Li, Q. (2007). Transnational terrorism hot spots: identification and impact evaluation. *Conflict Management and Peace Science*, *24*(4), 281–296. https://doi.org/10.1080/07388940701643623

Brambor, T., Goenaga, A., Lindvall, J., & Teorell, J. (2020). The lay of the land: information capacity and the modern state. *Comparative Political Studies*, *53*(2), 175–213. https://doi.org/10.1177/0010414019843432

Bremer, S. (1992). Dangerous dyads: conditions affecting the likelihood of interstate war, 1816–1965. *Journal of Conflict Resolution*, *36*(2), 309–341.

Brewer, J. (1989). *The sinews of power: war, money, and the English state, 1688–1783*. Knopf.

Brown, A.-A., Penrith, M. L., Fasina, F. O., & Beltran-Alcrudo, D. (2018). The African swine fever epidemic in West Africa, 1996-2002. *Transboundary and Emerging Diseases*, *65*(1), 64–76. https://doi.org/10.1111/tbed.12673

Brysk, A. (2005). *Human rights and private wrongs: constructing global civil society*. Routledge.

Bueno de Mesquita, Bruce Downs, G. W., Smith, A., & Cherif, F. M. (2005). Thinking inside the box: A closer look at democracy and human rights. *International Studies Quarterly*, *49*(1), 439–457.

Buitrago-Garcia, D., Egli-Gany, D., Counotte, M. J., Hossmann, S., Imeri, H., Ipekci, A. M., Salanti, G., & Low, N. (2020). Occurrence and transmission potential of asymptomatic and presymptomatic SARS-CoV-2 infections: A living systematic review and meta-analysis. *PLOS Medicine*, *17*(9), e1003346. https://doi.org/10.1371/journal.pmed.1003346

Burke, J. (2020). South African police fire rubber bullets at shoppers amid lockdown. *The Guardian*. https://www.theguardian.com/world/2020/mar/28/south-africa-police-rubber-bullets-shoppers-covid-19-lockdown

Burkle, F. J. M. (2006). Globalization and disasters: Issues of public health, state capacity and political action. *Journal of International Affairs*, *59*(2), 241–266.

Burroway, R. (2016). Democracy and child health in developing countries. *International Journal of Comparative Sociology*, *57*(5), 338–364. https://doi.org/10.1177/0020715216676514

Bush, G. W. (2002). Securing freedom's triumph (Op-ed). *New York Times*. https://www.nytimes.com/2002/09/11/opinion/securing-freedom-s-triumph.html

Butler, C. K., Gluch, T., & Mitchell, N. J. (2007). Security forces and sexual violence: A cross-national analysis of a principal–agent argument. *Journal of Peace Research*, *44*(6), 669–687.

Byambasuren, O., Cardona, M., Bell, K., Clark, J., McLaws, M.-L., & Glasziou, P. (2020). Estimating the extent of asymptomatic COVID-19 and its potential for community transmission: Systematic review and meta-analysis. *Official Journal of the Association of Medical Microbiology and Infectious Disease Canada*, *5*(4), 223–234. https://doi.org/10.3138/jammi-2020-0030

Capano, G. (2020). Policy design and state capacity in the COVID-19 emergency in Italy: if you are not prepared for the (un)expected, you can be only what you already are. *Policy and Society*, *39*(3), 326–344. https://doi.org/10.1080/14494035.2020.1783790

Capano, G., Howlett, M., Jarvis, D. S. L., Ramesh, M., & Goyal, N. (2020). Mobilizing policy (in)capacity to fight COVID-19: Understanding variations in state responses. *Policy and Society*, *39*(3), 285–308. https://doi.org/10.1080/14494035.2020.1787628

Cárdenas, M., & Tuzemen, D. (2011). *Under-investment in state capacity: the role of inequality and political instability* (Research Working Paper RWP 11-07).

Carey, P. D., Bell, C., Ritter, E. H., & Wolford, S. (2022). Oil discoveries, civil war, and preventive state repression. *Journal of Peace Research*. https://doi.org/10.1177/00223433211047365

Centeno, M. A. (2002). *Blood and debt: war and the nation-state in Latin America*. Pennsylvania State University Press.

Center for Systemic Peace. (2018). *About Polity*. http://www.systemicpeace.org/polityproject.html

Cepaluni, G., Dorsch, M., & Branyiczki, R. (2020). Political regimes and deaths in the early stages of the COVID-19 pandemic. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3586767

Charron, N., & Lapuente, V. (2010). Does democracy produce quality of government? *European Journal of Political Research*, *49*(4), 443–470. https://doi.org/10.1111/j.1475-6765.2009.01906.x

Chenoweth, E. (2010). Democratic competition and terrorist activity. *The Journal of Politics*, *72*(1), 16–30. https://doi.org/10.1017/S0022381609990442

Chenoweth, E. (2013). Terrorism and democracy. *Annual Review of Political Science*, *16*(1), 355–378. https://doi.org/10.1146/annurev-polisci-032211-221825

Chomsky, N., & Herman, E. S. (1979). *The political economy of human rights*. South End.

