The Dictator's Powersharing Dilemma: Countering Dual Outsider Threats

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Abstract

Excluding elites from power insulates dictators against coups d'etat but may trigger outsider rebellions. How do dictators resolve their powersharing dilemma? A "conventional threat logic" posits that strong outsider threats compel dictators to create inclusive regimes, despite raising coup risk. This article rethinks this calculus by evaluating two types of outsider threats. In the baseline formal model, a dictator decides whether to share power and spoils with another elite actor. The conventional logic may fail because the same capabilities that enable an excluded elite to threaten the government also facilitate insider overthrow. Introducing an exogenous non-elite actor recovers the conventional wisdom only if the elite's affinity with non-elites is intermediate-valued. By contrast, if affinity is high, then a strong non-elite threat undermines prospects for powersharing; and low affinity implies that the non-elite's threat capabilities exhibit an inverse U-shaped relationship with coup attempts and may enhance regime durability.

Keywords: authoritarian politics, civil war, coup d'etat, dictatorship, game theory, powersharing
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1 INTRODUCTION

Dictatorships exhibit considerable heterogeneity, and the dilemma that rulers face with regard to sharing power and spoils with elites creates an important source of variation. On the one hand, coups d'etat pose an imminent survival threat for dictators. The most common manner in which authoritarian regimes have collapsed since 1945 is through a successful coup (35% of authoritarian collapses; Geddes, Wright and Frantz 2018, 179). To counteract the coup threat, a dictator can narrow its ruling coalition by excluding threatening elites from power.[1] For example, Uganda inherited a ruling coalition at independence with power shared broadly among different ethnic groups but, in 1966, the northern prime minister purged southern officers and cabinet ministers from power. Among all authoritarian regimes between 1945 and 2010, 43% of years featured a ruling coalition centered around a personalist ruler, and in 34% of years, at least one-quarter of the country's population belonged to ethnic groups that, although politically relevant, lacked any cabinet or related positions in the central government.[2] Promoting loyalists to top regime positions while excluding others provides one possibility among dictators' broader coup-proofing strategies (Quinlivan 1999).

On the other hand, excluding key elites from power and spoils at the center makes a regime vulnerable to outsider rebellions. Empirically, ethnic and other social groups excluded from power frequently participate in revolutions and civil wars (Goodwin and Skocpol 1989; Cederman, Gleditsch and Buhaug 2013; Francois, Rainer and Trebbi 2015; Roessler 2016), as occurred in Uganda beginning in the 1970s. Similarly, in Cuba, Fulgencio Batista tightly concentrated power around himself and a small cadre of military officers prior to the Cuban Revolution, excluding other elites (large landowners and businesspeople) from positions of power. Using the same sample as above, personalist regimes experienced 54% more years with armed battle deaths than other types of authoritarian regimes (22% of years versus 14%), and authoritarian regimes that excluded ethnic groups totaling at least one-quarter of the population experienced twice as many conflict years than broader-based authoritarian regimes (30% of years versus 15%).

How do dictators resolve their powersharing dilemma? Many scholars propose what I call the *conventional threat logic*. If the dictator can craft a personalist regime without generating an ominous overthrow threat

[1] Roessler (2016) analyzes ethnic groups in Africa since 1945 and shows that groups with cabinet positions and related positions of power in the central government are 2.2 times more likely than excluded groups to execute a successful coup (author's calculation using Roessler's replication data).

[2] Appendix Section B.1 details the data for this and the next paragraph.

from outsiders, then it will choose to exclude key elites. In this case, coups by insiders—which can occur undetected and succeed in only a few hours—pose the more imminent threat. However, in other circumstances, a narrowly based regime would breed a strong threat from outsiders—either directly from the elites that it chose to exclude from power or because weakness at the center creates an opening for non-elite actors to take power—which makes the dictator more willing to incorporate other elites into the regime, even though sharing power raises coup risk. Consequently, the conventional threat logic implies that hypothetically increasing the strength of an outsider threat should (1) engender powersharing, (2) raise the likelihood of a coup attempt, and (3) increase the overall likelihood of regime overthrow.

Existing research on diverse substantive questions presents variants of this conventional threat logic. Roessler and Ohls (2018) rethink the ethnic geography of civil wars by arguing that rulers share power only with rival ethnic groups that pose strong mobilizational capacities (operationalized as large group size located close to the capital) because those groups pose an ominous rebellion threat. A similar logic undergirds Francois, Rainer and Trebbi's (2015) argument that rulers in weakly institutionalized polities share cabinet positions in proportion to ethnic group size. In these theories, if the dictator creates an exclusive regime, then *elites* with whom the dictator could have shared power pose the outsider threat. Roessler (2016) calls this the coup/civil war tradeoff because the dictator risks that excluded elites will fight a civil war but sharing power would raise coup risk.

The "guardianship dilemma" logic—a military strong enough to defend the government is also strong enough to overthrow it—entails a similar tradeoff, focusing specifically on the military as the elite actor. Consistent with the conventional threat logic, stronger outsider threats should compel rulers to create larger and more socially inclusive militaries, as opposed to narrowly based tinpot militaries that perform worse on the battlefield (Quinlivan 1999; Roessler 2016). Consequently, broadening the military in response to ominous outsider threats raises coup risk (Acemoglu, Vindigni and Ticchi 2010; Besley and Robinson 2010; Svolik 2013).[3] Greitens (2016) also analyzes coercive units. She argues that dictators build a socially inclusive security apparatus if they perceive popular uprisings as the dominant threat upon gaining power, whereas they construct exclusive units if they more greatly fear a coup attempt. In formal variants of these

[3]As discussed later, some either reject this logic (McMahon and Slantchev 2015) or find a non-monotonic relationship. Recent work by Meng (2019) and Christensen and Gibilisco (2019) analyze other aspects of the powersharing tradeoff in different formal and substantive settings.

theories, an *exogenous non-elite actor* (i.e., the ruler lacks a strategic option to share power) poses the outsider threat.[4]

This article studies the strategic foundations of authoritarian powersharing by formally analyzing a game in which a dictator faces dual outsider threats from a strategic elite actor and an exogenous non-elite actor. I explicate distinct mechanisms that affect the dictator's powersharing decision and show that existing arguments are special cases of a more general model: stronger outsider threats do not necessarily induce the dictator to share power; even when they do, coup attempts do not necessarily become more likely; and stronger outsiders may decrease the overall probability of regime overthrow. The formal analysis lays bare the assumptions needed for existing intuitions to hold and explains both theoretically and with reference to empirical cases the conditions in which outsider threats exert previously unrealized effects on powersharing and its consequences.

In the game, the dictator moves first and decides whether to share power and spoils at the center with the elite (include) or not (exclude). Next, bargaining occurs: the dictator proposes a division of the remaining spoils to which the elite can respond by accepting or fighting. I denote the fighting technology as a "coup" if the elite is included in power and as a "rebellion" if excluded. Finally, Nature determines whether an exogenous non-elite actor overthrows the regime. The following assumptions generate the dictator's powersharing tradeoff. On the one hand, sharing power facilitates more guaranteed spoils for the elite—which increases the likelihood that the dictator can negotiate a peaceful bargain. And, if the elite does not attempt a coup, then sharing power also strengthens the center, which decreases the probability of non-elite takeover. On the other hand, enhanced resources and access to power also shift the distribution of power toward the elite by enabling an insider coup attempt, which I assume is more likely to succeed than an outsider rebellion.[5]

I first isolate the dictator's interaction with the elite actor by analyzing a special case with zero probability of

[4]Unlike with Roessler's (2016) coup/civil war tradeoff, the ruler does not face a permanent threat from the military in guardianship dilemma models. Instead, if the ruler builds a small military, these scholars do not assume that the ruler faces a civil war threat from soldiers that it chose not to hire for the military.

[5]The key departures in this setup from existing conflict bargaining models (Powell 2004) are to assume that (1) the player making the offers can choose between two institutional settings in which to conduct bargaining, as opposed to assuming that the offerer faces a single threat source, and (2) an exogenous actor affects the bargaining interaction between the strategic players.

non-elite takeover. Exclusion enables the dictator to consume more rents but possibly raises the equilibrium probability of conflict, creating a tradeoff between rents and conflict. One element of the conventional logic is unambiguously true: by increasing the probability of conflict under exclusion, a stronger rebellion threat by the elite increases the dictator's tolerance for facing coup attempts under inclusion. However, the same underlying threat capabilities that improve the elite's ability to challenge the dictator in a rebellion also enable the elite to challenge the dictator in a coup. In other words, we cannot hypothetically increase an elite's rebellion threat while holding fixed its coup threat. The conventional threat logic is true only if a hypothetical increase in the elite's threat capabilities, naturally conceptualized as the numerical size of the elite faction, strongly improves its ability to win a rebellion relative to its likelihood of succeeding in a coup attempt, in which case the dictator accepts lower rents in return for a lower probability of conflict. Formally, the conventional logic requires "weak rebellion intercept" and "steep rebellion slope" conditions. These hold for real-world regimes that face low coup risk under powersharing—e.g., strong ruling party that credibly dispenses patronage and penetrates the military—or that face high rebellion risk if they exclude rival groups, as in countries in which a large ethnic group that does not control the government resides close to the capital (Roessler and Ohls 2018).

However, violating either necessary condition yields outcomes that diverge from the conventional threat logic. If the steep rebellion slope condition fails, then the risk of a coup attempt by a strong elite is too high for the dictator to tolerate sharing power despite a high likelihood of rebellion under exclusion, as occurred in Angola after independence. If the weak rebellion intercept condition fails, then the dictator shares power even with a weak elite. Empirically, this helps to explain powersharing patterns in many post-colonial countries in which a minority group privileged in the colonial military could credibly threaten a countercoup in response to a purge (see also Sudduth 2017).

I then examine the exogenous non-elite actor. The outcomes depend on the elite's consumption under non-elite rule, which I refer to as its affinity toward non-elites. This setup captures that in some circumstances elites expect to face dire consequences if non-elites take over (e.g., business elites in Malaysia vis-a-vis communists in the 1940s through 1970s) whereas in others they expect to fare reasonably well (e.g., Egyptian military vis-a-vis pro-democracy protesters in 2011). Holding fixed the elite's threat capabilities, hypothetically increasing the non-elite's threat capabilities exerts countervailing effects on the elite's incentives to stage a coup: although attempting a coup creates a greater opportunity for non-elite takeover by weakening the center, challenging the dictator—and therefore implicitly allying with the non-elite—enables the elite to gain *some* consumption if non-elite takeover occurs, although this varies by affinity.[6] The former effect dominates if affinity is low, whereas higher affinity implies that the elite's incentives to stage a coup increase in the strength of the non-elite threat. For the dictator—whom I assume consumes zero under non-elite rule—stronger non-elite threat capabilities encourage powersharing to lower the probability of non-elite takeover. However, if affinity is very high, then the dictator cannot buy off the elite—creating incentives to exclude.

The non-elite's threat capabilities extend the dictator's powersharing tradeoff beyond rents and conflict (with the elite) not only by directly creating a new benefit of sharing power for the dictator but also through the indirect effects on the elite's willingness to accept a bargaining offer. Combining these effects explains why we can recover the conventional implications only if affinity is intermediate: because affinity is not too high, a strong-enough non-elite threat causes the dictator to switch from exclusion to inclusion given its incentives to lower the probability of non-elite takeover.[7] At the powersharing threshold, the equilibrium probability of a coup attempt jumps from zero to positive, which recovers the basic guardianship dilemma mechanism and—because the elite's affinity is high enough—further increases in non-elite threat capabilities raise the elite's incentives to stage a coup.

However, varying elite affinity creates contrasting implications. If affinity is low, then the overall relationship between non-elite threat strength and equilibrium coup likelihood is non-monotonic. In this case, the elite's fear that a coup attempt will facilitate non-elite overthrow decreases its willingness to attempt a coup. This implies that increases in non-elite threat capabilities beyond the threshold at which the dictator shifts to sharing power will *decrease* equilibrium coup propensity. By contrast, if affinity is high, then the conventional wisdom for powersharing is violated because a strong non-elite threat causes the dictator to exclude the elite. These findings differ from existing theories because I parameterize the elite's affinity toward non-elites and assume that elites pose a constant threat to the dictator.[8]

[6] I assume that for the elite to consume an offer from the dictator, then it must ally with the dictator to defeat the non-elite threat, and therefore consumes 0 if it loses.

[7] This additionally assumes that an "exclusion intercept" condition holds, i.e., the dictator would not share power with the elite absent an non-elite threat.

[8] I most directly build off McMahon and Slantchev (2015), who also reject the implicit assumption in prior guardianship dilemma models that the non-elite threat disappears if the elites take over. However,

Another implication contrary to the conventional threat logic is that stronger non-elite threats may *enhance* regime durability. Although the direct effect of a stronger non-elite threat increases the probability of regime overthrow, the indirect effects that may cause the dictator and elites to band together—which occurs if elite affinity is low—can decrease the overall probability that the dictator is overthrown (i.e., by either elites or non-elites) relative to a counterfactual scenario without an non-elite threat. This regime-preserving effect occurs if affinity is low and a "strong center" condition holds—which requires an alliance between the dictator and elite to greatly reduce the probability of non-elite takeover—which, empirically, corresponds with durable regimes in countries such as Malaysia and white-dominated South Africa. By contrast, if either of these conditions fail, then we recover the conventional implication that stronger non-elite threats decrease regime survival, which applies in cases such as Rwanda (support from neighboring Tutsis) and Egypt (military sides with protesters in 2011).

2 Model Setup and Equilibrium Analysis

2.1 Setup

A dictator D and a distinct elite actor E compete over state revenues normalized to 1. Section 3 substantively motivates key model assumptions.

Powersharing. D moves first and decides whether to share power with E (i.e., *include*) in the central government or to *exclude* E from power. Sharing power guarantees an exogenously determined portion of state revenues $\omega \in \big(0, \overline{\omega}\big)$ for E. Below, Assumption 1 defines $\overline{\omega} \in (0,1)$.

Bargaining. The game then enters a bargaining phase. Nature draws the maximum amount of remaining spoils that D can transfer, $\overline{x}$, from a uniform density function $F(\cdot)$ with continuous support on $[0, 1-\omega]$. This upper bound on possible transfers expresses in a reduced form way that rulers face limitations to the total amount of transfers that they can credibly commit to deliver to other members of society, although they

they assume that elites consume zero under non-elite rule and do not consider a permanent elite threat, whereas I show that introducing these aspects enables understanding the *conditions* under which dictators face a guardianship dilemma and counters their argument that the guardianship dilemma is fundamentally illogical. Parameterizing affinity also relates to Zakharov's (2016) focus (outside the conflict setting) on how elites' outside options affect the dictator's loyalty-competence tradeoff for subordinates.

can raise this amount by sharing power (which enables a maximum transfer of $\omega + \overline{x}$). An alternative interpretation is that D receives a nontransferrable personal benefit to ruling that disables transferring the entire revenue pie to E, but the exact size of this benefit is unknown when making the powersharing choice.

After D learns $\overline{x}$, it proposes an additional transfer $x_j \in [0, \overline{x}]$, with $j \in \{e, i\}$ standing respectively for excluded and included. E decides whether to accept—yielding consumption of $x_i + \omega$ under inclusion and x_e under exclusion—or to fight, which it wins with probability p_j. If D excludes, then E's available fighting technology is a *rebellion*, which succeeds with probability $p_e(\theta_E) = (1 - \theta_E) \cdot \underline{p}_e + \theta_E \cdot \overline{p}_e$. If D shares power, then E's available fighting technology is a coup, which succeeds with probability $p_i(\theta_E) = (1 - \theta_E) \cdot \underline{p}_i + \theta_E \cdot \overline{p}_i$. The two key assumptions are, first, the probability that either type of fight succeeds strictly increases in E's threat capabilities $\theta_E \in [0, 1]$, which follows from assuming $0 \leq \underline{p}_e < \overline{p}_e < 1$ and $0 < \underline{p}_i < \overline{p}_i \leq 1$. Substantively, θ_E naturally corresponds with the size of E's identity group. Higher θ_E obviously enhances E's prospects for winning a rebellion, and if we conceive the probability of winning as reduced form also for the probability of successfully retaining power in the (unmodeled) future, then it is clear why larger groups would also facilitate coup success. However, the various parameters allow the slopes of $p_e(\theta_E)$ and $p_i(\theta_E)$ to vary, which is crucial for examining the conditions in which the conventional threat logic holds. Second, assuming $\underline{p}_e < \underline{p}_i$ and $\overline{p}_e < \overline{p}_i$ implies that coups are more likely to succeed than rebellions.

Non-elite takeover. Finally, Nature determines whether or not an exogenous non-elite actor N overthrows the regime. This probability depends on whether or not D and E banded together. If D excludes and/or E fights, then the probability of non-elite takeover is θ_N; whereas if D shares power and E accepts, then this probability equals $\nu \cdot \theta_N$. The parameter $\theta_N \in [0, 1]$ expresses N's threat capabilities, and $\nu \in [0, 1]$ expresses the regime's vulnerability to non-elite takeover when elites band together. Rather than introduce additional terms to modify the slopes of these probabilities, as with the $p_j(\theta_E)$ functions, I focus on easily interpretable boundary conditions such that (1) if $\theta_N = 0$, then E poses the only threat to D and (2) if $\theta_N = 1$ and D and E fail to band together, then N takes over with probability 1.

Consumption. If E accepts D's offer and non-elite takeover does not occur, then E consumes $x_i + \omega$ if included and x_e if excluded; and D consumes $1 - (x_i + \omega)$ and $1 - x_e$, respectively. If E fights and non-elite takeover does not occur, then the winner of the coup or civil war consumes $1 - \phi$ and the loser consumes 0, and $\phi \in (0, 1)$ expresses fighting costs. This implies that E forgoes both the powersharing transfer and the additional transfer if it fights and loses. If non-elite takeover occurs, then D consumes 0. E's consumption under non-elite rule depends on whether it accepted D's offer. If so, it consumes 0 because it implicitly formed an alliance with D to uphold the incumbent regime (which would be necessary to consume its bargaining transfers). By contrast, by fighting D, E implicitly allies with N. This enables E to consume $\kappa \cdot (1-\phi)$ under non-elite rule, where $\kappa \in [0,1]$ expresses the value of E's affinity toward N. Appendix Table A.1 summarizes the notation.

