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In the Shadows of Great Men: Retired Leaders and Informal Power Constraints in Autocracies

Junyan Jiang¹ , Tianyang Xi² and Haojun Xie³ 

¹Department of Political Science, Columbia University, USA, ²China Center for Economic Research, National School of Development, Peking University, China and ³Department of Finance, Chinese University of Hong Kong, China

Corresponding author: Junyan Jiang; Email: jj3160@columbia.edu

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Abstract

Autocratic leaders differ considerably in how they consolidate power, but what gives rise to these variations remains under-theorized. This article studies how informal political constraints associated with retired leaders shape intra-elite power dynamics. We argue that ageing leaders' efforts to manage the succession problem create an important yet impermanent check on the power of subsequent leaders. To test this argument, we use the massive text corpus of Google Ngram to develop a new measure of power for a global sample of autocratic leaders and elites and employ a research design that leverages within-incumbent variations in former leaders' influence for identification. We show that incumbent leaders' ability to consolidate power becomes more limited when operating in an environment where influential former leaders are present. Further analyses suggest that the presence of former leaders is most effective in reducing incumbents' ability to appoint or remove high-level military and civilian personnel unilaterally. These findings have implications for our understanding of the dynamics of power-sharing and institutional change in autocracies.

Keywords: power; personalism; succession; retired leaders; informal constraint; autocracy

Even from my sickbed, even if you are going to lower me into the grave and I feel that something is going wrong, I will get up. Those who believe that after I have left the government as prime minister, I will go into a permanent retirement really should have their heads examined.

— Lee Kuan Yew, on the National Day Rally of 1988, two years before he stepped down as the Prime Minister of Singapore.

Contrary to the popular perception that they are all almighty despots with unrivaled authority, political leaders in authoritarian regimes exhibit wide variations in their personal power (Baturu 2014; Geddes 2003; Svobik 2012). While some leaders manage to concentrate a formidable amount of power in their own hands and achieve a dominant position within a ruling coalition, others have to follow the norm of collective rule and regularly share power with their elite colleagues. The varying configurations of the balance of power within authoritarian regimes can have profound consequences for domestic governance (Bueno de Mesquita et al. 2003; Djuve, Knutsen, and Wig 2019; Frantz et al. 2020; Geddes, Wright, and Frantz 2019; Meng 2020; Svobik 2012; Wright and Escribà-Folch 2012), as well as for international relations (Colgan and Weeks 2014; Weeks 2012).

A rapidly expanding body of scholarship has ventured to explain what gives rise to the different levels of power concentration among autocratic leaders (Boix and Svobik 2013; Brownlee 2007a; Frantz and Stein 2017; Gandhi 2008; Geddes 2003; Gehlbach and Keefer 2011;

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Gehlbach and Keefer 2012; Magaloni 2008; Meng 2020; Reuter 2017). The prevailing view in the literature is that authoritarian regimes with strong organizations and institutional procedures tend to be more successful at curbing incumbent leaders' despotic tendencies and sustaining power-sharing arrangements among ruling elites. However, to the extent that institutions are ultimately human creations, their emergence (or the lack thereof) may be endogenous to deeper, less observable political and coalitional dynamics (Pepinsky 2014), and their effectiveness as constraints cannot always be taken for granted (Levitsky and Murillo 2009; Meng 2019). Empirically, we also observe considerable variation in personal power among leaders from the same regime or even over the tenure of the same leader. How do we make sense of these ebbs and flows of power when the broader institutional variables are largely held constant?

This article provides a new perspective on power dynamics in authoritarian regimes by focusing on the *informal constraints* in high-level elite politics. We conceptualize informal constraints as the deeper and sometimes covert configurations of actors, networks, and coalitions between the ruling elites. We argue that such constraints define important parameters of elite politics, such as the amount of discretion the incumbent enjoys in making key political decisions, the size and the kind of patronage resources s/he can control, and the potential consequences for breaking power-sharing pacts with other elites. Unlike institutions, which are relatively stable over time, informal constraints are often dynamic and constantly evolve in response to many internal and external factors. The nature and strength of incumbent autocrats' constraints at a given moment sets the scope for feasible political strategies and can influence their ability to personalize power successfully.

To illustrate how this perspective can help us better understand intra-elite power dynamics, we study a particular set of informal constraints common in relatively institutionalized autocracies – the presence of retired political leaders. Leadership turnover is an important yet highly sensitive issue in authoritarian politics (Burling 1974; Huntington and Moore 1970; Meng 2021; Treisman 2015; Tullock 1987). In regimes that have undergone one or more rounds of pre-mortem successions, new top leaders often enter office when prominent individuals from the previous generations are still alive and active. Despite having relinquished much of their formal power, those retired leaders often retain considerable informal influence over politics and policies through the contacts and networks they cultivated during their time in office. We argue that they can impose an informal yet important check on the incumbent ruler by serving as the potential focal points for other elites to coordinate counterbalancing actions.

Our empirical analysis leverages a global sample of autocracies between 1950 and 2019 to examine whether and how the presence of influential retired leaders affects the personal power of the incumbent ruler vis-à-vis other elites. Empirically, studying intra-regime power dynamics faces two main challenges. The first one is measurement. It is usually difficult to measure a political leader's power precisely and objectively, let alone compare it across time and different country settings. To overcome this challenge, we develop a novel measure of personal power for top national leaders by using two massive online databases: Google Books Ngram (Google Ngram or Ngram hereafter) and Wikidata. Our approach builds on a burgeoning body of recent literature using printed publications to make inferences about the political actors' power (Ban et al. 2018; Jaros and Pan 2017). We first compile a comprehensive list of prominent living politicians for each country-year spell covered in our sample based on biographical information from Wikidata and then use Google Ngram to compute a power index based on the ratio between the number of publications that mention a top political leader's name and the number of publications that mention other influential (living) political figures from the same country and same year. Through several case-by-case comparisons and systematic validation tests, we show that our measure not only exhibits a strong consistency with the existing measures of regime types, institutional constraints, and personalism but also does a better job than the existing measures at capturing the subtle yet important variations in personal power over a leader's tenure. We also show that our measure correlates well with various other outcomes and metrics that are

often used as proxies of power, such as tenure length, vote share in elections, and expert assessments of leaders' political influence.

In addition to measurement, the second empirical challenge is causal identification. The presence and relative significance of retired leaders may be correlated with various other regime characteristics that can influence an incumbent's personal power. To overcome this problem, our main empirical design exploits within-incumbent variations in retired leaders' strength that come exclusively from retired leaders' deaths (mostly natural). This design essentially removes all the unobserved, time-invariant heterogeneity across incumbent leaders. It enables us to focus solely on the change in power within the same leader before and after the passing of his most influential predecessor.

Our empirical results provide strong evidence that retired leaders play a significant role in limiting the personal power of the incumbents. According to the within-person estimates, the presence of a former leader from the same political regime reduces, on average, the incumbent autocrat's power by about 17 per cent of a standard deviation in the short run and by about 24 per cent of a standard deviation in the long run. Through a series of additional tests, we show that our findings are robust to various modifications to the sample coverage, model specifications, and coding of the dependent and independent variables. We also demonstrate that the estimated effects are not driven by unobserved shocks common to all leadership turnovers, but are only present for within-regime transitions wherein predecessors exit power relatively consensually.

Finally, we provide some suggestive evidence on how predecessors retain and exercise their influence in retirement. Our analysis draws on the existing measures for regimes' leadership and institutions and new measures of power distribution within regimes' ruling cabinets, built by applying our Ngram-based method to a newly available global dataset on cabinet members (Nyrup and Bramwell 2020). We find that instead of affecting the more formal and conspicuous aspects of political institutions, such as elections, legislatures, or parties, the constraining effect of former leaders is often exerted in a highly specific and informal way – by limiting the successor's personal discretion over the appointment and removal of key supporting elites that are essential to his exercise of power.

This study advances our understanding of power dynamics in authoritarian regimes in two ways. First, we offer a new perspective for thinking about *how* power is shared in authoritarian regimes. Existing literature often conceptualizes authoritarian power-sharing in a context-free way as the interaction between a dictator and a group of lesser elites who want to protect their power from the encroachment of the dictator (Magaloni 2008; Meng 2020; Myerson 2008; Svobik 2009). Our analysis highlights a different power-sharing mode wherein the central cleavage is organized between current and former autocrats. We provide evidence that the inter-generational model is effective in constraining the behaviours of incumbents because of the involvement of senior political actors. However, these constraints are inherently uncertain and impermanent because they depend heavily on the personal influence of former leaders.

Second, our analysis provides a new explanation for *why* significant power personalization happens under some leaders but not others, even when those leaders face the same kinds of institutional constraints. While the conventional narratives typically attribute successful power grabs to relatively idiosyncratic factors, such as a leader's luck (Svobik 2012, 62) or the use of certain political tactics (Slater 2003), our findings suggest that structural factors in the political environment also play a role. Incumbent leaders are more likely to secure and expand their dominance when there is no influential retired leader in the elite circle to act as a counterweight against their strategic maneuvers.

Moreover, by constructing a new Ngram-based measure of leadership power, our paper makes a methodological contribution to the comparative study of political leaders and elites. Power is a key concept in the study of elite politics, and numerous formal models of conflict and political regimes have made theoretical predictions about the distribution and dynamics of power within the ruling elites (Acemoglu, Egorov, and Sonin 2008; Magaloni 2008; Meng 2020; Svobik 2009).

However, systematic empirical testing of those models has so far been hampered by our ability to accurately and objectively measure the power of individual political actors. Our measure offers a new way to capture the ebbs and flows of political leaders and elites' power that provides rich within-person variations and depends less on the subjective judgement of coders. By incorporating extensive biographical records from Wikidata, an important feature of our measure is that it enables researchers to examine, on a common scale, the relative influence of a large group of individuals that include not only national leaders but also cabinet members, sub-national leaders, leaders of key industries, and ethnic/religious groups. These unique features can support the development of more sophisticated measures of intra-elite power balance and help answer important questions about the distribution of influence both within a state and between the state and society.

Informal Constraints in Authoritarian Power Politics

Autocracies are highly heterogeneous in terms of their internal distribution of power.¹ The literature often explains the variation in power concentration across autocratic leaders through the lens of regimes' institutional features. A large body of research argues that regimes with a strong ruling party tend to do a better job at curbing the personalistic tendencies of top leaders (Boix and Svobik 2013; Geddes 2003; Kroeger 2018; Magaloni 2008). Other works have examined the constraining role of semi-competitive elections, legislatures, and constitutions, showing that these institutions can make it costly for rulers to expropriate property from the elites and limit rulers' discretion over policies and the allocation of patronage goods (Albertus and Menaldo 2012; Blydes 2010; Gandhi 2008; Gandhi and Lust-Okar 2009; Gehlbach and Keefer 2011; Gehlbach and Keefer 2012; Miller 2015; Wright 2008). More recently, some studies have suggested that concrete organizational rules, such as those that govern leadership successions and elite appointments, can also constrain the ruler by shaping the underlying power distribution among the elites (Frantz and Stein 2017; Meng 2020).