Cingranelli, D. L., Richards, D. L., & Clay, C. K. (2014). *The Cingranelli-Richards (CIRI) human rights data project coding manual, version 5.20.14*. http://www.humanrightsdata.com/p/data-documentation.html

Conrad, C. R., Conrad, J., & Young, J. K. (2014). Tyrants and terrorism: why some autocrats are terrorized while others are not. *International Studies Quarterly*, *58*(3), 539–549. https://doi.org/10.1111/isqu.12120

Coppedge, M., Gerring, J., Knutsen, C. H., Lindberg, S. I., Teorell, J., Alizada, N., Altman, D., Bernhard, M., Cornell, A., Fish, M. S., Gastaldi, L., Gjerløw, H., Glynn, A., Hicken, A., Hindle, G., Ilchenko, N., Krusell, J., Lührmann, A., Maerz, S. F., … Ziblatt, D. (2021). *V-Dem [Country–Year/Country–Date] Dataset v11.1" Varieties of Democracy (V-Dem) Project*. https://doi.org/https://doi.org/10.23696/vdemds21

Cornett, L., Haschke, P., & Gibney, M. (2016). Introduction to the societal violence scale: physical integrity rights violations and nonstate actors. *Human Rights Quarterly*, *38*(4), 1102–1108.

Crenshaw, M. (1981). The Causes of Terrorism. *Comparative Politics*, *13*(4), 379–399.

Crenshaw, M. (2002). "'Suicide' terrorism in comparative perspective," in International Policy Institute of Counter-Terrorism (ICT), Countering Suicide Terrorism: An International Conference, 21. In J. A. Piazza (2009) (Ed.), *"Is Islamist Terrorism More Dangerous?: An Empirical Study of Group Ideology, Organization, and Goal*

Structure." Terrorism and Political Violence, 21(1): 62-88.

Cronert, A. (2020). Democracy, state capacity, and COVID-19 related school closures. *APSA Preprints*. https://doi.org/10.33774/apsa-2020-jf671-v4

Davenport, C. (1999). Human rights and the democratic proposition. *Journal of Conflict Resolution*, *43*(1), 92–116.

Davenport, C. (2004). Human rights and the promise of democratic pacification. *International Studies Quarterly*, *48*(3), 539–560.

Davenport, C. (2007). State repression and the tyrannical peace. *Journal of Peace Research*, *44*(4), 485–504.

Davenport, C., & Armstrong, D. A. (2004). Democracy and the violation of human rights: a statistical analysis from 1976 to 1996. *American Journal of Political Science*, *48*(3), 538–554.

Dawson, A. (2010). State capacity and the political economy of child mortality in developing countries revisited: From fiscal sociology towards the rule of law. *International Journal of Comparative Sociology*, *51*(6), 403–422. https://doi.org/10.1177/0020715210387522

de Rouen, K. R., & Sobek, D. (2004). The dynamics of civil war duration and outcome. *Journal of Peace Research*, *41*(3), 303–320. https://doi.org/10.1177/0022343304043771

DeRouen, K., Ferguson, M. J., Norton, S., Young Hwan Park, Lea, J., & Streat-Bartlett, A. (2010). Civil war peace agreement implementation and state capacity. *Journal of Peace Research*, *47*(3), 333–346. https://doi.org/10.1177/0022343310362169

Dincecco, M., & Katz, G. (2016). State capacity and long-run economic performance. *The Economic Journal*, *126*(590), 189–218. https://doi.org/10.1111/ecoj.12161

Dincecco, M., & Prado, M. (2012). Warfare, fiscal capacity, and performance. *Journal of Economic Growth*, *17*(3), 171–203.

Dionne, K. Y. (2011). The role of executive time horizons in state response to AIDS in Africa. *Comparative Political Studies*, *44*(1), 55–77. https://doi.org/10.1177/0010414010381074

Drakos, K., & Gofas, A. (2006a). The devil you know but are afraid to face: underreporting bias and its distorting effects on the study of terrorism. *Journal of Conflict Resolution*, *50*(5), 714–735. https://doi.org/10.1177/0022002706291051

Drakos, K., & Gofas, A. (2006b). In search of the average transnational terrorist attack venue. *Defence and Peace Economics*, *17*(2), 73–93. https://doi.org/10.1080/10242690500445387

Dreher, A., & Fischer, J. A. v. (2010). Government decentralization as a disincentive for

transnational terror? An empirical analysis. *International Economic Review*, *51*(4), 981–1002.

Du, Y. R., & Li, L. (2018). When press freedom meets national interest: How terrorist attacks are framed in the news in China and the US. *Global Media and China*, *2*(3–4), 284–302. https://doi.org/10.1177/2059436418755761

Easterly, W., Gatti, R., & Kurlat, S. (2006). Development, democracy, and mass killings. *Journal of Economic Growth*, *11*(2), 129–156.

