Organizing Authoritarian Coercion: Trading Off Insider and Outsider Threats

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September 17, 2020

Abstract

To defeat outsider threats, dictators rely on security agents. However, these insiders can themselves overthrow the regime. How do dictators trade off between insider and outsider threats? The standard arguments are: (1) personalist militaries lessen the insider threat whereas broadly recruited national militaries are better for defeating outsiders, and (2) strong outsider threats compel the dictator to choose a national military, despite higher coup risk. In my model, the dictator chooses a military agent, who then chooses among regime-maintaining repression, transitioning to outsider rule, or a coup. Contrary to existing intuitions, an ideologically moderate outsider eliminates the tradeoff between insider and outsider threats: a personalist military has stronger incentives to exercise repression than a national military because it consumes considerably less under outsider rule. Thus, outsider takeover is less likely with a personalist military, which also implies that stronger outsider threats do not raise coup risk. Standard intuitions hold only for radical outsider threats.

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Dictators vary in how they organize their militaries. Some rulers prioritize the competence of their security apparatus. They pursue *national* recruitment strategies for the officer corps and rank-and-file soldiers, and create a professional apparatus distinguished by meritocratic promotion and a disciplined hierarchical command. For example, upon attaining power in 1995, the Tutsi-dominated Rwandan Patriotic Front "sought to ensure the security and defense of the country by forming a coherent national defense force" that incorporated large numbers of Hutu soldiers from the previous regime, creating "one of the most capable militaries in Africa" (Burgess 2014, 92, 97). Alternatively, dictators can create *personalist* militaries and stack the officer corps with cronies (including unqualified family members and co-ethnics), and fragment the security apparatus by creating powerful paramilitaries and competing intelligence agencies. Quinlivan (1999) describes these practices in Saudi Arabia, Iraq, and Syria. National militaries correspond with what existing authors characterize as "strong," "unitary," "socially inclusive," or "standing professional" militaries; whereas personalist militaries correspond with "tinpot," "weak," "fragmented," "socially exclusive," "ethnic," or "non-professional" militaries.

The organization of the coercive apparatus matters for understanding authoritarian politics because the military is the survival tool of last resort for any dictatorship. Outsider threats are pervasive and, somewhat frequently, topple authoritarian regimes. Mass uprisings, rebel victory in civil war, and foreign invasions collectively accounted for 29% percent of authoritarian regime collapses between 1945 and 2010 (Geddes, Wright and Frantz 2018, 179). Regimes can survive only if their military successfully disbands protesters and fights effectively to defeat domestic or foreign armed groups. However, the very security agents tasked with defending the regime may themselves overthrow the regime, hence creating a threat from the inside. These threats are also omnipresent, as successful coups accounted for 35% of authoritarian regime collapses between 1945 and 2010 (Geddes, Wright and Frantz 2018, 179).

Given threats from the outside and inside, how do dictators choose between national and personalist military recruitment strategies to facilitate survival? There are two standard arguments in the literature. First, rulers *face a tradeoff between minimizing outsider threats and minimizing insider threats*. In his survey of pre-modern autocracies, Finer (1997*a*, 15-23, 59-63) argues that rulers could effectively coerce the opposition by creating a permanent professionalized military, rather than relying on community militias or feudal levies. However, "this very monopolization of weaponry in the hands of the state paradoxically threatens the ruling authorities' tenure of power; for the military forces may be more loyal to their own military leaders than their military leaders are to the ruling authorities. Hence the perennial problem of civil-military relations" (17). Scholars studying either civil wars or urban opposition movements in contemporary regimes posit a similar tradeoff. Powell (2014, 2) argues that leaders "find themselves mired in a paradox in which a weak military can leave them vulnerable to invasion or civil war, while a strong military could expedite their exit through a coup d'etat." Similarly, Greitens (2016, 4) proclaims: "Because coup-proofing calls for fragmented and socially exclusive organizations, while protecting against popular unrest demands unitary and inclusive ones, autocrats cannot simultaneously maximize their defenses against both threats."

The second standard argument concerns how rulers resolve this tradeoff between insider and outsider threats. The more immediate threat of insider overthrow via a coup causes many dictators to create "coup-proofed" personalist militaries, even though protecting against insider threats diminishes the military's effectiveness against outsider threats such as riots, protests, or armed groups.¹

¹Whereas national militaries recruit from broad segments of society, narrow recruitment strategies for personalist militaries can create manpower deficits (Quinlivan 1999). Ethnically biased recruitment can undermine intelligence networks in areas populated by excluded ethnic groups, which hinders counterinsurgency capabilities (Roessler 2016). Personalist militaries typically feature more extensive coup-proofing measures, such as preventing officers from communicating with each other and diverting resources to paramilitary organizations such as presidential guards. Exclusive recruitment and fragmented communication hinder the capacity of domestic intelligence agencies (Greitens 2016) and of the conventional military (Quinlivan 1999; Talmadge 2015), the organization usually called upon when facing an armed group or as the measure of last resort when However, this calculus changes when facing a particularly strong outsider threat, such as a large and well-organized urban organization, a rebel group with support from a large percentage of the country's population (e.g., large ethnic group), or a neighboring country with a large military. A strong outsider threat should compel the ruler to *switch to a national military*, despite the greater risk of a coup attempt (Acemoglu, Vindigni and Ticchi 2010; Besley and Robinson 2010; Svolik 2013; Greitens 2016). This creates a "guardianship dilemma" for dictators: the stronger guards that the ruler hires to combat a stringent outsider threat also pose a considerable insider threat.²

This paper rethinks these two core arguments about organizing authoritarian coercion. The main result is that rulers do not necessarily trade off between minimizing insider or outsider threats when organizing their military. National militaries do not necessarily defeat outsider threats with higher probability, nor do personalist militaries necessarily pose a lesser insider threat. Standard intuitions about the insider-outsider tradeoff and the guardianship dilemma hold only if the outsider actor is coercively strong and highly radical in its ideological orientation.

