Power Concedes Nothing: Credible Commitment and Concessions in Autocracy

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Abstract

This paper provides a new theoretical framework for concessions as an outcome of collective action in autocracies. When autocrats make concessionary promises of future policy change in response to protest, their incentives to make good on those promises change if collective action does not continue during the period in which that policy change is implemented. If collective action is not sustained, autocrats should renege—deliberately failing to deliver on concessionary promises to minimize alteration to the status quo. This paper explores how the prospect of reneging affects the level of concessionary promises that autocrats make when faced with protest, and how those promises affect the coordination of continued protest. When regime adversaries and regime sympathizers evaluate the autocrat's promises of future behavior differently, ongoing protests become more difficult to organize, the autocrat is more likely to renege and he makes more modest promises at the outset. This effect intensifies when more regime sympathizers attend protests, and as regime sympathizers are more supportive of the autocrat. I employ an extensive form game with a global protest subgame to model the effect of reneging on concessions and protest coordination.

1 Introduction

On February 20, 2011, the Arab Spring arrived in Morocco. Over 300,000 people took to the streets in 50 cities across country to demand democratic, social and economic changes (Mekouar, 2013). To the surprise of protesters, activists and international observers, on March 9, King Mohammad VI announced that the constitution would be redrafted in response to the public's demands and submitted to a referendum. The news was met with celebration: it had only taken a few large protests to claim victory, with little bloodshed. In light of

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this success, turnout at protests decreased dramatically, even as the constitutional reform commission was stacked with King Mohammad's supporters and civil society representatives were shut out of the process. Three months later, the constitutional referendum was approved by a fraud-bolstered 98.5% margin (Benchemsi, 2012). Ultimately, legal analysts have found that not only did the 2011 constitution fail to liberalize Morocco's political system, it in fact provided its absolute monarchy with a far more solid legal grounding, with virtually no institutional constraints to King Mohammad's power (Ottaway and Muasher, 2011). In 2015 one activist observed, "What the state has given us with the right hand, it has taken back with the left" (Rachidi, 2015). Another noted, "We have gone back to the pre-February 20 situation" (Rachidi, 2015).

On its face, King Mohammad's voluntary constitutional reform seemed to be a classic case of concession announced in response to popular protest. Yet months later, when that reform was completed, it had in no way achieved what citizens and observers had expected. The regime had promised big, then reneged on its word once protest subsided, and gotten away with it. Further, many Moroccan protesters accepted King Mohammad's promises to implement liberalizing constitutional reform as credible and ceased protesting. This outcome is puzzling because these protesters were essentially demanding institutionalized constraints on the King's power, yet some of them were also apparently ready to take him at his word, before those constraints were in place. Why did the regime renege on its promises and why was that strategy effective?

Existing approaches to concessions in autocracy are poorly suited to answering this question. While a large body of scholarship has emerged to analyze repression and state violence, concessions remain under-theorized and largely defined relative to repression. From the protesters' perspective, concessions are often equated with some benefits that protesters hope to accrue to offset the cost of repression. simplistic benefit. These benefits are simplistically defined in terms such as "positive incentives" or "carrots" Svolik (2012, 10) or policy accommodation (Gamson, 1975; Lichbach, 1998). From an autocrat's perspective, it is commonly assumed that autocrats prefer "cheap" repression to "costly" concessions (Gandhi and Przeworski, 2006, for example) , and that concessions are only offered when contention is escalating and repression becomes untenable.

This approach is insufficient because concessions and repression differ in fundamental ways. Most significantly, while repression can be deployed rapidly and with little warning to break up protests, concessions cannot operate on such a short timeline. Concessions occur when the government engages in process of policy change that if ultimately completed, will yield some benefit[1] to participants in collective action. These processes of policy change might include formal legal reform, investigations, changes in informal policy enforcement, a referendum, and the distribution of material benefits, all of which take weeks, if not months to fully realize. The duration of this process means that it could be months before protesters may receive the benefits they have ostensibly won in the streets, and, similarly, that it may be months before the autocrat incurs the full cost of the concession. As a result, fully understanding the dynamics of concessions require us to consider what happens during those months of while policy change is implemented.

Theories of concession that focus on cooptation via spoils-sharing (Boix, 2003; Acemoglu and Robinson, 2005; De Mesquita and Smith, 2010) or via incorporation into authoritarian institutions (Smith, 2005; Blaydes, 2010; Frantz and Kendall-Taylor, 2014), most commonly legislatures (Lust-Okar, 2005; Gandhi and Przeworski, 2007)) do no better at explaining why an autocrat might offer a concession only to deliberately fail to implement it as promised. Generally, these are elite-focused theories that do little to explain how the masses benefit from, for example, the encapsulation of their opposition leaders in a legislature. More significantly, however, these theories do not recognize that the outcome of cooptation must occur after the delivery of the concession itself, and therefore to avoid functionalism should not be equated with concession. As an example, including a previously excluded party in the legislature can open the door to cooptation, but that cooptation may only be possible if the party is permitted to register, compete in elections, and seated in the legislature. Not only are those individual steps part of the concession, they do not necessarily produce the outcome of cooptation. Moreover, none if those steps are instantaneous.