Enders, W., & Sandler, T. (2000). Is transnational terrorism becoming more threatening? a time series investigation. *Journal of Conflict Resolution*, *44*(3), 307–332.

Enders, W., & Sandler, T. (2002). Patterns of transnational terrorism, 1970-1999: alternative time-series estimates. *International Studies Quarterly*, *46*(2), 145–165.

Enders, W., & Sandler, T. (2006). *The political economy of terrorism*. Cambridge University Press.

Enders, W., Sandler, T., & Gaibulloev, K. (2011). Domestic versus transnational terrorism: data, decomposition, and dynamics. *Journal of Peace Research*, *48*(3), 319–337.

Englehart, N. A. (2009). State capacity, state failure, and human rights. *Journal of Peace Research*, *46*(2), 163–180.

Englehart, N. A. (2017). *Sovereignty, state failure and human rights: petty despots and exemplary villains*. Routledge.

Englehart, N. A., & Miller, M. K. (2014). The CEDAW effect: international law's impact on women's rights. *Journal of Human Rights*, *13*(1), 22–47. https://doi.org/10.1080/14754835.2013.824274

Engler, S., Brunner, P., Loviat, R., Abou-Chadi, T., Leemann, L., Glaser, A., & Kübler, D. (2021). Democracy in times of the pandemic: explaining the variation of COVID-19 policies across European democracies. *West European Politics*, *44*(5–6), 1077–1102. https://doi.org/10.1080/01402382.2021.1900669

Escribá-Folch, A. (2013). Repression, political threats, and survival under autocracy. *International Political Science Review*, *34*(5), 543–560.

Eubank, W. L., & Weinberg, L. (1994). Does democracy encourage terrorism? *Terrorism and Political Violence*, *6*(4), 417–435.

Eubank, W. L., & Weinberg, L. (2001). Terrorism and democracy: perpetrators and victims. *Political Violence*, *13*(1), 155–164.

European Centre for Disease Prevention and Control. (2021). *COVID-19 situation update worldwide, as of week 49, updated 16 December 2021*. European Centre for Disease Prevention and Control. https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases

Evans, P. (1995). *Embedded autonomy*. Princeton University Press.

Evans, P., & Rauch, J. E. (1999). Bureaucracy and growth: A cross-national analysis of the effects of "Weberian" state structures on economic growth. *American Sociological Review*, *64*(5), 748–765.

Eyerman, J. (1998). Terrorism and democratic states: soft targets or accessible systems. *International Interactions*, *24*(2), 151–170.

Fariss, C. J. (2014). Respect for human rights has improved over time: modeling the changing standard of accountability. *American Political Science Review*, *108*(2), 297–318.

Fauvelle-Aymar, C. (1999). Political and tax capacity in developing countries. *Kyklos*, *52*(3), 391–414.

Fearon, J. D. (2005). Primary commodity exports and civil war. *Journal of Conflict Resolution*, *49*(4), 483–507. https://doi.org/10.1177/0022002705277544

Fearon, J. D., & Laitin, D. D. (2003). Ethnicity, insurgency, and civil war. *American Political Science Review*, *97*(1), 75–90.

Fein, H. (1995). More murder in the middle: Life integrity violations and democracy in the world. *Human Rights Quarterly*, *17*(1), 170–191.

Findley, M. G., Piazza, J. A., & Young, J. K. (2012). Games rivals play: terrorism in international rivalries. *The Journal of Politics*, *74*(1), 235–248. https://doi.org/10.1017/S0022381611001551

Findley, M. G., & Young, J. K. (2011). Terrorism, democracy, and credible commitments. *International Studies Quarterly*, *55*(2), 357–378. https://doi.org/10.1111/j.1468-2478.2011.00647.x

Foweraker, J., & Landman, T. (1997). *Citizenship rights and social movements: a comparative and statistical analysis*. Oxford University Press.

Fukuyama, F. (2004). *State-building: governance and world order in the 21st century*. Cornell University Press.

Gaibulloev, K., Piazza, J. A., & Sandler, T. (2017). Regime types and terrorism. *International Organization*, *71*(3), 491–522. https://doi.org/10.1017/S0020818317000169

Gao, Z., Xu, Y., Sun, C., Wang, X., Guo, Y., Qiu, S., & Ma, K. (2021). A systematic review of asymptomatic infections with COVID-19. *Journal of Microbiology, Immunology and Infection*, *54*(1), 12–16. https://doi.org/10.1016/j.jmii.2020.05.001

Gassebner, M., & Luechinger, S. (2011). Lock, stock, and barrel: a comprehensive assessment of the determinants of terror. *Public Choice*, *149*(3), 235–261. https://doi.org/10.1007/s11127-011-9873-0

Geddes, B. (1996). *Politician's dilemma: building state capacity in Latin America*. University of California Press.

Gerring, J., Knutsen, C. H., Skaaning, S.-E., Teorell, J., Coppedge, M., Lindberg, S. I., & Maguire, M. (2015). Electoral democracy and human development. In *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2652180

Gibney, M., & Dalton, M. (1996). The political terror scale. *Policy Studies and Developing Nations*, *4*(1), 73–84.