To explicate the logic, I analyze a game theoretic model. A dictator and a military agent interact in the shadow of an exogenous outsider threat, which varies in its coercive strength and its ideology (ranging from moderate to highly radical). In the baseline model, the dictator chooses how to organize its coercive apparatus, delegating authority either to a personalist or national military. The ruler survives only if the military exercises repression, but the military can alternatively choose to negotiate a transition to outsider rule. The advantage of the national military is that its greater coercive effectiveness increases the likelihood that it can successfully repress the opposition. The advantage of the personalist military is that it has a worse outside option if the outsider actor takes over. This model setup enables me to focus solely on how the strategic choices of the military shape the ruler's calculus, rather than imposing additional constraints such as a threat of countercoups (Sudduth 2017) or fiscal restrictions (Finer 1997*a*).³

confronting a broad-based urban movement.

²Below I discuss McMahon and Slantchev's (2015) critique of the guardianship dilemma logic.

³Appendix A.1 discusses how existing research addresses these alternative constraints. There,

Modeling an endogenous repression choice for the military agent while simultaneously allowing the outside threat to vary in its ideological orientation yields new insights into how dictators strategically organize their militaries. Despite a weaker coercive endowment, the *personalist* military defeats the outsider threat with higher probability than the national military if the outsider threat is ideologically moderate. What drives this result is that the national military has a relatively favorable outside option to rule by a non-radical outsider, but the personalist military does not. In the real world, national militaries usually survive intact if moderates take over, whereas patrimonial ties to the incumbent leave a personalist military prone to considerable restructuring in the next regime.⁴ In the model, this discrepancy in outside options causes the personalist military to exercise repression on behalf of the incumbent with considerably greater likelihood, which yields a lower probability of outsider takeover. Overall, in this circumstance, the ruler does not sacrifice her chances of surviving the outsider threat by relying on a personalist military.

Instead, dictators trade off between insider and outsider threats only when encountering strong *radical* threats. Personalist and national militaries alike face an existential crisis when facing a radical outsider who seeks to upend the existing social structure and elites.⁵ This bad outside I also discuss cases in which the ruler can afford a military that is both competent and has a low outside option, in which case the core tradeoff studied here does not bind the ruler.

⁴Contrast, for example, examples from Geddes (1999) and Bratton and van de Walle (1994). Geddes argues that collegially organized military dictatorships often voluntarily return to the barracks: "For officers, there is life after democracy, as all but the highest regime officials can usually return to the barracks with their status and careers untarnished" (131). She primarily considers examples from Latin America in the 1980s, where national militaries typically faced non-radical threats. By contrast, Bratton and van de Walle analyze personalist militaries in Sub-Saharan Africa in the 1990s. They tended to face greater incentives to hold on despite, in many cases, facing ideologically moderate demands by the opposition.

⁵Radical outsiders seek to transform the composition of the elite class, and perhaps the entire social structure. For example, the Chinese Communist party implemented a massive land reform during and after its struggle to capture power in 1949. This was necessary to "destroy the gentry-

option incentivizes either type of military to fight to defend the regime. In this case, the national military's greater coercive endowment translates into a higher probability of defeating the outsider threat, and the discrepancy relative to the personalist military grows in the strength of the outsider threat. Consequently, a strong *and radical* threat recovers the conventional wisdom about choosing the national military to defeat outsider threats, hence highlighting a crucial scope condition for existing arguments.

Explicating the endogenous disloyalty of the national military carries consequences beyond those for combating outsider threats. The most intriguing implication concerns insider threats and the conventional guardianship dilemma logic. I extend the model to provide a third option for the military—staging a coup—in addition to either repressing or negotiating a transition. Once again, the conventional logic holds only if the outsider threat is radical. Suppose we fix the outsider to have a radical orientation and then hypothetically increase its strength (e.g., Chinese communists before versus after World War II). As the conventional logic anticipates, the dictator will switch from a personalist to a national military. The equilibrium probability of a coup attempt discretely increases at this point, which recovers the well-known guardianship dilemma logic.

By contrast, a non-radical threat undermines the canonical guardianship dilemma implication. Two effects work against the conventional logic. First, as we have learned, the national military is unreliable when confronting a non-radical threat, causing the dictator to always prefer the personalist military. Thus, a stronger outsider threat does not yield the canonical guardianship dilemma implication that the ruler switches away from a personalist military. Second, a non-radical threat also causes the *personalist* military to exhibit higher coup propensity than the national military. This landlord class (and thus eliminate a potential counterrevolutionary threat), establish Communist political power within the villages, and thus promote the building of a centralized state with firm administrative control over the countryside" (Meisner 1999, 92). Levitsky and Way (2013, 7) discuss examples of twentieth-century revolutionary groups that sought to destroy traditional ruling and religious institutions, political parties, and the old army.

unexpected implication arises from a substitution effect between the military's two outside options. A non-radical threat not only makes the national military less likely to exercise repression, but also less likely to stage a coup relative to his other outside option, transitioning. By contrast, if the personalist military disobeys the ruler, he will *always* stage a coup rather than negotiate a transition. This creates parameter values in which the ruler chooses the personalist military despite having lower endowed ability to defeat the outsider threat *and* posing a greater insider threat.