This institution-centered perspective offers valuable insights into what affects the power balance between rulers and elites, but it also raises a number of questions. First of all, what enables institutions, which are ultimately man-made artifacts, to emerge and function properly in the first place? This question is especially relevant for autocracies, as rulers in those regimes typically enjoy much greater leeway in altering, modifying, and manipulating existing institutions than their democratic counterparts (Pepinsky 2014). Some theoretical works suggest that authoritarian institutions can only work under certain conditions, such as when there is a balance of coercive power within the ruling coalition (Boix and Svobik 2013; Meng 2020; Przeworski, Rivero, and Xi 2015), yet it still begs the question of what factors contribute to or undermines this balance of power among the elites. Second, and more importantly, this perspective cannot explain why some dictators are able to accumulate more power than others, even though the formal institutions under which they take office are more or less the same. For example, in Malaysia, Romania, and more recently, China, there have been episodes of significant expansion of personal power by ambitious leaders under highly institutionalized regime parties (Fischer 1989; Li 2016; Slater 2003). In other cases, top leaders came to office with a low-profile, collegial persona but went on to achieve a significant degree of dominance over their colleagues. How do we make sense of these within-regime (and even within-leader) variations in top leaders' personal power?

We argue that to better understand these variations, researchers need to look beyond the characteristics of formal institutions and pay greater attention to a broader set of informal constraints

¹The outcome we focus on here is the variation in autocratic leaders' *personal power*, which refers to the amount of power that the top leaders take into their own hands, often at the expense of other elites (Geddes, Wright, and Frantz 2019). While a high level of personal power usually implies a more stable and durable reign, it can sometimes provoke more fierce resistance from the elites and the populace. Therefore, a leader's personal power is related to, but conceptually distinct from, other outcomes such as the survival prospects of the leader and the durability of his regime.

that operate within or alongside the formal apparatus of the regime. These constraints, which are usually less visible to outsiders than overt institutions, are based on deeper configurations of networks, coalitions, and resource distribution among elite actors. They may come from ‘the political dynamics of rivalries, factions, and power plays within a regime; the need to hold together a diverse coalition of supporters; or the need to gain the cooperation of key economic actors’ (Barros 2002). Unlike written rules and procedures, which specify the formal boundaries of an incumbent’s authority, informal constraints mainly impose *de facto* limits on what a top leader can and cannot do in intra-elite interactions. For example, these constraints can determine who the autocrat can seek as an ally, the amount of resources s/he can marshal, and the payoffs associated with various strategic choices. A leader with strong pre-existing ties to elites controlling key military and civilian offices may be more effective at solidifying his/her position in the ruling coalition than someone not yet deeply embedded in the elite network.² Likewise, an autocrat’s strategy to divide and conquer the elites may work less well when other influential figures coordinate elites in different parts of the network and act as a focal point for their collective resistance (Luo and Rozenas 2023).

Our conception of informal constraints differs from the concept of informal institutions, which often refer to the unwritten but largely *stable* norms and expectations governing actors’ behaviours (Grzymala-Busse 2010; Helmke and Levitsky 2004). Although informal institutions can sometimes be a crucial constitutive part of informal constraints, not all constraints are necessarily stable – many can change dynamically over time. In some cases, the change may be a result of intended actions taken by powerful and strategically minded actors to alter the composition and internal alignments of the elite corps. In other cases, significant changes can also occur in a relatively exogenous way. For example, an unanticipated death or incapacitation of a key political figure can sometimes induce sweeping shifts in the patterns of coalitions among the remaining elites (Acemoglu, Egorov, and Sonin 2008), while external economic or political shocks may increase the bargaining power of certain groups or factions while decreasing the leverage of others (Pepinsky 2015). These various contingencies are often not directly controlled or willed by the ruler (or any member of the ruling elite), but can have important bearings on how the power game plays out among the elites.

Leadership Retirement and Inter-Generational Power Constraints

Informal constraints can take a variety of forms depending on the political context. To provide a more focused illustration of how these constraints matter for intra-elite power dynamics, we examine a specific set of constraints associated with leadership retirement in this article. This focus is motivated by two reasons. First, succession is a fundamental challenge faced by all regimes that do not select leaders via competitive elections (Herz 1952; Huntington and Moore 1970; Meng 2021; Spearman 1939). Within the set of relatively institutionalized autocracies where there is often a norm against life-long tenure, the retirement of top leadership is a sufficiently common phenomenon that can be analyzed systematically.³ Second, and more importantly, studying retired leaders can provide useful analytical leverage because of their unique political status: they are formally out of office but may still possess considerable informal

²According to Dittmer (1978), for example, this is the reason why Deng Xiaoping emerged victorious in the post-Mao power struggles over a number of junior figures, despite Mao’s preference for the latter.

³In the main empirical analysis of the paper, we focus specifically on retired *chief executives* because they are relatively easy to identify and measure across countries. Theoretically speaking, however, the general argument about the constraining role of retired political figures is not only applicable to former chief executives but can also hold for a larger set of senior elites who once held significant leadership positions in the regime and continue to possess the will and means to influence current politics. These individuals may be long-time cabinet members, high-level military officers, and/or family members of influential former leaders. We discuss the generalizability issue in greater detail in the conclusion section.

influence among the elites. This helps us effectively distinguish between the formal and informal sources of power constraints in autocracies.

Autocratic successions are inherently difficult to manage because they must address two simultaneous challenges: peaceful entry by the successor and peaceful exit by the predecessor (Meng 2021). These two challenges require potentially conflicting solutions. To ensure peaceful entry, a successor usually needs to be designated in advance and be given sufficient authority to rule so that he⁴ will be able to withstand potential challenges from elites upon the predecessor's eventual departure (Kokkonen and Sundell 2014; Kurrild-Klitgaard 2000; Meng 2021). However, if a successor becomes too powerful too quickly, he may turn into a threat to the old leader (Burling 1974; Herz 1952). In a classic formulation of the problem known as the *crown-prince dilemma*, a capable but impatient heir may try to stage a coup against the dictator and take over early (Tullock 1987; Zhou 2021). Even when the exit per se is relatively peaceful, once the predecessor is out of office, the successor will have many opportunities to take actions that can hurt the predecessor's political or personal interests (Acemoglu, Egorov, and Sonin 2010). These actions may include changing the course of policy set by the predecessor (Bunce 2014) or replacing her appointees with the successor's own supporters. Sometimes, the need to establish his reputation and authority may motivate the successor to launch direct attacks on the predecessor's close associates, family members, and even herself. While the successor can make promises about respecting the predecessor's core interests before coming to office, once he takes power, he often cannot credibly commit to such promises without effective external enforcement.

The presence of this thorny succession dilemma is an important reason why many rulers choose to hold office until death and postpone the designation of a successor for as long as possible. However, it also means that when pre-mortem successions do happen, as they have done in many relatively institutionalized regimes, the departing leader will have an incentive to put in place arrangements that will tie the hands of her successor when he comes to office.⁵ The incentive may come from the desire to protect one's policy legacies, the need to safeguard key political and economic interests for one's family members and close associates, or both.⁶ In some cases, having such arrangements in place might be a critical precondition for an ageing leader to agree to a voluntary exit in the first place.⁷

⁴For clarity, we will use the female pronoun to refer to the predecessor and male pronoun to refer to the successor in this section.

⁵There are many reasons why an autocratic leader would want to retire voluntarily. In some cases, she might be bound by certain norms or precedents against lifelong tenure in office; in other cases, the goal of retirement may be to avoid exhausting official state functions at an advanced age; in yet other cases, a top leader might use her own retirement to set an example for regularized turnover among the elites. These decisions are, of course, highly strategic and may affect who we observe as living predecessors. In the Section 'Addressing the Issue of Sample Selection', we present some empirical analyses that specifically address the issue of self-selection. For a more extensive theoretical discussion of the considerations behind leaders' voluntary retirement, see Meng (2021) and Zhou (2021).

⁶For example, an important reason why Julius Nyerere sought to remain politically active after his formal retirement from the Tanzanian presidency was to secure the integration of Zanzibar into political union (Le Vine 1983). Similarly, Deng Xiaoping left an entourage of proteges in the Politburo Standing Committee chaired by his successor, Jiang Zemin, to ensure that his legacies of economic reform would not be undone by the next leadership (Vogel 2013). Aside from policy issues, outgoing leaders may also have concerns about their personal safety and the interests of their close associates, or even family members who may become vulnerable once their chief patron is out of power. In countries such as Angola, Kazakhstan, and Uzbekistan, children of former presidents have faced anti-corruption probes and lost powerful offices after their parents' influence waned. See 'Isabel dos Santos: Africa's richest woman "ripped off Angola"', 19 January 2020, BBC, [shorturl.at/FUV46](https://www.bbc.com/news/health-53111111); 'Kazakhstan: Key Nazarbayev cronies undergo apparent purge', 17 January 2022, *Eurasianet*, [shorturl.at/cyFIJ](https://eurasianet.org/kazakhstan-key-nazarbayev-cronies-undergo-apparent-purge/); 'Uzbek ex-president's daughter Gulnara Karimova on trial again for corruption', 8 January 2020, *Radio Free Europe*, [shorturl.at/dkRSX](https://www.rferl.org/content/uzbek-ex-president-daughter-gulnara-karimova-on-trial-again-for-corruption/28124471.html).