2.2 Equilibrium Analysis: Bargaining

I solve backwards on the stage game to derive the subgame perfect Nash equilibria. If D shares power, then E accepts any offer x_i satisfying:

$$\underbrace{(1-\nu \cdot \theta_N) \cdot (\omega + x_i)}_{\text{Accept}} \geq \underbrace{p_i(\theta_E) \cdot \big[1-\theta_N \cdot (1-\kappa)\big] \cdot (1-\phi)}_{\text{Coup}}, \tag{1}$$

and E is indifferent between acceptance and a coup if:

$$x_i = \tilde{x}_i \equiv \underbrace{(1-\phi) \cdot p_i(\theta_E) - \omega}_{\tilde{x}_i(\theta_N=0)} + (1-\phi) \cdot p_i(\theta_E) \cdot \frac{\theta_N}{1-\nu \cdot \theta_N} \cdot \Big[\underbrace{\kappa}_{\uparrow \text{leverage}} - \underbrace{(1-\nu)}_{\downarrow \text{leverage}} \Big] \tag{2}$$

If instead D excludes, then the acceptance constraint is:

$$\underbrace{(1-\theta_N) \cdot x_e}_{\text{Accept}} \geq \underbrace{p_e(\theta_E) \cdot \big[1-\theta_N \cdot (1-\kappa)\big] \cdot (1-\phi)}_{\text{Rebellion}}, \tag{3}$$

and E is indifferent between acceptance and rebelling if:

$$x_e = \tilde{x}_e \equiv \underbrace{(1-\phi) \cdot p_e(\theta_E)}_{\tilde{x}_e(\theta_N=0)} + (1-\phi) \cdot p_e(\theta_E) \cdot \frac{\theta_N}{1-\theta_N} \cdot \underbrace{\kappa}_{\uparrow \text{leverage}} \tag{4}$$

Equations 2 and 4 disaggregate the bargaining offers into components for $\theta_N = 0$ and $\theta_N > 0$. At $\theta_N = 0$, if ω is too large, then each of these terms will hit a corner solution, $\tilde{x}_i < 0$ or $\tilde{x}_e > 1-\omega$, because sharing power transfers so many resources that E either cannot credibly threaten a coup under inclusion or D cannot possibly transfer enough resources under exclusion to buy off E. I impose Assumption 1 throughout to rule out these substantively uninteresting cases. However, even with Assumption 1, either offer can hit a corner solution for high enough θ_N because of how N changes E's bargaining leverage, highlighted in Equations 2 and 4 and discussed in more depth in the analysis for non-elite threats. I use the notation $\tilde{x}_i$ and $\tilde{x}_e$ whenever I refer explicitly to interior solutions, and to $x_i^* = \text{median}\{0, \tilde{x}_i, 1\}$ and $x_e^* = \min\{\tilde{x}_e, 1\}$ if the expression or result also applies to corner solutions. Appendix Lemmas A.1 through A.4 detail the corner solutions.

Assumption 1 (Bounds on powersharing transfer)**.**

$$\omega < \overline{\omega} \equiv \min\left\{(1-\phi)\cdot \underline{p}_i, 1-(1-\phi)\cdot \overline{p}_e\right\}$$

Given Assumption 1 and small enough θ_N, a coup attempt under powersharing occurs only if Nature draws $\overline{x} < \tilde{x}_i$, and a rebellion under exclusion occurs only if Nature draws $\overline{x} < \tilde{x}_e$. The uniform distribution assumption for $\overline{x}$ enables writing:

$$Pr(\text{coup} \mid \text{inclusion}, \theta_E, \theta_N) = F(\tilde{x}_i) = \left[(1-\phi)\cdot p_i(\theta_E) - \omega + (1-\phi)\cdot p_i(\theta_E)\cdot \frac{\theta_N}{1-\nu\cdot\theta_N}\cdot\big[\kappa-(1-\nu)\big]\right]\cdot\frac{1}{1-\omega} \quad (5)$$

$$Pr(\text{rebellion} \mid \text{exclusion}, \theta_E, \theta_N) = F(\tilde{x}_e) = \left[(1-\phi)\cdot p_e(\theta_E) + (1-\phi)\cdot p_e(\theta_E)\cdot\frac{\theta_N}{1-\theta_N}\cdot\kappa\right]\cdot\frac{1}{1-\omega} \quad (6)$$

2.3 Equilibrium Analysis: Powersharing

D has incomplete information over $\overline{x}$ when making its powersharing choice. Given the optimal bargaining offers and fighting probabilities under inclusion and exclusion, D's powersharing incentive-compatibility constraint is:

$$\overbrace{\underbrace{\big[1-F\big(\tilde{x}_i\big)\big]\cdot\big(1-\omega-\tilde{x}_i\big)}_{\text{Deal}}\cdot(1-\nu\cdot\theta_N) + \underbrace{F\big(\tilde{x}_i\big)\cdot(1-p_i)\cdot(1-\phi)}_{\text{Coup}}\cdot(1-\theta_N)}^{\text{Inclusion}} \geq$$

$$\overbrace{\Big\{\underbrace{\big[1-F\big(\tilde{x}_e\big)\big]\cdot\big(1-\tilde{x}_e\big)}_{\text{Deal}} + \underbrace{F\big(\tilde{x}_e\big)\cdot(1-p_e)\cdot(1-\phi)}_{\text{Rebellion}}\Big\}\cdot(1-\theta_N)}^{\text{Exclusion}} \quad (7)$$

If D includes, then with probability $1-F\big(\tilde{x}_i\big)$, E accepts D's equilibrium offer $\tilde{x}_i$. With complementary probability $F\big(\tilde{x}_i\big)$, we have $\overline{x} < \tilde{x}_i$ and E attempts a coup in response to any offer. The terms are similar under exclusion. Furthermore, each term is weighted by the probability of non-elite overthrow, which equals θ_N in all cases except if D shares power and E accepts x_i—when it equals $\nu\cdot\theta_N$. Equations 8 and 9 disaggregate D's powersharing constraint into five distinct mechanisms for which Section 3 provides substantive grounding. In the baseline case with $\theta_N = 0$, the condition is:

$$\mathcal{P}\big(\theta_E, 0\big) \equiv \phi \cdot \underbrace{\Big[\text{Pr}\big(\text{rebel} \mid \text{excl.}, \theta_E, \theta_N = 0\big) - \text{Pr}\big(\text{coup} \mid \text{incl.}, \theta_E, \theta_N = 0\big)\Big]}_{1 \text{ Conflict effect } (+/-)} - (1-\phi) \cdot \underbrace{\Big[p_i(\theta_E) - p_e(\theta_E)\Big]}_{2 \text{ Predation effect } (-)}$$

$$= \underbrace{\frac{\phi}{1-\omega} \cdot \omega}_{1\text{a}} - (1-\phi) \cdot \underbrace{\Big[\underline{p}_i - \underline{p}_e - \overbrace{\Big[\overline{p}_e - \underline{p}_e - \big(\overline{p}_i - \underline{p}_i\big)\Big]}^{\equiv \Delta p} \cdot \theta_E\Big]}_{p_i - p_e} \cdot \Big(\underbrace{\frac{\phi}{1-\omega}}_{1\text{b}} + \underbrace{1}_{2}\Big) > 0 \tag{8}$$

Equation 9 presents the condition for the full case. The "in" subscripts for $\mathcal{P}$ indicate that both $\tilde{x}_i$ and $\tilde{x}_e$ are interior, and Appendix Definition A.1 characterizes the powersharing constraint for various possible corner solutions. I use $\mathcal{P}\big(\theta_E, \theta_N\big)$ without subscripts when referring to the powersharing constraint for any x_i^* or x_e^*, and note that the two are equivalent if $\theta_N = 0$ because Assumption 1 rules out corner solutions for this case.[9]

$$\mathcal{P}_{in,in}\big(\theta_E, \theta_N\big) \equiv (1-\theta_N) \cdot \mathcal{P}\big(\theta_E, 0\big)$$

$$+\,\theta_N \cdot \Bigg\{(1-\nu) \cdot \Big[\underbrace{\text{Pr}\big(\text{no coup} \mid \text{incl.}, \theta_E, \theta_N = 0\big)}_{3 \text{ Direct effect of } \nu\ (+)} + \underbrace{\Gamma_\nu(\theta_E, \theta_N)}_{4\text{a Indirect effect of } \nu\ (+)}\Big] + \kappa \cdot \underbrace{\Gamma_\kappa(\theta_E, \theta_N)}_{4\text{b Indirect effect of } \kappa\ (-)}\Bigg\} > 0 \tag{9}$$

Remark 1 presents an alternative but equivalent statement as Equation 9. The probability of a coup attempt under inclusion, $F(x_i^*)$, must be lower than the maximum probability of a coup attempt under inclusion for which D will share power. This term is $F_i^{\text{max}}\big(\theta_E, \theta_N\big) = \max\Big\{\overline{F}_i^{\text{max}}\big(\theta_E, \theta_N\big), 0\Big\}$, for $\overline{F}_i^{\text{max}}\big(\theta_E, \theta_N\big)$

[9] Appendix Section A.1 details the algebraic steps connecting Equations 7 and 9. The abbreviated terms in the equation are:

$$\Gamma_\nu(\theta_E, \theta_N) \equiv \frac{1}{1-\nu \cdot \theta_N} \cdot \frac{(1-\phi) \cdot p_i(\theta_E)}{1-\omega} \cdot \Big[(1-\theta_N) \cdot \phi + \theta_N \cdot (1-\nu)\Big] \quad \text{and}$$

$$\Gamma_\kappa(\theta_E, \theta_N) \equiv (1-\phi) \cdot \Bigg\{\Big[\big[1 - F\big(\tilde{x}_e(\theta_E, \theta_N)\big)\big] \cdot p_e(\theta_E) - \big[1 - F\big(\tilde{x}_i(\theta_E, \theta_N)\big)\big] \cdot p_i(\theta_E)\Big]$$

$$+ \frac{\phi}{1-\omega} \cdot \Big[p_e(\theta_E) - \frac{1-\theta_N}{1-\nu \cdot \theta_N} \cdot p_i(\theta_E)\Big] - \frac{p_i(\theta_E)}{1-\omega} \cdot \frac{\theta_N}{1-\nu \cdot \theta_N} \cdot (1-\nu)\Bigg\}.$$

implicitly defined as:

$$(1-\nu\cdot\theta_N)\cdot\big(1-\overline{F}_i^{\text{max}}\big)\cdot\big[1-\omega-x_i^*(\theta_E,\theta_N)\big]+(1-\theta_N)\cdot\Big\{\overline{F}_i^{\text{max}}\cdot\big[1-p_i(\theta_E)\big]\cdot(1-\phi)$$

$$-\big[1-F\big(x_e^*(\theta_E,\theta_N)\big)\big]\cdot\big[1-x_e^*(\theta_E,\theta_N)\big]-F\big(x_e^*(\theta_E,\theta_N)\big)\cdot\big[1-p_e(\theta_E)\big]\cdot(1-\phi)\Big\}=0 \qquad (10)$$

Remark 1. *$\mathcal{P}(\theta_E,\theta_N)>0$ if and only if $F_i^{max}>F(x_i^*)$.*

Proposition 1 characterizes the equilibrium strategy profile for interior bargaining offers, and Appendix Lemmas A.1 through A.4 characterize the corner solutions. Technically, a continuum of equilibria exist because at the bargaining stage D is indifferent among all offers if it includes and $\overline{x}<\tilde{x}_i$, or if it excludes and $\overline{x}<\tilde{x}_e$. However, all equilibria strategy profiles in which fighting occurs along the equilibrium path are payoff equivalent.

Proposition 1 (Equilibrium)**.** *Assume θ_N is low enough that $\tilde{x}_i\in(0,1)$ and $\tilde{x}_e\in(0,1)$.*

- *If $\mathcal{P}_{in,in}(\theta_E,\theta_N)>0$ (see Equation 9), then D shares power with E. Otherwise, D excludes.*
- *D offers $x_i=\min\{\tilde{x}_i,1\}$ if E is included and $x_e=\min\{\tilde{x}_e,1\}$ if E is excluded, for $\tilde{x}_i$ defined in Equation 2 and $\tilde{x}_e$ defined in Equation 4.*
- *If included, then E accepts any $x_i\geq\tilde{x}_i$ and attempts a coup otherwise; and if excluded, then E accepts any $x_e\geq\tilde{x}_e$ and rebels otherwise.*

3 Discussion of Powersharing Incentives

This section substantively grounds key aspects of the setup and discusses the dictator's advantages and disadvantages to excluding elites, highlighted in D's powersharing constraint (Equations 8 and 9).

3.1 Elite Threats

The cleavage distinguishing D and E could be ethnicity, religion, class, or different factions of the military. Absent a non-elite threat, $\theta_N=0$, D faces a tradeoff between rents and conflict, with D possibly willing to exclude even if this raises the probability of fighting in order to capture more rents. On the one hand, sharing power enables D to transfer at least ω to E, which increases the likelihood of Nature drawing an upper bound on transfers, $\overline{x}$, large enough that D can buy off E in the bargaining phase of the game. This provides a ***conflict-prevention effect*** (mechanism 1a in Equation 8). Assuming that sharing power facilitates transferring more spoils to E follows from arguments that "leaders rely on high-level government appointments to make credible their promises to maintain the distribution of patronage among select elites and the constituencies whom they represent" (Arriola 2009, 1345). Cabinet ministers in Africa "not only have a hand in deciding where to allocate public resources, presumably in their home districts, but are also in positions to supplement their personal incomes by offering contracts and jobs in exchange for other favors" (1346). Other scholars offer similar arguments about how authoritarian parties can credibly commit to deliver spoils to supporters (Magaloni 2008). However, it is important that D can still make a bargaining offer if E is excluded to try to prevent fighting.[10] Although excluding E from cabinet or military positions would clearly inhibit D's ability to transfer resources (or to credibly refrain from exploiting E's resources, if we allowed that strategic option for D), it is not impossible. Many oil-rich states routinely deliver public goods to their population in an implicit bargain to not grant representation. In other countries, the center allows peripheral regions wide leeway in their governance, as in many African countries that yield considerable discretion to local chiefs by granting neocustomary land tenure rights (Boone 2017).

On the other hand, the resources and access to power that D grants by including E in the government increase E's probability of winning a fight against D, reflected in the assumption that E's foothold in the regime enables E to stage a coup, which succeeds with higher probability than a rebellion, $p_e(\theta_E) < p_i(\theta_E)$. I adopt Roessler's (2016, 37) core premise that "conceive[s] of coups and rebellions, or insurgencies, as analogues; both represent anti-regime techniques that dissidents use to force a redistribution of power. They can be distinguished, however, by their organizational basis." Granting positions of power at the center, especially military positions, "lowers the mobilizational costs that dissidents must overcome to overthrow the ruler ... This organizational distinction helps to account for why coups are often much more likely to displace rulers from power than rebellions." Specifically, "[c]oup conspirators leverage partial control of the state (and the resources and matériel that comes with access to the state) in their bid to capture political power ... In contrast, rebels or insurgents lack such access and have to build a private military organization to challenge the central government and its military." Shifting the distribution of power toward E creates

[10]This also relates to existing distinctions between instrumental and strategic incentives for exclusion, discussed in the analysis.

two problems for D. First, E's higher winning probability increases the likelihood of fighting, which creates a ***conflict-enhancing effect*** (mechanism 1b in Equation 8). Second, sharing power weakens D's bargaining leverage, generating a ***predation effect*** (mechanism 2 in Equation 8) because D must transfer more spoils to buy off E from fighting. If the conflict-prevention mechanism dominates the conflict-enhancing effect, then sharing power lowers the probability of conflict while decreasing D's rents conditional on no fighting.

To minimize moving parts, I assume that D can necessarily exclude E from power if it so chooses. In reality, if E already has a foothold in power, then a purge attempt by D may lead to a countercoup by E (Sudduth 2017). I can incorporate this consideration into the model by positing alternative microfoundations for p_e. Suppose that D's attempt to purge E from power fails with probability $\beta \in [0, 1]$, which enables E to stage a coup (and, E does not receive the powersharing transfer ω). Then, at D's powersharing information set, E's expected probability of winning under (attempted) exclusion is $p'_e = (1 - \beta) \cdot p_e + \beta \cdot p_i$, and $\beta = 0$ recovers the baseline setup. Higher values of β raise E's probability of winning under attempted exclusion, and empirically correspond with groups entrenched in power, as the last section discusses.

3.2 Non-Elite Threats

Sharing power decreases the expected probability of non-elite takeover from θ_N to $\Big[\big[1 - F(\tilde{x}_i)\big] \cdot \nu + F(\tilde{x}_i)\Big] \cdot \theta_N$. The latter term reflects that if D shares power, then the probability of non-elite overthrow equals $\nu \cdot \theta_N$ if E does not attempt a coup, which occurs with probability $1 - F(\tilde{x}_i)$. Therefore, with probability $(1-\nu) \cdot \theta_N \cdot \big[1 - F(\tilde{x}_i)\big]$, sharing power prevents overthrow and lost consumption that otherwise would have occurred, the ***direct non-elite threat effect*** (mechanism 3 in Equation 9). The key idea behind assuming $\nu < 1$ is that disruptions at the center as well as narrowly constructed regimes with minimal societal support create openings for non-elites to control the government, whereas these openings are less likely if the dictator and other elites present a united front. For example, Snyder (1998, 56) claims that sultanistic regimes in Haiti, Nicaragua, and Romania successfully co-opted a broad range of societal elites for long periods and that the regimes fell to societal uprisings amid an "increase in the exclusion of political elites." Harkness (2016, 588) argues: "Compelling evidence exists that coups also ignite insurgencies by weakening the central government and thereby opening up opportunities for rebellion ... In the midst of Mali's March 2012 coup, for example, Tuareg rebels launched a powerful military offensive. They and Islamic rebel groups proceeded to capture much of the country before French intervention forces drove them back."