In extensions, I consider incentives when exercising repression endogenously creates a more radical outsider, and incorporate a flee option for the national military (relabeled as a mercenary). Either of these alterations further attenuates the set of parameter values in which the national military is better against outsider threats than the personalist military. Finally, I present evidence from numerous empirical cases that support the main theoretical implications.

1 CONTRIBUTIONS TO EXISTING RESEARCH

My theoretical logic unifies insights from broad literatures on civil and international conflict, contentious politics, and authoritarian regimes, which analyze various challenges that dictators face. A key takeaway from the present analysis is that radicalness of the outsider threat influences the ruler's preference over type of military. When scholars study cases in which pro-democratic (and often urban-based) opposition movements pose the main outsider threat to the regime, they typically emphasize the importance of personalist ties between the ruler and their militaries for defeating the threat (Huntington 1993, 192-207; Levitsky and Way 2010, 54-61; Bellin 2012). By contrast, scholars focused on counterinsurgency and international warfare expound the drawbacks of personalist militaries as effective fighting units (Quinlivan 1999; Powell 2014; Talmadge 2015; Roessler 2016). Empirically, the radicalness of outsider movements covaries with opposition tactics. Nonviolent urban protests, especially successful ones, often feature broad-based and diverse membership and proclaim democratic aims (Chenoweth and Stephan 2011), therefore posing a non-radical threat. By contrast, many violent insurgent groups reject democracy and pose an existential radical threat (Huntington 1993, 200).⁶

Therefore, existing accounts separately address individual elements of the tradeoff that I discuss here. Some existing theories do not incorporate how the organization of the military affects its coercive capacity, whereas other theories do not address the endogenous choice to exercise repression. By contrast, I provide a *unified strategic logic* in which the radicalism of the outsider endogenously affects the incentives of the coercive apparatus to fight on behalf of the ruler, which in turn affects the type of military that the ruler creates.

It is also important to develop a unified strategic logic that incorporates how regimes combat popular threats and how they fight on the battlefield because these two settings for opposition movements raise similar operational considerations. Thus, assuming that the national military has a higher coercive endowment than the personalist military is empirically sensible regardless of the exact form that the outsider threat takes. Greitens (2016, 30-32) makes this argument explicitly. Her analog to a "national" military is an "inclusive and unitary" coercive apparatus, and to a "personalist" military is an "exclusive and fragmented" force. Regarding wars, she argues: "Maximizing military effectiveness on the battlefield requires decentralized command to improve responsiveness to the changing conditions of battle, and easy channels of communication across different units so that operations can be coordinated—a unitary rather than a fragmented institutional design." Similarly, for popular unrest: "Police and military organizations that handle multicity riot control, counterinsurgency, or other widespread forms of popular unrest must be able to engage in extended coordinated operations and communicate effectively across units, which makes fragmentation undesirable."

My model relates to various strands of the formal theoretic literature. McMahon and Slantchev (2015) also formally critique the guardianship dilemma logic. Their core finding is that stronger outsider threats do not elevate the insider threat, contrary to many existing models (Acemoglu, Vindigni and Ticchi 2010; Besley and Robinson 2010; Svolik 2013). My findings highlight a middle

⁶Appendix A.1 provides additional discussion of this literature.

ground between unconditional logical support for or against a guardianship dilemma. I follow the core premise from McMahon and Slantchev (2015) that the outsider threat endogenously affects the military's incentives to stage a coup, but I show that this setup does not necessarily eliminate the guardianship mechanism. If the outsider threat is radical, then a large-enough increase in the magnitude of the threat causes the dictator to switch from a personalist to a national military. This raises the equilibrium probability of a coup attempt, hence recovering the conventional guardianship mechanism. Instead, I show that only a *non*-radical threat eliminates the guardianship dilemma. In this circumstance, the ruler never turns to the national military, who is less likely to defeat the outsider threat. This insight follows from the novel aspects of my model: allowing the military to strategically choose whether to exercise repression, and parameterizing the outsider threat's radicalism.⁷

Outside the conflict setting, my findings relate to existing models of a dictator's loyalty-competency tradeoff. I depart by establishing the *conditions* under which dictators face a loyalty-competency tradeoff with their military, rather than simply *assuming* that dictators necessarily trade off between loyal and competent militaries. Specifically, Zakharov (2016) characterizes a dynamic loyalty-competency tradeoff between high-quality advisers that generate a high fixed payoff for the dictator, and low-quality advisers that—because they have a lower outside option to betraying the incumbent than high-quality advisers—endogenously demonstrate higher loyalty to the incumbent dictator. This resembles the present idea that national militaries have a higher reservation value to negotiating a transition with society. However, in my model, the dictator's utility depends on whether the military *chooses* to exert repressive effort, as opposed to rulers accruing a *fixed* rent from high-quality agents. This is the key element in my model that enables personalist militaries to defeat outsider threats with higher probability than national militaries. I also depart from Egorov and Sonin (2011), in which rulers always face a loyalty-competency tradeoff because of different

⁷McMahon and Slantchev (2015) instead assume that the military consumes 0 if the outsider takes over, which corresponds to the ideal-type radical threat in my model. Consequently, even if given the choice in their model, the military would never transition to outsider rule.

informational endowments. In their model, agents do not differ in their coercive ability to defend the regime.

Finally, my findings relate to other recent models of authoritarian repression. These focus on distinct and important considerations that, here, I black-box in order to focus on the strategic choice over the *type* of military that the ruler wants to create. Many analyze the coordination problems involved for militaries to either exercise repression on behalf of the dictator or to unseat her in a coup (Myerson 2008; Tyson 2018; Dragu and Lupu 2018; Dragu and Przeworski 2019). Other models analyze the endogenous effect of state repression either on the decision of citizens to mobilize (Pierskalla 2010; Ritter 2014; Gibilisco 2020) or on the equilibrium level of extremity among the opposition (Shadmehr 2015), a possibility that I consider in an extension. Nalepa (2020) and Bates et al. (2020) address the related question of optimal punishment strategies (i.e., transitional justice) for newly democratic regimes against lower-level security agents from the previous regimes that committed human rights abuses by exercising repression.