Gleditsch, N. P., Wallensteen, P., Eriksson, M., Sollenberg, M., & Strand, H. (2002). Armed conflict 1946-2001: A new dataset. *Journal of Peace Research*, *39*(5), 615–637. https://doi.org/10.1177/0022343302039005007

Goelzhauser, G., & Konisky, D. M. (2021). The state of American federalism 2019-2020: Polarized and punitive intergovernmental relations. *Publius*, *50*(3), 311–343. https://doi.org/10.1093/PUBLIUS/PJAA021

González-Bustamante, B. (2021). Evolution and early government responses to COVID-19 in South America. *World Development*, *137*. https://doi.org/10.1016/j.worlddev.2020.105180

Google. (2022). *Community Mobility Reports Reports*. https://www.google.com/covid19/mobility/

Greig, J. M., & Enterline, A. J. (2017). *Correlates of war project: National Material Capabilities (NMC) data documentation*. *0*(April 2010).

Guglielmi, G. (2021). Rapid coronavirus tests: a guide for the perplexed. *Nature*, *590*(7845), 202–205. https://doi.org/10.1038/d41586-021-00332-4

Hafner-Burton, E. M., & Ron, J. (2009). Seeing double: Human rights impact through qualitative and quantitative eyes. *World Politics*, *61*(2), 360–401.

Hafner-Burton, E. M., & Tsutsui, K. (2007). Justice lost! The failure of international human rights law to matter where needed most. *Journal of Peace Research*, *44*(4), 407–425.

Hale, T., Angrist, N., Goldszmidt, R., Kira, B., Petherick, A., Phillips, T., Webster, S., Cameron-Blake, E., Hallas, L., Majumdar, S., & Tatlow, H. (2021). A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker). *Nature Human Behaviour*, *5*(4), 529–538. https://doi.org/10.1038/s41562-021-01079-8

Hamilton, L. C., & Hamilton, J. D. (1983). Dynamics of terrorism. *International Studies Quarterly*, *27*(1), 39–54.

Hamm, P., & King, L. (2010). *Post-manichean economics: foreign investment, state capacity and economic development in transition economies* (No. wp227; Working Papers).

Hamm, P., King, L. P., & Stuckler, D. (2012). Mass privatization, state capacity, and economic growth in post-communist countries. *American Sociological Review*, *77*(2), 295–324. https://doi.org/10.1177/0003122412441354

Hanson, J. K. (2015). Democracy and state capacity: complements or substitutes? *Studies in Comparative International Development*, *50*(3), 304–330. https://doi.org/10.1007/s12116-014-9173-z

Hanson, J. K., & Sigman, R. (2021). Leviathan's latent dimensions: measuring state capacity for comparative political research. *Journal of Politics*, *83*(4), 1495–1510. https://doi.org/10.1086/715066

Hartley, K., & Jarvis, D. S. L. (2020). Policymaking in a low-trust state: legitimacy, state capacity, and responses to COVID-19 in Hong Kong. *Policy and Society*, *39*(3), 403–423. https://doi.org/10.1080/14494035.2020.1783791

Hathaway, O. A. (2002). Do human rights treaties make a difference? *Yale Law Journal*, *111*(8), 1935–2042.

Healy, A., & Malhotra, N. (2009). Myopic voters and natural disaster policy. *American Political Science Review*, *103*(3), 387–406. https://doi.org/10.1017/S0003055409990104

Hendrix, C. S., & Young, J. K. (2014). State capacity and terrorism: a two-dimensional approach. *Security Studies*, *23*(2), 329–363. https://doi.org/10.1080/09636412.2014.905358

Henkin, L. (1990). *The age of rights*. Columbia University Press.

Hill, D. (2010). Estimating the effects of human rights treaties on state behavior. *Journal of Politics*, *72*(4), 1161–1174.

Hintze, O. (1975). *The historical essays of Otto Hintze*. Oxford University Press.

Hoffman, B. (1998). *Inside terrorism*. Columbia University Press.

Hoffman, B., & McCormick, G. (2004). Terrorism, signaling and suicide attack. *Studies in Conflict and Terrorism*, *27*, 243–281.

Huberfeld, N., Gordon, S. H., & Jones, D. K. (2020). Federalism complicates the response to the COVID-19 health and economic crisis: What can be done? *Journal of Health Politics, Policy and Law*, *45*(6), 951–965. https://doi.org/10.1215/03616878-8641493

Huntington, S. (1968). *Political order in changing societies*. Yale University Press.