Concessions should in fact be seen as a three-step process. First, a public statement is made by the government that establishes a commitment or promise to initiate a concession. This promise of future behavior should be issued openly and observed by state agents, op-

[1] This definition includes a simplifying assumption that concessions are inherently beneficial to protesters, though in reality concessions can lead to negative outcomes for the masses, such as the cooptation of opposition elite.

positionists, protesters, citizens, and any relevant third parties. For example, the autocrat may promise to investigate the use of fraud in a disputed election. The commitment phase typically occurs during or right around protests, but it should not be considered "the concession" as such; a commitment to engage in a process should not be conflated with the process itself nor its outcome. Next, the implementation phase begins, wherein some steps characteristic of a process of policy change, as characterized by the government's statements, are undertaken by the government. Here, the changes required to produce a concessionary outcome are undertaken, and may be done more or less faithfully. Returning to the election fraud example, the implementation phase might involve a far-reaching and impartial inquiry or a cursory review by a toothless committee. Importantly, the implementation phase may take days, weeks or months to complete. Last, some outcome of the concession is delivered, in that the process to which the government had committed itself ends and the outcome of the policy change process becomes significantly more difficult to change. The investigation into the election fraud announces its findings and its recommended consequences. This process is modeled here as an extensive-form game that occurs with the autocrat's choice over the level of concession he will publicly commit to, followed by a global subgame in which protest may or may not continue as the concession is being implemented, and concluding with the outcome stage where players receive their payoffs.

Because concessions entail the disruption the regime's status quo organization of power, and are definitionally offered in response to popular pressure, we can assume that autocrats would prefer to avoid delivering on the promises they make in the commitment stage. In other words, autocrats should prefer reneging on, rather than deliver, their commitments. Reneging is the deliberate failure to implement concessions as promised. In reneging, autocrat's goal is the minimization of the ultimate cost of the concession, and therefore also changes to the status quo, while retaining control. In extreme, the concessionary promise may be abandoned entirely, but reneging can also happen incrementally, with the partial delivery of concessions.

Concessions and reneging are not separate strategies. Rather, reneging is inherent to concessions. Because of this, we can only understand why concessions are used and the cost that autocrats' bear for this strategy once we understand factors that determine the autocrat's opportunity to renege. For this reason, rather than examining the repression-concession

tradeoff, the model characterized here focuses exclusively on the concessions process itself. This model begins not with the autocrat's decision to use concessions or another demobilization strategy, but instead with the autocrat's choice of the level of concessionary promise with the aim of isolating how the option of reneging affects promises of concession and the realization of those benefits.

If autocrats renege on promised concessions when protest declines, citizens should be able to prevent this simply by continuing to protest through the implementation of the concession. Yet this is not what we observe: protesters do indeed demobilize in response to promises and protest events often decline while concessions are being implemented, even though this can potentially lead to a sub-optimal outcome for protesters. How do concessions and the prospect of reneging affect protest coordination?

I assume that protests that are sufficient to elicit a promise of concession involve the coordination of two types of protesters. *Regime adversaries* are staunch oppositionists and political activists, sometimes referred to as radicals. Regime adversaries see the autocrat as corrupt and his rule as illegitimate. For protests to be larger enough to receive concessions, the participation of *regime sympathizers* is typically necessary. Regime sympathizers are moderates by comparison to adversaries (They may not be moderates by comparison to the average citizen, since they have already participated in protest). They protest to bring their grievances to the attention of the government in the hopes of redress, rather than to agitate for regime change.

These types should respond differently when the autocrat promises concessions. Regime adversaries do not trust the autocrat, and are likely to be aware that the autocrat is not bound by his promises. They should expect him to renege if given the opportunity. By contrast, regime sympathizers are more likely to take the autocrat's promises as credible. This may arise for two reasons. Regime sympathizers may lack information about the existence or strength of institutional constraints that resolve the credible commitment problem (e.g. they believe they can vote the autocrat out in an election if he fails to deliver). Second, regime sympathizers may simply trust the autocrat. In many regimes—for instance in paternalistic regimes, regimes where the autocrat has cultivated a cult of personality, or monarchies—it is not uncommon for citizens to believe that the autocrat has the best interest of the nation

at heart. This trust implies that the autocrat would not promise concessions only to go back on his word. It is also possible that some regime sympathizers value the concession as the public recognition of their grievance, separately from the concession's outcome. Indeed, it is not uncommon for regimes facing large protests to initially respond with a statement acknowledging the grievance before making any promises of concession, likely in attempt to demobilize protesters who value these statements as much as deeds.