2 BASELINE MODEL WITH OUTSIDER THREAT

This section presents the baseline result that the national military defeats the outsider threat with higher probability than the personalist military only under certain conditions: the outsider threat is coercively strong *and* has highly radical ideological aims.

2.1 Setup

Two strategic players, a dictator and a military actor, make sequential choices in a one-shot game. They each face the same exogenous outsider threat, which has a fixed coercive endowment $\theta_O > 0$. The outsider also has a fixed ideology $r \in (0, 1)$, and higher r corresponds to a more radical threat. The dictator moves first and chooses to delegate to either a personalist or nationalist military. In the baseline model, the ruler consumes 1 if she survives in power, and 0 otherwise.

Then, two Nature moves occur that affect the military's calculus when he moves. The military

knows the realization of these draws when moving, whereas the ruler knows only their prior distribution. First, Nature draws a cost of implementing repression, $\epsilon_R \sim U[0, 1]$. Second, Nature (independently) chooses the strength of the outsider: strong or weak. With probability $q_N(\theta_O)$, the opposition turns out to be weak if the ruler hires the national military, whereas this probability is $q_P(\theta_O)$ with the personalist military. For simplicity, I assume that the military defeats a weak opposition with probability 1 if he represses, and defeats a strong opposition with probability 0.⁸ Drawing from the substantive motivation, I assume that the opposition is more likely to be weak if the ruler hires a national rather than a personalist military; higher θ_O decreases both of these probabilities; and this decrease is steeper for the personalist military. Formally, $\frac{dq_P}{d\theta_O} < \frac{dq_N}{d\theta_O} < 0$. For the lower bound $\theta_O = 0$, I assume $q_P(0) = q_N(0) = 1$. For the upper bound $\theta_O \to \infty$, we have $0 < q_P^{\infty} < q_N^{\infty} < 1$, for $q_N^{\infty} \equiv \lim_{\theta_O \to \infty} q_N(\theta_O)$ and $q_P^{\infty} \equiv \lim_{\theta_O \to \infty} q_P(\theta_O)$.⁹ Figure 1 depicts functional forms that satisfy these assumptions.





Notes: This figure sets $q_N = \frac{1+0.3 \cdot \theta_O}{1+\theta_O}$ and $q_P = \frac{1+0.1 \cdot \theta_O}{1+\theta_O}$.

⁸This incorporates a standard element from Acemoglu and Robinson (2006): in any period, the masses can succeed at revolution either with probability 0 or 1, although here the probability of either state is endogenous to the type of military that the opposition faces. Appendix A.2 explains why the results are similar if instead there is a non-degenerate probability of winning when the military moves.

⁹The proof of Appendix Proposition A.1 additionally assumes that q_P^{∞} is suitably small.

The chosen military agent decides between repressing the opposition and negotiating a transition. Repression entails a sunk cost ϵ_R introduced above. If the regime survives, then the military consumes 1. If instead the military negotiates a transition to outsider rule, then the personalist military consumes 0. This reflects the inherently bad outside option for real-life personalist militaries to step down. By contrast, the national military consumes $\pi^{\text{out}}(r) > 0$. The national military is strictly worse off under outsider rule the more radical is the outsider: $\frac{d\pi^{\text{out}}}{dr} < 0$. I set the bounds such that the national military consumes 0 under outsider rule if the outsider is maximally radical, $\pi^{\text{out}}(1) = 0$, and the national military consumes the same under outsider rule as in the status quo regime if the outsider is perfectly moderate, $\pi^{\text{out}}(0) = 1$.

2.2 ANALYSIS

The first key result is that the national military does not necessarily defeat the outsider threat with higher probability than the personalist military. The higher-valued outside option to transitioning creates a strategic reaction that can counteract the endowed coercive advantage.

Both militaries will negotiate a transition if Nature draws a strong opposition. In this case, exercising repression does not change the outcome (which is outsider takeover), but would impose a cost ϵ_R on the military.

If instead Nature draws a weak opposition, then the personalist military will always exercise repression. His alternative is to transition and consume 0, and (excepting measure zero outcomes) the highest possible cost of repression is less than 1. By contrast, the national military does not necessarily choose to repress a weak opposition because he has a better outside option to outsider rule. The necessary inequality for the national military to exercise repression is:

Repression over transition for national military:
$$\epsilon_R < 1 - \pi^{\text{out}}(r)$$
 (1)

Given the distribution for ϵ_R , this implies that, conditional on Nature drawing a weak opposition,

the probability that the national military exercises repression is:

$$\int_0^{1-\pi^{\operatorname{out}}(r)} dF(\epsilon_R) = 1 - \pi^{\operatorname{out}}(r).$$

Thus, we have the following probabilities of each action.

Lemma 1 (Probability of each military action).