Karabulut, G., Zimmermann, K. F., Bilgin, M. H., & Doker, A. C. (2021). Democracy and COVID-19 outcomes. *Economics Letters*, *203*, 109840. https://doi.org/10.1016/j.econlet.2021.109840

Kaufmann, D., & Kraay, A. (2020). *Worldwide governance indicators*. World Bank.

http://info.worldbank.org/governance/wgi/#home

Kavanagh, M. M., & Singh, R. (2020). Democracy, capacity, and coercion in pandemic response: COVID-19 in comparative political perspective. *Journal of Health Politics, Policy and Law*, *45*(6), 997–1012. https://doi.org/10.1215/03616878-8641530

Keefer, P. (2007). Clientelism, credibility, and the policy choices of young democracies. *American Journal of Political Science*, *51*, 804–821.

Keefer, P., & Vlaicu, R. (2008). Democracy, credibility, and clientelism. *Journal of Law, Economics & Organization*, *24*(2), 371–406.

Keith, L. C. (1999). The United Nations International Covenant on Civil and Political Rights: does it make a difference in human rights behavior? *Journal of Peace Research*, *36*(1), 95–118.

Kim, W., & Sandler, T. (2020). Middle East and North Africa: terrorism and conflicts. *Global Policy*, *11*(4), 424–438. https://doi.org/10.1111/1758-5899.12829

Kim, W., & Sandler, T. (2021). Foreign aid and terrorist groups: incidents, ideology, and survival. *Public Choice*, *189*(1–2), 139–160. https://doi.org/10.1007/s11127-020-00866-7

Knauer, N. J. (2020). The COVID-19 pandemic and federalism: Who decides? *NYU Journal of Legislation and Public Policy*, *May*, 1–29.

Koch, M. T., & Cranmer, S. (2007). Testing the "Dick Cheney" Hypothesis: do governments of the left attract more terrorism than governments of the right? *Conflict Management and Peace Science*, *24*(4), 311–326. https://doi.org/10.1080/07388940701643672

Kurrild-Klitgaard, P., Justesen, M. K., & Klemmensen, R. (2006). The political economy of freedom, democracy and transnational terrorism. *Public Choice*, *128*(1–2), 289–315. https://doi.org/10.1007/s11127-006-9055-7

Lacina, B., & Gleditsch, N. P. (2005). Monitoring trends in global combat: a new dataset of battle deaths. *European Journal of Population*, *21*(2), 145–166.

Lai, B. (2007). "Draining the Swamp": an empirical examination of the production of international terrorism, 1968—1998. *Conflict Management and Peace Science*, *24*(4), 297–310. https://doi.org/10.1080/07388940701643649

Larue, P. F., & Danzell, O. E. (2020). Rethinking state capacity: conceptual effects on the incidence of terrorism. *Terrorism and Political Violence*, *00*(00), 1–18. https://doi.org/10.1080/09546553.2020.1776702

Lee, H. L. (2020). *PM Lee's address on the COVID-19 Situation in Singapore (21 April 2020)*. Singapore Government. https://www.gov.sg/article/pm-lees-address-on-the-covid-19-situation-in-singapore-21-april-2020

Lee, M. (2021). International statebuilding and the domestic politics of state development. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3825952

Lee, M., & Zhang, N. (2017). Legibility and the informational foundations of state capacity. *Journal of Politics*, *79*(1), 118–132. https://doi.org/10.1086/688053

Levi, M. (1988). *Of rule and revenue*. University of California Press.

Levitsky, S., & Way, L. A. (2002). Elections without democracy: The rise of competitive authoritarianism. *Journal of Democracy*, *13*(2), 51–65.

Li, Q. (2005). Does democracy promote or reduce transnational terrorist incidents? *Journal of Conflict Resolution*, *49*(2), 278–297. https://doi.org/10.1177/0022002704272830

Li, Q., & Schaub, D. (2004). Economic globalization and transnational terrorism. *Journal of Conflict Resolution*, *48*(2), 230–258. https://doi.org/10.1177/0022002703262869

Lieberman, E. S. (2002). Taxation data as indicators of state–society relations: possibilities and pitfalls in cross-national research. *Studies in Comparative International Development*, *36*(4), 89–115.

Lindvall, J., & Teorell, J. (2016). *State capacity as power: a conceptual framework* (STANCE Working Paper 1).

Lutz, E. L., & Sikkink, K. (2000). International human rights law and practice in Latin America. *International Organization*, *54*(3), 633–659.

Mann, M. (1984). The autonomous power of the state: its origins, mechanisms and results. *European Journal of Sociology*, *25*(2), 185–213. https://doi.org/10.1017/S0003975600004239

Mann, M. (1986). *The sources of social power: a history of power from the beginning to A.D. 1760*. Cambridge University Press.

Mann, M. (2008). Infrastructural power revisited. *Studies in Comparative International Development*, *43*(3–4), 355–365. https://doi.org/10.1007/s12116-008-9027-7

Marshall, M. G., Gurr, T. R., & Jaggers, K. (2014). *Polity IV Dataset version 2013 and dataset users' manual.* Center for Systemic Peace. http://www.systemicpeace.org/inscrdata.html

Martin-Pavitt, R. (2021). *South Korea reports record Covid cases after easing restrictions*. The Independent. https://www.independent.co.uk/tv/news/south-korea-covid-cases-restrictions-v4b33215b

Mayer, T., & Zignago, S. (2011). *Notes of CEPII's distances measures: The GeoDist database* (No. 2011–25).