Taken together, these effects mean that regime sympathizers may neither know nor care whether the concession was fully delivered as promised. For this reason, their incentives are such that they receive some diminished value of the promised concession scaled by γ, whether or not the autocrat reneges. γ, the legitimacy scalar, captures the level of support for the autocrat among regime sympathizers. The more supportive regime sympathizers are of the autocrat, the more they value his word relative to his deeds.

To capture the autocrat's decision over the level of benefits to promise as well as the protest coordination of two large groups of regime adversaries and regime sympathizers, I use an extensive form game with a global subgame. The global subgame draws on a class of games known as regime change games. The global subgame requires that adversaries and sympathizers coordinate protest when the autocrat's promise of concession is common knowledge but there remains uncertainty about the overall strength of the regime. Protesters receive private but correlated signals about the autocrat's likelihood of reneging on his promises. They then decide to continue to protest given their expectation of others' protest decision to protest and based on their private signal. The turnout at that protest then determines the state of the game and all players' payoffs. Here, the states are *Policy Change,*[2] where the autocrat is compelled to deliver the full concession as promised, and *Status Quo,* wherein the autocrat successfully reneges.

The following section briefly reviews relevant literature. I then characterize the model and discuss its implications. The final section concludes.

[2]Because the present model is not specifically interested with regime change in the sense of autocratic exit, to avoid confusion I use "policy change" here as the alternative to the status quo, rather than the more conventional "regime change".

2 Literature Review

Understanding the interaction between repressive regimes and citizens engaged in contentious political behavior, including protest, has been the subject of considerable research. Given that both autocratic regimes and popular political challengers act strategically, while drawing on limited information, the interplay between them is well-suited to formalization. Much of this work has focused on the repression-dissent nexus, which proposes to understand how repression affects demobilization or protester violence (Davenport, 2007). A subset of these models (Lichbach, 1987; Rasler, 1996; Moore, 1998, 2000; Pierskalla, 2010) consider concessions as a strategic alternative to repression and how the interaction of these strategies can deter protest.

These models typically understand concessions as accommodation (drawing on Gamson (1975)) and either explicitly or implicitly define accommodation as credible and non-reversible. For example, Pierskalla (2010) defines accommodation as "actually offering and implementing a credible policy compromise..... An important assumption is that [accommodation] cannot be reversed easily in the future." Perfect credibility in an autocracy is a strong assumption that can have determinative effects on the payoffs of both protesters and governments in these games. For instance, one implication of credible concessions is bandwagoning, where concessions beget protest because citizens see that the government will give them what they want (Rasler, 1996). If this is true, it is indeed unclear why a government would ever give concessions or why concessions should be considered a demobilization strategy at all. Moreover, these models typically find that mixing repression and concession is irrational and intensifies dissent (Lichbach, 1987; Rasler, 1996); yet if that is the case, models should also clarify why these strategies are so often observed together. While the model presented here does not consider the repression-concession tradeoff, by focusing on concessions and reneging, it aims to clarify previously unstudied and critical micro-foundations that underly that interplay.

On the other hand, models of institutional development and power-sharing in autocracies have long recognized that credible commitment problems arise when an autocrat requires elite support to retain power. Once the elite have ceded the autocrat the power necessary to secure his position, they can no longer prevent him from predating upon them or eliminating

them (de Mesquita et al., 2003; Myerson, 2008; Magaloni, 2008; Svolik, 2012). Institutions are seen as the solution to this problem, in that they resolve information deficits by facilitating monitoring (Gandhi and Przeworski, 2006, 2007; Boix and Svolik, 2013), and by establishing venues for dispute resolution (North and Weingast, 1989).

The credible commitment problem that arises in response to popular protest differs significantly from that with elites. First, elites have inherent structural power—the very thing that makes them elites also means that the autocrat requires their support. In contrast, an autocrat does not require popular support from the masses and only with extraordinary effort can they remove him from office. Second, where elites can mobilize at much lower cost against the autocrat, for the masses, mobilization is costly, fleeing and sporadic. Successful collective action today is no guarantee of successful collective action tomorrow, as Acemoglu and Robinson (2005) have noted. In their model of democratization, the masses recognize their limited capacity to organize over the long term and that, absent protest, elites have no incentive to follow through on their promises. The masses therefore demand democratic institutions to ensure that redistribution is executed in the future. While Acemoglu and Robinson (2005) recognize part of the credible commitment problem, they assume that the establishment of institutions is an instantaneous process, rather than a slow, iterative one with opportunities for reneging on their promises. Conceding to establish democratic institutions is also a promise that should not be credible without continued pressure from the masses.