Two ***indirect non-elite threat effects*** also affect D's powersharing decision by altering the range of offers that E will accept (mechanisms 4a and 4b in Equation 9, which themselves arise from the ν and κ terms in Equations 2 and 4). Whereas lower ν decreases an included E's bargaining leverage—because it knows that accepting more strongly diminishes the probability of non-elite takeover—higher κ increases E's bargaining leverage because of higher affinity toward N. Parameterizing κ enables addressing many types of non-elite threats. Low κ corresponds with circumstances in which the masses demand high levels of economic redistribution and fundamentally threaten elites' privileges, as with communist movements in many Southeast Asian countries at independence or South Africa under apartheid. By contrast, high κ corresponds with circumstances in which E expects to maintain considerable influence even under non-elite rule, perhaps because N is a rebel group composed of co-ethnics (e.g., Tutsis in Rwanda in 1990s) or protesters with moderate social aims (e.g., Egypt in 2011).

4 ELITE THREATS

This section sets $\theta_N = 0$, which implies that an excluded elite poses the only outsider threat. Given D's tradeoff between rents and conflict, the conventional threat logic offers specific predictions about the effects of hypothetically increasing E's threat capabilities θ_E: (1) engender a powersharing regime, (2) raise the likelihood of a coup attempt, and (3) increase the overall likelihood of regime overthrow. Section 6 connects conditions in the model to empirical cases.

4.1 RECOVERING CONVENTIONAL IMPLICATIONS

Given D's tradeoff between rents and conflict, two individually necessary and jointly sufficient conditions determine whether the conventional threat logic holds for powersharing and coup attempts. First, a *weak rebellion intercept* condition: E's rebellion threat is sufficiently small at $\theta_E = 0$ that D excludes an elite with weak threat capabilities. This inequality substitutes $\theta_E = 0$ into Equation 8 and sets it to less than 0, while listing the same numbered effects. Second, a *steep rebellion slope* condition: increasing θ_E raises the probability of rebellion success relative to the probability of coup success, Δp, by a large enough magnitude that high enough θ_E causes D to switch from exclusion to inclusion, which can be solved by substituting

$\theta_E = 1$ into Equation 8, setting it to greater than 0, and rearranging.[11]

$$\textbf{Weak rebellion intercept.}\quad \mathcal{P}(0,0) = \underbrace{\frac{\phi}{1-\omega}}_{1a} \cdot \omega - (1-\phi) \cdot \left(\underline{p}_i - \underline{p}_e\right) \cdot \left(\underbrace{\frac{\phi}{1-\omega}}_{1b} + \underbrace{1}_{2} \right) < 0$$

$$\textbf{Steep rebellion slope.}\quad \Delta p \equiv \left(\overline{p}_e - \underline{p}_e\right) - \left(\overline{p}_i - \underline{p}_i\right) > \frac{-\mathcal{P}(0,0)}{(1-\phi) \cdot \left(\frac{\phi}{1-\omega} + 1\right)}$$

Figure 1 depicts examples of each permutation of these conditions holding and not holding. Each panel depicts the probability that conflict (either coup or rebellion) occurs as a function of θ_E. Table 3 provides the legend. In Panel A, the weak rebellion intercept and steep rebellion slope conditions each hold. At low values of θ_E, D does not face a tradeoff. Not only does the predation effect encourage exclusion, but because $\underline{p}_e$ is low, the probability of a rebellion under exclusion exceeds the probability of a coup attempt under inclusion—implying that the conflict effect reinforces incentives to exclude (see Equation 8). Without the favorable shift in the balance of power caused by D sharing power, E is too weak to punish D for exclusion. This parameter range highlights that if $\theta_N = 0$, then a net positive conflict effect is necessary for powersharing.

> **Lemma 1** (Necessity of positive conflict effect for powersharing)**.** *If $\theta_N = 0$, then a necessary condition for D to share power is that the probability of a rebellion under exclusion exceeds the probability of a coup attempt under inclusion, $F(\tilde{x}_e) > F(\tilde{x}_i)$.*

The steep rebellion slope condition implies that the probability of rebellion success increases more steeply in θ_E than does the probability of coup success: $\Delta p = \overline{p}_e - \underline{p}_e - \left(\overline{p}_i - \underline{p}_i\right) > 0$. This creates a threshold such that for $\theta_E > \theta'_E$, D trades off between rents and conflict because $F(\tilde{x}_e) > F(\tilde{x}_i)$, with the implicit

[11] Equivalently, the steep rebellion slope condition is a boundary condition at $\theta_E = 1$:

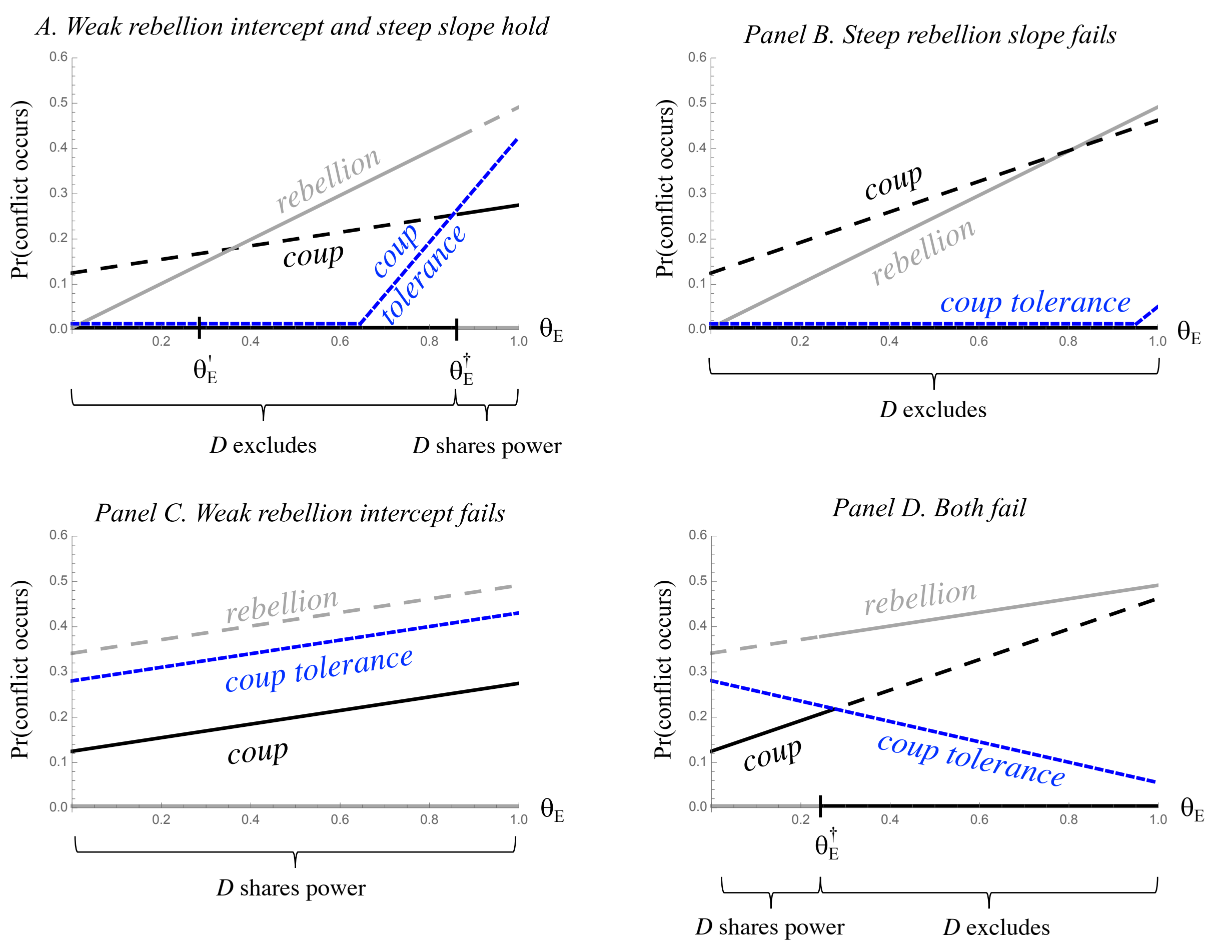
$$\mathcal{P}(1,0) = \underbrace{\frac{\phi}{1-\omega}}_{1a} \cdot \omega - (1-\phi) \cdot \left(\overline{p}_i - \overline{p}_e\right) \cdot \left(\underbrace{\frac{\phi}{1-\omega}}_{1b} + \underbrace{1}_{2} \right) > 0$$

characterization:

$$F\big(\tilde{x}_i(\theta'_E)\big) = F\big(\tilde{x}_e(\theta'_E)\big). \tag{11}$$

If θ_E is intermediate, then D continues to exclude. The magnitude of the predation effect exceeds the magnitude of the conflict effect, which implies that D tolerates a higher probability of conflict—despite destroying surplus—to gain larger expected rents.

Figure 1: Elite Threats: Powersharing and Coup Attempts



Notes: Panel A sets $\theta_N = 0$, $\underline{p}_e = 0$, $\overline{p}_e = 0.65$, $\underline{p}_i = 0.5$, $\overline{p}_i = 0.7$, $\omega = 0.2$, and $\phi = 0.4$. Panel B raises $\overline{p}_i$ to 0.95, Panel C raises $\underline{p}_e$ to 0.45, and Panel C imposes both these changes. Table 3 provides the legend.

Only strong elite threat capabilities, $\theta_E > \theta_E^\dagger$, make the conflict effect positive and large enough in magnitude relative to the predation effect that D shares power. Given the steep rebellion slope, higher θ_E not only increases $F(\tilde{x}_e)$ relative to $F(\tilde{x}_i)$, but also diminishes the magnitude of the predation effect by narrowing the gap between $p_i(\theta_E)$ and $p_e(\theta_E)$ (see Equation 8). These factors increase D's willingness to tolerate coup

Table 1: Legend for Figures 1 and 3

Solid black	Equilibrium probability of a coup attempt, $Pr(coup^*)$; equals $F(x_i^*)$ for parameter values in which D shares power, and 0 otherwise
Dashed black	For parameter values in which D excludes, counterfactual probability of a coup attempt under inclusion, $F(x_i^*)$
Solid gray	Equilibrium probability of a rebellion; equals $F(x_e^*)$ for parameter values in which D excludes, and 0 otherwise
Dashed gray	For parameter values in which D includes, counterfactual probability of a rebellion under exclusion, $F(x_e^*)$
Dashed blue	D's coup tolerance: the highest probability of a coup attempt under inclusion for which D will share power, $F_i^{\max}$

attempts under inclusion, as evidenced by the strictly increasing blue line for high enough θ_E. As Remark 1 states, $F_i^{\max} > F(x_i^*)$ is necessary and sufficient for powersharing.

Lemma 2 (Elite threats and coup tolerance)**.** *If an increase in threat capabilities θ_E raises $p_e(\theta_E)$ by a larger magnitude than it increases $p_i(\theta_E)$, then a large enough increase in θ_E raises D's tolerance for facing coup attempts. Formally, if $\Delta p > 0$, then F_i^{max} weakly increases in θ_E, and this effect is strict if $F_i^{max} > 0$.*

4.2 Violating the Conventional Threat Logic

If either the weak rebellion intercept or steep rebellion slope condition fails, then the conventional implications for powersharing and/or coups do not hold. In Panel B, the steep rebellion slope condition fails because this figure assumes a higher value of $\overline{p}_i$ than in Figure 1, which raises coup risk at $\theta_E = 1$. Although $\Delta p > 0$, the conflict effect is negative except for high values of θ_E, at which the predation effect is still large enough in magnitude to prevent powersharing. Consequently, D excludes for all θ_E values and $Pr(coup^*) = 0$. This case highlights the importance of evaluating how θ_E, as opposed to $p_e(\theta_E)$, affects equilibrium outcomes. Equation 8 shows that increasing $p_e(\theta_E)$ unambiguously incentivizes D to share power by lowering its expected utility under exclusion. However, we cannot hypothetically increase $p_e(\theta_E)$ while holding $p_i(\theta_E)$ fixed because both depend on underlying threat capabilities θ_E. Depending on the correlation between θ_E and each of $p_e(\theta_E)$ and $p_i(\theta_E)$, a high probability of rebellion success may not engender powersharing: the same increases in θ_E that undergirds rebellion success may also considerably raise $p_i(\theta_E)$, which is true if the steep rebellion slope fails.

By contrast, in Panel C, the weak rebellion intercept condition fails. High $\underline{p}_e$ makes the conflict effect is positive and large enough in magnitude even at $\theta_E = 0$ to induce D to share power. In Panel D, both conditions fail and the direction of the relationships opposes the conventional logic: D switches from inclusion to exclusion for large enough θ_E, and the equilibrium probability of a coup attempt drops at that point.

Proposition 2 formalizes the different cases, which correspond respectively to the four panels in Figure 3, and Proposition 3 presents comparative statics for several parameters. Section 6 discusses how empirical cases map into different parameter values.

Proposition 2 (Elite threats, powersharing, and coup attempts)**.** *Assume* $\theta_N = 0$.

> ***Part a.*** *If the weak rebellion intercept condition and the steep rebellion slope condition both hold, then there exists a unique* $\theta_E^{\dagger} \in (0,1)$ *such that:*
>
> - *If* $\theta_E < \theta_E^{\dagger}$*, then* D *excludes and* $Pr(coup^*) = 0$.
> - *Otherwise,* D *shares power and* $Pr(coup^*) = F(\tilde{x}_i)$*, which strictly increases in* θ_E.
>
> ***Part b.*** *If only the weak rebellion threat condition holds, then* D *excludes for all* $\theta_E \in [0,1]$ *and* $Pr(coup^*) = 0$.
>
> ***Part c.*** *If only the steep slope condition holds, then* D *shares power for all* $\theta_E \in [0,1]$ *and* $Pr(coup^*) = F(\tilde{x}_i)$*, which strictly increases in* θ_E.
>
> ***Part d.*** *If both conditions fail, then for* $\theta_E^{\dagger}$ *defined in part a:*
>
> - *If* $\theta_E < \theta_E^{\dagger}$*, then* D *shares power and* $Pr(coup^*) = F(\tilde{x}_i)$*, which strictly increases in* θ_E.
> - *Otherwise,* D *excludes and* $Pr(coup^*) = 0$.

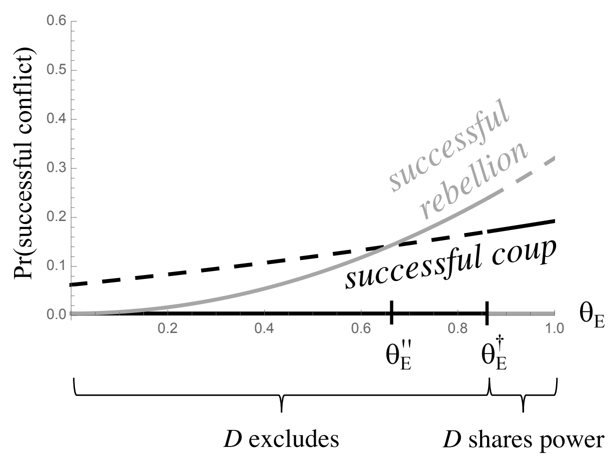
Proposition 3 (Comparative statics for conventional threat logic)**.** *Assume* $\theta_N = 0$.

> ***Part a.*** *Each of the following expand the range of other parameter values in which the steep rebellion slope condition holds:*
>
> - *Increasing the probability of rebellion success,* $\overline{p}_e$.
> - *Increasing the powersharing transfer,* ω.
> - *Decreasing the probability of coup success,* $\overline{p}_i$.
>
> ***Part b.*** *Decreasing the probability of rebellion success,* $\underline{p}_e$*, expands the range of other parameter values in which the weak rebellion threat condition holds.*

4.3 Minimizing Regime Overthrow?

Even if the weak rebellion intercept and steep rebellion slope conditions hold—which recovers the conventional logic for powersharing and coups—the probability of regime overthrow does not increase monotonically in elite strength, as Figure 2 depicts. For an intermediate range of parameter values, $\theta_E \in \left(\theta''_E, \theta^\dagger_E\right)$, D excludes E even though the probability of a successful rebellion exceeds the probability of a successful coup attempt.[12] This non-monotonic effect arises because D does not maximize political survival, that is, $F\left(\tilde{x}_i\right) \cdot p_i$ and $F\left(\tilde{x}_e\right) \cdot p_e$ do not enter Equation 8. Instead, in this parameter range, the positive predation effect outweighs the negative conflict effect, as discussed above in the intermediate range $\theta_E \in \left(\theta'_E, \theta^\dagger_E\right)$ for Panel A of Figure 1. In fact, the conventional logic for regime overthrow holds only if one of the weak rebellion intercept or steep rebellion slope conditions fail because then D's powersharing choice is unaffected by θ_E.

Figure 2: Elite Threats and Probability of Overthrow



Notes: Figure 2 uses the same parameter values as in Panel A of Figure 1.

> **Lemma 3** (Dictator does not maximize probability of survival)**.** *The probability of overthrow under exclusion exceeding the probability of overthrow under inclusion, $F(\tilde{x}_e) \cdot p_e > F(\tilde{x}_i) \cdot p_i$, is not a sufficient condition for D to share power.*

These findings relate to existing discussions about authoritarian survival and motives for excluding elites. Roessler (2016, 60-61) distinguishes between *instrumental* exclusion incentives in which rulers "bid to keep economic rents and political power concentrated in their hands [and] build the smallest winning coalition necessary ...to maintain societal peace" and *strategic* exclusion incentives: dictators fear that "sharing power with members of other ethnic groups will lower the costs they face to capturing sovereign power for

[12]The threshold is implicitly defined as $F\left(\tilde{x}_i(\theta''_E)\right) \cdot p_i(\theta''_E) = F\left(\tilde{x}_e(\theta''_E)\right) \cdot p_e(\theta''_E)$. Because $p_i(\theta_E) > p_e(\theta_E)$, it is straightforward to show that if $\Delta p > 0$, then $\theta''_E > \theta'_E$.

themselves." These distinct rationales for exclusion correspond respectively to the predation and conflict mechanisms in my model. I explain how these mechanisms interact. Trading off between rents and conflict implies that D minimizes neither the risk of conflict nor of overthrow, which is especially striking given the broader premise in the authoritarian politics literature that "all dictators are presumed to be motivated by the same goal—survive in office while maximizing rents" (Magaloni 2008, 717) and"[s]urvival is the primary objective of political leaders" (Bueno de Mesquita and Smith 2010, 936). Instead, I show why D's predatory gains from exclusion cause it not only to take advantage of a weak E, but also to exclude at intermediate θ_E such that D risks a higher probability of fighting, $\theta_E \in \left(\theta'_E, \theta^{\dagger}_E\right)$, or even a higher probability of overthrow, $\theta_E \in \left(\theta''_E, \theta^{\dagger}_E\right)$. In turn, the magnitude of the tradeoff between rents and conflict at different values of θ_E determines whether or not the conventional threat logic holds for powersharing and coups.