McBride, M., Milante, G., & Skaperdas, S. (2011). Peace and war with endogenous state capacity. *Journal of Conflict Resolution*, *55*(3), 446–468.

https://doi.org/10.1177/0022002711400862

McCormack, T., & Jones, L. (2020). *After Brexit #3 COVID-19 and the Failed Post-Political State*. The Full Brexit: For Popular Sovereignty, Democracy, and Economic Renewal. https://www.thefullbrexit.com/covid19-state-failure

McMann, K. M., Seim, B., Teorell, J., & Lindberg, S. (2020). Why low levels of democracy promote corruption and high levels diminish Ii. *Political Research Quarterly*, *73*(4), 893–907. https://doi.org/10.1177/1065912919862054

McNamara, R. S. (1966). Speech given in Montreal, Quebec, 18 May 1966. New York Times 19 May 1966. In S. Huntington (1968) (Ed.), *Political Order in Changing Societies*. Yale University Press.

Migdal, J. S. (1988). *Strong societies and weak states: state-society relations and state capabilities in the Third World.* Princeton University Press.

Mitchell, N. J. (2004). *Agents of atrocity: leaders, followers, and the violation of human rights in civil war*. Palgrave Macmillan.

Montinola, G. R., & Jackman, R. W. (2002). Sources of corruption: a cross-country study. *British Journal of Political Science*, *32*(01). https://doi.org/10.1017/S0007123402000066

Myers, B. R. (2010). *The cleanest race: how North Koreans see themselves – and why it matters*. Melville.

National Consortium for the Study of Terrorism and Responses to Terrorism (START). (2019). *The Global Terrorism Database (GTD)*. University of Maryland. https://www.start.umd.edu/gtd

Neumeyer, E. (2005). Asylum recognition rates in Western Europe: their determinants, variation, and lack of convergence. *Journal of Conflict Resolution*, *49*(1), 43–66.

Pannier, B. (2017). Is there a terror threat in Turkmenistan? *Radio Free Europe*. https://www.rferl.org/a/qishloq-ovozi-turkmenistan-terror-threat-afghanistan-islamic-state/28653368.html

Pape, R. A. (2003). The strategic logic of suicide terrorism. *American Political Science Review*, *97*(3), 343–361.

Peters, G. B. (1996). *The policy capacity of government*.

Pevehouse, J. C., Nordstrom, T., & Warnke, K. (2003). *Intergovernmental organizations, 1815–2000: a new correlates of war data set*. http://www.correlatesofwar.org

Piazza, J. A. (2007). Draining the swamp: democracy promotion, state failure, and terrorism in 19 Middle Eastern countries. *Studies in Conflict & Terrorism*, *30*(6), 521–539. https://doi.org/10.1080/10576100701329576

Piazza, J. A. (2008). Do democracy and free markets protect us from terrorism?

International Politics, *45*(1), 72–91. https://doi.org/10.1057/palgrave.ip.8800220

Piazza, J. A. (2010). Terrorism and party systems in the states of India. *Security Studies*, *19*(1), 99–123. https://doi.org/10.1080/09636410903546673

Piazza, J. A. (2017). Repression and terrorism: A cross-national empirical analysis of types of repression and domestic terrorism. *Terrorism and Political Violence*, *29*(1), 102–118. https://doi.org/10.1080/09546553.2014.994061

Poe, S. C., & Tate, N. C. (1994). Repression of human rights to personal integrity in the 1980s: a global analysis. *American Political Science Review*, *88*(4), 853–872.

Poe, S. C., Tate, N. C., & Keith, L. C. (1999). Repression of human rights to personal integrity revisited: a global, cross-national study covering the years 1976–1993. *International Studies Quarterly*, *43*(2), 291–313.

Pries-Shimshi, Y. (2007). Creating a citizenry prepared for terrorism: education, media, and public awareness. In Centre of Excellence Defence Against Terrorism (Ed.), *The media: the terrorists' battlefield*. IOS Press.

Przeworski, A. (2004). Democracy and Economic Development. In E. D. Mansfield & R. Sisson (Eds.), *The Evolution of Political Knowledge* (pp. 300–324). Ohio State University Press.

Queralt, D. (2019). War, international finance, and fiscal capacity in the long run. In *International Organization* (Vol. 73, Issue 4). https://doi.org/10.1017/S0020818319000250

Rauch, J. E., & Evans, P. (2000). Bureaucratic structure and bureaucratic performance in less developed countries. *Journal of Public Economics*, *75*(1), 49–71. https://doi.org/10.1016/S0047-2727(99)00044-4

Regan, P. M., & Henderson, E. A. (2002). Democracy, threats and political repression in developing countries: are democracies internally less violent? *Third World Quarterly*, *23*(1), 119–136.