To understand how protesters with heterogenous preferences coordinate to compel policy change, I adopt a global game approach. Developed by Carlsson and Van Damme (1993)), this modeling technology captures that coordination takes place in an environment of multiple forms of strategic uncertainty, both over the actions of other players as well as higher order beliefs over the regime's fundamentals (Morris and Shin, 2001). The model presented here draws on a class of global games known as regime change games (Angeletos, Hellwig and Pavan, 2007), whuch elucidate how the coordination of a large number of agents under incomplete information can force a regime to alter the status quo. These games have been used to examine how revolutionary vanguards (De Mesquita, 2010), and censorship (Edmond, 2013) affect the coordination of mass movements. Tyson and Smith (2018) use a similar

approach to that adopted here to model between- and across-group political coordination when the regime has recourse to repression, cooptation and information control.

3 Model

The game has three types of players: a group of individual *regime sympathizers*, a group of individual *regime adversaries*, and the *autocrat*. Regime sympathizers and regime adversaries together comprise a unit mass of individual citizens who have already engaged in protest. Regime sympathizers are characterized by a belief that the regime acts in good faith toward its people, and that its rule is more legitimate than not. By contrast, regime adversaries are radical. They staunchly disagree with the regime and believe that it acts to serve its own interests, rather than those of the people.

The game proceeds as follows. First, the autocrat sets some level of benefit $b \in [0, 1]$ that will be awarded to regime sympathizers who abstain from protest. The following stage is a global subgame. Individual regime sympathizers and adversaries choose to participate in protest (r_S^i, $r_A^i = 1$) or to abstain from protest (r_S^i, $r_A^i = 0$). The level of protest participation leads to either a state of Policy Change (PC) or Status Quo (SQ), wherein the former indicates conditions where the autocrat is forced to deliver on his promised concessions and the latter indicating conditions where he successfully reneges and the status quo ante is preserved. The state following the global subgame determines payoffs for all players.

The extensive form game is solved by backward induction using the perfect Bayesian Nash equilibrium solution concept. I begin by characterizing two benchmark models for the global protest subgame, the first for a protest of regime adversaries and the second for a protest of regime sympathizers, before moving to a model where the types must coordinate. I then turn to the autocrat's decision over the choice of the level of concessionary benefit b to promise, given the expected protest size.

3.1 Global Protest Subgame

For both regime adversaries and regime sympathizers, individual payoffs are determined by the individual choice to protest or abstain and by the global state as an outcome of the

aggregate actions of all other players. Payoffs (rows) and outcomes (columns) for members of group $T \in \{Adversaries, Sympathizers\}$ are:

	Policy Change (PC)	Status Quo (SQ)
$r_T^i = 1$	$u_T(1; PC)$	$u_T(1; SQ)$
$r_T^i = 0$	$u_T(0; PC)$	$u_T(0; SQ)$

Payoffs are determined by $c_i \in [0, 1]$, the individual cost of protesting; $b \in [0, 1]$, the level of benefit promised by the autocrat; and $\gamma \in [0, 1]$, the legitimacy scalar, which captures the level of support for the autocrat among regime sympathizers.

All individuals incur a cost from participating in protest c_i regardless of their type. Regime adversaries value the delivery of real policy change more than the specific character of the policy, and receive a value of 1 if policy change occurs. In other words, regime adversaries are agnostic about the level of benefit promised by the autocrat, and only value his actions. Abstaining from protest yields a payoff of 0, regardless of whether policy change occurs as promised or not. Payoffs for adversaries are

	PC	SQ
$r_A^i = 1$	$1 - c_i$	$-c_i$
$r_A^i = 0$	0	0

By comparison, regime sympathizers value the specific concession that the autocrat promises. If policy change occurs, regime sympathizers who protest receive b, the full value of the concession promised by the autocrat. But regime sympathizers who abstain from protest also receive some benefit of b, whether or not policy change is actually achieved; in other words, regime sympathizers value the promise of concessions regardless of the ultimate outcome. Non-protesting regime sympathizers receive b scaled by $\gamma \in [0, 1]$, where γ captures the level of support or popular legitimacy of the autocrat among regime sympathizers. γ may be very high in a protest of members of the autocrat's political base, whereas it might be lower in a protest over political liberalization. γb can be thought of as the regime's promises scaled by moderates' expectation that those benefits will be realized without additional protest. Note that as γ approaches 0, regime sympathizers' payoffs are convergent with regime adversaries, who believe the regime is incapable of reform unless compelled by popular action and

so derive no value from incomplete or aborted reform. Finally, when regime sympathizers protest and the regime still reneges, the sympathizer no longer receives γb and incurs the cost of protesting. This implies a scenario where a moderate becomes radicalized by joining a protest. Regime sympathizers' payoffs are

	PC	SQ
$r_S^i = 1$	$b - c_i$	$-c_i$
$r_S^i = 0$	γb	γb

Regime adversaries most prefer participating protest when policy change is the outcome to abstaining regardless of the outcome, yet they prefer to abstain when the protest does not change the status quo. Their preferences are ordered as follows:

$$u_A\left(1; PC\right) \geq u_A\left(0; PC\right), u_A\left(0; SQ\right) \geq u_A\left(1; SQ\right)$$

A coordination dilemma arises when adversaries and sympathizers must coordinate because the preference ordering for sympathizers differs and indeed is not fixed. Sympathizers least prefer protesting where the status quo survives, but when the outcome state is policy change, their preference between protesting and abstaining depends on the values of c_i, γ, and crucially, the autocrat's choice of b.