5 NON-ELITE THREATS

This section examines outcomes for the general case $\theta_N > 0$, and Section 6 connects conditions in the model to empirical cases. Note that unlike the analysis for elite threats, Assumption 1 does not guarantee interior solutions if $\theta_N > 0$. I therefore denote optimal offers as x_i^* and x_e^* here, which equal $\tilde{x}_i$ and $\tilde{x}_e$, respectively, for parameter values that generate interior solutions.[13]

5.1 RECOVERING CONVENTIONAL IMPLICATIONS

Two individually necessary and jointly sufficient conditions determine whether the conventional threat logic holds for powersharing and coup attempts. First, an *exclusion intercept* condition—analogous to the weak rebellion threat condition—in which D excludes at $\theta_N = 0$. Second, an *intermediate affinity* condition which states that κ is large enough that increasing θ_N raises E's incentives to stage a coup ($\kappa > 1 - \upsilon$; see Equation 2), but κ is contained within a neighborhood of $1 - \nu$. Formally, there exists $\epsilon > 0$ such that the following claims for the intermediate affinity condition hold. An inequality analogous to the steep rebellion slope condition always holds because I assume that the probability of non-elite overthrow equals 1 at $\theta_N = 1$ if D excludes and/or E fights.

Exclusion intercept. $\mathcal{P}(\theta_E, 0) < 0$ **Intermediate affinity.** $\kappa - (1 - \nu) \in (0, \epsilon)$

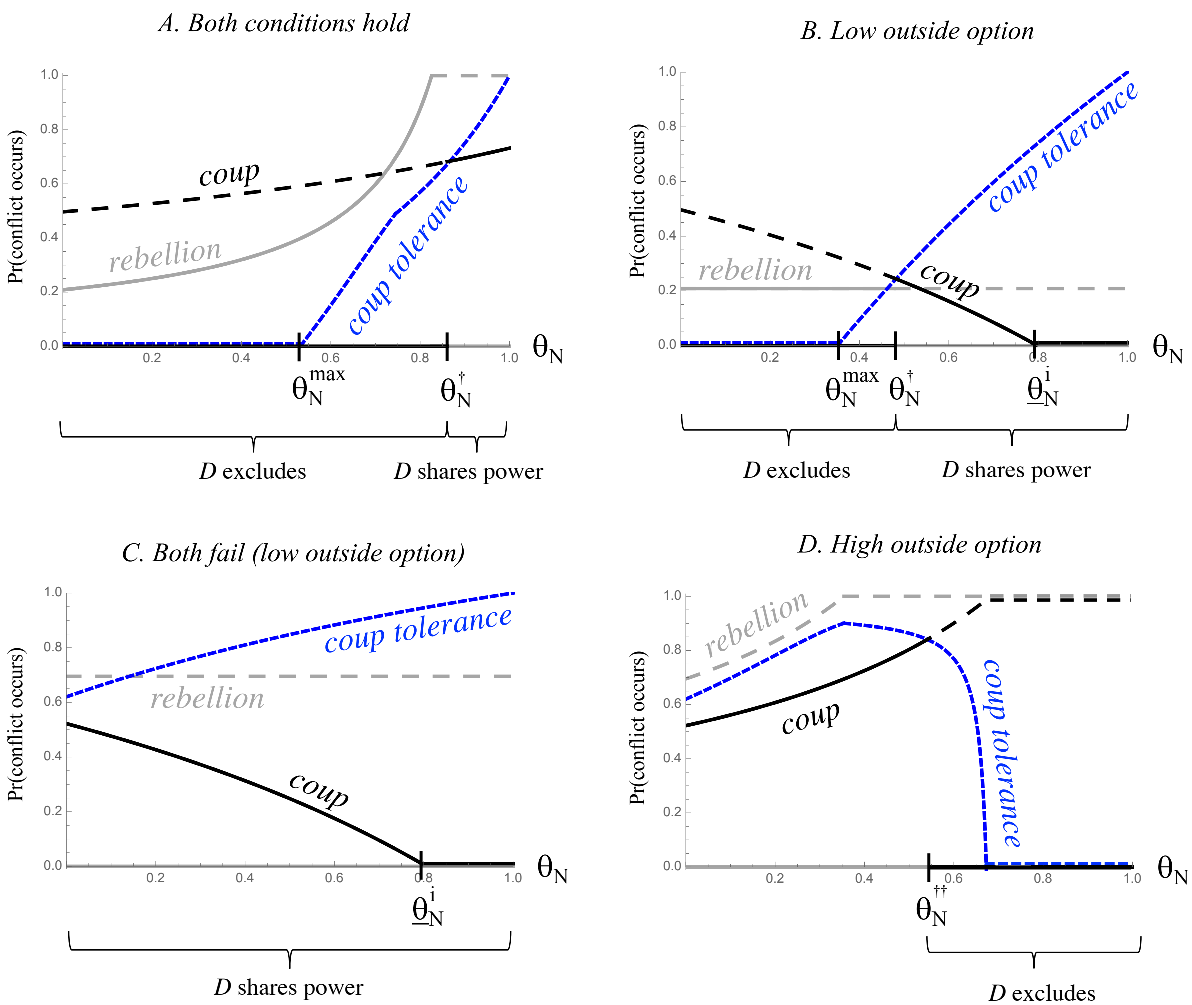
[13] Recall that $x_i^* = \text{median}\{0, \tilde{x}_i, 1\}$ and $x_e^* = \min\{0, \tilde{x}_e\}$.

The four panels in Figure 3 illustrate substantively important combinations of these two conditions holding or not by plotting the same terms as in Figure 1, but as a function of θ_N. In Panel A, the exclusion intercept and intermediate affinity conditions each hold. Raising θ_N from low to high yields two implications consistent with the conventional logic: D switches to powersharing at a threshold $\theta_N^{\dagger} \in (0, 1)$, and the equilibrium probability of a coup attempt discretely increases at this point. The intermediate affinity condition implies that x_i^* increases in θ_N. Equations 1 and 2 highlight that increasing θ_N exerts countervailing effects on an included E's incentives to accept: accepting more strongly decreases the probability of non-elite takeover, from θ_N to $\nu \cdot \theta_N$; but also increases the overall probability of non-elite takeover, which increases E's desire to ally with N and consume κ as opposed to 0 if it allies with D. If $\kappa > 1 - \nu$, then the latter effect dominates and $F(x_i^*)$ increases in θ_N, which also implies that $Pr(coup^*)$ increases in θ_N for parameter values in which D shares power. Panel A depicts this effect with the increasing black line (both dashed and solid segments). Appendix Lemma A.1 formalizes the effect of θ_N on x_i^* for all κ.

The non-elite threat also affects D's incentives to share power through three mechanisms shown in Equation 9. Higher θ_N increases the magnitude of the direct effect of powersharing on decreasing the probability of non-elite takeover because the expected probability of non-elite takeover drops from θ_N to $\Big[\big[1 - F(x_i^*)\big] \cdot \nu + F(x_i^*)\Big] \cdot \theta_N$. Indirect effects arise from altering E's incentives to accept. The effect just described—x_i^* increases in θ_N if $\kappa > 1 - \nu$—diminishes D's incentives to share power. But, for any $\kappa > 0$, $F(x_e^*)$ also increases in θ_N because κ but not ν affects E's acceptance calculus under exclusion (see Equations 3 and 4, and Appendix Lemma A.1). Panel A assumes an intermediate value of κ, which implies that the incentives inducing D to share power outweigh those mitigating against powersharing. Consequently, for high enough θ_N, $F_i^{\max}$ increases steeply in θ_N, as shown by the dashed blue line. Appendix Lemmas A.5 and A.6 formalize the effect of θ_N on D's willingness to share power. Combining this effect with the exclusion intercept condition implies the existence of a unique threshold $\theta_N^{\dagger} \in (0, 1)$ such that D excludes if $\theta_N < \theta_N^{\dagger}$ and shares power otherwise, which recovers the standard guardianship dilemma mechanism.[14]

[14]Given ϵ in the intermediate affinity condition, the proof for the corresponding formal statement (part a of Proposition 4) requires low enough ϵ that $\frac{d}{d\theta_N}\left(\overline{F}_i^{\max} - F(x_i^*)\right) > 0$ for all θ_N such that $\overline{F}_i^{\max} > 0$.

Figure 3: Non-Elite Threats: Powersharing and Coup Attempts



Notes: Panel A of Figure 3 sets $\underline{p}_e = 0$, $\overline{p}_e = 0.95$, $\underline{p}_i = 0.95$, $\overline{p}_i = 1$, $\nu = 0.4$, $\omega = 0.18$, $\phi = 0.4$, $\theta_E = 0.3$, and $\kappa = 0.8$. Panel B lowers κ to 0, Panel C raises θ_E to 1, and Panel D both raises θ_E to 1 and ν to 0.7. Table 3 provides the legend.

5.2 Violating the Conventional Threat Logic

Panel A is a special case of the general model, and Figure 3 highlights various other cases that reject the conventional threat logic. In Panel B, the overall relationship between θ_N and $Pr(coup^*)$ is non-monotonic. Because the exclusion intercept condition holds and κ is not very high, the same threshold $\theta_N^\dagger$ as in Panel A causes D to switch from exclusion to inclusion, and—consistent with the guardianship dilemma—$Pr(coup^*)$ discretely increases. However, because $\kappa < 1 - \nu$, E's affinity is low enough that increases in θ_N strictly x_i^* until, at $\theta_N = \underline{\theta}_N^i$, it hits 0. Therefore, if $\theta_N > \theta_N^\dagger$, then $Pr(coup^*)$ decreases in

θ_N.[15]

Panel C raises θ_E and shows that D shares power with E for all θ_N and $Pr(coup^*)$ weakly decreases in θ_N, both of which reject the conventional logic. Appendix Lemmas A.5 and A.6 show that $F_i^{\max}$ increases in θ_N if κ is low enough, and combining this result with the failure of the exclusion intercept condition explains why D's powersharing decision is independent of θ_N. The black coup curve is identical to that in Panel B, but the overall relationship between θ_N and $Pr(coup^*)$ differs because D's powersharing calculus differs. Another theoretical possibility (not depicted but stated in Proposition 4) is that κ is high enough to satisfy the intermediate affinity condition (as in Panel A), in which case the failure of the exclusion intercept condition would yield a strictly increasing relationship between θ_N and $Pr(coup^*)$.

In Panel D, the intermediate affinity condition fails for a different reason as in Panels B and C: κ is particularly large, specifically, larger than the threshold $\frac{1-\nu}{(1-\phi)\cdot p_i}$ that implies that $F(x_i^*) = 1$ for high enough θ_N (see Appendix Lemma A.1). If $F(x_i^*) = 1$, then D will not share power because this would shift power toward E and D would surely face a coup attempt, which also implies zero probability of lowering the probability of non-elite takeover to $\nu \cdot \theta_N$. Therefore, for large enough θ_N, D's willingness to share power decreases in θ_N and plummets to 0, which implies that D excludes for large enough θ_N, the opposite of the conventional logic. Proposition 4 formalizes this logic.[16]

Proposition 4 (Non-elite threats, powersharing, and coup attempts)**.**

- *Suppose affinity is low, $\kappa < 1 - \nu$.*
  - *Suppose the exclusion intercept holds. There exists a unique $\theta_N^\dagger \in \left(\theta_X^{max}, 1\right)$ such that if $\theta_N < \theta_N^\dagger$, then D excludes and $Pr(coup^*) = 0$; and otherwise D shares power and $Pr(coup^*) = F(x_i^*)$, which weakly decreases in θ_N. Therefore, the overall relationship between θ_N and $Pr(coup^*)$ is non-monotonic (inverted U-shaped). Panel B of Figure 3 depicts this case.*
  - *If the exclusion intercept fails, then D shares power for all $\theta_N \in [0, 1]$ and $Pr(coup^*) = F(x_i^*)$, which weakly decreases in θ_N. Panel C of Figure 3 depicts this case.*

[15] Note that there exist parameter values in which D shares power despite $F(x_i^*) > F(x_e^*)$ as, for example, at $\theta_N = \theta_N^\dagger$. If $\theta_N > 0$, then Lemma 1 does not hold because the direct non-elite threat effect can swamp predatory and conflict-prevention motives for exclusion.

[16] The discussion of Appendix Figure A.1 addresses parameter values not covered by Proposition 4, including the indeterminacy of equilibrium powersharing if $\kappa > \frac{1-\nu}{p_i \cdot (1-\phi)}$ and $\theta_N < \theta_N^{\dagger\dagger}$.

- *Suppose affinity is intermediate,* $\kappa \in \big(1-\nu, 1-\nu+\epsilon\big)$ *for small enough* $\epsilon > 0$*.*
  - *Suppose the exclusion intercept holds. If* $\theta_N < \theta_N^{\dagger}$*, then* D *excludes and* $Pr(coup^*) = 0$*; and otherwise,* D *shares power and* $Pr(coup^*) = F(x_i^*)$*, which strictly increases in* θ_N*. Therefore, the overall relationship between* θ_N *and* $Pr(coup^*)$ *is weakly increasing. Panel A of Figure 3 depicts this case.*
  - *If the exclusion intercept fails, then* D *shares power for all* $\theta_N \in [0,1]$ *and* $Pr(coup^*) = F(x_i^*)$*, which strictly increases in* θ_N*.*
- *If affinity is high,* $\kappa > \frac{1-\nu}{p_i \cdot (1-\phi)}$*, then there exists* $\theta_N^{\dagger\dagger} < \hat{\theta}_N^i$*, for* $\hat{\theta}_N^i < 1$ *introduced in Appendix Lemma A.2, such that if* $\theta_N > \hat{\theta}_N^i$*, then* D *excludes and* $Pr(coup^*) = 0$*.*

These findings differ from existing theories because (1) I parameterize affinity to non-elite rule and (2) assume the dictator faces a constant threat from elites. Given (1), increasing θ_N not only affects D's incentives to share power—as the conventional logic contends—but also affects E's incentives to stage a coup, a largely novel consideration for this literature. Even the specific finding of a non-monotonic relationship between θ_N and $Pr(coup^*)$, shown in Panel B, proposes a distinct mechanism from existing variants of the guardianship dilemma argument that produce a seemingly similar prediction. Acemoglu, Vindigni and Ticchi (2010) show that strong threats induce rulers to choose large militaries, and assume that governments can commit to continually pay large militaries but not small or intermediate-sized militaries. Svolik (2013) shows that the contracting problem between a government and its military dissipates as the military becomes large—the government's equilibrium response when facing a large threat—because the military can control policy without actually intervening (what he calls a "military tutelage" regime). Both these models assume that more severe outsider threats increase the military's bargaining leverage relative to the government, and that the size of the non-elite threat does not affect the military's consumption. By contrast, here, a non-monotonic relationship emerges specifically because κ is low enough that θ_N *decreases* the value of a coup attempt, which combined with the guardianship dilemma mechanism generates the non-monotonicity, a point I address again with the Malaysian case in Section 6. These considerations also highlight that even in Panel A, which supports the conventional logic, the mechanism is distinct because it results from parameterizing E's affinity toward N.

Another closely related contribution is McMahon and Slantchev (2015), who critique the guardianship dilemma logic. They also consider how θ_N affects E's incentives to stage a coup, but the two different assumptions highlighted above explain the difference in findings. First, they assume that $\kappa = 0$, which implies that higher θ_N diminishes E's incentives to stage a coup. However, I show that high κ generates the opposite relationship, given E's incentives to join the winning side. Second, a necessary condition to eliminate the guardianship dilemma logic—which their model does not contain—is the presence of a permanent elite actor that threatens the dictator. In existing models of coups, the ruler will never share power—or, using the terminology standard in these models, the ruler will never construct a specialized security agency—absent an non-elite threat because the military would create a cost (positive probability of a coup attempt) without a corresponding benefit (due to lack of fear of non-elite takeover).[17] This is, a condition equivalent to the exclusion intercept always holds in existing models. By contrast, my model presumes that a dictator always faces a threat from other elites, which implies that the exclusion intercept condition may not hold. Only in this case does the non-elite threat not affect D's equilibrium powersharing choice—because D shares power for all θ_E—which is necessary to eliminate the guardianship dilemma mechanism. By contrast, if the exclusion intercept condition holds and κ is intermediate, I show why the guardianship dilemma must hold, contrary to McMahon and Slantchev's (2015) argument.

5.3 Regime-Enhancing Non-Elite Threats

A final implication contrary to the conventional threat logic is that stronger non-elite threats may increase expected regime durability. The only direct effect of the non-elite threat in the model is to raise the exogenous probability of regime overthrow. But if $\kappa < 1 - \nu$, then higher θ_N lowers the probability of elite overthrow and also mitigates the direct effect by raising the probability that D and E band together—which decreases the probability of non-elite overthrow. These countervailing effects can dominate the direct effect and imply that the equilibrium probability of D losing power (to either E or N) is lower when facing a strong non-elite threat than at $\theta_N = 0$. Equation 12 states the equilibrium probability of overthrow, $\rho^*(\theta_N)$.