⁷While our argument is that the presence of living predecessors tends to limit the incumbent's personal power, it does not preclude the possibility that having former leaders around may be beneficial to the regime as a whole. As examples of former African presidents illustrate, predecessors can sometimes use their skills and political resources to help successors in domestic and international affairs (Southall 2006). However, such a collaborative relationship is likely to be predicated on the

Outgoing leaders' management of pre-mortem successions often involves a variety of formal and informal maneuvers. In the formal realm, they may try to create additional institutional constraints (or strengthen the existing ones), such as high-level supervisory bodies, mandatory collective decision-making procedures, or explicit term limits on leaders' tenure (Ma 2016; Meng 2020). For example, Lee Kuan Yew, the former Prime Minister of Singapore, created a new advisory position for himself before stepping down in 1990 to make sure that he could continue to stay abreast of the next leadership's major decisions and intervene when necessary (Mauzy and Milne 2002). More recently, Nursultan Nazarbayev, the long-serving autocrat in Kazakhstan, also began a managed succession process by initiating a series of reforms that would significantly strengthen the institutional oversight of the chief executive office that he intended to pass on to his successor.⁸

Aside from altering the formal institutions, many other constraining measures that outgoing leaders take are informal in nature. Those measures are sometimes substitutes for, but at other times complementary to, institution-level changes (Helmke and Levitsky 2004). For example, appointing trusted allies to critical military and political positions is one of the most commonly used strategies that embed informal maneuvers within a formal institutional setting. The presence of a sizable number of the former leader's loyalists in the subsequent administration helps dilute the successor's power and prolongs the old leader's influence beyond her formal tenure. When Julius Nyerere, the founding leader of Tanzania, retired in 1985, he left behind an extensive network of loyal supporters in the military and security apparatus. This group of officers, drawn predominantly from the ethnic group of Kurya and owing their allegiance to Nyerere personally, acted as a significant counterweight to Nyerere's successor, Ali Hassan Mwinyi, in the subsequent administration. This enabled Nyerere to remain influential in Tanzanian politics long after he retired (Southall 2006). Similarly, Deng Xiaoping and Jiang Zemin, the two leaders who oversaw the Chinese Communist Party's first two peaceful, pre-mortem successions, both planted trusted proxies in high-level political and military offices before they stepped down and used those appointees to monitor and counterbalance their successors' actions (Li 2016).

Of all senior civilian and military appointments, one specific area over which departing leaders will often try to limit their successors' discretion is the selection of the successors' own heirs. When powerful Chinese leaders like Mao Zedong and Deng Xiaoping planned their respective retirements, they not only designated an immediate successor but also made deliberate efforts to cultivate younger figures who were expected to eventually take over from that immediate successor (Vogel 2013; Zhang 2011). In Singapore and Malaysia, strong leaders like Lee Kuan Yew and Mahathir Mohamad similarly made plans for the next two generations of successors when they were going into retirement (Brownlee 2007b; Chin 2015). For the successor, the prospect that he will eventually pass power to a younger leader closer to the retired predecessor limits the extent to which the successor can or is willing to deviate from the predecessor's legacy. The presence of alternative power centres within the reigning leadership gives the retired leader unique leverage to exploit intra-elite cleavages and act as the ultimate adjudicator/mediator between competing factions in the sitting leadership.

While the inter-generational constraints may involve a diverse range of formal and informal arrangements, their effectiveness in constraining the successor ultimately depends on the amount of political capital that the predecessor personally possesses. A healthy, active former leader with extensive networks throughout key state and military sectors can play a central role in organizing

incumbent's agreement to share some power with the predecessor and undertake actions to protect the latter's core interests, which still imposes meaningful limits on the incumbent's ability to exercise power in a discretionary way.

⁸See Maia Machavariani, 'Power succession in Kazakhstan, who is next?', *Around the Caspian*, 16 January 2019, [shorturl.at/isA27](https://doi.org/10.1017/S0007123424000012).

collective resistance against the successor's personalistic tendencies. When Miguel Alemán Valdés was mulling over a second presidential term, which would have broken Mexico's convention of a one-term presidency, Lázaro Cárdenas, one of the regime's most eminent former presidents alive at that time, defended the institution of term limits by mobilizing a group of alienated elites within the Institutional Revolutionary Party (PRI) to support an alternative candidate for the presidency. This quasi-opposition movement eventually forced Alemán to backtrack and offer a compromise candidate instead (Smith 1991).⁹

By contrast, these constraints have limited efficacy when the predecessor is politically weak or becomes physically incapacitated (or even dies). Being the leader of an elite coalition often requires specific human capital endowment (for example, seniority, charisma, personal networks, etc.), and this role cannot be easily taken up by another person when the current leader is gone. Without a commonly recognized figure to resolve disputes and coordinate actions, it can become much more difficult to hold together a cohesive elite coalition against the incumbent. In some cases, the former leader might even deliberately keep her associates at a distance from one another in order to secure an exclusively central position for herself in the coalition. This may further reduce the likelihood that those associates will continue to band together after the passing of the former leader.¹⁰ Internal rivalries and disagreements may be exploited by a tactically savvy successor to his own advantage. For example, Xi Jinping's quick consolidation of power within the Chinese Communist Party (CCP) after 2012 was primarily aided by the political weakness of his predecessor. Several other notable episodes of power consolidation in party-based regimes, such as those by Nicolae Ceausescu, Mahathir Mohamad, and Daniel arap Moi, also took place in an environment where the most dominant figure from the early generation had either died or was seriously ill.¹¹ Although nothing can guarantee the success of an attempted power grab, an environment in which the old guard is weak or absent is likely to give the incumbent more room for strategic maneuvering than one in which it remains healthy and active.¹²

Taken together, the preceding discussion suggests that the presence or absence of retired leaders (and their political strength) is one of the key constraints that can influence the power of the incumbent leader. This leads to the following hypothesis:

Hypothesis 1. All else equal, incumbent leaders face greater constraints over their power when operating in an environment in which their predecessors are alive and active. Moreover, a predecessor with greater political clout should be more effective at tying the hands of her successors.

⁹In another related example, when Jiang Zemin was wavering in his commitment to step down as the paramount leader of China in 2002, his hesitation was met with fierce resistance from an elite coalition within the top echelon of the party, led by prominent revolutionary veterans who had deep personal networks in both the government and the military (Dittmer 2003, 106).

¹⁰Padgett and Ansell (1993), for example, find that this practice was adopted by the Medici family to secure their central brokerage position among the Florentine elites. Chen and Hong (2020) also show in the context of China that rivalries and competition exist between members of the same political faction. Theoretically, formal models on coalition building suggest that a trade-off often exists between a coalition's strength and its self-enforceability. Powerful coalitions are usually difficult to maintain and vulnerable to exogenous shocks (Acemoglu, Egorov, and Sonin 2008).

¹¹For Ceausescu, see Fischer (1989). For Mahathir, see Slater (2003). For Moi, see Throup and Hornsby (1998).

¹²The dynamics we discuss here are most applicable to a situation in which a successor is faced with one major predecessor. The presence of multiple major predecessors in a non-democratic setting can potentially create more complex power dynamics. On the one hand, the personal power of the incumbent may be further diluted by an even more fragmented power structure. On the other hand, having multiple former leaders may mean that some elites could free-ride on others' constraining efforts, and the competition between former leaders (and their respective factions) may reduce their combined power relative to the incumbent, giving the latter the opportunity to consolidate power through a divide-and-rule strategy. Empirically, there may be a non-linear relationship between the number of predecessors and their overall effectiveness in constraining the incumbent.

Empirical Design

Sample Construction

To test the above hypothesis, we constructed and analysed a panel dataset of authoritarian regimes in the post-Second World War era. Our dataset builds on an updated and expanded version of the authoritarian regime spell dataset by Svoblik (2012) and merges additional country-level institutional and socioeconomic information from several other existing datasets.¹³ We follow convention to identify the de facto head of the executive branch as the leader of an authoritarian regime. Generally speaking, this means presidents in presidential or semi-presidential systems, prime ministers in parliamentary systems, and general secretaries in communist regimes. In some cases, we have to deviate from this rule either because these positions are not available/unoccupied or because leaders serving in these positions are considerably more junior than senior contemporaneous figures in other positions. We handled these special cases with extra caution, often consulting a number of biographical sources and existing datasets (Cheibub, Gandhi, and Vreeland 2009; Goemans, Gleditsch, and Chiozza 2009; Przeworski 2013; Svoblik 2012) before making a decision. Typically, we require the person identified as the de facto leader to hold at least some kind of senior formal position (government, party, or military) to avoid relying purely on subjective judgement.¹⁴

The full dataset includes 4,799 country-year observations from 265 regimes in 122 countries between 1950 and 2019. A total of 472 leadership transitions are recorded in the full dataset, of which 181 (38.5 per cent) took the form of a pre-mortem, consensual exit.¹⁵ For our specific analysis of the inter-generational constraints, we use a trimmed sample that excludes observations where incumbent leaders are regime founders (that is, the first leader of a regime) who naturally do not have any predecessor. This effectively also excludes regimes that did not survive beyond the death of the founding leader. The trimmed sample is about half the size of the full dataset, covering 127 regimes from 101 countries. Obviously, regimes included in this sample are unlikely to be representative of the average autocracy. They tend to be larger, wealthier, and more durable and are the more significant players on the world stage. While it is instructive to focus on those regimes given their practical importance,¹⁶ in later sections, we discuss how sample selection issues might affect our inference and whether insights gained from this sample can travel to other settings.

Measuring Political Leaders' Power

A key challenge to our empirical analysis is to measure political leaders' power accurately. To the extent that power is not directly observable and can manifest itself in different ways in different settings, it is often difficult to devise a general measure applicable to a large set of countries. The two most notable recent contributions to the challenge of measurement are the personalism index

¹³Authoritarian regimes are defined as regimes that (1) are not occupied by a foreign power and (2) do not conform to the minimalist definition of democracy, which requires the presence of free and regular elections with meaningful political opposition and alternation of power. A regime is an uninterrupted period of reign by a stream of affiliated elites who are either personally connected or share a common association with, and fealty to, the same government, ruling party, or military organization. The additional datasets include the Political Institutions and Political Events dataset (Przeworski 2013), the Autocratic Regime dataset (Geddes, Wright, and Frantz 2014), the Democracy and Dictatorship dataset (Cheibub, Gandhi, and Vreeland 2009), the Penn World Table, and World Development Indicators from the World Bank.

¹⁴For example, we code Deng Xiaoping as the de facto chief executive of China during the late 1980s, even though he was not the party general secretary. We do so because (1) there is clear evidence that he was politically active during that period and was considerably more senior than his junior general secretary colleagues (Vogel 2013), and (2) he remained the chairman of the party's military commission at that time (the top military command organ in China).

¹⁵Of the incumbent leaders, 207 (43.9 per cent) died in office (due to natural causes, accidents, or assassinations) and 84 (17.8 per cent) were forced out of office but stayed alive for at least a year after their exit.

¹⁶Collectively, the regimes in our analysis sample account for about 66 per cent of the population and 82 per cent of the GDP in the entire sample of autocracies.

developed by Geddes, Wright, and Frantz (2019) (GWF) and the power consolidation index from Gandhi and Sumner (2020) (GS). GWF's measure is generated by running an Item Response Theory (IRT) model on several sub-indicators for, among other things, whether a leader personally controls high-level appointments and key organizations such as the ruling party, the military, and the security apparatus.