The strategic environment of the subgame is characterized by the underlying state of the regime, $\theta \in \mathbb{R}$, drawn according to an improper uniform prior. θ, conventionally known as the regime fundamental, captures factors that make the regime more or less likely to renege on its promises and maintain the status quo despite protests. These factors might include economic conditions, state capacity, or veto players who may thwart reform. The improper uniform prior ensures that the regime fundamental is not common knowledge among citizens. This captures the reality although citizens may have some information about the regime's resilience to protest or willingness to reform, the availability of that information and beliefs based upon its interpretation are idiosyncratic across individuals. In this manner, θ induces strategic uncertainty across protesters.

Rather than observing θ directly, individuals $i \in [0, 1]$ receive a private signal $z_i = \theta + \epsilon_i$. ϵ_i is normally distributed with mean 0 and variance $\frac{1}{\beta}$, where β is also referred to as the precision. Error terms are independent of θ, independent across individuals and independent

of the individual's type as adversary or sympathizer An individual receiving the signal z_i has a posterior expectation of θ which is

$$\mathbb{E}[\theta|z_i] = z_i$$

$$Var[\theta|z_i] = \frac{1}{\beta}$$

Denote the share of citizens who protest ($r_T^i = 1$) by $\mathcal{R}$. $\mathcal{R}_{r_A^i=1} + \mathcal{R}_{r_S^i=1}$ and $\mathcal{R} = \int_0^1 r_1 di$. State θ induces a threshold such that the outcome of the protest is status quo (SQ) if the turnout of the protest is below that threshold ($\mathcal{R} \leq \theta$).

For both regime adversaries and regime sympathizers, a strategy is a mapping of the posterior expectation of θ to a binary pair of individual actions. In other words, each individual chooses protest only when z_i, their posterior expectation of the regime fundamental θ, is less than some specific value of $\bar{z}$, a cutoff strategy based on the expectation of others' behavior in response to their individual signals. Given monotone strategies, there is a cutoff strategy $\bar{z}$ for every individual i

$$r_i = 1 \quad \text{if } z_i \leq \bar{z}$$
$$r_i = 0 \quad \text{if } z_i > \bar{z}$$

3.2 Regime Adversaries

Consider a unit mass of individuals who are regime adversaries who must coordinate to protest. Let P_i denote the individual probability of protests successfully compelling policy change to occur, $Pr(PC)$. The participation decision for an individual regime adversary i is

$$P_i(1 - c_i) + (1 - P_i)(-c_i) \geq 0$$

$$= P_i \geq c_i$$

There is some $\hat{\theta}$ such that PC occurs if and only if $\theta \leq \hat{\theta}$. The probability that an individual's initial signal z_i is below the cutoff $\bar{z}_A$ determines whether the individual will protest. $Pr(z_i \leq \bar{z}_A|\theta)$ captures the share of individuals playing $r_A^i = 1$, or the size of the

protest. Note that the size of the protest is conditioned on the regime fundamental θ and the shared cutoff strategy $\bar{z}_A$. This term is equivalent to $Pr(\theta + \epsilon_i \leq \bar{z}_A)$. Given Φ, the standard normal CDF,[3] the expected protest size given θ is

$$\hat{\theta} = \Phi(\sqrt{\beta}(\bar{z}_A - \hat{\theta})) \tag{1}$$

Equation 1 establishes the condition for the critical state $\hat{\theta}$ that determines the size for the protest, $\mathcal{R}_{r_A^i=1}$.