Personalist military:

$$Pr(repress) = q_P(\theta_O)$$
$$Pr(transition) = 1 - q_P(\theta_O)$$

National military:

$$Pr(repress) = q_N(\theta_O) \cdot (1 - \pi^{out}(r))$$
$$Pr(transition) = 1 - q_N(\theta_O) \cdot (1 - \pi^{out}(r))$$

The ruler chooses the type of military that will exercise repression with higher probability, which is equivalent to choosing the military that will defeat the outsider threat with higher probability. This is the national military if and only if:

$$q_P(\theta_O) < q_N(\theta_O) \cdot \left(1 - \pi^{\text{out}}(r)\right) \tag{2}$$

Figure 2 provides visual intuition for the conditions under which the conventional logic holds national military defeats outsider threat with higher probability than personalist military—and when it fails. The figure is a region plot with outsider threat strength θ_0 on the horizontal axis and the outsider's radicalism r on the vertical axis. It highlights two regions in white in which the personalist military performs better in expectation than the national military. First, if r is low, then the national military is unreliable (region 1 in white). This highlights the importance of modeling the endogenous choice for the military to exercise repression. When facing a non-radical threat, the national military fares considerably better under outsider rule than the personalist military because $\pi^{\text{out}}(r)$ is high, which in turn makes the national military unlikely to exercise repression. If r is low enough, then this effect swamps the repressive advantages of the national military even if θ_O is arbitrarily large.



Figure 2: Which Military is Better Against the Outsider Threat?

Notes: Figure 2 uses the same functional form assumptions as in Figure 1, and $\pi^{\text{out}}(r) = 1 - r$. For these parameter values, $\hat{r} = 0.33$. This threshold does not correspond with the bottom of the shaded region because \hat{r} is defined by the asymptotic limits of $q_N(\theta_Q)$ and $q_P(\theta_Q)$, which are 0.3 and 0.1, respectively, with the present functional forms.

Second, if θ_O is low, then the national military is unnecessary (region 2 in white). Facing a weak threat, the gap between $q_N(\theta_O)$ and $q_P(\theta_O)$ is small because either type of military is likely to be able to defeat the outsider. Thus, even if r is high—which makes the national military likely to exercise repression—an even smaller difference in the probability that Nature draws a weak outsider threat overshadows this effect.

Only if both r and θ_O are large is the national military better for defeating the outsider threat (region 3 in gray). High θ_O widens the latent repressive advantage of the national military, and high r raises the likelihood with which the national military exercises repression. This also explains why the minimum value of θ_O at which the ruler prefers the national military decreases in r. Proposition 1

formalizes this logic, and Appendix A.3 proves every result stated in the text.

Proposition 1 (Choosing a military to defeat the outsider threat). Unique thresholds $\hat{r} \in (0, 1)$ and $\hat{\theta}_O \in (0, \infty)$ exist that have the following properties:

- Non-radical outsider. If $r < \hat{r}$, then the ruler chooses the personalist military.
- Weak outsider. If $r > \hat{r}$ and $\theta_O < \hat{\theta}_O$, then the ruler chooses the personalist military.
- Strong/radical outsider. If $r > \hat{r}$ and $\theta_O > \hat{\theta}_O$, then the ruler chooses the national military.

3 INSIDER THREATS AND THE GUARDIANSHIP DILEMMA

This section introduces the option for the military to stage a coup. As in the baseline model, conventional implications hinge on a radical outsider. If instead the outsider is non-radical, then the ruler does not trade off between insider and outsider threats, nor does the canonical guardianship dilemma hold. In fact, the ruler will choose the personalist military despite (relative to the national military) his weaker coercive endowment for defeating the outsider threat and his *higher* propensity to stage a coup.

3.1 SETUP: MILITARY'S COUP OPTION

I now assume that when the military moves, he can stage a coup in addition to either exercising repression or transitioning to outsider rule. There is a sunk cost, ϵ_C , to staging a coup. If Nature draws a strong outsider then, like repressing, staging a coup is hopeless because the military lacks the ability to prevent outsider takeover; hence, the benefit of a coup is 0. If instead Nature draws a weak outsider, then the benefits are π_N^{coup} and π_P^{coup} for the national and personalist militaries, respectively, with $0 < \pi_P^{\text{coup}} < \pi_N^{\text{coup}} < 1$. Nature draws the cost of a coup ϵ_C simultaneously with and independently of its other draws (strong/weak outsider, and ϵ_R), and the distribution is $\epsilon_C \sim U[0, \pi_N^{\text{coup}}]$ for the national military and $\epsilon_C \sim U[0, \pi_P^{\text{coup}}]$ for the personalist military. The

ruler consumes 0 if the military stages a coup.¹⁰

This setup captures in a straightforward way the standard assumption in the guardianship dilemma literature that more capable militaries are better-situated to stage a coup (Acemoglu, Vindigni and Ticchi 2010; Besley and Robinson 2010; Svolik 2013; McMahon and Slantchev 2015). There are various possible microfoundations. One relates to the opportunity to stage a coup: measures that hinder fighting capacity that are prevalent in personalist militaries, such as inhibiting communication among officers and building a presidential guard, specifically aim to guard against coups. Another possibility is that the personalist military exhibits higher intrinsic loyalty to the dictator, thus creating a higher opportunity cost of overthrowing her. Perhaps officers gain some type of "warm glow" from co-ethnic governance. For example, Quinlivan's (1999, 135) section "The Exploitation of Special Loyalties" begins by stating: "The building block of political action in Saudi Arabia, Iraq, and Syria is the 'community of trust' that is willing to act together." Alternatively, members of narrowly based militaries might exhibit similar preferences for public goods.

3.2 **REPRESSION, TRANSITION, OR COUP**?

I now consider the military's optimal choice given the additional outside option of staging a coup. Conditional on Nature drawing a weak outsider, which outside option does the military prefer? The personalist military always prefers a coup to transitioning for the same reason that he prefers repressing to transitioning. He consumes 0 under outsider rule, whereas his expected utility to a coup, $\pi_P^{\text{coup}} - \epsilon_C$, is strictly positive given the upper bound on draws of ϵ_C .

