Power Sharing with Weak Institutions: A Comment on Powell

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Abstract

Existing models explain how institutional constraints facilitate credible commitments to perpetually redistribute wealth. In "Power Sharing with Weak Institutions," Powell (2021) explains why the commitment problem runs deeper: promises to permanently hand off power are not credible when institutions are weak. I scrutinize three foundational premises of Powell (2021) and related models. First, I solve a simplified model to demonstrate that absent a direct cost to reforming institutions, ruling elites are in fact indifferent between permanent and temporary concessions. In the high-threat period in which power sharing occurs, the opposition accepts a lower temporary transfer in return for higher future rents, thus compensating elites' for their diminished stream of rents. Second, I discuss how to conceptualize institutional strength within this class of models. Third, I consider ways to model how an autocrat can credibly share power or democratize, even when institutions are weak.

*Associate Professor, Department of Political Science, Emory University. Bob Powell was my Ph.D. adviser at UC Berkeley and passed away in December 2021. He always challenged me to think hard about the assumptions that go into formal models and how to relate abstract models to important questions. Although Bob was best known for his contributions to international relations theory, he developed exciting ideas about many core issues related to domestic regime transitions as well. The material in this comment derives in part from our many stimulating discussions. For helpful feedback, I thank the JTP editors Torun Dewan and John Patty, three anonymous referees, and Anne Meng.

1 Introduction

Authoritarian elites face a commitment problem (Acemoglu and Robinson 2006; Castañeda Dower et al. 2018). During emergency times in which the opposition poses a threat of rebellion, ruling elites see the writing on the wall and offer temporary concessions that redistribute spoils. However, the opposition's threat is inherently transitory, and thus an opposition who has mobilized today may fail to do so tomorrow. During normal times in which the opposition poses no threat, any promises to deliver spoils and opposition-preferred policies are incredible—why would elites offer concessions absent an enforcement mechanism? Recognizing the autocrat's commitment problem, a forward-looking opposition might reject *temporary* co-optation measures during a fleeting moment in the sun. Thus, to pacify a temporarily strong opposition movement, *permanent* institutional reforms are necessary. Expanding the franchise or sharing power (e.g., cabinet positions, local councils) solves the commitment problem by enabling the opposition to directly set policy, or to permanently increase redistribution by other means.

Powell (2021) challenges this explanation for institutional reform. Elites in fact face a deeper commitment problem than their inability to commit to temporary redistribution whenever the opposition lacks a revolutionary threat. Permanently reforming institutions entails *its own commitment problem*. Elites announce their intention to share power at times in which the opposition is organized to revolt. However, this threat does not last forever—this is, in fact, the precise source of the commitment problem highlighted in Acemoglu and Robinson (2006) and Castañeda Dower et al. (2018). Transitory threats provide leeway for elites to exert costly effort to undermine a power-sharing deal before it locks in. For example, elites might promise to share power by holding elections at some point in the future, but in the meantime strengthen their coercive position to enable them to renege before ever holding the elections. Powell thus relaxes the standard assumption that promised institutional reforms are necessarily implemented, and instead highlights the commitment problem inherent to handing over power. Weak institutions exacerbate this commitment problem by making it easier for elites to renege on a deal.[1]

In this comment, I scrutinize three foundational premises of Powell (2021) and related models. First, in the aforementioned models, elites strictly prefer to minimize the extent of permanent institutional concessions, and instead favor temporary transfers as needed to pacify the opposition. This result is, seemingly, intuitive because it confirms the widespread premise in studies of authoritarian politics that autocrats seek to concentrate as much power in their hands as possible. However, this finding in fact raises a puzzle. If the space of both temporary transfers and institutional concessions is continuous, what prevents the opposition from fully compensating elites in the present for the elevated rents the opposition will gain in the future? If this is possible, then elites should be indifferent about how much power they share;[2] sharing more power and thereby increasing the opposition's rents in the future will yield, through the bargaining mechanism, more consumption for elites in the present. I confirm this intuition by analyzing a special case of Powell's model in which institutional concessions are fully credible, showing that elites are indifferent about the exact mixture of permanent and temporary concessions. The key to recovering the conventional intuition is for institutional reform to be costly, thus destroying surplus akin to the foundational results on incentives to avoid costly conflict (Fearon 1995; Powell 2004). Powell (2021) models this explicitly through the costs of exerting effort to renege on a power-sharing deal. However, "top-down" models of institutional reform suggest various reasons that permanent institutional concessions may in fact destroy less surplus than temporary transfers.

Second, Powell's model initiates, but does not end, a fruitful discussion about how to conceptualize institutional strength within this class of models. His notion of institutional strength captures an important idea about the credibility of constitutional amendment procedures, but overlooks alternative components of institutional strength.

Third, I discuss ways to model how an autocrat can credibly share power or democratize, even

[1] Throughout, I use the terms "institutional reform," "institutional concessions," and "power-sharing deals" interchangeably.

[2] At least, conditional on sharing enough power to prevent the opposition from fighting.

when institutions are weak. Powell proposes one, a smoother path of shocks. Others lie outside his model: persistent opposition mobilization, coercive enforcement of power-sharing deals, and ruling elites stepping down from power. Collectively, this discussion yields numerous suggestions for future research.