While these two measures have made important advances in the empirical operationalization of a concept as elusive as power, there is still significant room for improvement. One limitation of the GWF's personalism index, for example, is that it relies on the subjective judgement of human coders. This problem is further complicated by the fact that most of the sub-indicators are evaluated on a yearly basis. Even for a country expert, it would be difficult to tell with great precision whether a leader is more or less powerful in a given year than in the previous year.¹⁷ GS's measure addresses the problem of subjective coding by mainly relying on objective information as input. Their focus on power consolidation *actions* raises a different kind of concern. Such actions are highly strategic and sometimes occur along off-equilibrium paths. It is, therefore, unclear whether they necessarily have a monotonic relationship with the actual *degree* of power a leader enjoys. Weak leaders who feel insecure about their position may be more inclined to engage in power consolidation actions than those who are more powerful and secure.

In this paper, we seek to develop a new measure of autocratic leaders' power that builds on the strengths of both existing approaches. Conceptually, we conceive of our measure as something closer to GWF's idea of personalism (but potentially applicable to more than just the top leaders) in that it should vary monotonically with a leader's underlying power. Methodologically, however, we share with GS the preference for using relatively objective information that does not require too much personal judgement to process. Simply put, our approach is to track the number of times an autocrat's name is mentioned in printed publications relative to other senior political elites. This approach is motivated by a growing body of recent literature that uses media sources to infer political actors' power (Ban *et al.* 2018; Jaros and Pan 2017). We believe that name appearances in publications reveal important information about political leaders' power for at least two reasons. First, national leaders' *de facto* power partially stems from their charismatic appeal, which is often correlated with their fame and publicity. Second, the frequency of media appearances can also reflect the number of executive activities that a leader engages in. A leader who is frequently involved in major domestic and international affairs is usually more powerful than one who is not.

We construct a power index by combining information from Google Ngram and Wikidata. Google Ngram is a massive linguistic database that provides yearly counts for billions of words and short phrases (up to five words in length) from 28 million publications in Google Books' digital catalogue. The publications are drawn from the collections of Google's partner libraries (that is, major university and public libraries in the United States); they are roughly evenly divided between (a) regular academic and popular books and (b) a diverse set of 'non-book' items such as policy memos and reports, pamphlets, manuals, government documents, year-books, magazines, journals, and newspapers.¹⁸ The Ngram database was initially developed to study the evolution of language and culture over time (Michel *et al.* 2010) but has turned out to be a valuable tool for exploring other important socioeconomic trends and assessing public reactions to major natural or social events.¹⁹ Wikidata is a central storage of structured data

¹⁷In some cases, this index may remain constant for years or even decades across several rounds of leadership turnovers, making it difficult to capture subtle power shifts both within and across individual leaders.

¹⁸While there is no official information on the types of publications included in the Ngram corpus, in Appendix B.1 we provide some descriptive statistics from a random sample of all (publicly searchable) Google Books items that contain names of top leaders in our dataset.

¹⁹Ngram has become a widely used tool in the current 'computational turn' in many social sciences and humanities disciplines, such as history, linguistics, anthropology, sociology, communication, and cultural studies. However, it is still

from Wikipedia, containing extensive information on the identity and biographical information of prominent public figures in a wide range of countries (Vrandečić and Kröttsch 2014).

We first use Wikidata to compile a list of *living* politicians (including incumbent chief executives) for each country-year spell based on occupational labels. We then search each politician's name (official name and various aliases, also available from Wikidata) in the Ngram database and record the number of new publications produced each year that mention his/her most commonly used alias.²⁰ The Ngram-based power index is computed using the following formula:

$$\text{Power index}_{ict} = \log\left(\frac{\text{Leader's own Ngram}_{ict}}{\max(\text{Living non-CE Politicians' Ngram}_{j \notin L,c,t})}\right),$$

where i , c , and t index the incumbent leader, country, and year, respectively, and L denotes the set of politicians who had served as the chief executive of country c for at least one year. Essentially, this index is the (logged) ratio between the Ngram publication counts for the incumbent leader in a given country-year spell and the publication counts for the highest living, non-chief-executive (non-CE) politician in the same spell.²¹ We exclude all former chief executives from the calculation of the denominator so that the death or weakening of a predecessor will not lead to a mechanical increase in the index. Normalizing a leader's Ngram by that of his/her most influential non-CE colleague serves two purposes. First, it helps to address the potential bias due to differential coverage, as some countries and periods may have more publications stored by Google Books than others. Second, to the extent that power is a largely zero-sum quantity, using a relative count is conceptually attractive because it captures how much attention a top leader receives from publications *relative* to his/her colleagues. The identities of the non-CE politicians whose Ngrams are used as the denominator are quite diverse but typically belong to one of the following groups: (1) the president in a parliamentary system or the prime minister in a semi-presidential system, (2) vice presidents or prime ministers, (3) cabinet ministers, (4) members of the legislature, (5) governors of major states or provinces, or (6) other authoritative figures such as kings, sultans, or religious leaders (see Figures A.5 and A.6 for details). The median number of politicians included in the denominator is about 70 for country-year spells in our sample, and the inter-quartile range is between 26 and 154. The average ratio between the chief executive's Ngram and the highest non-CE figure's Ngram is 3.02 (logged ratio = 1.11), with a standard deviation of 5.4.²²

relatively under-used in political science. For recent political science applications, see Richey and Taylor (2019) and Shea and Sproveri (2012).

²⁰While the Google Ngram corpus is available in eight different languages, we make all queries in English for two reasons. One is that the volume of Ngram's English corpus is much larger than that of other languages (16.6 million publications in English vs. 11.4 million in the other seven languages combined). The other is comparability. Since the criteria, style, and speed of printed publications may differ widely for different languages, using publication in a common international language helps to ensure that Ngram counts for leaders in different countries are based on items that are produced following similar (and comparable) publication standards and processes. In Figure A.2 of the Online Appendix, we demonstrate that there is a strong correlation between a politician's English Ngram and his/her native-language Ngram. We also provide evidence that our main results are robust to using an alternative power index constructed on each country's native-language Ngram (see Table A.13) and that the results are similar between countries that do and do not use English as the official language (Table A.14).

²¹One potential concern is whether the relationship between Ngram and a leader's power is indeed contemporaneous. To address this issue, we compare leaders' Ngram counts with the number of times their names appear in (more timely) newspaper articles (collected from the Google News Archive and New York Times Archive). The results consistently suggest a strongly contemporaneous relationship (Tables A.3 and A.4). Other existing studies have also found that a change in Ngram is highly responsive to major current public events, such as epidemics and weather shocks (Grant and Walsh 2015; Michel et al. 2010). A detailed discussion of this issue is available in the Section 'Assessing the Extent of Temporal Lag' of Appendix B.1.

²²While there may be concerns about potential biases associated with differential country coverage by Wikidata, it is important to note that we are primarily interested in the maximum Ngram value of non-CE politicians, a quantity that does not always change with the inclusion of new observations. This is especially the case for political figures, typically

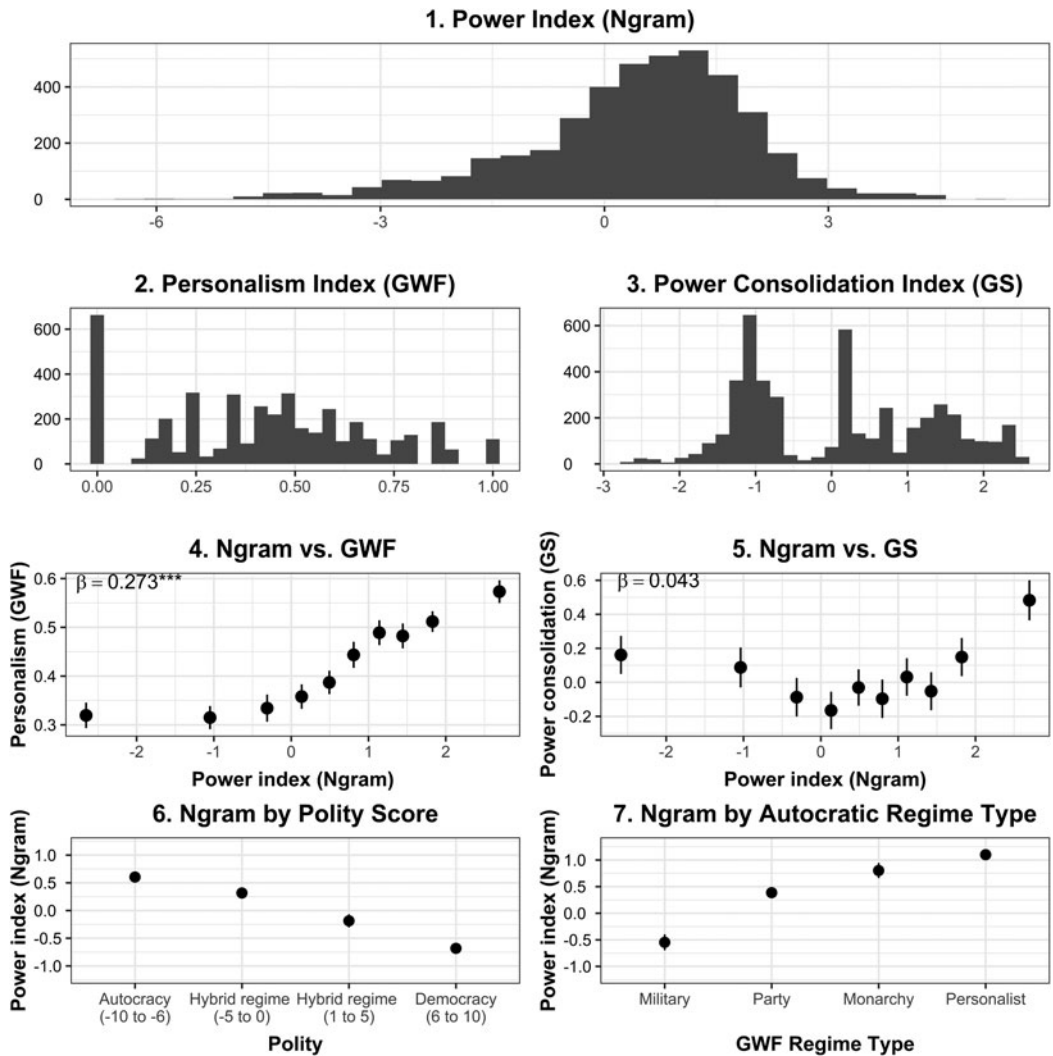


Figure 1. Comparing the Ngram-based power index with existing measures.