By contrast, the national military does not necessarily prefer a coup to transitioning—as discussed above, he has a better outside option to outsider rule. The necessary inequality for the national

¹⁰For simplicity, I assume that coup attempts succeed with probability 1 at toppling the ruler. As in the baseline model, resolving the military's uncertainty over whether an action will succeed eliminates higher-order terms that would greatly complicate the objective function without adding substantive insight (see Appendix A.2).

military to prefer a coup over transitioning is:

Coup over transition for national military:
$$\epsilon_C < \pi_N^{\text{coup}} - \pi^{\text{out}}(r)$$
. (3)

If r is low enough that $\pi^{\text{out}}(r) > \pi_N^{\text{coup}}$, then the national military's preferred outside option is transitioning for any draw of ϵ_C . I refer to this threshold as <u>r</u>.¹¹

We know from above that the personalist military always prefers repressing to transitioning, and we know the conditions under which the national military prefers repression to transitioning (Equation 1). Thus, the final comparisons are between a coup and repressing for each type of military:

Repression over coup for personalist military:
$$\epsilon_R - \epsilon_C < 1 - \pi_P^{\text{coup}}$$
. (4)

Repression over coup for national military:
$$\epsilon_R - \epsilon_C < 1 - \pi_N^{\text{coup}}$$
. (5)

Figure 3 depicts the different possible outcomes for each type of military, conditional on Nature drawing a weak outsider. Both panels are a region plot with ϵ_C on the horizontal axis and ϵ_R on the vertical axis. Given the assumed bounds on the distributions, the lower bound for each is 0; and the upper bounds are 1 for the vertical axis and, for the horizontal axis, either π_P^{coup} (Panel A) or π_N^{coup} (Panel B). The calculus for the personalist military, depicted in Panel A, is simpler because its preferred outside option is always to stage a coup. The figure shows that the personalist military will exercise repression when ϵ_R is low relative to ϵ_C , and otherwise will stage a coup.

There are two differences for the national military, shown in Panel B. First, if $\epsilon_C > \pi_N^{\text{coup}} - \pi^{\text{out}}(r)$, then transitioning is the preferred outside option. Thus, if we also have $\epsilon_R > 1 - \pi^{\text{out}}(r)$, then the national military will negotiate a transition despite being able to defeat the outsider (since the figure assumes that Nature has drawn a weak opposition). For these parameter values, the personalist military would have either exercised repression for the incumbent, or staged a coup.

¹¹The implicit definition of this unique $\underline{r} \in (0, 1)$ threshold is $\pi^{\text{out}}(\underline{r}) = \pi_N^{\text{coup}}$.



Figure 3: Probability of Each Military Action (Conditional on Weak Outsider)

Notes: This figure sets $\pi_P^{\text{coup}} = 0.4$, $\pi_N^{\text{coup}} = 0.8$, and r = 0.55.

Second, the diagonal line for the coup-repression boundary is farther to the right in Panel B than in Panel A because the national military has a higher utility to military rule: $\pi_N^{\text{coup}} > \pi_P^{\text{coup}}$. Hence, the national military requires a higher value of ϵ_C to forgo staging a coup.

This provides the intuition for Lemma 1, which states the probability of each choice for both types of militaries. These terms incorporate the probability that Nature draws a strong outsider, in which either type of military will transition. For the probability that the national military exercises repression, the outer integrals denote the military's preferred outside option, and the inner integrals compare exercising repression to the preferred outside option. For expositional simplicity, I present the full expression with the double integrals for repression only.¹²

Lemma 2 (Probability of each military action in coup extension).

¹²The probability functions have a triangular distribution because they incorporate the difference between two uniform random variables (see Equations 4 and 5).

Personalist military:

$$Pr(repress) = q_P(\theta_O) \cdot \frac{1}{\pi_P^{coup}} \cdot \int_0^{\pi_P^{coup}} \int_0^{1-\pi_P^{coup} + \epsilon_C} dF(\epsilon_R) dF(\epsilon_C) = q_P(\theta_O) \cdot \left(1 - \frac{\pi_P^{coup}}{2}\right)$$
$$Pr(coup) = q_P(\theta_O) \cdot \frac{\pi_P^{coup}}{2}$$

 $Pr(transition) = 1 - q_P(\theta_O)$

National military: If $r < \underline{r}$, then transitioning is the preferred outside option for any draw of ϵ_C , and therefore Lemma 1 characterizes the probability of repressing and of transitioning (and the probability of a coup is 0). If $r > \underline{r}$, then the probability of each action is as follows:

$$Pr(repress) =$$

$$q_{N}(\theta_{O}) \cdot \frac{1}{\pi_{N}^{coup}} \cdot \left(\int_{0}^{\pi_{N}^{coup} - \pi^{out}} \underbrace{\int_{0}^{1 - \pi_{N}^{coup} + \epsilon_{C}} dF(\epsilon_{R})}_{Repression \ over \ coup} dF(\epsilon_{C}) + \underbrace{\int_{\pi_{N}^{coup} - \pi^{out}}^{\pi_{N}^{coup} - \pi^{out}} \underbrace{\int_{0}^{1 - \pi^{out}} dF(\epsilon_{R})}_{Repression \ over \ transition} dF(\epsilon_{C}) \right)}_{Preferred \ outside \ option: \ coup} Preferred \ outside \ option: \ transition}$$

$$= q_{N}(\theta_{O}) \cdot \left(1 - \frac{\pi_{N}^{coup}}{2} - \frac{(\pi^{out})^{2}}{2\pi_{N}^{coup}}\right)$$

$$Pr(coup) = q_{N}(\theta_{O}) \cdot \left(\frac{\pi_{N}^{coup}}{2} - \frac{(\pi^{out})^{2}}{2\pi_{N}^{coup}}\right)$$

$$Pr(transition) = 1 - q_{N}(\theta_{O}) \cdot \left(1 - \frac{(\pi^{out})^{2}}{\pi_{N}^{coup}}\right)$$