2 Indifference over Institutional Reform Options

A common result in models of commitment problems and institutional reform is that ruling elites strictly prefer temporary concessions over permanent institutional concessions. In Acemoglu and Robinson (2006), elites never transition to democracy if temporary redistribution suffices to prevent the opposition (the "masses") from revolting. In Castañeda Dower et al. (2018), elites concede agenda-setting powers to the opposition (the "majority") in the minimum fraction of periods sufficient to prevent revolt. This also means that, in equilibrium, elites transfer *all* contemporaneous spoils to the opposition in periods in which elites set policy and the majority poses a revolutionary threat. This result further highlights elites' preferences for temporary transfers over permanent institutional concessions. In Powell (2021), elites choose the minimum level of promised basement spoils needed to prevent revolt. However, because promised concessions might not go through, elites must offer strictly more than the level of institutions that would make the opposition indifferent were the concessions to lock in for sure.[3]

To better understand the microfoundations for this common result, I examine a special case of Powell's model in which promised institutional reforms are perfectly credible. Powell captures the strength of institutions with a parameter w. Lower values of w correspond with stronger institu-

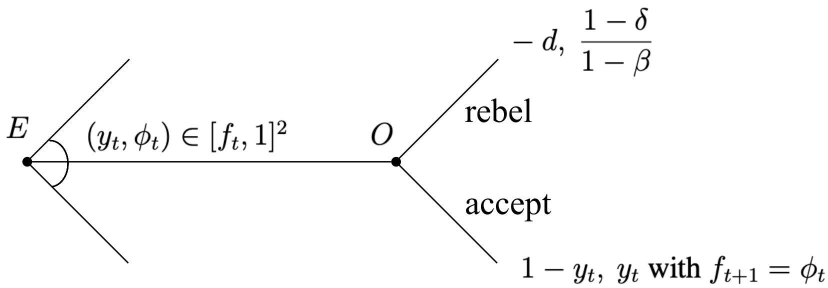
[3]These are not the only models that highlight how formal institutions such as parties, legislatures, and constitutions can solve the autocrat's commitment problem; see also Gandhi and Przeworski (2006); Myerson (2008); Gehlbach and Keefer (2011); Boix and Svolik (2013); Ansell and Samuels (2014); Gailmard (2017); Luo and Rozenas (2022); Little and Paine (2023).

tions by making attempts to renege on a power-sharing deal less likely to succeed.[4] I examine the limiting case of perfectly strong institutions, $w = 0$. This means that effort by elites to subvert a power-sharing deal succeeds with probability 0, and thus we can eliminate this element of Powell's stage game. The new result is that elites are *indifferent* about the exact level of permanent concessions. This prompts considerations of (a) why ruling elites strictly prefer temporary over institutional concessions in existing models and (b) under what conditions would a ruler prefer institutional over temporary concessions.

Modified version of Powell's model. Other than setting $w = 0$, the setup and notation is otherwise identical to that in Powell. A ruling elite and opposition actor interact across an infinite horizon. Time is denoted by $t = 0, 1, 2, \ldots$ and the players have a common discount factor $\beta \in (0, 1)$. Each period begins in which elites control a fraction $1 - f_t$ of the flow of an asset normalized to size 1, and the opposition controls the remaining fraction f_t; and the game begins with $f_0 = 0$. At the outset of each period, Nature chooses the magnitude of the opposition's threat, drawing a high threat (opposition wins a rebellion with probability 1) with probability r and a low threat (opposition wins with probability 0) with probability $1 - r$. In a low-threat period, there are no strategic actions, and the elites and opposition respectively consume $1 - f_t$ and f_t. Figure 1 presents the stage game for a high-threat period. Elites choose a power-sharing concession ϕ_t and a one-period concession y_t, neither of which can be lower than the status quo f_t. Consequently, the status-quo level of power sharing creates a basement level of spoils for the opposition, which can never be lowered in subsequent periods. If the opposition accepts the offer, then consumption is determined by the elites' one-period concession, and the status quo in the next period becomes $f_{t+1} = \phi_t$. If instead the opposition rebels, then they win for sure but a fraction $\delta \in (0, 1)$ of the prize is forever destroyed; and the ruler pays an additional cost $d > 0$.

[4] See below for a lengthier discussion of Powell's conceptualization of institutional strength.

Figure 1: Stage game when the division of power is f_t and the opposition poses a high threat



Proposition 1 presents the main result. Elites share a positive amount of power in response to a high threat. However, conditional on sharing enough power to enable buying off the opposition, they are indifferent about exactly how much power they share.

Proposition 1 (Indifference over institutional reform.)**.** *Assume $r < \frac{\beta-\delta}{\beta}$, and therefore the opposition will revolt in a high-threat period if elites do not offer to share power.*[5] *There exist a continuum of equilibrium paths of play with the following structure. In the first high-threat period, elites offer any ϕ_t satisfying $\phi \in \left[1-\frac{\delta}{\beta(1-r)}, 1-\delta\right]$ and a corresponding $y_t = y^*(\phi)$ that satisfies*

$$\underbrace{\phi}_{\textit{Basement spoils}} + \underbrace{(1-\beta(1-r))(y^*(\phi)-\phi)}_{\textit{Additional transfer in high-threat periods}} = \underbrace{1-\delta}_{\textit{Rebellion option}}. \tag{1}$$

The opposition accepts the proposal. In all subsequent high-threat periods, elites offer $(\phi_t, y_t) = (\phi, y^*(\phi))$ and the opposition accepts.

Appendix A.1 presents and proves a proposition that characterizes the continuum of (payoff equivalent) equilibrium strategy profiles, which yield these paths of play. Here I present the core expressions that explain the indifference result. Elites face the following calculus from the perspective of the high-threat period in which they make the power-sharing concession. They give away at least ϕ in every period and make an additional transfer $y^*(\phi) - \phi$ in the current and in the fraction r of periods in which the opposition poses a high threat. Consequently, elites' expected lifetime

[5]This is identical to Powell's Assumption 1. The intuition for this inequality is easily gleaned from Equation 1.

consumption, averaged per period, is

$$(1-\beta)V_E(\phi) = 1 - \phi - (1-\beta(1-r))(y^*(\phi) - \phi). \tag{2}$$

To solve for the optimal transfer in a high-threat period, we analyze the opposition's calculus from the perspective of such a period. In addition to spoils ϕ gained in every period, they gain the extra transfer $y^*(\phi) - \phi$ in the present and a fraction r of future periods. This lifetime stream of consumption must be at least as great as their rebellion option, which is valued at $1-\delta$ in each period. Elites optimize by making the opposition indifferent between these two options, which yields the expression in Equation 1.