Risse, T., Ropp, S. C., & Sikkink, K. (1999). *The power of human rights: international norms and domestic change*. Cambridge University Press.

Roberts, A. (2010). *The Logic of Discipline*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195374988.001.0001

Rocco, P., Béland, D., & Waddan, A. (2020). Stuck in neutral? Federalism, policy instruments, and counter-cyclical responses to COVID-19 in the United States. *Policy and Society*, *39*(3), 458–477. https://doi.org/10.1080/14494035.2020.1783793

Rohner, D., & Frey, B. S. (2007). Blood and ink! The common-interest-game between terrorists and the media. *Public Choice*, *133*(1–2), 129–145. https://doi.org/10.1007/s11127-007-9182-9

Rose, G. (2001). Sick individuals and sick populations. *International Journal of Epidemiology*, *30*, 427–432.

Ross, J. I. (1993). Structural causes of oppositional political terrorism: towards a causal model. *Journal of Peace Research*, *30*(3), 317–329.

Rothstein, B. (2005). *Social traps and the problem of trust*. Cambridge University Press.

Ruger, J. P. (2005). Democracy and health. *QJM - Monthly Journal of the Association of Physicians*, *98*(4), 299–304. https://doi.org/10.1093/qjmed/hci042

Rull, M., Kickbusch, I., & Lauer, H. (2015). Policy debate | International responses to global epidemics: Ebola and beyond. *Revue Internationale de Politique de Développement*, *6*(2). https://doi.org/10.4000/poldev.2178

Rummel, R. J. (1997). *Power kills*. Transaction.

Ryu, E. (2020). Ministry of science and technology spends 13% of budget on AI (kwa-ki-pu, 2021 nyŏn ye-san chung 13% AIe t'u-ip). *IT Chosun*. http://it.chosun.com/site/data/html_dir/2020/08/31/2020083103179.html

San-Akca, B. (2014). Democracy and vulnerability: an exploitation theory of democracies by terrorists. *Journal of Conflict Resolution*, *58*(7), 1285–1310. https://doi.org/10.1177/0022002713498698

Savun, B., & Phillips, B. J. (2009). Democracy, foreign policy, and terrorism. *Journal of Conflict Resolution*, *53*(6), 878–904. https://doi.org/10.1177/0022002709342978

Schmid, A. (1992). Terrorism and democracy. *Terrorism and Political Violence*, *4*(4), 14–25.

Serikbayeva, B., Abdulla, K., & Oskenbayev, Y. (2021). State capacity in responding to COVID-19. *International Journal of Public Administration*, *44*(11–12), 920–930. https://doi.org/10.1080/01900692.2020.1850778

Shvetsova, O., Zhirnov, A., VanDusky-Allen, J., Adeel, A. B., Catalano, M., Catalano, O., Giannelli, F., Muftuoglu, E., Riggs, T., Sezgin, M. H., Tahir, N., & Zhao, T. (2020). Institutional origins of protective COVID-19 public health policy responses: Informational and authority redundancies and policy stringency. *Journal of Political Institutions and Political Economy*, *1*(4), 585–613. https://doi.org/10.1561/113.00000023

Singer, D. (1987). Reconstructing the correlates of war dataset on material capabilities of states, 1816–1985. *International Interactions*, *14*(2), 115–132.

Singer, D., Bremer, S., & Stuckey, J. (1972). Capability distribution, uncertainty, and major power war, 1820–1965. In B. Russett (Ed.), *Peace, war, and numbers*. Sage.

Skocpol, T. (1979). *States and social revolutions: a comparative analysis of France, Russia, and China*. Cambridge University Press.

Skocpol, T. (1985). Bringing the state back in: strategies of analysis in current research. In P. B. Evans, D. Rueschemeyer, & T. Skocpol (Eds.), *Bringing the State Back in*. Cambridge University Press.

Sobek, D. (2010). Masters of their domains: The role of state capacity in civil wars. *Journal of Peace Research*, *47*(3), 267–271. https://doi.org/10.1177/0022343310362295

Soifer, H. D. (2008). State infrastructural power: approaches to conceptualization and measurement. *Studies in Comparative International Development*, *43*(3–4), 231–251. https://doi.org/10.1007/s12116-008-9028-6

Soifer, H. D. (2013). State power and the economic origins of democracy. *Studies in Comparative International Development*, *48*(1), 1–22. https://doi.org/10.1007/s12116-012-9122-7

Soifer, H. D., & vom Hau, M. (2008). Unpacking the strength of the state: the utility of state infrastructural power. *Studies in Comparative International Development*, *43*(3–4), 219–230. https://doi.org/10.1007/s12116-008-9030-z

Sullivan, C. M. (2012). Blood in the village: a local-level investigation of state massacres. *Conflict Management and Peace Science*, *29*(4), 373–396.