3.3 RULER'S CHOICE OF MILITARY

The ruler cares solely about which type of military maximizes her survival prospects. Thus, she chooses the military that exercises repression with higher probability. Conditional on losing power, the ruler is indifferent between whether a transition or a coup causes her exit—either way, she

consumes 0. She chooses the national military if and only if:

$$q_P(\theta_O) \cdot \left(1 - \frac{\pi_P^{\text{coup}}}{2}\right) < \begin{cases} q_N(\theta_O) \cdot \left(1 - \pi^{\text{out}}(r)\right) & \text{if } r < \underline{r} \\ q_N(\theta_O) \cdot \left(1 - \frac{\pi_N^{\text{coup}}}{2} - \frac{(\pi^{\text{out}}(r))^2}{2\pi_N^{\text{coup}}}\right) & \text{if } r > \underline{r} \end{cases}$$

Introducing the coup threat does not qualitatively alter the ruler's calculus relative to the discussion above of outsider threats. The two key effects that drive Proposition 1 are still at work. First, higher θ_O makes the national military more necessary for defeating the outsider threat. Second, higher r undercuts the national military's incentive to negotiate a transition. Appendix Proposition A.1 formally characterizes the ruler's optimal choice. It is qualitatively similar to Proposition 1 because the ruler chooses the national military if and only if the outsider threat is radical $(r > \tilde{r})$ and strong $(\theta_O > \tilde{\theta}_O)$.

3.4 RETHINKING CANONICAL TRADEOFFS FOR AUTHORITARIAN COERCION

Do rulers face a tradeoff between insider and outsider threats? Do strong outsider threats trigger the canonical guardianship dilemma—i.e., cause the ruler to switch away from a personalist military and raise the probability of a coup? As in the baseline model, the conventional wisdom holds only if the outsider threat is radical. Figure 4 shows the different possibilities by depicting the relationship between θ_O and $Pr(\text{coup}^*)$, the equilibrium probability of a coup. Solid segments of curves correspond with parameter values in which the ruler optimally chooses the specified type of military, and dashed segments correspond with off-the-equilibrium path outcomes. Therefore, $Pr(\text{coup}^*)$ equals the piecewise function created by the solid segments of curves.

An increase in θ_O generates both a direct and an indirect effect. The direct effect is that higher θ_O increases the probability that Nature draws a strong outsider, which forces the military to negotiate a transition. Contrary to the standard guardianship logic, this mechanism yields a *negative* relationship between outsider threat strength and $Pr(\text{coup}^*)$. This logic is independent of military type or the radicalism of the outsider threat, as shown by the downward slope of each constituent curve

Figure 4: Equilibrium Probability of a Coup



Notes: Panel A uses the same functional form assumptions and parameters as the previous figures. Panel B lowers r to 0.25. For these parameter values, $\tilde{r} = 0.27$ and $\underline{r} = 0.2$.

in Figure 4. This resembles McMahon and Slantchev's (2015) finding that stronger outsider threats diminish $Pr(\text{coup}^*)$; in their model, because stronger outsider threats decrease the expected value of holding office (see also Paine 2020).

There are also indirect effects of θ_O on $Pr(\text{coup}^*)$ because θ_O affects the ruler's optimal choice of military agent. Panel A depicts a case in which the indirect effect of increasing θ_O recovers the canonical guardianship dilemma logic, contrary to McMahon and Slantchev's (2015) critique. If the outsider threat is sufficiently strong and radically oriented, then the ruler trades off between minimizing prospects for insider versus outsider removal. For high enough θ_O , the ruler switches from the personalist to the national military, which discretely increases $Pr(\text{coup}^*)$. Therefore, a radical threat generates (1) a tradeoff between defeating insider and outsider threats *and* (2) a guardianship dilemma. These implications align with the conventional wisdom.

By contrast, neither of these implications hold in Panel B, which is identical except r is lower. The ruler always retains the personalist military, despite his *higher* propensity for a coup than the national military. This is puzzling—after all, I followed existing research by assuming that the national military's expected payoff to taking over exceeds the personalist military's, $\pi_N^{\text{coup}} > \pi_P^{\text{coup}}$. I also assume that the military can stage a coup and install a military dictatorship only if Nature draws a weak opposition, and this is more likely for a national military.

The personalist military can exhibit higher propensity for a coup because there is a substitution effect between the military's two outside options, transitioning and coup. In a bilateral comparison between repression and coups, the national military is less likely than the personalist military to choose repression. But the same is true in a bilateral comparison between repression and transitioning. Thus, when introducing coups as a second outside option, for any parameter values for which the national military prefers coups to repression *but also prefers transitioning to either*, the bilateral comparison between repression and coups is irrelevant. By contrast, personalist militaries will not voluntarily transition, and therefore lack the substitution effect between the two outside options that arises for national militaries.

The value of r determines which effect dominates. We know that higher r makes the national military less likely to negotiate a transition, which benefits the ruler by making the national military more likely to repress the opposition. However, this effect also makes the national military more likely to stage a coup, since higher r decreases the likelihood that transitioning is the preferred outside option. Thus, the same effect that makes the national military more attractive for the ruler also makes him more likely to stage a coup. All else equal, the ruler would of course prefer that coup propensity is as low as possible, but if coups are eating into set of Nature draws for which the military would otherwise negotiate a transition, then they are less problematic for the ruler.¹³ Lemma 3 summarizes the relative propensity for each type of military to stage a coup, and Proposition 2 characterizes $Pr(\text{coup}^*)$.