Note: The top two rows of this figure present the distribution of our Ngram-based power index and the two existing measures by Geddes, Wright, and Frantz (2019) and Gandhi and Sumner (2020). The third row visualizes the relationship between Ngram and the two other measures in a binned scatter plot. The circles indicate the averages for the 10 equal-observation bins, and the vertical bars indicate the 95 per cent confidence intervals. The numbers printed on the top-right corners are standardized regression coefficients based on Column 3 of Tables A.7 and A.8. The bottom row reports the mean power index by Polity score and GWF regime type. All autocracies are included in the comparison. Panel 6 additionally includes observations from democracies.

We conducted a number of validation tests to evaluate the quality of our measure against existing data and variables. In the interest of space, we provide most of the details in Appendix C but discuss several key tests here. First, we compare our measure with the two existing measures from GWF and GS. The upper part of Fig. 1 presents the respective distributions of the three measures. We can see that the GWF and GS measures tend to have a sizable number of observations clustered around a relatively small value (0 for GWF and -1 for GS). This is likely because there were

because the most prominent ones in a country are among the first to be included in Wikidata. In Table A.15, we provide evidence that our results are robust to using alternative denominators.

not enough visible political events in those country-year spells for coders (or algorithms) to precisely determine the incumbent leaders' power. By contrast, our Ngram-based measure follows a more natural, bell-shaped distribution and contains a good amount of variation, even for leaders located at the lower end of the distribution. The third row of Fig. 1 shows the correlation between our measure and the two others. We see that our measure is strongly and positively associated with the GWF personalism index. A one standard deviation increase in the power index is associated with about a 27 per cent of a standard deviation increase in GWF personalism ($p < 0.001$). By contrast, there appears to be a U-shaped relationship between our measure and the GS measure. These patterns are broadly consistent with our intuition. The Ngram-based measure is conceptually closer to GWF's idea of personalism, whereas power consolidation actions are more distinct and do not always have a monotonic relationship with leaders' underlying power.

Second, we examine how our Ngram measure varies across regime types. Generally speaking, we expect democracies to place stronger constraints on incumbent leaders rather than non-democracies. Within non-democracies, Geddes (2003) suggests that military and party-based regimes may have a more collectivist style in exercising power than personalist regimes. In the bottom row of Fig. 1, we plot the average power index of national leaders by the Polity score (Marshall, Gurr, and Jagers 2018) and Geddes' (2003) autocratic regime classification. We see that, as countries become more democratic, the power index of their chief executives becomes smaller. On average, top leaders in military and party-based regimes have a lower power index than those in monarchies and personalist regimes. These patterns are consistent with the established view of how the level of power concentration varies across regime types.

In Appendix C, we use several qualitative examples to illustrate how our Ngram measure captures the over-time variations in leaders' power for selected countries and compare it with other existing measures (Section C.1). We also report additional validation tests using both cross-country and within-country data. We find strong relationships between our measure and a number of commonly used proxies for political power, including the seniority of formal positions (Section C.2), the length of political leaders' tenure (Section C.3), candidates' vote margins in competitive elections (Section C.4), and expert assessment of politicians' power (Section C.5). The fact that our measure tracks closely with power proxies from a variety of settings gives us confidence in its utility as a general indicator of leaders' power in cross-country analysis.

Identification Strategy and Model Specification

The key quantity of interest that we want to estimate is the effect of retired leaders on the power of the current chief executive.²³ A major challenge to identification here is that the presence or absence of influential retired leaders in a regime is likely to be correlated with many other (unobserved) country- or regime-level factors that can affect the incumbent's ability to consolidate power. For example, more institutionalized regimes may have stronger constraints on incumbents and a larger number of living predecessors due to established norms that require leaders to step down after a period of service. Sometimes, leaders who plan to initiate pre-mortem transitions may also deliberately select weaker successors who are less threatening and easier to control. Given that these factors are not all observable, a simple cross-regime or even cross-leader comparison may yield spurious correlations.

Our main strategy to address this endogeneity problem is to include several different types of fixed-effects in regression models. We can include fixed-effects for each unique political regime within a country, assuming that the leaders coming to power under the same regime face a more

²³To be sure, this publication-based measurement approach does not allow us to distinguish between a leader's formal power from his/her official positions and the informal influence through personal traits and connections. However, since the formal institutional context typically does not change very quickly, short- to medium-term changes to an incumbent's power index following the disappearance of significant counterbalancing figures are more likely to reflect a change in the incumbent's *personal* power. We thank an anonymous reviewer for clarifying this point.

or less similar political and institutional environment. A more restrictive approach includes fixed-effects for every unique incumbent leader. The main advantage of the latter approach is that it eliminates the confounding influence of all unobserved factors that only vary across individual leaders but not within each leader. This enables us to make weaker identifying assumptions than a within-regime design (we discuss these assumptions below). However, a potential drawback of this approach is that it reduces the effective sample size to only those observations where such variations exist, and this may raise generalizability concerns. In the analysis presented below, we use the within-leader design as the preferred specification but also report results from other models to evaluate the robustness of our findings.

Our main specification is as follows:

$$\begin{aligned} \text{Incumbent power}_{ict} = & \alpha_k \sum_{k=1}^3 \text{Incumbent power}_{i,c,t-k} \\ & + \delta \text{Predecessor power}_{ict} + X\beta + \eta_i + \tau_t + \epsilon_{ict}, \end{aligned}$$

where i , c , and t index individual leader, country, and year, respectively. η_i is the leader fixed-effects that capture heterogeneity across incumbent leaders, and τ_t is the year fixed-effects that capture common, worldwide shocks to the power index. The dependent variable, *Incumbent power*, is the Ngram-based power index. Since power is likely path-dependent, we also include lagged dependent variables in the model to capture its persistence over time. A common concern with including lagged dependent variables in a panel fixed-effects setting is the so-called Nickell bias (Nickell 1981), which is especially worrisome if the panel has a large number of units but a relatively short time period. However, this issue is mitigated considerably since our dataset spans several decades. We also run regressions as a robustness check using General Methods of Moments (GMM) estimators (Arellano and Bond 1991) and obtain similar results. In all models, we control for a country's *Log GDP per capita* and *Log population*, as both have been shown to be important predictors of leadership changes and regime breakdowns (for example, Djuve, Knutsen, and Wig 2019). The standard errors in all models are clustered at the country level to account for common unobserved factors that may affect the power of leaders from the same country.

The key explanatory variable, *Predecessor power*, is computed as follows:

$$\text{Predecessor power}_{i,r,t} = \log \left[\max \left(\text{Power as CE}_{jj < i,r} \times \mathbb{I}(\text{death year}_j > t) + 1 \right) \right]$$

For the i th ($i \geq 2$) incumbent leader in regime r at year t , Power as CE $_{j,r}$ is the average power index of his/her predecessor j during j 's own tenure as the chief executive.²⁴ We choose to focus on the predecessor's *past* influence because of endogeneity concerns: Compared to a predecessor's contemporary influence (that is, at t), his/her past influence is less likely to be affected by the incumbent's current power. We also restrict the set of predecessors to those who belong to the same political regime r as the incumbent because incumbents are unlikely to be constrained by predecessors from a rival regime. $\mathbb{I}(\text{death year}_j > t)$ is an indicator function for whether j is still alive at t . Therefore, the variable *Predecessor power* is the logged average power of the most powerful predecessor if one or more retired leaders are alive²⁵ and 0 if all within-regime predecessors are deceased by time t (that is, $\text{death year}_j \leq t$ for all j). In our sample, about 30 per cent of

²⁴We use an unlogged version of the power index and only take log later on the average value.

²⁵For example, Singapore's chief executive Lee Hsien Loong (prime minister) faced two living predecessors in 2005: Lee Kuan Yew and Goh Chok Tong. The average of Lee Kuan Yew's power index over his tenure (1950–1990) is 5.42, whereas the same figure for Goh is 0.53 (tenure length: 1991–2004). Since Lee Kuan Yew has the higher average power index of the two, the predecessor power for Lee Hsien Long in 2005 is $\log(5.42 + 1) = 1.86$.

the observations have at least one living within-regime predecessor present, and the average value of a predecessor's power is about 0.91.²⁶

Since the average power index for each predecessor is computed based on the predecessor's time in the top executive office, its value does not change for the same predecessor throughout her successor's entire tenure.²⁷ Therefore, the only variation in predecessor power comes from the change in the identity of the most powerful predecessor, which happens when the predecessor who previously had the highest average power index passes away. As long as we are willing to assume that the deaths of retired leaders are largely exogenous events, this design allows us to identify the causal effect of losing a predecessor on the incumbent's power. A close look at the data suggests this assumption is reasonable. The vast majority of predecessors' deaths in our sample (~72 per cent) were due to natural illness, and less than 7 per cent were due to assassinations or other premeditated plots. As a robustness check, we later rerun our analysis in a sample in which all the variations in predecessors' power were caused by natural death only, and our results still hold (see Table A.22).

To provide an intuitive illustration of the variations we use for identification, Fig. 2 plots the co-variation between incumbents' power (solid red lines) and the power of the most influential predecessors (dashed black lines) for a select group of countries. Each shaded interval represents an uninterrupted period of reign by one incumbent leader. A cursory perusal of the trends suggests that, overall, incumbents' current power seems to be negatively correlated with their predecessors' past influence, both across and within administrations. When an influential predecessor is present (that is, when the dashed black line shows a positive value), the power index of the incumbent tends to be relatively low. The passing of the influential predecessor in the middle of an incumbent's tenure is usually associated with a notable increase in the incumbent's power in subsequent years. These visual patterns are consistent with our hypothesis about the role of predecessors as informal constraints. In the next section, we provide a more systematic test of this relationship using regression analysis.

Results

Baseline Results

Table 1 presents the baseline results. We first begin with a parsimonious model that only controls for the lagged dependent variables; the second model adds year and regime-fixed-effects; the third model replaces the regime fixed-effects with the more restrictive leader fixed-effects; the fourth model further adds controls for incumbents' tenure length and countries' economic and population sizes; and the fifth model uses the GMM method to address the Nickell bias in dynamic panel estimation. Consistent with our hypothesis, we see that, throughout all models, the presence of an influential retired leader is strongly and negatively associated with the incumbent's power. The estimated coefficient is somewhat smaller in the more parsimonious model (Column 1) but becomes more pronounced when fixed-effects are included. We also note that the size of the estimate becomes larger when we shift from a model with regime fixed-effects (Column 2) to one with leader fixed-effects (Column 3), suggesting that some confounding influence from unobserved regime-specific factors may exist. However, the difference between the leader fixed-effects model and the GMM estimate is relatively small, which is consistent with our conjecture that the scale of the Nickell bias is not too large, given our data's relatively long temporal coverage.