Higher ϕ directly affects elites' consumption by creating a marginal *cost* of one unit in each period, as can be seen from Equation 2. But elites indirectly gain a *benefit* because higher ϕ also reduces the optimal transfer $y^*(\phi) - \phi$. This can be easily seen from Equation 1. Higher ϕ raises the left-hand side of the equality by bolstering the opposition's permanent consumption, which reduces the additional transfer that matches their no-revolt constraint. Thus, returning to the elites' objective function, this indirect effect yields an average per-period marginal benefit of
$-(1-\beta(1-r))\big(\frac{dy^*(\phi)}{d\phi} - 1\big)$.

The indifference result follows because the opposition has the same multiplier on its consumption of $y^*(\phi)-\phi$, shown in Equation 1, as do the elites from their loss of $y^*(\phi)-\phi$. The opposition and elites each expect to, respectively, receive or pay the transfer in the current period and in a fraction r of future periods. Therefore, $\frac{dy^*(\phi)}{d\phi} - 1 = -\frac{1}{1-\beta(1-r)}$, and elites' marginal benefit and marginal cost from raising ϕ both equal 1. Hence elites are indifferent about the exact choice of ϕ, within the range of ϕ values stated in the proposition.[6]

[6] This range is equivalent to requiring $y^*(\phi) \in [\phi, 1]$. That is, ϕ is large enough to prevent revolt ($y^*(\phi) \leq 1$) but not so large that the opposition does not demand an additional transfer in high-threat periods ($y^*(\phi) \geq \phi$).

Application to existing models. The preceding result demonstrates that, absent a source of friction, temporary transfers and permanent institutional concessions act as perfect substitutes. If elites permanently grant more rents to the opposition in the future, they can use the bargaining mechanism to induce the opposition to compensate it in all high-threat periods, including the present period, because the opposition accepts a smaller transfer. This finding raises a puzzle about the aforementioned models—what produces the findings that ruling elites strictly prefer temporary transfers over permanent concessions?

In the full model in Powell (2021), elites invest positive effort in undermining a proposed power-sharing deal whenever $w > 0$. Thus, introducing endogenous effort to renege not only incorporates Powell's core substantive interest in weak institutions into the model, but also provides a rationale for why elites strictly prefer temporary over permanent concessions—the latter are costly.[7] Thus, in effect, institutional reform destroys surplus akin to the foundational results on incentives to avoid costly conflict (Fearon 1995). In Appendix A.2, I extend my model to introduce a positive and strictly increasing cost to reforming institutions, which recovers in a reduced-form way the result that elites strictly prefer to minimize institutional reform.

In Acemoglu and Robinson (2006), elites strictly prefer to buy off the masses with temporary transfers for two reasons. First, the menu of institutional reform options is discrete; either full franchise expansion in which the opposition sets the policy in every period, or no reform. Consequently, in any pure-strategy equilibrium, democratization strictly satisfies the masses' no-revolt constraint,

[7] As an alternative setup, suppose instead that any power-sharing deal fails to stick with an exogenously determined positive probability, but elites pay no direct costs to reverse a power-sharing deal. As in Powell's model, elites must propose institutional reforms ϕ_t that exceed the minimum value needed to buy off the opposition in a high-threat period, were the deal to stick for sure. However, elites are nonetheless indifferent about the exact level of permanent concessions, conditional on sharing enough power to prevent revolt, because elites benefit if the deal fails to lock in. A direct cost of institutional reform is needed to break indifference.

which reduces the elites' share of consumption.[8] Second, total surplus is lower when the masses set policy. As opposed to Powell's setup in which elites distribute pure transfers from a budget normalized to 1, Acemoglu and Robinson incorporate a more complicated political economy setup. Each actor has a wealth endowment and the policy choice determines per-capita taxation, which is redistributed as a lump sum to every member of society. Higher tax rates create greater deadweight loss. Therefore, total surplus is lower when the masses determine policy because they choose a higher tax rate.

In Castañeda Dower et al. (2018), ruling elites strictly prefer temporary transfers over permanent concessions for a more subtle reason. The menu of possible institutional reforms is continuous, as in Powell, but institutional reform does not create a direct cost. The key to the proof of Proposition 1 above is that, with probability 1, *elites* set policy in the period that institutional reform occurs. This enables them to make a proposal that holds the opposition to indifference, therefore fully compensating elites for their lower stream of future rents. In Castañeda Dower et al. (2018), by contrast, the institutional reform is enacted immediately, which creates a probability ρ (using their terminology) that the *majority* will set policy in the period of the reform. Thus, permanent concessions are costly for elites because they may not immediately reap the indirect benefit. But, instead, if elites surely set policy in the period of the institutional reform, a modified version of Proposition 1 would apply to their model; elites would be indifferent about the exact level of institutional reform (see Appendix A.3).