[17] In McMahon and Slantchev (2015), this would entail the ruler not delegating national defense to a specialized military agent. They explicitly only analyze parameter values in which the non-elite threat is sufficiently large that the ruler optimally delegates to a military agent—creating positive coup risk for all parameter values that they analyze—but my argument holds for their model under the full range of possible values of non-elite threat strength.

$$\rho^*(\theta_N) = \begin{cases} \overbrace{F(x_e^*)\cdot p_e}^{\text{Pr(elite overthrow)}} + \overbrace{\Big[F(x_e^*)\cdot(1-p_e) + 1 - F(x_e^*)\Big]\cdot\theta_N}^{\text{Pr(non-elite overthrow | no elite overthrow)}} & \text{if } \theta_N < \theta_N^\dagger \\ \overbrace{F(x_i^*)\cdot p_i}^{\text{Pr(elite overthrow)}} + \overbrace{\Big[F(x_i^*)\cdot(1-p_i) + \big[1 - F(x_i^*)\big]\cdot\nu\Big]\cdot\theta_N}^{\text{Pr(non-elite overthrow | no elite overthrow)}} & \text{if } \theta_N \in \big(\theta_N^\dagger, \underline{\theta}_N^i\big) \\ \overbrace{\nu\cdot\theta_N}^{\text{Pr(non-elite overthrow)}} & \text{if } \theta_N > \underline{\theta}_N^i \end{cases} \tag{12}$$

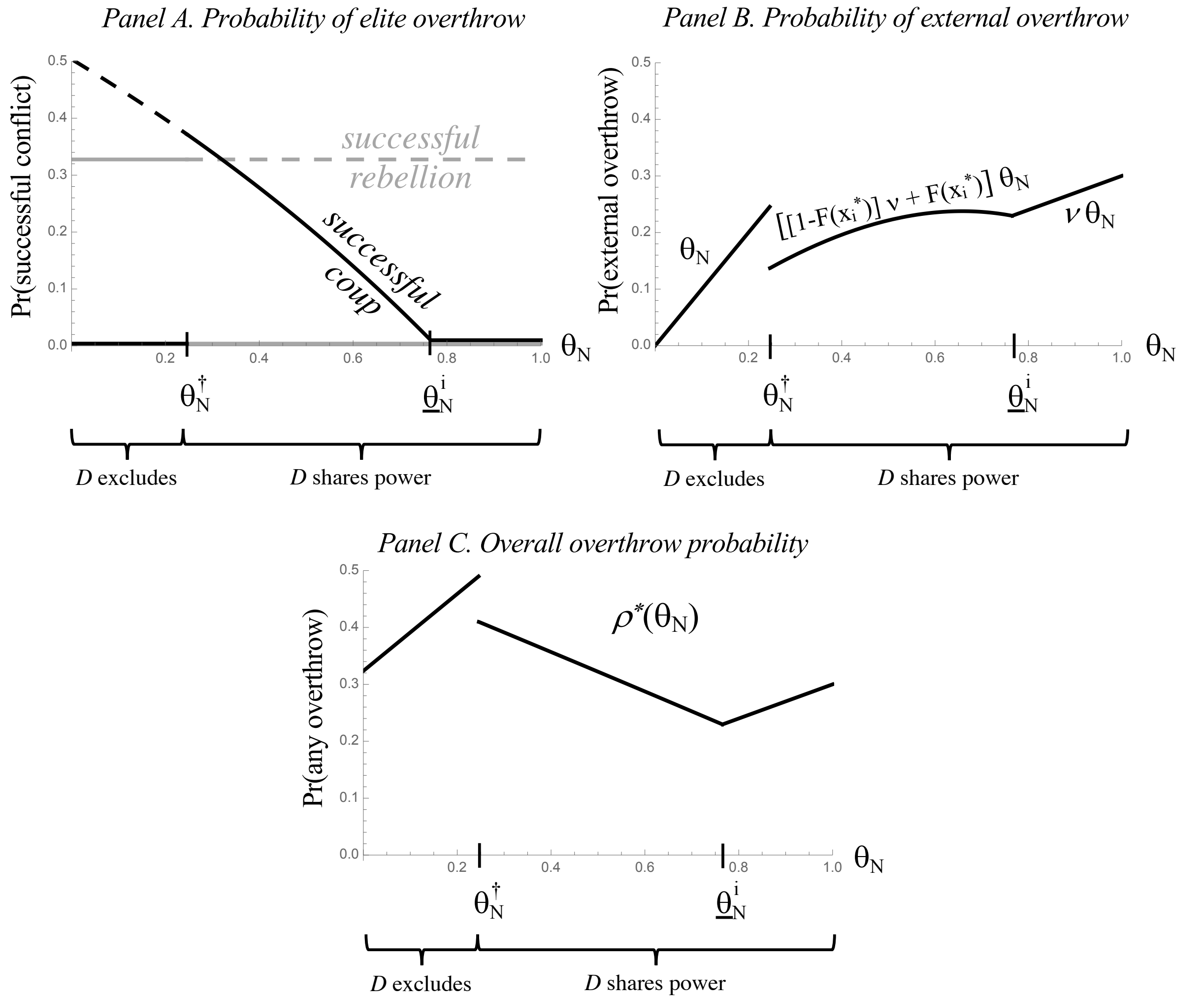
To illustrate the logic of the contrarian result, Figure 4 depicts the probability of overthrow (as in Figure 2) rather than of conflict occurring. It assumes that κ and ν are each low, which I later formalize as necessary conditions for the result. Panel A depicts the equilibrium probability of overthrow by E (either coup or rebellion), Panel B by N,[18] and Panel C by either. Each panel in Figure 4 divides θ_N into three distinct ranges. In the low range with $\theta_N < \theta_N^\dagger$, D excludes E from power. The elite overthrow probability, $F(x_e^*)\cdot p_e$, is constant in θ_N. However, Panel C shows that the overall probability of overthrow strictly increases in θ_N because, as Panel B shows, the probability of non-elite overthrow equals θ_N.

Two countervailing discrete shifts occur at the powersharing threshold $\theta_N = \theta_N^\dagger$. First, Panel A shows that for the depicted parameter values, the probability of elite overthrow increases from $F(x_e^*)\cdot p_e$ to $F(x_i^*)\cdot p_i$. Second, Panel B shows that the probability of non-elite overthrow declines from θ_N to $\Big[\big[1 - F(x_i^*)\big]\cdot\nu + F(x_i^*)\Big]\cdot\theta_N$. The net effect is that the overall probability of overthrow discretely drops at $\theta_N = \theta_N^\dagger$, which Panel C depicts.

Three effects interact in the intermediate range, $\theta_N \in \big(\theta_N^\dagger, \underline{\theta}_N^i\big)$. The probability of elite overthrow, $F(x_i^*)\cdot p_i$, strictly decreases in θ_N because higher θ_N deters coup attempts (Panel A). The probability of non-elite overthrow, $\Big[\big[1 - F(x_i^*)\big]\cdot\nu + F(x_i^*)\Big]\cdot\theta_N$, reflects two countervailing effects (Panel B). The direct effect of higher θ_N increases the probability of non-elite overthrow. However, an indirect effect counteracts the positive direct effect. Lower coup probability $F(x_i^*)$ decreases the likelihood that N takes over with probability θ_N as opposed to $\nu\cdot\theta_N$. These countervailing effects result in a non-monotonic relationship between θ_N and the probability of non-elite overthrow for intermediate θ_N values. For these parameter

[18]Panel B depicts the unconditional probability of non-elite overthrow, which differs from the corresponding term in Equation 12 that conditions on no overthrow by E. Therefore, the equilibrium lines from Panels A and B do not sum to those in Panel C.

Figure 4: Non-Elite Threats and Probability of Overthrow



Notes: Each panel of Figure 4 uses the same parameter values as in Panel A of Figure 3 except they lower ν to 0.3 and set $\theta_E = 0.7$.

values, the overall effect of θ_N on the probability of overthrow is negative (Panel C).

Finally, if $\theta_N > \underline{\theta}^i_N$, then the probability of elite overthrow equals 0 because the strong non-elite threat completely deters coup attempts (Panel A). The probability of non-elite overthrow, $\nu \cdot \theta_N$, strictly increases in θ_N (Panel B), which implies that the overall overthrow probability strictly increases in θ_N (Panel C).

Panel C of Figure 4 highlights the striking finding that stronger non-elite threats can enhance regime durability: $\rho^*(\underline{\theta}^i_N) < \rho^*(0)$. Proposition 5 formalizes that this occurs whenever a strong center condition holds, that is, ν is low enough; and lower κ makes this condition more likely to hold. Modeling a permanent elite threat is necessary to generate this effect because, if instead $\theta_E = 0$ and $\underline{p}_e = 0$, then $\rho^*(0) = 0$.

Proposition 5 (Non-elite threats and regime survival)**.** *If $\theta_E > 0$ and $\kappa < \frac{(1-\nu)\cdot\omega}{p_i\cdot(1-\phi)}$, then there exists a unique $\nu' > 0$ such that if $\nu < \nu'$, then $\rho^*\left(\underline{\theta}^i_N\right) < \rho^*(0)$, for $\rho^*(\theta_N)$ defined in Equation 12. This is the* ***strong center condition****.*

6 Implications for Empirical Cases

6.1 Elite Threats

Table 2: Empirical Implications of Elite Threat Results

Parameter values	*Condition in model*	*Empirical cases*
Low $\overline{p}_i$ or high ω	Steep rebellion slope holds	China, USSR, Mexico (strong party)
High $\overline{p}_e$	Steep rebellion slope holds	Benin (strong rival ethnic group)
High $\overline{p}_i$ and low ω	Steep rebellion slope fails	Angola (coup threat)
High $\underline{p}_e$	Weak rebellion intercept fails	Uganda (countercoup threat)

The conventional threat logic applies in two circumstances that Part a of Proposition 3 describes. First, low $\overline{p}_i$ or high ω—that is, low rates of coup success at high θ_E or high spoils associated with powersharing—decrease the probability of a coup attempt under inclusion. A strong ruling party corresponds with each condition. Institutionalized parties raise ω by providing a coordination mechanism for other elites to check transgressions by the ruler, and also provide credible means of future career advancement (Magaloni 2008; Svolik 2012, chapters 4 and 6). Parties with revolutionary origins can lower $\overline{p}_i$ by transforming the military into an organization in which members exhibit high loyalty to the party, regardless of other splits among elites prior to the revolution. Examples include Communist parties in the Soviet Union and China, and the PRI in Mexico (Svolik 2012, 129, Levitsky and Way 2013, 10-11). Strong parties may also aid with the surveillance duties typically performed by internal security organizations, which helps to coup-proof the regime by collecting effective intelligence about coup plots before they occur. This relates more broadly to how the presence of multiple countervailing security agencies can check each other to counterbalance against coup attempts (Quinlivan 1999), also resulting in low $\overline{p}_i$.

Second, the conventional threat logic is more likely to hold if $\overline{p}_e$ is high, that is, high probability of rebellion success for large θ_E. Roessler and Ohls (2018) discuss one plausible operationalization: ethnic groups located close to the capital. In such cases, rebels face lower hurdles to organizing an insurgency that can effectively strike at the capital. For example, both Benin and Ghana sustained powersharing regimes for decades after independence despite many successful coups that rotated power among different ethnic groups.

The major ethnic groups were relatively large $\left(\text{high } \theta_E\right)$ and located close to the capital $\left(\text{high } \overline{p}_e\right)$, and the devastating expected consequences of a civil war plausibly created high incentives to share power.

The absence of either or both conditions—high $\overline{p}_i$ and low ω, or low $\overline{p}_e$—implies that D will not tolerate the high coup risk posed by a strong E, despite its ominous rebellion threat (part b in Proposition 2). For example, in Angola, multiple rebel groups participated in a lengthy liberation war to end Portuguese colonial rule. Portugal finally set a date for independence in January 1975, negotiating with a transitional government that shared power among the three main rebel groups: MPLA (who controlled the government), UNITA, and FNLA. UNITA and FNLA clearly possessed a credible rebellion threat $\left(\text{high } \theta_E \text{ and } \overline{p}_e\right)$ given their involvement in fighting and intact military wings. However, Angola's fractured process of gaining independence implied that there were no institutions in place to help MPLA commit to promises to the other groups (low ω), or to enable MPLA to coup-proof its regime if it shared power with the other groups $\left(\text{high } \overline{p}_i\right)$. Consequently, the transitional government collapsed by August 1975. "Inevitably, the delicate coalition came apart as the leaders of the three movements failed to resolve fundamental policy disagreements or control their competition for personal power" (Warner 1991). Unfortunately, Angola is not unique as attempts at military integration following civil war often fail (Glassmyer and Sambanis 2008). For example, in Chad in 1979: "The integration of the FAN into the national army . . . was not accomplished. When the prime minister demanded that he should be protected by the FAN rather than the national army, the FAN forces were already in the [the capital city, N'Djamena]; thus, amid the political and constitutional wrangling, there were de jure two armies in this beleaguered city of barely a quarter of a million souls, one belonging to the president and the other to the prime minister" (Nolutshungu 1996, 105-6).

A different possibility arises if the weak rebellion intercept condition fails and D shares power at $\theta_E = 0$. Part b of Proposition 3 shows can arise if the probability of rebellion success $\underline{p}_e$ is high, which above I motivated in terms of cases in which a group entrenched in power can launch a countercoup in response to attempted exclusion—"before losing their abilities to conduct a coup" (Sudduth 2017, 1769). For example, immediately after gaining independence from Europe, rulers in many countries inherited "split domination" regimes in which different ethnic groups controlled military and civilian political institutions (Horowitz 1985). Often, ethnic groups favored in the colonial military or bureaucracy posed a large coup threat for civilian leaders from other groups, but their entrenched position made exclusion difficult. For example, in colonial Uganda, Britain favored the Baganda, which exhibited a hierarchically organized political structure because of pre-colonial statehood and relatively high education levels. However, northern ethnic groups won national elections in the terminal colonial period, which engendered a tenuous and ultimately unstable powersharing regime after independence given the entrenched position of the Baganda.

6.2 Non-Elite Threats

Table 3: Empirical Implications of Non-Elite Threat Results

Parameter values	*Condition in model*	*Empirical cases*
High ν or high κ	Strong center condition fails	Rwanda, Egypt (high affinity), WWI Russia (weak state)
Low ν and low κ	Strong center condition holds	Malaysia, South Africa (shared elite threat)

The conventional logic that stronger non-elite threats decrease regime longevity holds if the strong center condition fails, either because elites have high affinity for non-elite rule (high κ) or if cooperation among elites minimally diminishes prospects for non-elite takeover, high ν (Proposition 5). As an example of high κ, in Rwanda, many ethnic Tutsi fled the country following Hutu overthrow of the Tutsi monarchy in 1959. Through the 1990s, ethnic Hutu dominated the Rwandan government (D), and Tutsis that remained in Rwanda composed the opposition (E). However, Tutsi living in Rwanda faced incentives to ally with their transnational ethnic kin, which had organized as the Rwandan Patriotic Front (RPF) in Uganda by 1990 (N). Following the Rwandan genocide in 1994, the RPF invaded Rwanda with support from Tutsi in Rwanda and has governed the country since 1995. Egypt and Tunisia during the Arab Spring in 2011 follow a similar logic. Although these armies (E) conceivably could have dispersed the protesters (N), these units were relatively professionalized and ethnically similar to the protesting masses, leading them to perceive a relatively high payoff under another regime (despite losing particular perks of the incumbent regime). By contrast, in Bahrain, Libya, and Syria, personalized and ethnically distinct militaries perceived bad fates following regime change (low κ) and violently defended the incumbent regime (Bellin 2012). More generally, the Egypt and Tunisia cases highlight how mass protests can create propitious conditions for coup attempts (Aksoy, Carter and Wright 2015), subject to the caveat that this should only be true if κ is high—otherwise, as discussed in the cases below, mass opposition should cause elites to circle the wagons against the threat.

Russia in 1917 exemplifies a case with high ν. "The Provisional Government completely lacked the authority or power to halt the attacks on privileged groups and the evolution toward anarchy. Right after the February Revolution, much of the former Imperial administration, including the police, dissolved . . . liberal representative organs lacked real authority with the masses of peasant and proletarian Russians who had previously been excluded from them and subjected directly to autocratic controls" (Skocpol 1979, 209-210). This provided the backdrop for Bolshevik (N) takeover later that year and the bloody civil war that followed.[19]

By contrast, Malaysia in its late colonial and post-independence period exemplifies a case with low ν and κ, and the regime faced a strong threat from Chinese communists (N).[20] Japanese occupation of colonial Malaya during World War II created an opening for the Malayan Communist Party to form and organize, which subsequently unleashed terror during the postwar interregnum—sparking the Malayan Emergency between 1948 and 1960 that caused over 10,000 deaths—and engaged in several episodes of communal violence after independence. Slater (2010, 92) argues that "Shared perceptions of endemic threats from below provide the most compelling explanation both for the internal strength of Malaysia's ruling parties, and for the robustness of the coalition adjoining them," which differs from the mechanism in existing guardianship dilemma models that strong non-elite threats can eliminate coup threats because the military is so powerful that it can dictate policy without needing to rule directly. Specifically, the major Malayan political party UMNO (D) formed an alliance with a conservative Chinese party MCA (E) led by business leaders; this powersharing coalition governed the country until 2018. Despite shared ethnicity with N, κ was low for E. The communists not only targeted Malays, but also Chinese elites it labeled as conspirators, and communists' actions placed the entire Chinese community in suspicion, causing business leaders to organize the MCA. Elite unity successfully diminished communist pressure because of prior British colonial efforts that unified the security forces and raised taxes, which lowered ν. Appendix Section B.2 discusses additional regimes that also survived long periods while confronting strong non-elite threats: South Africa, Singapore, Taiwan, South Korea, and Indonesia.

Overall, in contrast to the conventional threat logic, dictators do not necessarily share power with elites that pose a strong rebellion threat. Nor will responding to non-elite threats by including other elites necessarily raise coup risk or imperil regime survival. Taken together, these results will hopefully encourage future theoretical and empirical research on the causes and consequences of authoritarian powersharing.

[19] If we conceive of the military as the elites in the Russia case (as opposed to the broader strata of elites under attack), then κ was also low in 1917 because many peasant recruits sided with the socialists.

[20] The historical material in this paragraph draws from Slater (2010).