²⁶In Tables A.9 and A.10 of the Online Appendix, we provide the names of the ten predecessors with the highest and lowest power index in our sample. The top ten list includes the well-known examples of long-serving autocrats who took voluntary retirement, such as Fidel Castro, Nursultan Nazarbayev, Julius Nyerere, and Lee Kuan Yew. The bottom ten list comprises mostly transitional or interim figures with limited tenure in office.

²⁷We recognize that predecessors' *actual* power may not stay constant over their successors' tenure. We present robustness checks using time-varying measures of predecessors' power in Table A.20.

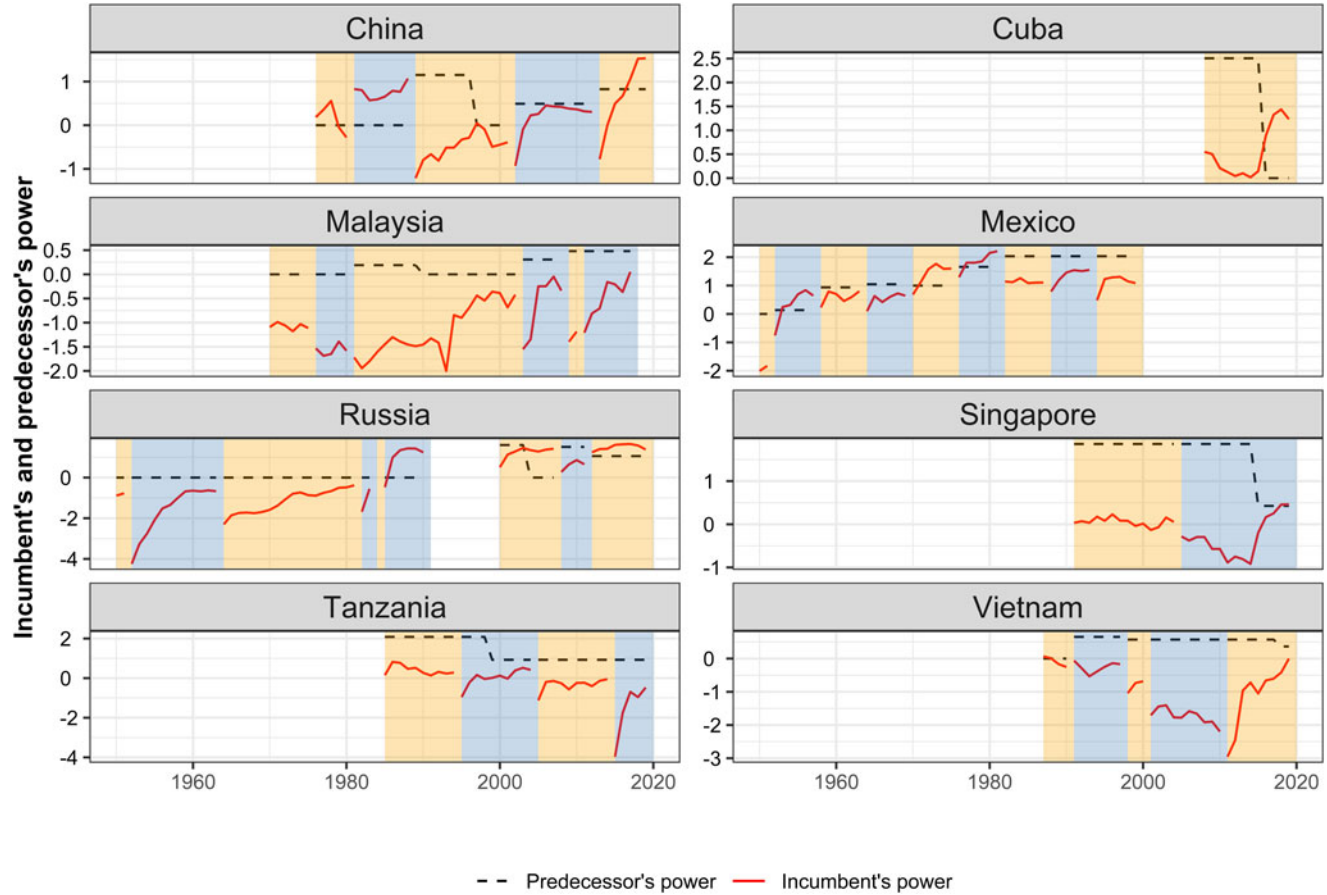


Figure 2. Variations in incumbent and predecessor power for selected Countries.

Note: This figure presents the co-variation between *Incumbent power* and *Predecessor power* for selected countries between 1950 and 2019 (excluding observations of regime founders). The solid red lines denote incumbent leaders' power, and the dashed black lines denote the predecessors' power. Shades of different colours represent the periods ruled by different incumbent leaders. Appendix G provides a full visualization of all leaders in all autocratic regimes.

Table 1. Baseline results

	1 OLS	2 OLS	3 OLS	4 OLS	5 GMM
Predecessor power	-0.087*** (0.029)	-0.157*** (0.045)	-0.248*** (0.086)	-0.257*** (0.091)	-0.306*** (0.083)
Lagged DV ($t-1, t-2, t-3$)	✓	✓	✓	✓	✓
Regime and year fixed-effects		✓			
Leader and year fixed-effects			✓	✓	✓
Control variables				✓	✓
# of countries	100	100	100	94	93
Observations	1930	1930	1930	1725	1696

Note: This table presents the baseline regression results using incumbent leaders' Ngram-based power index as the dependent variable. The independent variable is the power of the living predecessor measured by the average power index during his/her tenure as the chief executive. When multiple living predecessors are present, the maximum value is used. Control variables include the incumbent's tenure length, log real GDP (in US dollars), and log population. Standard errors are clustered at the country level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, (two-tailed test).

Table 2. Cumulative effects of living predecessor's strength on incumbent's power

	Incumbent power (Ngram) 1
Immediate predecessor effect	-0.17131*** (0.061)
Cumulative effect: 5 years	-0.24690*** (0.088)
Cumulative effect: maximum	-0.24721*** (0.088)

Note: This table presents the cumulative effects of predecessors on incumbents' power based on Model 4 of Table 1. The results illustrate the difference in an incumbent's power between the scenario of no predecessor and the scenario of one predecessor with average strength (that is, the average power index as CE = 0.91). The coefficients are normalized by the standard deviation of the dependent variable to facilitate interpretation. * $p < 0.1$, ** $p < 0.05$, ***, $p < 0.01$, (two-tailed test).

Using estimated coefficients, we can compute the short-term and long-term effects of changes in the predecessor's influence on the incumbent's power.²⁸ Table 2 displays these effects in standard deviation terms. We see that the presence of an average former leader reduces the power of the incumbent by about 17 per cent of a standard deviation in that year and by about 24.7 per cent of a standard deviation in total in five years' time. The long-term effect is quite close to the five-year cumulative, suggesting that most of the predecessor's constraining effect materializes in the first five years after she leaves office.

How large are these effects in substantive terms? To give a more concrete interpretation, we conduct some back-of-envelope calculations based on the estimated associations between incumbents' power and two more concrete political outcomes: overall tenure length and the likelihood of coups.²⁹ Among autocratic regimes, the incumbents' power index is positively associated with

²⁸ Given the regression coefficients, the cumulative effect in the t th year can be computed in an iterated fashion:

$$\begin{aligned}\Delta_t &= \delta + \Delta_{t-1}\alpha_1 + \Delta_{t-2}\alpha_2 + \Delta_{t-3}\alpha_3 \quad \text{if } t \geq 4, \text{ with} \\ \Delta_1 &= \delta, \\ \Delta_2 &= \delta + \Delta_1\alpha_1, \\ \Delta_3 &= \delta + \Delta_2\alpha_1 + \Delta_1\alpha_2,\end{aligned}$$

and the long-term multiplier is $(1 - \delta)/(1 - \alpha_1 - \alpha_2 - \alpha_3)$. See Boef and Keele (2008) for information on how to compute the long-term effects.

²⁹ For coups, we use data from Powell and Thyne (2011), who define coup broadly as overt attempts of power seizure by the elites. This definition includes both violent and bloodless coups and both successful and failed ones.

their tenure length ($\beta^{\text{tenure}} = 2.1, p < 0.001$) and negatively associated with coup incidence ($\beta^{\text{coup}} = -0.024, p < 0.001$).³⁰ Compared to a scenario where no predecessor exists, the cumulative constraining effect of an average predecessor (0.87) – someone whose power level is between China’s Hu Jintao (0.825) and Tanzania’s Ali Hassan Mwinyi (0.925) – translates into about a 0.72 year reduction in tenure length and 0.8 percentage point increase in year-on-year coup risk ($\sim +15.8\%$ from the baseline risk of 5.2 percentage points).³¹ Further increasing the predecessor’s power index from the average to the level of Julius Nyerere (2.0822) leads to another 0.92 year reduction in the incumbent’s tenure length and a 1 percentage point increase in coup risk ($\sim +20\%$ from the baseline). Although the exact numerical quantities need to be treated with caution, the general magnitude of the results suggests that the presence of retired former leaders does have meaningful and measurable political consequences.

Event-Based Estimation

A central assumption of our empirical strategy is that, conditional on the within-leader design, the death of a predecessor is orthogonal to other leader- or regime-level confounders. This assumption might be violated if incumbent leaders who experience the deaths of predecessors during their tenures differ systematically from those who do not – if the predecessors’ deaths are correlated with certain secular trends in the incumbents’ power or if such deaths are fully anticipated in advance.³² To verify this assumption, we adopt an event-study approach to examine the change in incumbent leaders’ power in the few years before and after the death of their most influential predecessor. Specifically, we estimate the following regression equation:

$$\text{Incumbent power}_{ict} = \alpha_k \sum_{k=1}^3 \text{Incumbent power}_{i,c,t-k} + \sum_{\tau=-3}^{+3} \delta_{\tau}^D 1\{t - D_{ic} = \tau\} + X\beta + \eta_i + \tau_t + \epsilon_{ict},$$

where D_{ic} denotes the year in which the event (death of the most influential predecessor) happened under a given leader i from the country c . $1\{t - D_{ic} = \tau\}$ is an indicator function that assigns 1 to the observation from country c that is the τ th year relative to the event and 0 otherwise.