Which concessions are costly? Existing models assume, through different mechanisms, that institutional reform is costly whereas temporary transfers are not. However, such assumptions are not applicable in all circumstances. One cost to autocratic rule is that property rights are weakly secured (Ansell and Samuels 2014). Insecure property rights discourage producers from making investments that would expand the tax base, which legislative representation (Gailmard 2017) or

[8] Acemoglu and Robinson (2017) and Castañeda Dower et al. (2020) elaborate upon this technical point.

institutionalized parties (Gehlbach and Keefer 2011) could protect. The existing system might also be distorted by corruption, which would be alleviated under a broader franchise (Lizzeri and Persico 2004). Nor, in contrast to the standard assumption, is anti-regime mobilization costless for the opposition. If instead the opposition paid a cost to mobilize, the elites would incur this cost indirectly because the opposition could credibly demand larger transfers in return for not revolting. Sharing power would improve upon this status quo by delivering more spoils to the opposition automatically, thereby reducing their need to mobilize and to incur these costs. Finally, certain government programs are inherently inefficient if not secured over the long term, such as mass education systems, social security programs, and central banks. Therefore, permanent rather than temporary versions of these programs bolster surplus.[9]

These observations relate to long-standing debates about the bottom-up versus top-down nature of political transitions. In Acemoglu and Robinson (2006), Castañeda Dower et al. (2018), and Powell (2021), transitions are driven purely by bottom-up pressures. By contrast, these alternative ideas highlight various sources of top-down pressure for reform. A core idea in top-down theories is that authoritarian institutions are inherently inefficient, which spurs reforms even absent pressure from below.

3 Conceptualizing Institutional Strength

The central focus of Powell (2021) is on institutional strength and how this affects prospects for political reforms. In his conceptualization, institutional reform conveys to the opposition partial control over an asset that yields a flow of spoils across time. Institutions constrain the ruling elites in two ways. First, once a power-sharing deal has locked in, this guarantees a basement level of spoils for the opposition in every period. Second, to unwind a promise to share the asset before it has locked in, elites must pay a cost, which depends on the strength of institutions. He models this by allowing elites to exert costly effort to renege on a power-sharing deal to which the opposition

[9] I thank an anonymous referee for highlighting this point.

has agreed, and higher values of the institutional strength parameter w increase the likelihood that such effort will succeed. When w is sufficiently high, efforts to unwind power-sharing deals are so likely to succeed that the opposition will reject any proposal.[10] Under this conceptualization, institutions are perfectly strong in Acemoglu and Robinson (2006) and Castañeda Dower et al. (2018) because any promised institutional concession is enacted with probability 1. By contrast, institutions are perfectly weak in Fearon and Laitin (2008), who assume the government cannot commit to any amount of concessions for a rebel group after disarming.

Credibility of constitutional amendment procedures. Substantively, Powell's parameter w is most naturally interpreted as the credibility of constitutional amendment procedures. Even if rents and power are heavily concentrated among elites at a particular point in time, promises to expand the franchise or share power in other ways may nonetheless be credible. This seems to fit the UK case well, which Powell discussed in an earlier draft of his paper. In 1832, the Great Reform Act roughly tripled the size of the franchise, from 5% of adult males to 17%.[11] Powell provides quotes from policymakers suggesting that after the act, even Conservatives who opposed its passage con-

[10] This conceptualization of power sharing also appears in passing in Powell's earlier work. In Powell's (2012) model of civil wars, the faction that controls the state decides how to allocate the entire flow of spoils in each period, that is, they lack an option to permanently give away to the opposition a portion of the asset. This implies that the government "can renege at no direct cost on any agreement regarding the division of future benefits" (627). For this reason, Powell claims that his model corresponds "most directly to center-seeking conflicts." If the government reneges, the *opposition* has to pay the start-up costs to organize and try to overthrow the government. By contrast, he claims that his 2012 model will typically not apply to autonomy-seeking civil wars. When a region secedes, the *government* has to pay the start-up costs to recover control over the region. Thus, regional autonomy deals exhibit conceptual overlap with the power-sharing deals modeled in Powell (2021).

[11] Data from V-Dem (Coppedge 2023).

sidered it to be a done deal. Despite a small franchise, the UK had well-established constitutional procedures that dated back at least as far as the Glorious Revolution of 1688, and to some extent more than a century prior to that. Hence it is plausible that franchise expansion amendments could be credibly implemented. By contrast, as discussed later, constitutional procedures were not well established in Sudan prior to its transition in 2019, the contrast case of weak institutions that Powell discusses.[12]

Divergent outcomes in the UK and Sudan also relate to an observation in Dahl (1971) about pathways to democratic consolidation. Dahl distinguishes between contestation, the extent to which elections are free and fair; and participation, the scope of who can participate in politics. Dahl contends that establishing electoral competition among a small and cohesive elite followed later by mass franchise expansion should provide a favorable path to establishing full democracy. In such countries, "the rule, the practices, and the culture of competitive politics developed first among a small elite. ... Later, as additional social strata were admitted into politics they were more easily socialized into the norms and practices of competitive politics already developed among the elites" (p. 36). He mentions the English case when discussing this pathway to democracy, whereas cases like Sudan in 2019 lacked a foundation of competitive politics. Hence Powell's conceptualization of w may capture Dahl's assertion about democratic sequencing in a natural way: w is determined mainly by the competitiveness of politics, not the size of the franchise (the endogenous outcome to be explained).

Alternative conceptualizations of institutional strength. Powell's conceptualization does not capture all aspects of institutional strength, an inherently multi-faceted idea. The parameter w encompasses possibilities for institutional change, but the contemporaneous level of regime insti-

[12] However, prior to their respective reforms, the UK and Sudan had nearly identical scores on V-Dem's aggregate polyarchy measure. The scores were 0.29 for the UK in 1831 and 0.27 for Sudan in 2018, each of which is slightly lower than that of a typical electoral authoritarian regime in 2022 (average polyarchy score of 0.33).