Sung, H. E. (2004). Democracy and political corruption: a cross-national comparison. *Crime, Law and Social Change*, *41*(2), 179–193. https://doi.org/10.1023/B:CRIS.0000016225.75792.02

Suryanarayan, P. (2017). Hollowing out the state: Franchise expansion and fiscal capacity in colonial India. In *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2951947

Testas, A. (2004). Determinants of terrorism in the Muslim world: an empirical cross-sectional analysis. *Terrorism and Political Violence*, *16*(2), 253–273. https://doi.org/10.1080/09546550490482504

Tham, I. (2020). TraceTogether check-in at venues is better, (cyber) safer. *The Straits Times*. https://www.straitstimes.com/tech/tech-news/tracetogether-check-in-at-venues-is-better-cyber-safer

Thies, C. G. (2005). War, rivalry, and state building in Latin America. *American Journal of Political Science*, *49*(3), 451. https://doi.org/10.2307/3647725

Thies, C. G. (2010). Of rulers, rebels, and revenue: state capacity, civil war onset, and primary commodities. *Journal of Peace Research*, *47*(3), 321–332. https://doi.org/10.1177/0022343310361841

Tilly, C. (1975). *The formation of national states in Western Europe*.

Tilly, C. (1992). *Coercion, capital, and European states, AD 990-1992*. Wiley-Blackwell.

Tilly, C. (2003). *The logic of collective violence*. Blackwell.

UN Human Rights Council. (2014). *Report of the Commission of Inquiry on Human Rights in the Democratic People's Republic of Korea (A/HRC/25/63)*.

Veselinovic, M. (2021). *COVID-19: Crowds gather in London's Soho to celebrate pubs reopening as England lockdown eases*. Sky News. https://news.sky.com/story/covid-19-crowds-gather-in-londons-soho-to-celebrate-pubs-reopening-as-england-lockdown-eases-12274012

Wade, S. J., & Reiter, D. (2007). Does democracy matter?: regime type and suicide terrorism. *Journal of Conflict Resolution*, *51*(2), 329–348. https://doi.org/10.1177/0022002706298137

Weber, M. (1968). *Economy and society* (G. Roth & C. Wittich, Eds.). Bedminster Press.

Weeks, J. L. (2008). Autocratic audience costs: regime type and signaling resolve. *International Organization*, *62*(01). https://doi.org/10.1017/S0020818308080028

Weinberg, L., & Eubank, W. L. (1994). Terrorism and democracy: what recent events disclose. *Terrorism and Political Violence*, *10*(1), 108–118.

Weiss, L. (1998). *The myth of the powerless state*. Cornell University Press.

Weiss, L., & Thurbon, E. (2021). Explaining divergent national responses to Covid-19: An enhanced state capacity framework. *New Political Economy*, *0*(0), 1–16. https://doi.org/10.1080/13563467.2021.1994545

WHO. (2018). *Managing Epidemics*.

Wilkinson, P. (1986). *Terrorism and the liberal state*. Macmillan.

Wilkinson, P. (1997). The media and terrorism: a reassessment. *Terrorism and Political Violence*, *9*(2), 51–64. https://doi.org/10.1080/09546559708427402

Wilson, M. C., & Piazza, J. A. (2013). Autocracies and terrorism: conditioning effects of authoritarian regime type on terrorist attacks. *American Journal of Political Science*, *57*(4), 941–955. https://doi.org/10.1111/ajps.12028

Winkelmann, J., Webb, E., Williams, G. A., Hernández-Quevedo, C., Maier, C. B., & Panteli, D. (2021). European countries' responses in ensuring sufficient physical infrastructure and workforce capacity during the first COVID-19 wave. *Health Policy*, *xxxx*. https://doi.org/10.1016/j.healthpol.2021.06.015

Winward, M. (2021). Intelligence capacity and mass violence: evidence from Indonesia. In *Comparative Political Studies* (Vol. 54, Issues 3–4). https://doi.org/10.1177/0010414020938072

Woo, J. J. (2020). Policy capacity and Singapore's response to the COVID-19 pandemic. *Policy and Society*, *39*(3), 345–362. https://doi.org/10.1080/14494035.2020.1783789

Wood, R. M., & Gibney, M. (2010). The Political Terror Scale (PTS): a re-introduction

and a comparison to CIRI. *Human Rights Quarterly*, *32*(2), 367–400.

World Bank. (2021). *World Development Indicators (WDI)*. http://data.worldbank.org/datacatalog/world-development-indicators

Wu, S., Wang, C., Zhang, L., & Korea, S. (2019). *State capacity in response to COVID-19: A case study of China*. 1–8.

Yonhap News Agency. (2020). *S. Korea to seek indemnity against church over COVID-19 treatment costs*. Yonhap News Agency. https://en.yna.co.kr/view/AEN20200831010700325

Young, J. K., & Dugan, L. (2011). Veto players and terror. *Journal of Peace Research*, *48*(1), 19–33. https://doi.org/10.1177/0022343310386269

Young, J. K., & Findley, M. G. (2011). Promise and pitfalls of terrorism research. *International Studies Review*, *13*(3), 411–431. https://doi.org/10.1111/j.1468-2486.2011.01015.x