The results from the event-study regression are visualized in Fig. 3. We can see that incumbent leaders who experience the death of their most influential living predecessor do not exhibit significantly different trajectories of power compared to other incumbents (either they have no predecessor at all or do not face the imminent death of one) prior to the event. However, after the predecessor’s passing, there is a notable surge in the former group’s power in the following years. This suggests that the constraining effect we observe is highly specific to the presence or absence of influential predecessors – a finding that attests to the credibility of our identification strategy.

Results by Regime Type

We also take a closer look at how our results vary with a regime’s institutional characteristics. As discussed, managed pre-mortem successions that produce living predecessors are typically more common in more institutionalized polities. Our argument also suggests that predecessors can

³⁰For numerical regression results, see Table A.11.

³¹The effect on overall tenure length is computed as follows: $\delta^{\text{cumulative}} \times \text{SD}^{\text{incumbent power}} \times \beta^{\text{tenure}}$, where $\delta^{\text{cumulative}}$ (-0.24721) is the standardized coefficient for predecessor’s cumulative effect from Table 2 and $\text{SD}^{\text{incumbent power}}$ (1.389) is the sample standard deviation of incumbent power. The substantive effect on coup risk is calculated in a similar way, only replacing β^{tenure} with β^{coup} .

³²For a discussion of the potential anticipation effect of dictators’ deaths, see Hummel (2020).

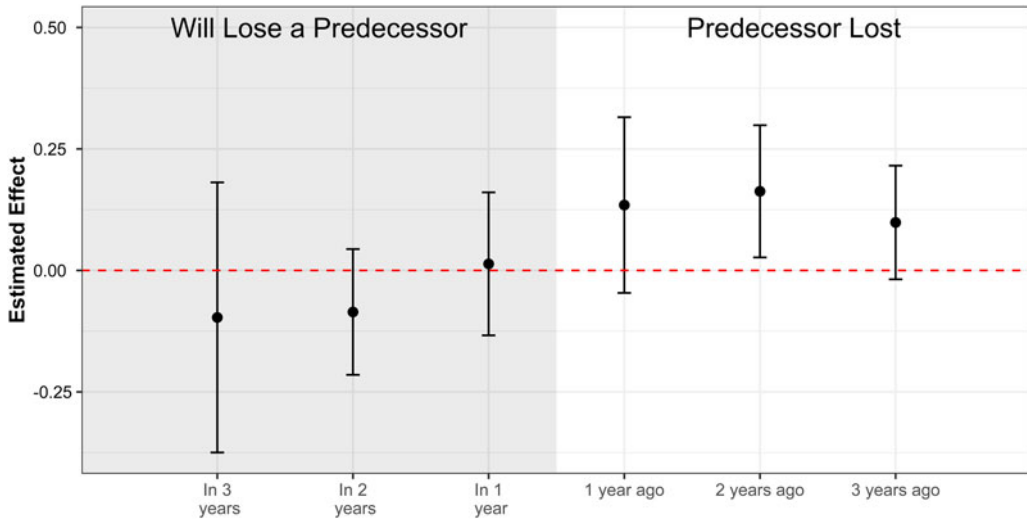


Figure 3. Results from an event-based study.

Note: The figure presents regression estimates from an event-based study. It shows how incumbent leaders' power changes dynamically before and after the death of a within-regime predecessor. The vertical bars indicate 90 per cent confidence intervals.

sometimes constrain successors by creating new institutional arrangements or empowering existing ones. This implies that the presence and effectiveness of intergenerational constraints may be conditioned by a regime's level of institutional development. In Fig. 4, we report the subsample results using the three main authoritarian regime types from Geddes (2003) as proxies for institutionalization. We find that the predecessors' effect is most pronounced in party-based regimes that tend to have relatively strong rules and institutions for regulating intra-elite interactions,³³ whereas the effect is smaller and less precisely estimated in military regimes and is virtually non-existent in personalist regimes. These findings suggest some complementarity between informal personal influence and formal institutional arrangements may exist. Predecessors can play a greater role in constraining their successors when the political system is at least moderately institutionalized.

Robustness Checks

We conducted a number of additional tests to ensure the robustness of our results. In the interest of space, we leave the details of the tests to Appendix F and briefly summarize the key findings here. First, we check whether our results are sensitive to the way we construct the dependent and independent variables. For the dependent variable, we re-run the baseline analysis using several modified versions of the Ngram-based power index (Table A.15) and use a leader's overall tenure length as a proxy for their power (Table A.16). These alternative measures yield results very similar to the baseline finding.³⁴

For the independent variable, we experiment by using two alternative measures of the predecessors' influence: the predecessors' power index based on the median Ngram as chief executive (as opposed to the mean) and a binary indicator for whether there is *any* living predecessor from the same regime. The results obtained were all substantively similar to the baseline (Tables A.19).

³³We recognize that not all party-based regimes are highly institutionalized, even though on average they are still more so than other regime types. For a discussion of heterogeneity within party-based regimes, see Meng (2019).

³⁴We also run the same specifications using the two existing power measures discussed earlier. The results from the GWF personalism index show a similar pattern to ours, although the coefficients are less precisely estimated in more saturated models (Tables A.17 and A.18).

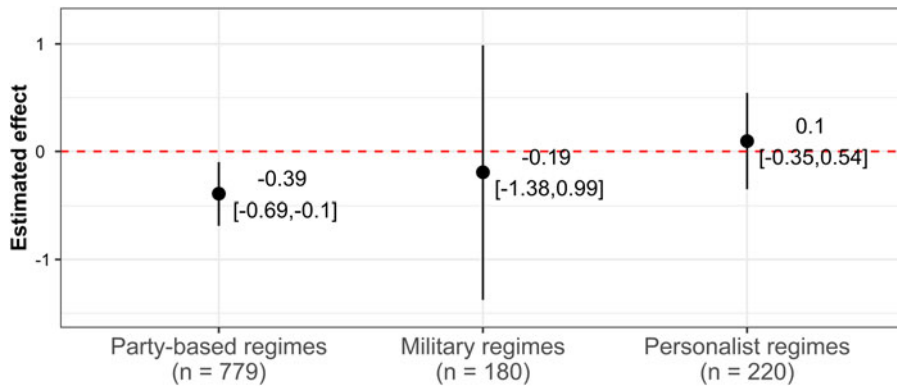


Figure 4. Results by regime type.

Note: The figure presents regression estimates for the effect of predecessors on incumbents' power from several key subsamples (denoted by the text on the *x-axis*). The vertical bars indicate 90 per cent confidence intervals. The numerical results can be found in Table A.12 of the Online Appendix.

We also introduced two modifications to account for the possibility that predecessors' power may change over their successors' tenure. One modification is to allow predecessors' power to decline following some exponential decay functions after they leave office, and the other is to simply use the *current* Ngram index of the most influential living predecessor. Again, our main findings turn out to be highly robust to these modifications (Table A.20).

To ensure our results are not driven by the idiosyncratic features of the sample, we re-estimate our baseline regressions using several modified samples. Our results continue to hold when using (1) the alternative sample of authoritarian regimes defined by Geddes, Wright, and Frantz (2019) (Table A.21), (2) a subsample where all changes in predecessors' power are caused by natural death (Table A.22), and (3) subsamples that exclude up to 25 per cent of the most influential observations (Table A.23).

Moreover, we conduct placebo tests using two predecessor power measures similar to our independent design variable but different in substantive meaning. The first placebo measure is based on deceased predecessors, and the second on those from the same country but a *different regime*. To the extent that the hypothesized informal constraints are most likely associated with living, within-regime predecessors, we should not expect to find the same effect with either of the placebo variables. The results from the placebo regressions confirm this expectation. The coefficients for the placebo variables are either much smaller or even of the opposite sign compared to the original estimate (Table A.24). These patterns suggest that our findings are not driven by the power of former leaders in general but are highly specific to within-regime predecessors who left office in a relatively consensual fashion.

Addressing the Issue of Sample Selection

Given that our empirical analysis utilizes only a subset of authoritarian regimes, an important issue to consider is how our results are affected by sample selection. A predecessor's decision to voluntarily retire will likely depend on leader- and regime-level factors. As a result, the set of observations where we can observe living predecessors may be systematically different from those where no living predecessors exist. Theoretically speaking, the bias induced by sample selection may go both ways. Suppose stronger leaders are more likely to step down than weaker ones because they are more confident in their ability to continue to exert influence after retirement. In that case, we may overestimate the effect of predecessors, as the observed living predecessors could be stronger than the average former leader. Alternatively, if weaker leaders are more likely

to engage in voluntary exit because they are more bound by the norm of retirement, we may underestimate the effect of predecessors.

To address the issue of sample selection, we first look into how an incumbent's power affects his subsequent mode of exit. We find a negative association between voluntary retirement and a leader's Ngram (Table A.25), which is likely to be driven by the fact that the most personalistic leaders either died in office or lost power to coups or popular revolts. This implies that the effect of the predecessors' constraint may be underestimated. To confirm this, we estimate a two-stage Heckman selection model (Heckman 1979), which specifies a first-stage selection equation to account for whether the immediate predecessor exited office through voluntary retirement.³⁵ After correcting for selection, we find that the coefficient estimate in the main regression model increases in size, suggesting that we would have observed a larger effect of predecessors had more of the powerful leaders chosen to engage in pre-mortem successions (Table A.26).

Evidence on Mechanism

Evidence from Sub-Measures of Personalism and Institutions

The preceding analysis has shown that in autocracies where pre-mortem successions are practiced, retired leaders often function as a key informal constraint on the power of incumbents. Yet, it remains unclear how, exactly, this constraint works. We probe this question further in several ways. To begin, we examine how the presence of influential predecessors affects the institutional and non-institutional aspects of authoritarian politics using several existing cross-country indicators. For the institutional element, we use Svobik's (2012) data on authoritarian institutions to measure the presence of key semi-democratic institutions (for example, executive elections, legislatures, and multiple political parties). For the non-institutional aspect, we use four sub-measures of the GWF personalism index, which capture, in a general sense, the extent to which autocratic incumbents personally control key sectors such as the military, the regime party, and the state bureaucracy.

The regression results are presented in Table 3. We see that, in general, the presence of an influential predecessor is negatively associated with the incumbent's personal discretion in many domains, but the magnitude of the association is larger (and more precisely estimated) for high-level appointments in the ruling party (Column 1) and the military (Column 2). These patterns are broadly consistent with arguments advanced in previous studies; the de-personalization of personnel matters is key to limiting the power of incumbent leaders in non-democracies (Magaloni 2008; Slater 2003). Yet, paradoxically, what drives the de-personalization here appears to be the *personal power* of the predecessors. Meanwhile, we do not find consistent evidence that the predecessors' presence helps to change the characteristics of a regime's formal institutions in terms of either the competitiveness of executive and legislative elections or the extent of multi-party competition (Columns 5 to 7). In other words, the predecessors' influence is more readily observed in the covert, rather than the overt, domain of politics.