tutionalization is another intuitive component of institutional strength. This is captured by Powell's parameter f_t, which expresses the opposition's basement level of spoils in the current and all future periods (see Figure 1). If f is low, it is difficult to think of institutions as strong—even if w is also low. For example, in Acemoglu and Robinson (2006), elites under dictatorship cannot credibly commit to any redistribution whenever the masses lack a revolt threat. Moreover, given the discrete set of institutional reform options in their model, elites (implicitly) cannot credibly commit to *any* power-sharing deal short of permanently relinquishing the keys to the car. Therefore, using Powell's notation, f is low under authoritarian rule. Nonetheless, elites can credibly transition to democracy if they choose, which corresponds with low w (again using Powell's notation). Given the inability of elites to credibly redistribute within a dictatorship, one would not intuitively conceive of Acemoglu and Robinson's depiction of authoritarian institutions as strong, despite the absence of frictions to changing institutions.[13]

Conversely, if f is high, it is difficult to think of institutions as weak—even if w is also high. Powell's model, in fact, anticipates why such a circumstance would arise. The regimes that eventually gain the highest values of f are those with medium-high w, meaning that w is not so high that power-sharing deals are inherently untenable. This is a direct consequence of what Powell advertises as the second main contribution of his model (see also his Proposition 3i). Higher w requires elites to propose bigger institutional concessions to buy off the opposition because of the fairly high probability with which elites will renege on the deal. But across the infinite horizon, the promised concession will eventually stick. Therefore, over the long term, elites in a regime with medium-high w will share more power with the opposition—resulting in higher f—than will elites in a regime with "stronger" institutions (i.e., lower w), per Powell's conceptualization. But once a regime has established high f, we would intuitively think of its institutions as strong, even if the path to develop broad-based power sharing was rocky.

[13]In fact, the ease of changing institutions might itself be interpreted as a source of institutional weakness, as it can make the status quo less durable (see, for example, Result 5 in Acemoglu et al. 2020).

It is even more plausible to interpret high f as corresponding with strong institutions because Powell assumes that institutional concessions cannot subsequently be rolled back after locking in.[14] Once f is high, it remains high forever. Thus, the model focuses solely on the difficulty of handing off power *in the first place*, as opposed to undermining a deal *already in place*. Some existing models address the latter possibility, thus highlighting alternative sources of institutional weakness. Acemoglu and Robinson (2006) extend their core model to allow elites to stage a coup to regain power. In Acemoglu and Robinson (2008), elites can invest effort to "capture" democratic institutions—hence undermining the commitment value of democracy. Finkel and Gehlbach (2020) explain how local elites tasked with implementing institutional reform in weak states can undermine the effectiveness of the reforms.

4 Sharing Power Despite Weak Institutions

Very weak institutions undermine the possibility of power sharing in Powell (2021), which he advertises as his first main contribution (see also his Proposition 2). Weak institutions (high w) prompt elites to invest heavily in undermining a power-sharing deal. This effort makes a proposed reform so unlikely to go through that the opposition refuses to accept even very generous terms. Given this seemingly insurmountable impediment to securing institutional reform, can countries with weak institutions ever successfully share power or democratize? In addition to insights from Powell's analysis, I propose several additional ideas to push forward this critical question for future research.

Smoother distribution of shocks. A smoother path of shocks can mitigate the problem of weak institutions, which Powell advertises as his fourth main contribution. In the baseline model, the opposition fluctuates between high-threat periods (wins a revolt with probability 1) and low-threat

[14]This is, in fact, a separate dimension on which institutions are assumed to be quite strong in Powell's model.

periods (wins with probability 0). In an extension, Powell adds a third, intermediate-threat period in which the opposition's probability of winning lies in between these extremes.

If institutions are weak, then we know from the baseline model that elites cannot buy off the opposition in a high-threat period—assuming no institutional reform has occurred prior to the first high-threat period. But now suppose that prior to the first high-threat period, Nature has drawn one or several intermediate shocks. Such periods provide elites with the opportunity to buy off the opposition with less extensive institutional reform proposals. If, in turn, these proposals stick, then elites have built up a stock of institutional concessions prior to the first high-threat period. Accumulating enough of this stock enables elites to buy off the opposition in the first high-threat period, as the extant institutional stock reduces the stakes of undermining an agreement and hence makes a power-sharing proposal more credible. Consequently, a smoother distribution of shocks substitutes for weak institutions to prevent conflict.[15]

The main problem with this extension is its analytic complexity. The associated section of the paper lacks a formal proposition, and Powell presents a numerical example in the appendix to prove existence. A simpler setup would be one in which elites cannot raise the opposition's basement level of spoils in a single period by more than an exogenously determined upper bound (call it $\phi^{\max}$). This preserves the idea that institutional reform is costly, but the cost structure differs: 0 for any $\phi_t \in [f_t, f_t + \phi^{\max}]$ and infinite for any $\phi_t > f_t + \phi^{\max}$. If $\phi^{\max}$ is low enough, then elites cannot offer sufficient institutional reforms in a high-threat period to buy off the opposition—if $f_t = 0$ at that time. By contrast, if intermediate-threat periods arise earlier, elites can build up a stock of institutional concessions. Despite losing some of the compelling microfoundations of Powell's model, this alternative is more analytically tractable and preserves the qualitative flavor

[15] Another notable attribute of this equilibrium is path dependence: the precise sequence of shocks, rather than differences in parameters, can determine whether a particular country experiences peaceful power sharing or conflict. Acemoglu et al. (2020) provide a broader overview of path dependence in dynamic models of institutional reform.

of Powell's result.

Persistent opposition mobilization. Powell highlights an unrecognized tension in existing models that presume institutional reforms are perfectly credible. On the one hand, within a period in which a transition occurs, these models implicitly assume that the opposition mobilizes for long enough to ensure the institutional concession goes through. On the other hand, the only reason that institutional concessions are necessary in the first place is because the opposition can seldom mobilize. As Powell summarizes this tension, "the opposition must be strong (in expectation) for long enough to enforce the agreement but not long enough to eliminate the commitment problem." In his stage game, Powell instead assumes that elites exert effort at reneging after the opposition has foregone its option to revolt, and thus lacks the ability to coercively enforce the deal.