Lemma 1 *Where protesters are exclusively individuals of type $T \in \{Adversaries, Sympathizers\}$, for any cutoff strategy for individuals of type T, $\bar{z}_T \in \mathbb{R}$, there is a unique critical state $\hat{\theta}(\bar{z}_T) \in [0, 1]$, such that the status quo persists unchanged if and only if $\theta \leq \hat{\theta}(\bar{z}_T)$.*

I now establish the individual protester's best response to a protest with a turnout set by equation 1. In other words, I identify what action an individual regime adversary will take when all others play the optimal cutoff strategy $\bar{z}_A$. The critical regime adversary is indifferent to protesting when $Pr(\theta \leq \hat{\theta} \,|\, \bar{z}_A) = c$. This condition is equal to

$$\Phi(\sqrt{\beta}(\hat{\theta} - \bar{z}_A)) = c \tag{2}$$

The best response cutoff as a function of the critical state is therefore

$$\bar{z}_A = \hat{\theta} - \frac{1}{\sqrt{\beta}}\Phi^{-1}(c) \tag{3}$$

In equilibrium, the value of $\bar{z}_A$ determined by equation 3 also produces the critical state $\hat{\theta}$ determined in equation 1. As implied by Lemma 1, a complete equilibrium for the global subgame is a pair (z_A^*, θ_A^*) that solves both equations 1 and 3.

$$\theta_A^* = c \tag{4}$$

$$z_A^* = c - \Phi(\sqrt{\beta}(z_A^* - \theta_A^*) \tag{5}$$

[3]Throughout, $\Phi(x) = \int_{-\inf}^{x} \phi(\theta) d\theta$ is the standard normal distribution

3.3 Regime Sympathizers

When protesters are exclusively regime sympathizers, the game proceeds in a similar fashion. The participation decision for an individual regime sympathizer i, where $P_i = Pr(PC)$ is

$$P_i(b - c_i) + (1 - P_i)(-c_i) \geq \gamma b$$

$$P_i \geq \gamma + \frac{c_i}{b}$$

As the regime adversaries game, the critical regime-change state $\hat{\theta}$ occurs if and only if $\theta \leq \hat{\theta}$. The critical state that establishes the size of protest $\mathcal{R}_{r_S^i=1}$ is similar to that in equation 1:

$$\hat{\theta} = \Phi(\sqrt{\beta}(\bar{\mathrm{z}}_S - \hat{\theta})) \tag{6}$$

As previously, Lemma 1 characterizes the equilibrium for the regime sympathizers as a function of the regime fundamental and the cutoff strategy of other regime sympathizers. Now, however, the critical regime sympathizer is indifferent to protesting when $Pr(\theta \leq \hat{\theta} \,|\, \bar{\mathrm{z}}_S) = \gamma + \frac{c}{b}$. This produces the condition

$$\Phi(\sqrt{\beta}(\hat{\theta} - \bar{\mathrm{z}}_S) = \gamma + \frac{c}{b} \tag{7}$$

The best response cutoff as a function of the critical state is

$$\bar{\mathrm{z}}_S = \hat{\theta} - \frac{1}{\sqrt{\beta}}\Phi^{-1}\left(\gamma + \frac{c}{b}\right) \tag{8}$$

Again as highlighted in Lemma 1, an equilibrium is defined as a pair (z_S^*, θ^*) that solves equations 6 and 8.

$$\theta_S^* = \gamma + \frac{c}{b} \tag{9}$$

$$z_S^* = \left(\gamma + \frac{c}{b}\right) - \Phi(\sqrt{\beta}(z_S^* - \theta_S^*) \tag{10}$$

3.4 Coordination

I now move from these benchmarks to the case where regime sympathizers and adversaries must coordinate to compel the autocrat to alter the status quo with a policy concession. As in the benchmarks, individuals lack common knowledge of underlying characteristics of the regime that make policy change more or less likely. They continue to rely on expectations of θ, and coordinate on protest based on expectations of others' protest behavior. Each individual's type (adversary or sympathizer) is uncorrelated with her signal. The coordination dilemma arises from the fact that regime adversaries and sympathizers experience differential benefits from abstaining from protest.

Let $M \in [0, 1]$ denote the share of citizens who are regime sympathizers and $1 - M$, the share of regime adversaries.

Lemma 2 *When regime adversaries and sympathizers coordinate, for any pair of cutoff strategies* $(\bar{z}_A, \bar{z}_S) \in \mathbb{R}^2$*, such that* $\bar{z}_A$ *is the strategy for regime adversaries and* $\bar{z}_S$ *for regime sympathizers, there is a unique critical state* $\hat{\theta}(\bar{z}_A, \bar{z}_S) \in [0, 1]$ *such that the regime maintains the status quo unchanged if and only if* $\theta \leq \hat{\theta}(\bar{z}_A, \bar{z}_S)$*.*

Lemma 2 emphasizes the multiple factors that must now come together for a complete equilibrium. A monotone Bayesian Nash equilibrium is characterized by the triple $(\theta^*(z_A^*, z_S^*), z_A^*, z_S^*)$. This equilibrium consists of a cutoff strategy for regime adversaries z_A^* and for regime sympathizers z_S^*, as well as a critical threshold induced by those cutoff strategies, $\theta^*(z_A^*, z_S^*)$. This threshold captures a tipping point, such that the status quo can only be preserved if $\theta > \theta^*(z_A^*, z_S^*)$.