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Online Appendix

Table of Contents

A Supplementary Information for Formal Results

Table A.1: Summary of Parameters and Choice Variables

Stage	Variables/description
1. Powersharing	• ω: Powersharing transfer to E • $\overline{\omega}$: Upper bound size of powersharing transfer
2. Bargaining	• x: D's additional transfer offer • $\overline{x}$: Maximum amount of the remaining budget $1-\omega$ that D can offer to E in the bargaining phase (drawn by Nature in between the powersharing and bargaining stages) • θ_E: E's threat capabilities • p_i: E's probability of winning a coup if included; equals $\theta_E \cdot \underline{p}_i + (1-\theta_E) \cdot \overline{p}_i$ • $\overline{p}_i$: Upper bound probability that a coup attempt succeeds • $\underline{p}_i$: Lower bound probability that a coup attempt succeeds • p_e: E's probability of winning a rebellion if excluded; equals $\theta_E \cdot \underline{p}_e + (1-\theta_E) \cdot \overline{p}_e$ • $\overline{p}_e$: Upper bound probability that a rebellion succeeds • $\underline{p}_e$: Lower bound probability that a rebellion succeeds • ϕ: Surplus destroyed by fighting
3. Non-elite overthrow	• θ_N: N's threat capabilities; this equals the probability of non-elite overthrow if D and E do not band together (D excludes and/or E fights) • ν: higher values indicate stronger state conditional on D and E banding together; probability of non-elite overthrow equals $\theta_N \cdot \nu$ if D and E band together • κ: E's affinity toward N

A.1 Algebra for Powersharing Constraint

Elaborating upon the algebraic steps used to derive manipulate Equation 7 into the powersharing constraint in Equation 9 provides greater intuition into from where the different mechanisms arise. Write out various consumption terms for D, all assuming no non-elite takeover occurs:

1. Inclusion and peaceful bargaining:

$$\left[1 - F\left(\tilde{x}_i\right)\right] \cdot \left(1 - \omega - \tilde{x}_i\right) \tag{A.1}$$

2. Inclusion and coup attempt:

$$F\left(\tilde{x}_i\right) \cdot \left(1 - p_i\right) \cdot (1 - \phi) \tag{A.2}$$

3. Exclusion:

$$\left[1 - F\left(\tilde{x}_e\right)\right] \cdot \left(1 - \tilde{x}_e\right) + F\left(\tilde{x}_e\right) \cdot \left(1 - p_e\right) \cdot (1 - \phi) \tag{A.3}$$

Table A.2 takes into account the probability of non-elite takeover and provides the probability of different consumption amounts for D. With probability $1 - \theta_N$, we have the baseline case in which no non-elite takeover occurs (however, the possibility of non-elite takeover does affect $\tilde{x}_i$ in consumption terms 1 and 2). In this case, D's net expected gain from powersharing equals its expected utility under inclusion minus expected utility under exclusion. With probability $\theta_N - \nu \cdot \theta_N$, non-elite takeover will not occur if D shares power and E accepts, but non-elite takeover will occur otherwise. In this case, the net expected gains from powersharing are D's expected utility under inclusion conditional on no coup attempt. With probability $\nu \cdot \theta_N$, non-elite takeover will occur regardless of D's behavior, and therefore the net expected gains to powersharing are 0 because D will consume 0 no matter what action it takes.

Table A.2: Probability of Different Consumption Amounts

Pr = $1-\theta_N$	$1 + 2 - 3$
Pr = $(1-\nu)\cdot\theta_N$	1
Pr = $\nu\cdot\theta_N$	0

Table A.2 enables stating:

$$\big(1-\nu\cdot\theta_N\big)\cdot 1 + \big(1-\theta_N\big)\cdot\Big(2 - 3\Big) \tag{A.4}$$

Substituting in consumption terms and equilibrium offers yields:

$$\begin{aligned}&(1-\nu\cdot\theta_N)\cdot\big[1-F\big(\tilde{x}_i\big)\big]\cdot\bigg[1-\frac{1-\theta_N\cdot(1-\kappa)}{1-\nu\cdot\theta_N}\cdot(1-\phi)\cdot p_i\bigg]\\ &+(1-\theta_N)\cdot F\big(\tilde{x}_i\big)\cdot(1-p_i)\cdot(1-\phi)-(1-\theta_N)\cdot\bigg\{\big[1-F\big(\tilde{x}_e\big)\big]\cdot\bigg[1-\frac{1-\theta_N\cdot(1-\kappa)}{1-\theta_N}\cdot(1-\phi)\cdot p_e\bigg]+F\big(\tilde{x}_e\big)\cdot(1-p_e)\cdot(1-\phi)\bigg\}\end{aligned} \tag{A.5}$$

Tedious algebra yields the following terms, which roughly correspond to the mechanisms stated in Equations 8 and 9:

$$\begin{aligned}&(1-\theta_N)\cdot\Big[\big[F(\tilde{x}_e)-F(\tilde{x}_i)\big]\cdot\phi-(p_i-p_e)\cdot(1-\phi)\Big]\\ &+\theta_N\cdot\big[1-F(\tilde{x}_i)\big]\cdot(1-\nu)\\ &+\theta_N\cdot\kappa\cdot(1-\phi)\cdot\Big[\big[1-F\big(\tilde{x}_e\big)\big]\cdot p_e-\big[1-F\big(\tilde{x}_i\big)\big]\cdot p_i\Big]\end{aligned}$$

The probability-of-conflict terms $F(\tilde{x}_i)$ and $F(\tilde{x}_e)$ are a function of θ_N, ν, and κ, and therefore to isolate the parameters that pertain to the non-elite threat, we need to substitute in the explicit expressions:

$$\begin{aligned}&(1-\theta_N)\cdot\bigg[F\big(\tilde{x}_e(\theta_N=0)\big)+\frac{(1-\phi)\cdot p_e}{1-\omega}\cdot\frac{\kappa\cdot\theta_N}{1-\theta_N}-F\big(\tilde{x}_i(\theta_N=0)\big)-\frac{(1-\phi)\cdot p_i}{1-\omega}\cdot\frac{\kappa\cdot\theta_N}{1-\nu\cdot\theta_N}+\frac{(1-\phi)\cdot p_i}{1-\omega}\cdot\frac{(1-\nu)\cdot\theta_N}{1-\nu\cdot\theta_N}\bigg]\cdot\phi\\ &-(1-\theta_N)\cdot(p_i-p_e)\cdot(1-\phi)\\ &+\theta_N\cdot\bigg[1-F\big(\tilde{x}_i(\theta_N=0)\big)-\frac{(1-\phi)\cdot p_i}{1-\omega}\cdot\frac{\kappa\cdot\theta_N}{1-\nu\cdot\theta_N}+\frac{(1-\phi)\cdot p_i}{1-\omega}\cdot\frac{(1-\nu)\cdot\theta_N}{1-\nu\cdot\theta_N}\bigg]\cdot(1-\nu)\\ &+\theta_N\cdot\kappa\cdot(1-\phi)\cdot\Big[\big[1-F\big(\tilde{x}_e\big)\big]\cdot p_e-\big[1-F\big(\tilde{x}_i\big)\big]\cdot p_i\Big]\end{aligned}$$

Moving these terms around yields the five mechanisms stated in the text:

$$\begin{aligned}&(1-\theta_N)\cdot\Big[F\big(\tilde{x}_e(\theta_N=0)\big)-F\big(\tilde{x}_i(\theta_N=0)\big)\Big]\cdot\phi\\ &-(1-\theta_N)\cdot(p_i-p_e)\cdot(1-\phi)\\ &+\theta_N\cdot\Big[1-F\big(\tilde{x}_i(\theta_N=0)\big)\Big]\cdot(1-\nu)\end{aligned}$$

$$+\theta_N \cdot \frac{1-\nu}{1-\nu\cdot\theta_N} \cdot \frac{(1-\phi)\cdot p_i}{1-\omega} \cdot \Big[(1-\theta_N)\cdot\phi + \theta_N\cdot(1-\nu)\Big]$$

$$+\theta_N \cdot \kappa \cdot (1-\phi) \cdot \Bigg\{ \Big[\big[1-F(\tilde{x}_e)\big]\cdot p_e - \big[1-F(\tilde{x}_i)\big]\cdot p_i\Big] + \frac{\phi}{1-\omega}\cdot\Big[p_e - \frac{1-\theta_N}{1-\nu\cdot\theta_N}\cdot p_i\Big] - \frac{p_i}{1-\omega}\cdot\frac{\theta_N}{1-\nu\cdot\theta_N}\cdot(1-\nu)\Bigg\}$$

A.2 Proofs for Elite Threat Results

The proof for Proposition 1 follows directly from the preceding text.

Proof of Lemma 1. Using Equation 9:

$$\mathcal{P}\big(\theta_E, 0\big) = \big[F(x_e^*) - F(x_i^*)\big]\cdot\phi - (1-\phi)\cdot(p_i - p_e),$$

which is strictly negative if $F(x_e^*) < F(x_i^*)$. ■

Proof of Lemma 2. If $\theta_N = 0$, then we can rewrite Equation 10 as:

$$\overline{F}_i^{\max}(\theta_E, 0) = F(x_e^*) - \frac{1-\phi}{\phi}\cdot\Big[\underline{p}_i - \underline{p}_e - \Delta p\cdot\theta_E\Big]$$

This yields:

$$\frac{d\overline{F}_i^{\max}(\theta_E, 0)}{d\theta_E} = \Delta p > 0,$$

where the sign follows because the lemma assumes $\Delta p > 0$. Given $F_i^{\max}\big(\theta_E, \theta_N\big) = \max\Big\{\overline{F}_i^{\max}, 0\Big\}$, this result proves all the statements in the lemma. ■

Proof of Lemma 3. It suffices to construct a set of parameter values such that $F(x_e^*)\cdot p_e - F(x_i^*)\cdot p_i > 0$ and $\mathcal{P}\big(\theta_E, 0\big) < 0$. The first equation implies that $\big[F(x_e^*) - F(x_i^*)\big]\cdot\phi > 0$. However, if this inequality is true, then there exists unique $\tilde{\phi} \in (0,1)$ such that if $\phi < \tilde{\phi}$, then $\mathcal{P}\big(\theta_E, 0\big) < 0$, for $\tilde{\phi}$ implicitly defined as:

$$\Big[F\big(x_e^*(\tilde{\phi})\big) - F\big(x_i^*(\tilde{\phi})\big)\Big]\cdot\tilde{\phi} = \big(1-\tilde{\phi}\big)\cdot(p_i - p_e)$$

■

Proof of Proposition 2, part a. The existence of at least one $\theta_E^\dagger \in (0,1)$ such that $\mathcal{P}\big(\theta_E, 0\big) = 0$ follows from the the weak rebellion intercept condition and steep rebellion and continuity in θ_E. Showing that $\mathcal{P}\big(\theta_E, 0\big)$ strictly increases in θ_E proves the unique threshold claim:

$$\frac{d\mathcal{P}\big(\theta_E, 0\big)}{d\theta_E} = \Delta p\cdot(1-\phi)\cdot\left(\frac{\phi}{1-\omega} + 1\right) > 0. \tag{A.6}$$

The sign follows because if the weak rebellion intercept and steep rebellion slope conditions each hold, then $\Delta p > 0$.

Proof of parts b–d. Equation A.6 establishes that $\mathcal{P}\big(\theta_E, 0\big)$ is strictly monotonic in θ_E, which implies that its upper bound is either $\mathcal{P}(0,0)$ or $\mathcal{P}(1,0)$. Therefore, if $sgn\big(\mathcal{P}(0,0)\big) = sgn\big(\mathcal{P}(1,0)\big)$, then $sgn\big(\mathcal{P}(\theta_E,0)\big) = sgn\big(\mathcal{P}(0,0)\big)$ for all $\theta_E \in [0,1]$, proving parts b and c. The structure of the proof for part d is identical to that for Proposition 2 except it needs to be shown that $\mathcal{P}\big(\theta_E, 0\big)$ strictly decreases in θ_E, which follows because if the weak rebellion intercept and steep rebellion slope conditions are each strictly violated, then $\Delta p < 0$, which is sufficient for $\frac{d\mathcal{P}(\theta_E,0)}{d\theta_E} < 0$ (see Equation A.6). ■

Proof of Proposition 3, part a.

$$\frac{d\mathcal{P}(1,0)}{d\overline{p}_e} = (1-\phi)\cdot\left(\frac{\phi}{1-\omega}+1\right) > 0$$

$$\frac{d\mathcal{P}(1,0)}{d\omega} = \frac{\phi}{(1-\omega)^2}\cdot\Big[1-\big(\overline{p}_i-\overline{p}_e\big)\cdot(1-\phi)\Big] > 0$$

$$-\frac{d\mathcal{P}(1,0)}{d\overline{p}_i} = (1-\phi)\cdot\left(\frac{\phi}{1-\omega}+1\right) > 0$$

Part b.

$$\frac{d\mathcal{P}(0,0)}{d\underline{p}_e} = -(1-\phi)\cdot\left(\frac{\phi}{1-\omega}+1\right) < 0$$

■

A.3 Proofs for Non-Elite Threat Results

To simplify the exposition in the text, Proposition 1 (whose proof follows directly from the preceding text) only covers the case with interior bargaining solutions. Collectively, Lemmas A.1 through A.4 characterize the equilibrium for all parameter values. As discussed in Section 5, even with Assumption 1—which guarantees interior solutions at $\theta_N = 0$—either x_i or x_e can hit a corner solution for higher values of θ_N. Lemma A.1 formalizes the full set of acceptable offers (conditional on inclusion/exclusion).

Lemma A.1 (Elite's willingness to accept)**.**

Part a. *Suppose E is included.*

- *If $\kappa < \underline{\kappa} \equiv \frac{\omega\cdot(1-\nu)}{(1-\phi)\cdot p_i}$, then $\frac{d\tilde{x}_i}{d\theta_N} < 0$ and there exists a unique $\underline{\theta}_N^i \in (0,1)$ such that $x_i^* \in (0, 1-\omega)$ if $\theta_N < \underline{\theta}_N^i$ and otherwise $x_i^* < 0$.*
- *If $\kappa \in \big(\underline{\kappa}, 1-\nu\big)$, then $\frac{d\tilde{x}_i}{d\theta_N} < 0$ and $\tilde{x}_i \in (0, 1-\omega)$ for all $\theta_N \in [0,1]$.*
- *If $\kappa \in \big(1-\nu, \overline{\kappa}\big)$, for $\overline{\kappa} \equiv \frac{1-\nu}{(1-\phi)\cdot p_i}$, then $\frac{d\tilde{x}_i}{d\theta_N} > 0$ and $\tilde{x}_i \in (0, 1-\omega)$ for all $\theta_N \in [0,1]$.*
- *If $\kappa > \overline{\kappa}$, then $\frac{d\tilde{x}_i}{d\theta_N} > 0$ and there exists a unique $\overline{\theta}_N^i \in (0,1)$ such that $x_i^* \in (0, 1-\omega)$ if $\theta_N < \overline{\theta}_N^i$, and otherwise $x_i^* > 1-\omega$.*

Part b. *Suppose E is excluded.*

- *If $\kappa = 0$, then $x_e^* \in (0, 1-\omega)$ and is constant in θ_N.*
- *If $\kappa > 0$, then $\frac{d\tilde{x}_e}{d\theta_N} > 0$ and there exists a unique $\overline{\theta}_N^e \in (0,1)$ such that $x_e^* \in (0, 1-\omega)$ if $\theta_N < \theta_N^e$ and $x_e^* > 1-\omega$ otherwise.*

Proof of Lemma A.1, part a. First show that $\tilde{x}_i$ is strictly monotonic in θ_N: strictly increasing if $\kappa > 1-\nu$ and strictly decreasing otherwise.

$$\frac{d}{d\theta_N}\left[p_i \cdot \frac{1-\theta_N \cdot (1-\kappa)}{1-\nu \cdot \theta_N} \cdot (1-\phi) - \omega\right] = \frac{p_i \cdot (1-\phi)}{(1-\nu \cdot \theta_N)^2} \cdot \Big[\big[1-\theta_N \cdot (1-\kappa)\big] \cdot \nu - (1-\nu \cdot \theta_N) \cdot (1-\kappa)\Big]$$

$$= \frac{p_i \cdot (1-\phi)}{(1-\nu \cdot \theta_N)^2} \cdot \big[\kappa - (1-\nu)\big].$$

Now prove the ordering $\underline{\kappa} < 1 - v < \overline{\kappa}$:

$$\frac{\omega \cdot (1-\nu)}{(1-\phi) \cdot p_i} < 1 - \nu < \frac{1-\nu}{(1-\phi) \cdot p_i} \implies$$

$$\omega < (1-\phi) \cdot p_i < 1,$$

which follows from Assumption 1 and from assuming $\phi \in (0,1)$ and $p_i \in [0,1]$.

Given strict monotonicity and the boundary condition at $\theta_N = 0$ that implies $x_i^* \in (0,1)$ (see Assumption 1), it suffices to show the following. Because $x_i^*(\theta_N = 1) = p_i \cdot \frac{\kappa}{1-\nu} \cdot (1-\phi) - \omega$, we have that $x_i^*(\theta_N = 1) < 0$ if and only if $\kappa < \frac{\omega \cdot (1-\nu)}{(1-\phi) \cdot p_i}$, which is how we defined $\underline{\kappa}$. Additionally, $x_i^*(\theta_N = 1) > 1 - \omega$ if and only if $\kappa > \frac{1-\nu}{(1-\phi) \cdot p_i}$, which is how we defined $\overline{\kappa}$. The implicit characterization of the two θ_N thresholds are:

$$p_i \cdot \frac{1 - \underline{\theta}_N^i \cdot (1-\kappa)}{1 - \nu \cdot \underline{\theta}_N^i} \cdot (1-\phi) - \omega = 0$$

$$p_i \cdot \frac{1 - \overline{\theta}_N^i \cdot (1-\kappa)}{1 - \nu \cdot \overline{\theta}_N^i} \cdot (1-\phi) - \omega = 1 - \omega,$$

which yields the respective explicit characterizations:

$$\underline{\theta}_X^i = \frac{\omega - (1-\phi) \cdot p_i}{\nu \cdot \omega - (1-\phi) \cdot p_i \cdot (1-\kappa)}$$

$$\overline{\theta}_X^i = \frac{1 - (1-\phi) \cdot p_i}{\nu - p_i \cdot (1-\kappa) \cdot (1-\phi)}$$

Proof of part b. If $\kappa = 0$, then $x_e^* = p_e \cdot (1-\phi)$, which is not a function of κ. If $\kappa > 0$, show that x_e^* strictly increases in θ_N:

$$\frac{d}{d\theta_N}\left[p_e \cdot \frac{1-\theta_N \cdot (1-\kappa)}{1-\theta_N} \cdot (1-\phi)\right] = \frac{p_e \cdot (1-\phi)}{(1-\theta_N)^2} \cdot \theta_N > 0$$

Finally, $\lim_{\theta_N \to 1} x_e^* = \infty$. The implicit characterization of the θ_N threshold is:

$$p_e \cdot \frac{1 - \overline{\theta}_N^e \cdot (1-\kappa)}{1 - \overline{\theta}_N^e} \cdot (1-\phi) = 1 - \omega,$$

which solves explicitly to:

$$\overline{\theta}_N^e = \frac{1 - \omega - p_e \cdot (1-\phi)}{1 - \omega - p_e \cdot (1-\phi) \cdot (1-\kappa)}$$

■

This is not the only possible source of corner solutions. For large enough θ_N, D may prefer to face a fight rather than to buy off E, even if there exists an interior offer that E would accept. Given that the present setup contains core tenets of bargaining models of war—D makes the bargaining offers and fighting is costly, and therefore D pockets the bargaining surplus saved by avoiding fighting—this may appear puzzling. The parameter κ creates the wedge: D has to compensate E for κ if it bargains, but if it fights then κ does not affect D's expected utility. Lemma A.2 shows that under values of κ such that either $x_i^* > 1 - \omega$ or $x_e^* > 1 - \omega$ (see Lemma A.1), for high enough θ_N, D prefers to make an offer that E will not accept.