But Powell's commentary also suggests that, if the opposition can sustain mobilization for long enough, they should be able to enforce a deal even if institutions are weak. Assume an alternative setup in which following the power-sharing promise, the opposition probabilistically remains strong throughout the transition. If this occurs, the institutional concession goes through for sure. If not, then elites have an opportunity to renege as in Powell's model. In such a setup, we might also assume that the distribution of threats follows a Markov process such that a high-threat period is relatively more likely following a high-threat period than a low-threat period. This would provide a tractable way to square the tension that Powell raises: the opposition may mobilize rarely across the infinite horizon, hence necessitating institutional reform to prevent revolt; but, at times the opposition can compel institutional concessions, they can nonetheless be highly likely to continually pose a high threat.

Coercive enforcement of power-sharing deals. In Powell's model, power-sharing deals entail elites *sharing* spoils with the opposition but without shifting the distribution of *power* between the two actors. Regardless of the amount of spoils permanently controlled by the opposition, they win a revolt with probability 1 in a fraction r of periods, and with probability 0 in other periods (and, in the extension, with probability π in a fraction μ of periods).

However, in circumstances of weak formal institutions, an alternative way for ruling elites to commit to promises is to provide the opposition with the coercive means to defend their concession, which shifts the distribution of power. A ruler can allow actors besides his cronies to control various branches of the security sector; and, to rebel groups, offer ceasefires or peace treaties that permit the group to keep their arms or attempt to integrate them into the state military. Generalizing these examples, Meng et al. (2023) distinguish between two ideal-type means of enforcing a power-sharing deal: institutional (captured in Powell's model) and coercive (captured by these other examples).

Coercive enforcement mechanisms provide a means to overcome the limitations of weak formal institutions, but are not foolproof. The main limitation, from the perspective of ruling elites, is that the *opposition faces a commitment problem* and can renege. Empowered by the power-sharing deal, opposition leaders can leverage their favored position to seize power for themselves. That is, coercive enforcement mechanisms can inadvertently serve an offensive purpose, in addition to their intended defensive rationale.[16] In Paine (2022), I provide one way to model this trade off. Sharing power increases both the frequency with which the opposition can mobilize and its probability of winning upon doing so (therefore, unlike Powell 2021 and the other aforementioned models, this probability is not fixed at 1). The first effect of sharing power enhances elites' ability to commit to redistribution, whereas the second effect makes it more difficult to buy off the opposition. Thus, coercive enforcement cuts both ways; depending on which effect is larger in magnitude, sharing more power can either stabilize or destabilize the regime. This contrasts with the aforementioned models, in which sharing more power always relaxes the opposition's no-revolt constraint.[17]

[16]Examining a distinct form of the opposition's commitment problem, Acemoglu et al. (2015) explain how small initial reforms can snowball over time to give opposition actors much *more* than the ruling elites intended originally. Similarly, Fearon and Francois (2020) formally examine the breakdown of elite-biased constitutions in favor of the masses.

[17]For other models in which sharing power enhances the ability of the opposition to overthrow

In both Paine (2022) and Powell (2021), the frequency with which the opposition mobilizes exhibits an inverted U-shaped relationship with power sharing, which Powell advertises as the third main result of his model.[18] Frequent opposition mobilization makes power sharing unnecessary for the same reason in both models: the opposition can compel concessions so frequently that temporary concessions are sufficient to prevent revolt (see also Acemoglu and Robinson 2006 and Castañeda Dower et al. 2018).

The other side of the inverted U-shaped relationship is that power sharing does not occur when the opposition mobilizes infrequently, but for different reasons in each model. These distinctions provide some insight into the differences between institutional and coercive enforcement of power-sharing deals. In Powell (2021), less frequent mobilization increases elites' temptation to renege on a deal because elites are averse to providing compensation whenever the opposition fails to pose a coercive threat. Promised power-sharing deals become inherently incredible if the opposition mobilizes too infrequently (see his Proposition 3iii). In Paine (2022), power sharing does not occur when mobilization is infrequent because, when this is true, the opposition wins a revolt with low probability. There are two possibilities: (1) absent power sharing, the opposition can be bought off in a high-threat period despite an unfavorable shadow of the future, or (2) the ruler in fact prefers an equilibrium path in which fighting occurs over sharing enough power to push parameters into the no-conflict region. Neither set of assumptions is inherently better, although insights from window-of-opportunity models do change in a more general setting that relaxes the standard assumption that the opposition's frequency of mobilization and probability of winning are

elites, see Francois et al. (2015); Meng (2019); Paine (2021); Luo (2022); Kenkel and Paine (2023). Other models highlight the role of coercive threats in sustaining democratic elections; each side's probability of winning an election must be roughly in balance with their probability of winning a fight (Chacón et al. 2011; Przeworski et al. 2015).

[18] In Powell, the frequency of mobilization is an exogenous parameter. In Paine, this frequency has a lower bound (which the ruling elites can choose to raise by sharing more power), and the following statements apply to the value of this lower bound.

uncorrelated (Little and Paine 2023).[19]

Stepping down. Powell discusses the example of Sudan's negotiated transition that began in 2019 as a case of non-credible promises amid an environment of weak institutions. Political institutions are undoubtedly weak in Sudan, a country with a history of frequent coups and civil wars. Nonetheless, its leaders failed to take actions such as immediately stepping down that could have made their promises of institutional reform more credible. This possibility lies outside the scope of options modeled by Powell.

Following months of protests, the military deposed the long-standing ruler Omar al-Bashir in 2019, and the newly formed Transitional Military Council promised to hold elections at the end of a 39-month transition period. Yet the military officers, who had participated in governing the country alongside al-Bashir since 1989, remained in positions of power. Indeed, the transition was derailed in October 2021 when a different faction of the military temporarily seized power in a coup. The regime subsequently agreed to hold elections on a new timetable, but in April 2023, fighting between rival military factions broke out in the capital, which has further blocked progress toward a transition to more democratic institutions.