Proposition 1 *For the global protest subgame, a Monotone Bayesian Nash Equilibrium is characterized by the triple* $(\theta^*(z_A^*, z_S^*), z_A^*, z_S^*)$*, where the values simultaneously solve the set of equations:*

$$Pr(\theta \leq \theta^* | z_A^*) = c \qquad \textit{Adversary Indifference}$$

$$Pr(\theta \leq \theta^* | z_S^*) = \gamma + \tfrac{c}{b} \qquad \textit{Sympathizer Indifference}$$

$$\mathcal{R}(\theta^*, z_A^*, z_S^*) = M[Pr(\theta \leq \theta^* | z_S^*)] + (1 - M)[Pr(\theta \leq \theta^* | z_A^*)] \qquad \textit{Critical State}$$

Inserting the normal CDF, the critical state condition where regime sympathizers and adversaries coordinate is

$$\hat{\theta} = M \cdot \Phi\Big(\sqrt{\beta}(\bar{\mathrm{z}}_S - \hat{\theta})\Big) + [1 - M] \cdot \Phi\Big(\sqrt{\beta}(\bar{\mathrm{z}}_A - \hat{\theta})\Big). \tag{11}$$

Inserting values from equations 2 and 7

$$\hat{\theta} = c + M\left(\gamma + \frac{c}{b} - c\right) \tag{12}$$

When both types of citizens coordinate in the global subgame, the Monotone Bayesian Nash equilibrium is

$$z_A^* = c$$

$$z_S^* = \gamma + \frac{c}{b}$$

$$\theta^* = c + M\left(\gamma + \frac{c}{b} - c\right)$$

3.5 The Autocrat's Promises

In the first stage of the game, the autocrat chooses a value for b, the promised concession. His preferred outcome is the status quo, which he seeks to maintain at lowest cost. His payoff for policy change is normalized to 0. When the status quo is maintained, he pays cost b, which is squared to capture the fact that more costly concessions are more difficult to deliver, and scaled by the share of regime sympathizers. The autocrat's payoffs are

$$\begin{array}{ll} 0 & \text{if } \theta > \theta^* \text{ and PC} \\ -\frac{(Mb)^2}{2} & \text{if } \theta \leq \theta^* \text{ and SQ} \end{array}$$

The autocrat's payoff is determined by

$$Pr(\theta \leq \theta^*)\left[-\frac{(Mb)^2}{2}\right] \tag{13}$$

The autocrat does not receive a private signal. His objective function is

$$\max_{b} \left[-\theta^* - \frac{(Mb)^2}{2} \right] \tag{14}$$

His first order condition is

$$0 = -\frac{d\theta^*}{db} - M^2 b \tag{15}$$

The optimal b is

$$b^* = \frac{-\frac{d\theta^*}{db^*}}{M^2} \tag{16}$$

Proposition 2 *A perfect Bayesian Nash equilibrium is characterized by the quintuple* $(\theta^*(z_A^*, z_S^*, b^*), z_A^*, z_S^*, b^*)$, *where the values simultaneously solve the set of equations:*

$Pr(\theta \leq \theta^* \mid z_A^*) = c$	*Adversary Indifference*
$Pr(\theta \leq \theta^* \mid z_S^*) = \gamma + \frac{c}{b^*}$	*Sympathizer Indifference*
$\mathcal{R}(\theta^*, z_A^*, z_S^*) = M[Pr(\theta \leq \theta^* \mid z_S^*)] + (1-M)[Pr(\theta \leq \theta^* \mid z_A^*)]$	*Critical State*
$b^* = \frac{-\frac{d\theta^*}{db^*}}{M^2}$ *and* $f''(b^*) < 0$	Autocrat Best Response

Because $\frac{d\theta^*}{db^*} = -\frac{Mc}{b^{*2}}$, the solution for b^* can be solved explicitly.

$$b^* = \left(\frac{c}{M}\right)^{1/3} \tag{17}$$

For this b^* to be a unique solution, the second order condition must be negative. The autocrat's second order condition is

$$0 = -\frac{d^2\theta^*}{db^{*2}} - M^2 \tag{18}$$

Substituting $\frac{d^2\theta^*}{db^2} = \frac{2Mc}{b^{*3}}$, the second order condition is

$$-\frac{2c}{b^{*3}} - M^2 < 0, \tag{19}$$

therefore this solution for b^* is unique.