Lemma A.2 (Dictator's willingness to make peace-inducing offer)**.**

Part a. *Suppose E is included.*

- *If $\kappa < \overline{\kappa}$, then $\mathbb{E}\big[U_D(\text{offer } \tilde{x}_i \big| E \text{ accepts } x_i \geq \tilde{x}_i)\big] > \mathbb{E}\big[U_D(\text{offer } 0)\big]$ for all $\theta_N \in [0,1]$.*
- *If $\kappa > \overline{\kappa}$, then there exists a unique $\hat{\theta}_N^i \in (0,1)$ such that $\mathbb{E}\big[U_D(\text{offer } \tilde{x}_i \big| E \text{ accepts } x_i \geq \tilde{x}_i)\big] > \mathbb{E}\big[U_D(\text{offer } 0)\big]$ if and only if $\theta_N < \hat{\theta}_N^i$.*

Part b. *Suppose E is excluded.*

- *If $\kappa = 0$, then $\mathbb{E}\big[U_D(\text{offer } \tilde{x}_e \big| E \text{ accepts } x_e \geq \tilde{x}_e)\big] > \mathbb{E}\big[U_D(\text{offer } 0)\big]$ for all $\theta_N \in [0,1]$.*
- *If $\kappa > 0$, then there exists a unique $\hat{\theta}_N^e \in (0,1)$ such that $\mathbb{E}\big[U_D(\text{offer } \tilde{x}_e \big| E \text{ accepts } x_e \geq \tilde{x}_e)\big] > \mathbb{E}\big[U_D(\text{offer } 0)\big]$ if and only if $\theta_N < \hat{\theta}_N^e$.*

Proof of part a.

$$\mathbb{E}\big[U_D(\text{offer } \tilde{x}_e \big| E \text{ accepts } x_e \geq \tilde{x}_e)\big] = \left[1 - p_i \cdot \frac{1 - \theta_N \cdot (1-\kappa)}{1 - \nu \cdot \theta_N} \cdot (1-\phi)\right] \cdot (1 - \nu \cdot \theta_N)$$

$$\mathbb{E}\big[U_D(\text{offer } 0)\big] = (1 - p_i) \cdot (1 - \theta_N) \cdot (1-\phi)$$

Algebraic rearranging shows that the first expression is greater than the second expression iff:

$$\kappa < \frac{\phi \cdot \left(\frac{1}{\theta_N} - 1\right) + 1 - \nu}{p_i \cdot (1-\phi)}$$

Because the right-hand side strictly decreases in θ_N, it hits its lower bound at $\theta_N = 1$. Substituting this in establishes that $\kappa < \overline{\kappa}$ implies $\mathbb{E}\big[U_D(\text{offer } \tilde{x}_e \big| E \text{ accepts } x_e \geq \tilde{x}_e)\big] > \mathbb{E}\big[U_D(\text{offer } 0)\big]$. If instead $\kappa > \overline{\kappa}$, then we can show that $\mathbb{E}\big[U_D(\text{offer } \tilde{x}_e \big| E \text{ accepts } x_e \geq \tilde{x}_e)\big] > \mathbb{E}\big[U_D(\text{offer } 0)\big]$ iff:

$$\theta_N < \hat{\theta}_N^i \equiv \frac{\phi}{p_i \cdot \kappa \cdot (1-\phi) + \phi - (1-\nu)}$$

To establish that the denominator of this term is strictly positive, because the denominator strictly increases in κ, it hits its lower bound at $\kappa = \overline{\kappa}$. Substituting this term into the denominator and simplifying yields $\phi > 0$.

Proof of part b.

$$\mathbb{E}\big[U_D(\text{offer } \tilde{x}_e \big| E \text{ accepts } x_e \geq \tilde{x}_e)\big] = \left[1 - p_e \cdot \frac{1-\theta_N \cdot (1-\kappa)}{1-\theta_N} \cdot (1-\phi)\right] \cdot (1-\theta_N)$$

$$\mathbb{E}\big[U_D(\text{offer } 0)\big] = (1-p_e) \cdot (1-\theta_N) \cdot (1-\phi)$$

Algebraic rearranging shows that the first expression is greater than the second expression iff:

$$\theta_N < \hat{\theta}_N^e \equiv \frac{\phi}{p_e \cdot \kappa \cdot (1-\phi) + \phi}$$

Further algebraic rearranging shows that $\hat{\theta}_N^e < 1$ iff $\kappa > 0$, and clearly $\hat{\theta}_N^e > 0$. ■

Lemma A.3 compares the thresholds from the previous two lemmas (the proof involves straightforward algebra). If $\kappa > \overline{\kappa}$, which is necessary for $\hat{\theta}_X^i < 1$, then $\hat{\theta}_X^i > \overline{\theta}_X^i$. Intuitively, as κ drives $\tilde{x}_i$ gets arbitrarily close to 1, D would fare better from facing a coup attempt for sure rather than compensating E for the high value of κ. By contrast, if $\omega < (1-\phi) \cdot (1-p_e)$, then $\hat{\theta}_X^e < \overline{\theta}_X^e$. This is tighter than the upper bound on ω stated in Assumption 1, but assuming this upper bound is consistent with the motivation for that assumption: although ω diminishes D's ability to buy off E under exclusion by decreasing the share of the budget that D can possibly offer, ω is small enough that the magnitude of this effect is not large enough to generate corner solutions. I impose Assumption A.1, which effectively means that we can ignore $\hat{\theta}_N^e$ in the remainder of the analysis.

Lemma A.3 (Comparing thresholds for corner solutions)**.**

Part a. *If $\kappa > \overline{\kappa}$, then $\overline{\theta}_N^i > \hat{\theta}_N^i$.*

Part b. *If $\omega < (1-\phi) \cdot (1-p_e)$, then $\overline{\theta}_N^e < \hat{\theta}_N^e$.*

Assumption A.1. $\omega < (1-\phi) \cdot (1-p_e)$

Equation 9 presents D's powersharing constraint if $\tilde{x}_i \in (0,1)$ and $\tilde{x}_e \in (0,1)$. The following definitions provide equivalent statement under various corner solutions. The first index in the subscript indicates whether $\tilde{x}_i$ is interior or equals 0, and the second index in the subscript indicates whether $\tilde{x}_e$ is interior or equals 1. We do not need to write a constraint if $\tilde{x}_i > 1$ because this guarantees that D will not share power.

Definition A.1 (Powersharing thresholds with corner solutions)**.**

$$\mathcal{P}_{0,in}(\theta_E,\theta_N) = \big(1-\nu\cdot\theta_N\big)\cdot(1-\omega)-(1-\theta_N)\cdot\Big[\big[1-F(\tilde{x}_e)\big]\cdot(1-\tilde{x}_e)-F(\tilde{x}_e)\cdot(1-p_e)\cdot(1-\phi)\Big]$$

$$\mathcal{P}_{in,1}(\theta_E,\theta_N) = \big(1-\nu\cdot\theta_N\big)\cdot\big[1-F(\tilde{x}_i)\big]\cdot(1-\omega-\tilde{x}_i)+(1-\theta_N)\cdot(1-\phi)\cdot\Big[F(\tilde{x}_i)\cdot(1-p_i)-(1-p_e)\Big]$$

$$\mathcal{P}_{0,1}(\theta_E,\theta_N) = \big(1-\nu\cdot\theta_N\big)\cdot(1-\omega)-(1-\theta_N)\cdot(1-p_e)\cdot(1-\phi)$$

These lemmas enable writing D's powersharing constraint for all possible parameter values. Note that the aggregate powersharing constraint $\mathcal{P}(\theta_E,\theta_N)$ is continuous in its arguments because $\lim_{\theta_N\to\underline{\theta}_N^i} x_i^*(\theta_N)=0$ and $\lim_{\theta_N\to\underline{\theta}_N^e} x_e^*(\theta_N)=1$.

Lemma A.4 (Optimal powersharing)**.**

Part a. *Suppose* $\kappa=0$.

- *If* $\theta_N<\underline{\theta}_N^i$, *then* D *shares power if and only if* $\mathcal{P}_{in,in}(\theta_E,\theta_N)>0$.
- *If* $\theta_N>\underline{\theta}_N^i$, *then* D *shares power if and only if* $\mathcal{P}_{0,in}(\theta_E,\theta_N)>0$.

Part b.1. *Suppose* $\kappa\in\big(0,\underline{\kappa}\big)$ *and* $\underline{\theta}_N^i<\overline{\theta}_N^e$.

- *If* $\theta_N<\underline{\theta}_N^i$, *then* D *shares power if and only if* $\mathcal{P}_{in,in}(\theta_E,\theta_N)>0$.
- *If* $\theta_N\in\big(\underline{\theta}_N^i,\overline{\theta}_N^e\big)$, *then* D *shares power if and only if* $\mathcal{P}_{0,in}(\theta_E,\theta_N)>0$.
- *If* $\theta_N>\overline{\theta}_N^e$, *then* D *shares power if and only if* $\mathcal{P}_{0,1}(\theta_E,\theta_N)>0$.

Part b.2. *Suppose* $\kappa\in\big(0,\underline{\kappa}\big)$ *and* $\underline{\theta}_N^i>\overline{\theta}_N^e$.

- *If* $\theta_N<\overline{\theta}_N^e$, *then* D *shares power if and only if* $\mathcal{P}_{in,in}(\theta_E,\theta_N)>0$.
- *If* $\theta_N\in\big(\overline{\theta}_N^e,\underline{\theta}_N^i\big)$, *then* D *shares power if and only if* $\mathcal{P}_{in,1}(\theta_E,\theta_N)>0$.
- *If* $\theta_N>\underline{\theta}_N^i$, *then* D *shares power if and only if* $\mathcal{P}_{0,1}(\theta_E,\theta_N)>0$.

Part c. *Suppose* $\kappa\in\big(\underline{\kappa},\overline{\kappa}\big)$.

- *If* $\theta_N<\overline{\theta}_N^e$, *then* D *shares power if and only if* $\mathcal{P}_{in,in}(\theta_E,\theta_N)>0$.
- *If* $\theta_N>\overline{\theta}_N^e$, *then* D *shares power if and only if* $\mathcal{P}_{in,1}(\theta_E,\theta_N)>0$.

Part d.1. *Suppose* $\kappa>\overline{\kappa}$ *and* $\hat{\theta}_N^i<\overline{\theta}_N^e$.

- *If* $\theta_N<\hat{\theta}_N^i$, *then* D *shares power if and only if* $\mathcal{P}_{in,in}(\theta_E,\theta_N)>0$.
- *If* $\theta_N>\hat{\theta}_N^i$, *then* D *excludes.*

Part d.2. *Suppose* $\kappa>\overline{\kappa}$ *and* $\hat{\theta}_N^i>\overline{\theta}_N^e$.

- *If* $\theta_N<\overline{\theta}_N^e$, *then* D *shares power if and only if* $\mathcal{P}_{in,in}(\theta_E,\theta_N)>0$.
- *If* $\theta_N\in\big(\overline{\theta}_N^e,\hat{\theta}_N^i\big)$, *then* D *shares power if and only if* $\mathcal{P}_{in,1}(\theta_E,\theta_N)>0$.

- *If $\theta_N > \hat{\theta}^i_N$, then D excludes.*

The proof strategy for the unique threshold claims in Proposition 4 is to show that $\mathcal{P}(\theta_E, \theta_N)$ is strictly monotonic in θ_N, which the following lemmas establish.

Lemma A.5 (Effect of non-elite threat on dictator's coup tolerance)**.**

Part a. *If $\kappa < \frac{1-\nu}{(1-\phi)\cdot p_i}$, then $\frac{d\overline{F}_i^{max}}{d\theta_N} > 0$ and $\overline{F}_i^{max}(\theta_E, 1) = 1$.*

Part b. *If $\kappa > \frac{1-\nu}{(1-\phi)\cdot p_i}$ and $\theta_N > \overline{\theta}^e_N$, then $\frac{d\overline{F}_i^{max}}{d\theta_N} < 0$ and $\lim\limits_{\theta_N \to 1} \overline{F}_i^{max} = -\infty$.*

Proof of part a. Implicitly differentiating Equation 10 yields:

$$\frac{d\overline{F}_i^{\max}}{d\theta_N} = \frac{\frac{\partial}{\partial\theta_N}}{-\frac{\partial}{\partial\overline{F}_i^{\max}}},$$

for:

$$-\frac{\partial}{\partial\overline{F}_i^{\max}} = (1-\nu\cdot\theta_N)\cdot(1-\omega-x_i^*) - (1-\theta_N)\cdot(1-p_i)\cdot(1-\phi) \tag{A.7}$$

and

$$\frac{\partial}{\partial\theta_N} = \underbrace{-\left(1-\overline{F}_i^{\max}\right)\cdot(1-\nu\cdot\theta_N)\cdot\frac{dx_i^*}{d\theta_N}}_{1}$$

$$+\underbrace{\left[1-F(x_e^*)\right]\cdot(1-x_e^*)+F(x_e^*)\cdot(1-p_e)\cdot(1-\phi)-\left[\left(1-\overline{F}_i^{\max}\right)\cdot(1-\omega-x_i^*)\cdot\nu+\overline{F}_i^{\max}\cdot(1-p_i)\cdot(1-\phi)\right]}_{2}$$

$$+\underbrace{(1-\theta_N)\cdot\left\{\left[1-F(x_e^*)\right]\cdot\frac{dx_e^*}{d\theta_N}+\frac{dF(x_e^*)}{d\theta_N}\cdot\left[1-x_e^*-(1-p_e)\cdot(1-\phi)\right]\right\}}_{3} \tag{A.8}$$

First, show that $-\frac{\partial}{\partial\overline{F}_i^{\max}} > 0$. Given Assumption 1, this function hits a lower bound at $x_i^* = 0$. Therefore, it suffices to show:

$$(1-\nu\cdot\theta_N)\cdot(1-\omega)+(1-\theta_N)\cdot(1-p_i)\cdot(1-\phi) > 0$$

Rearranging this expression yields:

$$\omega < 1 - \frac{(1-\theta_N)\cdot(1-p_i)\cdot(1-\phi)}{1-\nu\cdot\theta_N}$$

Given Assumption 1, it suffices to show:

$$1 - \frac{(1-\theta_N)\cdot(1-p_i)\cdot(1-\phi)}{1-\nu\cdot\theta_N} > (1-\phi)\cdot p_i$$

Algebraic rearranging yields a true inequality:

$$\underbrace{\phi \cdot \Big[1 - \overbrace{\theta_N \cdot \big(1 - p_i \cdot (1-\nu)\big)}^{\in(0,1)}\Big]}_{>0} + \underbrace{\theta_N \cdot (1-\nu) \cdot (1-p_i)}_{>0} > 0$$

Second, show that $\frac{\partial}{\partial \theta_N} > 0$. Term 3 in Equation A.8 is weakly positive because if $x_e^* = 1$, then it equals 0; and if $x_e^* < 1$, then it equals $\phi + \frac{\theta_N}{1-\theta_N} \cdot \kappa \cdot (1-\phi) \cdot p_e > 0$. Therefore, it suffices to show that $\kappa < \frac{1-\nu}{(1-\phi) \cdot p_i}$ implies that the following term is strictly positive:

$$\underbrace{-\big(1-\overline{F}_i^{\max}\big) \cdot (1 - \nu \cdot \theta_N) \cdot \frac{dx_i^*}{d\theta_N}}_{1} + \underbrace{\big[1 - F\big(x_e^*\big)\big] \cdot (1 - x_e^*) + F\big(x_e^*\big) \cdot (1-p_e) \cdot (1-\phi)}_{\text{First part of } 2}$$

$$\underbrace{-\Big[\big(1-\overline{F}_i^{\max}\big) \cdot (1 - \omega - x_i^*) \cdot \nu + \overline{F}_i^{\max} \cdot (1-p_i) \cdot (1-\phi)\Big]}_{\text{Second part of } 2} \tag{A.9}$$

There are four possible cases. Before solving each case, it is useful rearrange Equation 10 to explicitly solve for $\overline{F}_i^{\max}$ (for parameter values in which it attains an interior solution):

$$\overline{F}_i^{\max} = \frac{(1-\nu \cdot \theta_N) \cdot (1-\omega-x_i^*) - (1-\theta_N) \cdot \Big[\big[1 - F(x_e^*)\big] \cdot (1-x_e^*) + F(x_e^*) \cdot (1-p_e) \cdot (1-\phi)\Big]}{(1-\nu \cdot \theta_N) \cdot (1-\omega-x_i^*) - (1-\theta_N) \cdot (1-p_i) \cdot (1-\phi)} \tag{A.10}$$

Also note that the denominator of this expression is strictly positive because it is the same term as in Equation A.7.

Case 1. Suppose $x_e^* \in (0, 1-\omega)$ and $x_i^* \in (0, 1-\omega)$. We can substitute the interior solutions defined in Equations 2, 4, and 6 into Equation A.10; and then substitute that term as well as the interior solutions into Equation A.9. Algebraic rearranging shows that this term is positive if $\kappa < \frac{1-\nu}{(1-\phi) \cdot p_i}$.