Returning to 2019, how could the military have made its promises more credible, despite weak institutions? Powell's model lacks the option for ruling elites to simply stand down from power. This could conceivably be modeled as an exogenously determined option value for elites to immediately step down (the value of which would be affected by factors such as prior human rights abuses and elites' ability to maintain coercive or other sources of power when not governing).[20]

[19] In work in progress, I generalize the model in Paine (2022) in a way more directly related to Powell's model. Sharing power (a) increases the opposition's basement level of spoils and (b) increases its probability of winning upon mobilizing. The opposition's choice to mobilize in each period is endogenous, and therefore the frequency of mobilization is a function of both the institutional commitment and coercive elements of the power-sharing tradeoff.

[20] This option closely resembles the discrete democratization option in Acemoglu and Robinson

Short of that extreme option, elites have agency to make promises of electoral power sharing more credible. Sudan's military leaders could have moved immediately to bring opposition leaders into the government, promised to hold elections within a shorter time frame, or agreed to not participate in the elections. Such actions, while not foolproof, can bolster the credibility of concessions even in countries that lack a long-standing history of competitive elections. Future models could consider a richer array of institutional reform options.

5 Conclusion

Sharing power is inherently difficult and hindered in particular by weak institutions, as Powell (2021) highlights. In personal correspondences, Bob often conveyed his belief that, in most real-world interactions, political actors have a hard time making credible commitments to each other. This is what he aimed to capture by modeling endogenous effort to reverse concessions and interpreting the feasibility of such subversion attempts in terms of institutional strength. Bob contemplated this issue for decades. In an early article, Acemoglu et al. (2004, 163) assert, "A study of the political economy of [kleptocratic] regimes must depart from the standard presumptions of most research in economics and political science, which assume that rulers make choices within strongly institutionalized polities." The footnote accompanying this sentence states, "We owe this terminology and the distinction between strongly and weakly institutionalized polities to Robert Powell." Bob's last paper offers an important contribution to this critical topic, while also raising numerous important issues that can scholars can productively analyze in future research.

(2006), in which the level of inequality determines the value of elites' exit option under democratic rule.

A Appendix

A.1 Proof of Propositions 1 and A.1

Proposition A.1 presents a continuum of strategy profiles that constitute Markov Perfect Equilibria. These strategies are payoff equivalent and yield the equilibria paths of play described in Proposition 1.

Proposition A.1 (Equilibria strategy profiles)**.**

- ***High f_t.*** *Suppose $f_t = \phi > 1 - \delta$ and that the opposition poses a high threat in period t. Elites propose $(\phi_t, y_t) = (\phi, \phi)$ and the opposition accepts any proposal.*
- ***Intermediate f_t.*** *Suppose $f_t = \phi \in \left[1 - \frac{\delta}{\beta(1-r)}, 1 - \delta\right]$ and that the opposition poses a high threat in period t. Elites propose $(\phi_t, y_t) = (\phi, y^*(\phi))$, for $y^*(\phi)$ satisfying Equation 1. The opposition accepts any (ϕ_t, y_t) such that $(1-\beta)y_t + \beta(\phi_t + r(\hat{y}(\phi_t) - \phi_t)) \geq 1 - \delta$ and fights otherwise, for $\hat{y} = y^*(\phi_t)$ as characterized in Equation 1 if $\phi_t \leq 1 - \delta$, and $\hat{y} = \phi_t$ if $\phi_t > 1 - \delta$. In equilibrium, the opposition accepts.*
- ***Low f_t.*** *Suppose $f_t < 1 - \frac{\delta}{\beta(1-r)}$ and that the opposition poses a high threat in period t. Elites propose any $\phi_t = \phi$ such that $\phi \in \left[1 - \frac{\delta}{\beta(1-r)}, 1 - \delta\right]$, and $y_t = y^*(\phi)$ with $y^*(\phi)$ characterized in Equation 1. The opposition rejects any proposal with $\phi_t < 1 - \frac{\delta}{\beta(1-r)}$, and otherwise follows the same acceptance/fight calculus as in the intermediate case. In equilibrium, the opposition accepts.*

Proof.

High f_t. This is the trivial case in which the opposition's basement level of spoils is so high that it will forgo revolt in a high-threat period even if not offered additional spoils. This result follows directly from the inequality that characterizes the case. If the opposition consumes at least ϕ in every period within the incumbent regime and $1 - \delta$ per period following a revolt, then $\phi > 1 - \delta$ implies that the opposition accepts $(\phi_t, y_t) = (\phi, \phi)$. Consequently, elites can ensure themselves a per-period consumption amount of $1 - \phi$. This strictly decreases in ϕ, which proves that deviating upward from $\phi_t = \phi$ is strictly unprofitable.

Intermediate f_t. Fix $\phi_t = \phi$ in every period. The equilibrium transfer, denoted as $y^*(\phi)$, makes the opposition indifferent between accepting and revolting, and the opposition accepts such an offer with probability 1 (these results are standard in these models and straightforward to verify). Thus, the transfer solves Equation 1. The bounds require $y^*(\phi) \in [\phi, 1]$. Rearranging Equation 1 demonstrates that $y^*(\phi)$ lies within this range when ϕ satisfies the bounds assumed for this case. The opposition's optimal acceptance/fighting behavior follows from these observations and from the result for the high f_t case. Finally, to show elites cannot profitably deviate from any ϕ within the specified range, we can write their lifetime expected consumption

$$(1-\beta)V_E(\phi) = \begin{cases} 1-\phi-(1-\beta(1-r))(y^*(\phi)-\phi) & \text{if } \phi \in \left[1-\frac{\delta}{\beta(1-r)}, 1-\delta\right] \\ 1-\phi & \text{if } \phi > 1-\delta. \end{cases} \tag{A.1}$$

Substituting in $y^*(\phi)$ from Equation 1 and simplifying shows that the term in the top line equals δ. This is not a function of ϕ, therefore ruling out a profitable deviation to another value of ϕ within this range. For the bottom term, $1-\phi$ strictly decreases in ϕ (as discussed for the high f_t case) and $\lim\limits_{\phi \to 1-\delta^+} 1-\phi = \delta$, demonstrating that deviating to any $\phi > 1-\delta$ is strictly unprofitable.