4 Interpretation

Turning to comparative statics, several observations can be made. First, how does the value of the autocrat's initial promise of concession affect protest turnout and in turn, his likelihood of successfully preserving the status quo?

$$\frac{d\theta^*}{db^*} = \frac{-\frac{d^2\theta^*}{db^{*2}}}{M^2} < 0 \tag{20}$$

The negative sign of this partial derivative indicates that as the promised concession increases in value (b increases), θ^*, the cutoff after which the autocrat must deliver the concession as promised, declines, meaning that as he makes bigger promises, he is more likely to be held to them. The autocrat therefore has an incentive to make moderate promises, to increase his chances of reneging. This result suggests that King Mohammad's decision to announce a liberalizing constitutional reform may have been a risky gamble indeed, as protest could easily have continued and compelled him to make liberalizing changes. This result also suggests that we should see autocrats give concessions more often to protests with more moderate, less radical demands, as opposed to democratizing movements, because those moderate concessions will not only demobilize protest, the autocrat will not need to actually deliver them.

We can also assess how the size of the promised benefit b varies as regime sympathizers comprise an increasingly large share of the protest (i.e. as M increases).

$$\frac{db^*}{dM} = -\left(\frac{c}{M}\right)^{1/3} < 0 \tag{21}$$

As more regime sympathizers protest, relative to regime adversaries, (M increases), the autocrat makes more moderate concessionary promises (b decreases). Conversely, protests that have a larger share of adversaries relative to sympathizers are more likely to receive bigger promises of reform.

Not only do regime sympathizers' protests receive smaller promised benefits, the autocrat is also more likely to renege on those promises. M also has a direct effect on θ^*, the cutoff beyond which the regime must deliver some form of policy change. This effect is captured by the comparative static

$$\frac{d\theta^*}{dM} = \gamma + \frac{c}{b^*} - c \geq 0.$$

The positive sign of this derivative indicates that a one-unit increase in the share of regime sympathizers in a protest (increase in M) increases θ^*. In other words, the more regime sympathizers protest, the higher the threshold that they must cross to force the autocrat to actually change policy as promised. This in turn makes maintaining the status quo more likely. One way to interpret this is that as compared to a protest of regime adversaries, the total size of a protest of regime supporters must be larger than a protest of regime adversaries to prevent the autocrat from reneging on concessions.

The level of the autocrat's support among regime sympathizers also has a direct effect on the likelihood that the autocrat will renege. γ captures the autocrat's legitimacy among his base. This legitimacy might be derived from economic performance, a cult of personality, monarchy, the illusion of electoral competitiveness or some other source, but most autocrats are either endowed with or actively cultivate some form of legitimacy.

$$\frac{d\theta^*}{d\gamma} = M > 0$$

The positive sign of this derivative indicates that with all else held constant, a one-unit increase in γ increases θ. This implies that an autocrat whose sympathizers are more supportive is in fact more likely to succeed in reneging on his promised concessions and preserve the status quo. Paradoxically, autocrats who enjoy a higher level of popular legitimacy—whether that support arises from a cult of personality, performance legitimacy, or some other source—are in fact less likely to make good on their promises and implement policy change, despite what their reputation among their supporters might suggest. Rather than rewarding his supporters, the autocrat here takes advantage of their trust, which dissuades them from committing to on-going protest, to renege on his promises. By contrast, protests with a larger share of regime adversaries are more likely to force autocrats to deliver policy change. By the same token, as legitimacy erodes and regime sympathizers become more skeptical and less supportive of the autocrat, they are more likely to see the realized benefits of protest. In the extreme, when the autocrat has no legitimacy, regime sympathizers are

more likely to protest

The cost of protesting, too, has a direct effect on the likelihood that the autocrat will fulfill his promises and alter the status quo.

$$\frac{d\theta^*}{dc} = 1 + \frac{M}{b^*} - M > 0$$

Again, the positive sign indicates that a one-unit increase in c, the cost of protesting, leads to a one-unit increase in θ^*. This result is consistent with the intuition that as protest is more costly, it is more difficult to sustain, and in turn, the less likely it is to compel the autocrat to alter the status quo.

5 Conclusion

Seeing autocratic concessions as a process that take place over time makes it clear that they are subject to a credible commitment problem. If the level of protest declines as concessions are being implemented, autocrats should be expected to take advantage of the opportunity to renege and limit the level of disruption to their preferred status quo. This paper has modeled this aspect of the concessions process and the effect it has on the strategic coordination of continued protest using an extensive form game with a global subgame. It finds that autocrats are more likely to make false promises to more moderate protesters. This is particularly true when those moderates find the autocrat's rule to be more legitimate. Autocrats do not, however, have free reign to renege. Protesters who are committed adversaries of the regime are aware of their lack of commitment, and if they protest in sufficient numbers, can make reneging unlikely—although they are also unlikely to receive big promises of concessions in the first place.

This is only a first approach to modeling how the strategy of offering concessions with the intent to renege affects autocratic regimes and protest demobilization. Nonetheless attempts to understanding the outcomes of contentious politics in repressive regimes should take these temporal issues seriously. The cost and benefits associated with concessions are not felt immediately and indeed, without sustained protest, may never be felt at all.

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