Evidence from Cabinet Appointments

In addition to showing a general pattern with broad-stroke indicators, the highly granular nature of our Ngram-based measure enables us to go a step further in unpacking the internal power dynamics associated with inter-generational constraints. Specifically, since similar Ngram name counts can theoretically be obtained for every politician in a regime, we can go beyond current and former top leaders and examine how this constraint affects the power distribution among a broader set of political elites. The recently published WhoGov dataset (Nyrup and Bramwell 2020) provides a comprehensive collection of cabinet ministers for 177 countries between 1966

³⁵The predictors we use include the incumbent's time in office, the immediate predecessor's power, the current regime's duration, the country's (logged) population and real GDP.

Table 3. Effect of predecessor power on sub-measures of personalism and regime institutions

	Aspects of personalism				Attributes of institutions		
	1	2	3	4	5	6	7
	Incumbent ruler controls appointments to the party executive committee	Incumbent ruler promotes military loyal to him/her personally	Incumbent ruler imprisons/kills officers	Incumbent ruler personally controls security apparatus	Competitive executive selection	Competitive legislative selection	Multi-party competition
Predecessor power	-0.199 (0.047)	-0.164* (0.051)	-0.098 (0.043)	-0.042 (0.026)	-0.168 (0.104)	-0.109 (0.142)	0.062 (0.038)
Leader and year fixed-effects	✓	✓	✓	✓	✓	✓	✓
# of countries	68	68	68	68	72	72	72
Observations	1329	1329	1329	1329	1353	1340	1367

Note: This table presents the standardized regression coefficients on the effect of the predecessors' strength on sub-measures of personalism (Geddes, Wright, and Frantz 2019) and the presence/competitiveness of semi-democratic institutions (Svolik 2012). Dependent variables are measured as incremental changes from last year. Standard errors are clustered at the country level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, (two-tailed test).

and 2016. Research on authoritarian cabinets suggests they are important venues for incumbent autocrats to form ruling coalitions and co-opt potential rivals (Arriola 2009). Cabinet seats provide elites with access to state resources and influence over government policies; in some cases, cabinet members also form the critical candidate pool from which a regime's future top leaders will be selected. Recent studies have proved that cabinet reshuffles in non-democratic countries exhibit distinct patterns during sensitive and uncertain political times, such as before elections (Kroeger 2018) or after coups (Bokobza et al. 2022). Regarding succession, one way for former leaders to retain power over key policies and personnel matters after retirement may be to maintain a critical mass of allies and followers in high-profile cabinet posts. A closer look at cabinet appointments will likely provide important insights into how inter-generational checks and balances work.

We match the WhoGov dataset with our autocratic regime sample and run the same algorithm to construct an Ngram-based power index for each cabinet minister based on the number of publications that mention their name in a given year. We then compute the average power index separately for two groups of cabinet members: (1) those who are first appointed to a cabinet position by the incumbent leader (*Average Ngram of Incumbents' Appointees*) and (2) those who have been previously appointed to the cabinet by the incumbent's within-regime predecessors (*Average Ngram of Predecessors' Appointees*).³⁶ We estimate fixed-effect models that correlate predecessors' power with these cabinet-level outcomes.

Table 4 presents the results of the cabinet-level analyses. Columns 1 and 2 use the percentage of first-time cabinet members (that is, those appointed exclusively by the current leader) as the dependent variable. We see that the predecessors' power is strongly and negatively associated with the incumbents' ability to make fresh appointments to the cabinet. A one standard deviation increase in the predecessors' power (+ 0.58) is associated with a 6.6 percentage point or 23.9 per cent of a standard deviation decrease in the share of the incumbents' first-time appointees. The second Column further adds the variable for incumbents' power. A more powerful incumbent tends to make more fresh appointments to the cabinet. Columns 3 to 6 further examine how

³⁶For country-year spells where no cabinet member is appointed by predecessors, we treat the average Ngram for predecessors' appointees as 0. A similar procedure is used to deal with the (rarer) cases where there is no new appointee by the incumbent leader. The general patterns of our results are robust to simply treating such observations as missing.

Table 4. Effect of predecessor and incumbent power on cabinet appointments

	Share of incumbents' appointees		Average Ngram of incumbents' appointees		Average Ngram of predecessors' appointees	
	1	2	3	4	5	6
Predecessor power	-0.114** (0.049)	-0.100* (0.050)	-0.662 (0.475)	-0.583 (0.492)	1.119** (0.428)	0.993** (0.443)
Incumbent power		0.051*** (0.015)		0.283*** (0.099)		-0.448*** (0.102)
Control variables	✓	✓	✓	✓	✓	✓
Leader and year fixed-effects	✓	✓	✓	✓	✓	✓
# of countries	86	86	86	86	86	86
Observations	1388	1388	1388	1388	1388	1388

Note: This table presents the regression results on the effects of the incumbents' and predecessors' power on the patterns of cabinet appointments. Data on the characteristics of cabinet members are drawn from Nyrop and Bramwell (2020). Control variables include cabinet size, log GDP per capita, and log population. Standard errors are clustered at the country level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, (two-tailed test).

the inter-generational power balance shapes the relative influence of the two different groups of cabinet members. We see that the presence of powerful predecessors weakens the influence of cabinet members who are exclusively appointed by the current leaders but increases the influence of those appointed by the predecessors themselves. Meanwhile, powerful incumbents appear to have the exact opposite effect, raising the profiles of the incumbents' own appointees while limiting those of their predecessors. Taken together, these patterns suggest that an important method by which predecessors constrain their successors is to limit the latter's ability to unilaterally change the lineup of supporting elites in organizations critical to top leaders' effective exercise of power.

Conclusion

The allocation and contestation of power lie at the heart of elite politics. While much of the existing literature on authoritarian power politics focuses on institutions, we study how informal, personalized constraints affect incumbent autocrats' ability to consolidate power. We demonstrate that the constraints imposed by retired leaders have a discernible constraining effect on incumbent leaders' power and that the relaxation of such constraints following a predecessor's death allows the incumbent to expand his personal influence. We also provide suggestive evidence on how this constraint works. It works less by altering the formal and conspicuous aspects of political institutions and more by limiting successors' discretion over the subtle yet crucial domain of personnel control.

Although the specific inter-generational arrangement we study here may not necessarily be present in all autocracies, the central insight that imposing effective constraints on power holders ultimately requires others to hold a commensurate level of power is relevant to a broad set of regimes. Without a powerful former chief executive, other influential members of the ruling circle, such as long-time cabinet members or senior military officers, can sometimes act as informal constraints on incumbents. In China during the 1980s, for example, the key constraint faced by the paramount leader Deng Xiaoping was from a coalition of veteran revolutionaries who possessed comparable or even greater seniority in the CCP than Deng himself (Shirk 1993). Moreover, according to the study by Barros (2002), even in a seemingly personalist regime like Chile under Augusto Pinochet, powerful generals from other branches of the military acted as key informal checks on Pinochet's power, and their influence helped to create an effective constitutional framework that paved the way for the subsequent democratic transition.

Our study serves as a cautionary note against the rapidly growing body of literature on authoritarian institutions (Boix and Svulik 2013; Brownlee 2007a; Gandhi 2008; Magaloni 2008). To the

extent that formal institutions are often deeply intertwined with, and endogenous to, political maneuvering undertaken by powerful political actors, one needs to be extremely careful when making inferences about the independent effect of institutions. As our study suggests, institutions sometimes emerge in tandem with the need to cope with succession challenges, and the effectiveness of institutions as a form of executive constraint depends crucially on the informal political clout of retired leaders. Neglecting this hidden dimension can lead us to overstate the institutions' actual ability to constrain incumbents.

Findings from our study also suggest new ways to think about how personal power and institutionalization may interact. The prevailing view in the literature is that personalism is antithetical to building strong and robust political institutions (Geddes, Wright, and Frantz 2019; Levitsky and Ziblatt 2018). Recent studies have argued that weak leaders are more likely to pursue the strategy of institutionalization as a way of making credible commitments to other elites (Meng 2020). Our findings provide a more nuanced and dynamic interpretation. In some cases, powerful leaders may be a blessing for building binding institutions if political exigencies provide them with the right incentives. As illustrated by the leadership succession case, departing leaders concerned with protecting their interests and legacies in retirement may want to put in place strong institutions to tie the hands of their successors (rather than themselves). Those with greater personal power are more likely to succeed because they have a greater capacity to defend and enforce nascent institutions and cultivate a norm of institutional compliance among the elites. Systematic explanations of how strong institutions take root in a regime need to take into account the role played by prominent political figures such as George Washington in the United States, Chiang Ching-Kuo in Taiwan, and Deng Xiaoping in China.

Recognizing the importance of personalistic input to executive constraint also suggests a different prediction of long-term institutional dynamics. Contrary to the commonly held view that institution building is a path-dependent process whereby institutions, once put in place, become incrementally stronger as time goes on (Pierson 2000), our finding that effective executive constraints also need support from relatively powerful predecessors suggests that strengthening institutional constraints in the short run may, paradoxically, sow the seeds for de-institutionalization in the long run. As the constraints over incumbent leaders become progressively stronger, it may reach a point where the incumbent leader is so constrained he cannot accumulate sufficient personal power to serve as an effective check on his successor after he retires. The presence of a relatively weak predecessor may become an opportunity for the successor to circumvent existing institutions and increase his personal power in the future. Therefore, instead of being a unidirectional path toward greater institutionalization, the rise and fall of institutions may be a cyclical phenomenon over the long historical *durée*.

Future research can extend this study in at least two ways. First, researchers can further explore how this specific informal constraint that we identify – the presence or absence of former leaders – affects incumbent leaders' behaviours in areas other than power consolidation, such as policy directions, economic performance, or interstate relations. Second, researchers can explore other sources of informal constraints in autocratic systems. While ex-leaders as a form of informal constraint may be most applicable to relatively institutionalized autocracies, other types of constraints, such as the breadth and depth of the ruler's personal networks, the configurations of the ethnic and regional interests within the ruling elites, and the relative influence of political leaders vis-à-vis prominent military, business, and religious figures, may play a greater role in less institutionalized settings. A better understanding of how those constraints work will shed important light on the nature of autocratic power and what limits it in the absence of binding institutions.

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Data availability statement. Replication data for this article can be found in Harvard Dataverse at: <https://doi.org/10.7910/DVN/FJIQQR>.

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