Low f_t. Deviating to any $\phi < 1-\frac{\delta}{\beta(1-r)}$ would trigger the opposition to fight, a strictly unprofitable deviation. Deviating to any $\phi > 1-\delta$ would be strictly unprofitable for reasons discussed in the intermediate f_t case. Indifference among any ϕ within the specified bounds also follows directly from the proof for the intermediate f_t case; the elites' lifetime expected consumption (expressed as a per-period average) equals δ regardless of the exact value of ϕ. The proof of the opposition's acceptance/fight calculus follows directly from the preceding cases. ∎

A.2 Costly Reform in the Simplified Powell Model

Extending the simplified version of Powell's model, now assume that implementing an institutional reform of ϕ in some period t creates a one-time cost $c(\phi - f_t)$ paid in period t. The cost function satisfies $c(0) = 0$, $c(z) > 0$ for any $z > 0$, and $c'(z) > 0$. Also assume $c(1)$ is small enough, as described below.

The most relevant part of Proposition A.1 to reconsider is the low f_t case, given the finding that elites were indifferent among all $\phi \in \left[1-\frac{\delta}{\beta(1-r)}, 1-\delta\right]$. Using the elites' objective function from Equation 2 while adding the direct cost, substituting in $y^*(\phi)$ from Equation 1, and simplifying yields $(1-\beta)V_E(\phi) = \delta - (1-\beta)c(\phi - f_t)$. This term strictly decreases in ϕ, and therefore

$$\underset{\phi \in [1-\frac{\delta}{\beta(1-r)}, 1-\delta]}{\arg\max} (1-\beta)V_E(\phi) = 1-\frac{\delta}{\beta(1-r)}.$$

Assuming that $c(1)$ is small enough ensures that elites strictly prefer $\phi = 1-\frac{\delta}{\beta(1-r)}$ over a lower value that triggers the opposition to rebel; and the reasons to not choose $\phi > 1-\delta$ are unchanged from the preceding proof. Thus

$$\underset{\phi \in [f_t, 1]}{\arg\max}\, (1-\beta)V_E(\phi) = 1-\frac{\delta}{\beta(1-r)}.$$

A.3 Elite Indifference in Casteñada Dower et al.

In the text, I note that a modified version of Propositions 1 and A.1 apply to the model in Castañeda Dower et al. (2018) if elites are sure to dictate the policy offer in the period of institutional reform. The mechanics of their model are largely similar to those in Powell (2021). The main difference is that whereas power sharing in Powell yields a basement level of spoils for the opposition, power sharing in Casteñada Dower et al. enables the majority to set policy in a fraction ρ periods. They also use different notation. The discount factor is expressed as δ in Casteñada Dower et al. as opposed to β in Powell; the permanent cost of revolt is κ in Casteñada Dower et al. as opposed to δ in Powell; the generic temporary transfer is x in Casteñada Dower et al. as opposed to y in Powell; and the equilibrium transfer in a high-threat period is $\tilde{x}$ in Casteñada Dower et al. as opposed to y^* in Powell.

In the original setup from Castañeda Dower et al. (2018), the institutional concession goes through immediately, which creates a ρ probability with which the majority chooses policy in that period. Consequently, from the perspective of a high-threat period in which elites offer an institutional reform of ρ high enough to satisfy the majority's no-revolt constraint, their lifetime average per-period consumption is

$$(1-\delta) \qquad \underbrace{(1-\rho)}_{\text{Majority might set policy in period of reform}} \qquad (1-\tilde{x}) + \delta(1-\rho)(1-q(1-\tilde{x})), \tag{A.2}$$

with

$$\tilde{x} = \frac{1-\kappa-\delta\rho}{1-\delta(1-(1-\rho)q)}. \tag{A.3}$$

This term strictly decreases in ρ, which yields the result from their Lemma 1 that elites strictly prefer the lowest level of institutional concessions needed to prevent revolt. However, if elites were sure to make the policy proposal in the period of the reform, we can eliminate the $1-\rho$ term in the period of the reform, shown in Equation A.2. After some algebraic rearranging, we can express the elites' lifetime average per-period consumption as

$$1-\delta\rho-(1-\delta(1-(1-\rho)q))\tilde{x}, \tag{A.4}$$

with $\tilde{x}$ unchanged from above. Elites start, by default, with the entire pie of 1 in each period. In a fraction ρ of future periods, elites lose all consumption because the majority sets the policy and consumes everything for itself. In the period of the institutional reform as well as a fraction $(1-\rho)q$ of future periods, elites set policy but the majority poses a high threat. Consequently, elites give away $\tilde{x}$. In the remaining fraction $(1-\rho)(1-q)$ of future periods, elites set policy and the majority does not pose a threat, and therefore elites consume 1. As can be easily seen, the multiplier on $\tilde{x}$ in Equation A.4 is identical to the denominator for the transfer expressed in Equation A.3. Thus, ρ cancels out for the same reason as discussed in the text for the modified version of Powell's model. There is no longer a friction to elites ensuring they are fully compensated, in the period of the reform, for improving the opposition's rent stream in the future (and worsening their own).

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