Case 2. Suppose $x_e^* > 1-\omega$ and $x_i^* \in (0,1)$. We can substitute x_i^* defined in Equations 2 as well as $F(x_e^*) = 1$ into Equation A.10; and then substitute that term as well as x_i^* and $F(x_e^*) = 1$ into Equation A.9. Algebraic rearranging shows that this term is positive if $\kappa < \frac{1-\nu}{(1-\phi) \cdot p_i}$.

Case 3. Suppose $x_i^* = 0$ and $x_e^* = 1$. Because $x_i^* = 0$, term 1 in Equations A.8 and A.9 equals 0, so we need to show that term 2 is positive. This is true positive iff the following inequality holds:

$$\overline{F}_i^{\max} \cdot \Big[(1-p_i) \cdot (1-\phi) - (1-\omega) \cdot \nu\Big] < (1-p_e) \cdot (1-\phi) - (1-\omega) \cdot \nu$$

Because the left-hand side strictly increases in $\overline{F}_i^{\max}$ and $\overline{F}_i^{\max}$ hits its upper bound at 1, it suffices to show:

$$(1-p_i)\cdot(1-\phi)-(1-\omega)\cdot\nu < (1-p_e)\cdot(1-\phi)-(1-\omega)\cdot\nu,$$

which follows from assuming $p_e < p_i$.

Case 4. Suppose $x_i^* = 0$ and $x_e^* \in (0, 1-\omega)$. Term 2 in Equations A.8 and A.9 is positive if the following inequality holds:

$$\overline{F}_i^{\max}\cdot\Big[(1-p_i)\cdot(1-\phi)-(1-\omega)\cdot\nu\Big] < \big[1-F(x_e^*)\big]\cdot(1-x_e^*)+F(x_e^*)\cdot(1-p_e)\cdot(1-\phi)-(1-\omega)\cdot\nu$$

Because $F(x_e^*) \in (0,1)$, given the proof for Case 3, it suffices to show that $1-x_e^* > (1-p_e)\cdot(1-\phi)$. Assumption A.1 and Lemma A.3 imply that this is true.

Non-case. Note that $\kappa < \frac{1-\nu}{(1-\phi)\cdot p_i}$ implies that $x_i^* < 1-\omega$ (see Lemma A.1) and therefore we do not have to consider this case.

Proof of part b. The assumption $\theta_N > \overline{\theta}_N^e$ implies that $F(x_e^*) = 1$. The same steps as in Case 2 for part a imply that the term in Equation A.8 is strictly negative if $\kappa > \frac{1-\nu}{(1-\phi)\cdot p_i}$. ■

Lemma A.6 (Interior coup tolerance threshold)**.** *Suppose $\kappa < \overline{\kappa}$.*

- *If the exclusion intercept holds, i.e., $\mathcal{P}(\theta_E, 0) > 0$, then there exists a unique $\theta_N^{max} \in (0,1)$ such that if $\theta_N < \theta_N^{max}$, then $F_i^{max} = 0$; and otherwise $F_i^{max} = \overline{F}_i^{max}$.*
- *If the exclusion intercept fails, then $F_i^{max} = \overline{F}_i^{max}$ for all $\theta_N \in [0,1]$.*

Lemma A.7 (Increasing differences in coup functions)**.** *There exists an $\epsilon > 0$ such that if $\kappa < 1-\nu+\epsilon$ and $\theta_N < \theta_N^{max}$, then $\frac{d\mathcal{P}(\theta_E,\theta_N)}{d\theta_N} > 0$.*

Proof. Given Remark 1 and the assumption $\theta_N < \theta_N^{\max}$, it is equivalent to show $\frac{d}{d\theta_N}\big(\overline{F}_i^{\max} - F(x_i^*)\big) > 0$. Lemma A.5 establishes that $\frac{d\overline{F}_i^{\max}}{d\theta_N} > 0$ for $\epsilon < (1-\nu)\cdot\left(\frac{1}{p_i\cdot(1-\phi)-1}\right)$. If $\kappa < \frac{(1-\nu)\cdot\omega}{p_i\cdot(1-\phi)}$ and $\theta_X > \underline{\theta}_X^i$, then $x_i^* = 0$. Otherwise, for ϵ small enough, $x_i^* = \tilde{x}_i$ and it suffices to show:

$$\lim_{\epsilon\to 0}\frac{d\tilde{x}_i(\kappa = 1-\nu+\epsilon)}{d\theta_N} = (1-\phi)\cdot p_i\cdot\frac{1}{(1-\nu\cdot\theta_N)^2}\cdot\big[1-\nu+\epsilon-(1-\nu)\big] = 0$$

■

Proof of Proposition 4. For small enough $\epsilon > 0$, Lemmas A.5 through A.7 establish three relevant facts for any $\kappa < 1-\nu+\epsilon$:

1. $\mathcal{P}(\theta_E, 1) = F_i^{\max} - F(x_i^*) = 1 - x_i^*(\theta_E, 1)$. For any $\epsilon < (1-\nu) \cdot \left(\frac{1}{p_i \cdot (1-\phi) - 1}\right)$, we have $x_i^*(\theta_E, 1) < 1$, therefore the overall term is positive.
2. $\mathcal{P}(\theta_E, \theta_N)$ is continuous in θ_N.
3. If $\theta_N > \theta_N^{\max}$, then $\mathcal{P}(\theta_E, \theta_N)$ is strictly increasing in θ_N.

If $\mathcal{P}(\theta_E, 0) < 0$, then combining this boundary condition with facts 1 and 2 implies that the conditions for the intermediate value theorem hold: there exists at least one $\theta_N^\dagger \in \left(\theta_N^{\max}, 1\right)$ such that $\mathcal{P}(\theta_E, \theta_N^\dagger) = 0$. Fact 3 generates the unique threshold claim. If instead $\mathcal{P}(\theta_E, 0) > 0$, then facts 1 through 3 imply that $\mathcal{P}(\theta_E, \theta_N) > 0$ for all θ_N. The statements for coups follow from the previous results.

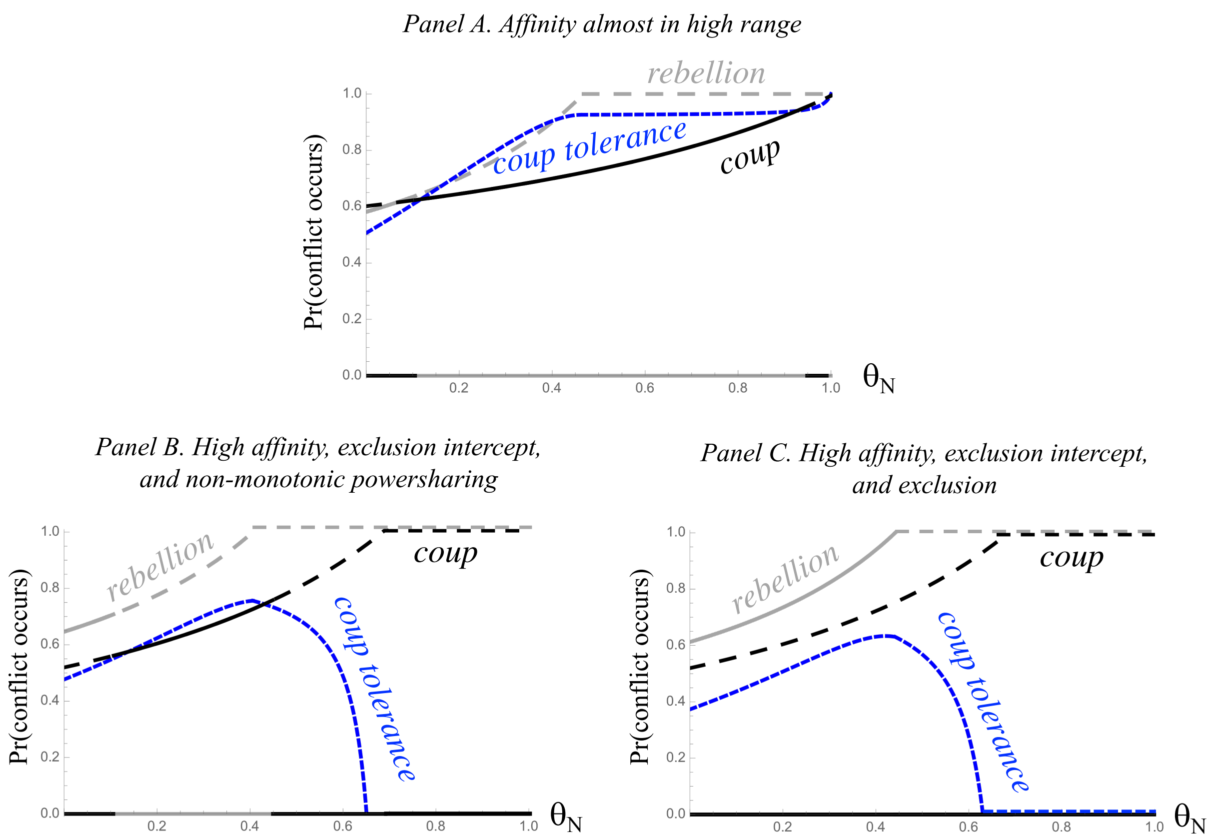
If $\kappa > \overline{\kappa}$, then $\mathcal{P}(\theta_E, \hat{\theta}_N^i) < 0$ follows from $p_i > p_e$. Part b of Lemma A.5 yields the unique threshold claim. ■

Although Proposition 4 demonstrates how κ alters equilibrium prospects for powersharing and coup attempts, it does not characterize these outcomes for all possible values of κ and θ_X. The proof for the proposition relies primarily on the monotonicity results for $\mathcal{P}(\theta_E, \theta_N)$ established in Lemmas A.5 through A.7. However, these proofs rely on the fact that x_i^* weakly decreases in θ_N if $\kappa < 1 - \nu$, and the increasing relationship between θ_N and x_i^* is arbitrarily small in magnitude if $\kappa > 1 - \nu$ but is contained within a neighborhood of this threshold. However, for larger values of κ, it is not possible the sign the difference between $F_i^{\max}$ and $F(x_i^*)$, which disables establishing unique thresholds. However, Figure A.1 considers several specific parameter values that highlight other theoretically possible relationships between θ_N and equilibrium powersharing for values of κ and θ_N not covered in Proposition 4.

In Panel A, $\kappa \in \left(1 - \nu, \overline{\kappa}\right)$ but is very close to $\overline{\kappa}$. This implies that $\tilde{x}_i$ never hits 1 but it gets close. As in Panel A of Figure 3, the exclusion intercept holds and D switches from exclusion to powersharing at $\theta_N = 0.11$. However, at $\theta_N = 95$, D switches back to exclusion—and then back to powersharing at $\theta_N = 0.99$. The switch at $\theta_N = 0.95$ occurs specifically because the monotonicity result the underpins the claims for intermediate κ in Proposition 4 does not hold: the magnitude of the effect of θ_N is positive for both $F_i^{\max}$ and $F(x_i^*)$ and larger in magnitude for the latter.

Proposition 4 ensures that if $\kappa > \overline{\kappa}$, then D will exclude for high enough θ_N. However, there are several possibilities for smaller θ_N. Panel D of Figure 3 highlights one, and Panels B and C of Figure A.1 highlights two others. The exclusion intercept holds in both of the latter. In Panel B, D switches from exclusion to powersharing at $\theta_N = 0.11$ before switching back to exclusion at $\theta_N = \hat{\theta}_N^i = 0.44$. In Panel C, $F_i^{\max}$ begins decreasing in θ_N before $F_i^{\max}$ intersects $F(x_i^*)$, and therefore D does not share power for any $\theta_N \in [0, 1]$. However, for all three cases in this figure, the complexity of the $F_i^{\max}$ function disables offering statements for general parameter ranges beyond those covered in Proposition 4.

Figure A.1: Additional Possible Cases for Effects of Non-Elite Threat



Notes: In Panel A, $\phi = 0.4$, $\underline{p}_e = 0$, $\overline{p}_e = 0.95$, $\underline{p}_i = 0.95$, $\overline{p}_i = 1$, $\theta_E = 1$, $\nu = 0.5$, $\omega = 0.02$, and $\kappa = 0.82$.

Proof of Proposition 5. The minimum value of $\rho^*(0)$ is $\min\left\{F\left(x_e^*(\theta_N = 0)\right) \cdot p_e, F\left(x_i^*(\theta_N = 0)\right) \cdot p_i\right\}$, which Assumption 1 guarantees is strictly positive if $\theta_E > 0$. We are assuming $\kappa < \underline{\kappa}$ and, therefore, $\underline{\theta}_N^i < 1$. It is trivial to calculate $\rho^*\left(\underline{\theta}_N^i, \nu\right) = \frac{\omega - (1-\phi)\cdot p_i}{\nu \cdot \omega - (1-\phi)\cdot p_i \cdot (1-\kappa)} \cdot \nu$, which immediately implies that $\rho^*\left(\underline{\theta}_N^i, 0\right) = 0 < \rho^*(0, 0)$. The following generates the unique threshold claim:

$$\frac{d\rho^*\left(\underline{\theta}_N^i, \nu\right)}{d\nu} = \frac{(1-\kappa)\cdot(1-\phi)\cdot p_i \cdot \left[(1-\phi)\cdot p_i - \omega\right]}{\left[(1-\kappa)\cdot(1-\phi)\cdot p_i - \nu \cdot \omega\right]^2} > 0.$$

The strict positivity of the numerator follows from Assumption 1. ■

B Additional Supplementary Information

B.1 Empirical Patterns in Introduction

The following provides additional data details for empirical patterns presented in the introduction.

- "*Among all authoritarian regimes between 1945 and 2010, 43% of years featured a ruling coalition centered around a personalist ruler, and in 34% of years, at least one-quarter of the country's population belonged to ethnic groups that, although politically active, lacked any cabinet or related positions in the central government.*" The sample is 4,591 authoritarian regime-years from Geddes, Wright and Frantz (2014), who also provide the personalist regime data. The 43% figure includes hybrid institutional regimes, and the corresponding figure is 25% for "pure" personalist regimes, i.e., without elements of party or military control. Cederman, Gleditsch and Buhaug (2013) provide the ethnic exclusion data, and I calculate the ethnicity statistic for the subset of the aforementioned sample with ethnicity data (3,858 authoritarian regime-years).

- "*Using the same sample as above, personalist regimes experienced 54% more years with armed battle deaths than other types of authoritarian regimes (22% of years versus 14%), and authoritarian regimes that excluded ethnic groups totaling at least one-quarter of the population experienced 94% more conflict years than broader-based authoritarian regimes (30% of years versus 15%).*" These figures use the 25 battle death threshold from ACD2EPR (Vogt et al. 2015). For both comparisons, the differences are statistically significant at 5% in bivariate regression specifications that cluster standard errors by country. The correlations are very similar when restricting the dependent variable to center-seeking civil wars in which rebels seek to capture the capital. Furthermore, many studies analyzing ethnic group-level data find that ethnic groups excluded from power are more likely to initiate rebellions than groups with access to central power (Cederman, Gleditsch and Buhaug 2013; Roessler 2016). Corroborating these findings, using the same set of authoritarian country-years but switching the unit of analysis to ethnic groups, ethnic groups lacking access to power are more than five times as likely to experience conflict onset than groups included in power (0.90% of group-years versus 0.18%), and this difference is also statistically significant at 5%.

B.2 Additional Cases of Non-Elite Threats

The Union of South Africa gained independence in 1910 and combined four regionally distinct colonies. Among the European population, British descendants dominated two regions and Dutch descendants controlled the other two. Despite sharing European heritage, South Africa exhibited severe political divisions at independence between British and Boer, which had fought a war against each other less than a decade prior, the Boer War. "When South Africans spoke of the 'race question' in the early part of the [20th] century, it was generally accepted that they were referring to the division between Dutch or Afrikaners on the one hand and British or English-speakers on the other" (Lieberman 2003, 76). This division created debates among English settlers (D), who were victorious in the Boer War, about how widely to share power with Afrikaners (E) when writing the country's inaugural constitution. This case fits the model's scope conditions of a weakly institutionalized polity with a realistic possibility of elite takeover attempts. However, whites also faced a grave potential threat from the African majority that composed roughly 80% of the population at independence (the non-elite threat). European settlers' livelihood rested upon confiscating the best agricultural land to create a cheap and mobile labor supply among Africans (Lutzelschwab 2013, 155-61). This implied considerably lower consumption for whites if the non-elites took over and corresponds with the model assumption that non-elite takeover yields 0 consumption for the dictator and elite. To overcome their numerical deficiency, South African whites invested heavily in their armed forces (Truesdell 2009). This effective repressive force depended upon conscription among the white population (i.e., both British and Boers), implying that only if whites banded together could they overcome insurmountable impediments to successfully repressing the majority $\big(\text{low } \nu\big)$. Although high repression costs eventually compelled whites to share power with Africans in 1994, this occurred 84 years after independence. This case exemplifies how non-elite threats can facilitate peaceful powersharing between two groups (British and Boers) that otherwise might have engaged in factional conflict, although focusing on this particular aspect of South African history does not attempt to minimize or overlook the plight of Africans that suffered from whites' cooperation, which lies outside the scope of the present model to examine.

This logic also provides strategic foundations for other arguments in the literature. Slater (2010) discusses authoritarian regimes that originate from "protection pacts," which exhibit broad elite coalitions that support heightened state power when facing an non-elite threat that elites agree is particularly severe and threatening. Slater argues that such regimes—including in Malaysia and Singapore since independence—feature strong states, robust ruling parties, cohesive militaries, and durable authoritarian regimes. Separately, Bellin (2000) studies 20th century democratization. She argues that one key factor that causes capitalists to support an incumbent dictator is fear of a threat from below. "Where poverty is widespread and the poor are potentially well mobilized (whether by communists in postwar Korea or by Islamists in contemporary Egypt), the mass inclusion and empowerment associated with democratization threatens to undermine the basic interests of many capitalists" (181). The non-elite threat that underpins protection pact regimes in Slater's theory and capitalists' alliances with dictators in Bellin's theory corresponds with conditions in the model in which the dictator and elite experience low consumption under non-elite takeover, high θ_N, and low ν—which should generate a lower probability that either elites or non-elites overthrow the dictator relative to a counterfactual scenario without an non-elite threat.

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