Lemma 3 (Coup propensity for each type of military). A unique $\tilde{r}^{coup} \in (\underline{r}, 1)$ exists such that the national military is more likely than the personalist military to stage a coup if and only if $r > \tilde{r}^{coup}$.

¹³It is logically possible that the coup threat posed by the national military is so much greater than that for the personalist military that the ruler prefers the personalist military even if r = 1and $\theta_O \rightarrow \infty$. I rule this out by assuming q_P^{∞} is small enough (see the proof for Proposition A.1), which works in favor of recovering the conventional wisdom. **Proposition 2** (Outsider threats and the guardianship dilemma). *Given the thresholds stated in Appendix Proposition A.1 and Lemma 3:*

- **Radical threat.** If $r > \tilde{r}$, then $Pr(coup^*)$ strictly decreases in θ_O for $\theta_O \in (0, \tilde{\theta}_O) \cup (\tilde{\theta}_O, \infty)$.
 - If $r > \tilde{r}^{coup}$, then $Pr(coup^*)$ discretely increases at $\theta_O = \tilde{\theta}_O$. This recovers the canonical guardianship dilemma implication. See Panel A of Figure 4.
 - If $r < \tilde{r}^{coup}$, then $Pr(coup^*)$ discretely decreases at $\theta_O = \tilde{\theta}_O$, which contradicts the guardianship dilemma. Not depicted in Figure 4.
- Non-radical threat. If $r < \tilde{r}$, then $Pr(coup^*)$ strictly decreases in θ_O for all $\theta_O > 0$, which contradicts the guardianship dilemma. See Panel B of Figure 4.

4 ADDITIONAL EXTENSIONS

4.1 REPRESSION AND ENDOGENOUS RADICALISM

In the baseline model, I fix all aspects of the outsider threat. This provides a parsimonious framework for assessing existing arguments about insider versus outsider threats as well as the guardianship dilemma. However, government repression sometimes causes societal groups to radicalize, as examined in a broad literature on the "repression-dissent" paradox (Moore 2000; Ritter 2014). Furthermore, if we incorporate endogenous radicalization into the model, then we also need to model a choice for the ruler of whether to order repression in the first place. Alternatively, rulers can strategically concede to transitioning, which existing research ties to factors such as their ability to game the constitutional rules (Albertus and Menaldo 2018), fear that future autocrats will kill them (Debs 2016), or general anticipation of a favorable fate under democratic rule (Geddes 1999).

These considerations are straightforward to incorporate into the model, and they highlight an intriguing tradeoff for the ruler between survival and radical revolution. In Appendix A.4, I add a new strategic choice for the ruler relative to the baseline model: stepping down rather than hiring a military to exercise repression. To make this decision non-trivial, the ruler now gains positive consumption under societal rule and—like the national military—this consumption declines in the radicalness of the outsider. I assume that if the ruler initiates a transition, then the opposition will be moderate. However, if the ruler orders repression and the military complies, then the outsider becomes more radical. Given this setup, the national military is unreliable because he prefers living with a moderate opposition over paying high costs to defeat a radical one. Thus, the ruler's choice boils down to (a) the safe bet of living under rule by a moderate opposition and (b) gambling that it can defeat the opposition, but at the risk of takeover by extremists. Only rulers with narrow support bases will opt for the latter, which creates an affinity among kleptocratic rulers, personalist militaries, and social revolution.

4.2 MERCENARIES AND THE MILITARY FLEE OPTION

Earlier in history, many polities lacked a standing army or augmented a small corps of professional officers with other troops. In some epochs, the troops with the best fighting capacity were foreign mercenaries. In fifteenth-century Europe, for example, rulers could purchase the services of Swiss pikemen, whose formation and tactics were cutting-edge for military success. Alternatively, rulers could use less effective fighting forces such as local militias or feudal levies (Finer 1975, 93-5). Although the original substantive labels do not make sense in this historical context, distinguishing between *mercenary* troops and *militias* based on fighting effectiveness resembles the distinction from the baseline model between the national and personalist military, respectively. Coups by foreign mercenary troops were not a pressing threat to the ruler. Instead, the biggest concern was that they would flee and return to their home country. In Appendix A.5, I extend the baseline model to provide the mercenary army with an additional choice to flee.

Introducing a flee option further diminishes the set of parameter values in which a more competent military is better for defeating outsider threats. Given the flee option, a radical threat does not pin the mercenary army into a corner in which, effectively, he has no choice but to fight for the regime because of a bad outside option. Instead, a radical threat induces the mercenary army to flee, which decreases his reliability. This contrasts with the baseline result (see Figure 2 and Proposition 1) in which, in the face of a radical threat, the national military is almost always willing pay the costs of

repression.

5 APPLICATION TO EMPIRICAL CASES

The model explains why the strength and ideological aims of outsider threats affect the military's ability and willingness to save the regime as well as the military's propensity to stage a coup. In turn, these insider and outsider threats shape the ruler's choice over how to organize the military. Examples from diverse cases support these implications.

5.1 STRONG/RADICAL OUTSIDER THREATS AND NATIONAL MILITARIES

Many rulers have created broadly recruited and professional militaries in reaction to a strong and radical outsider threat. In some cases, the primary threat is foreign-based. The Chinese Nationalists that governed Taiwan starting in 1949 faced intense international competition from China's communist regime, which had caused the Chinese Nationalists to flee to Taiwan. Chinese Nationalists perceived their communist neighbors as a strong and radical threat. Coupled with a fear of domestic rebellion by native Taiwanese, Chiang Kai-shek shifted to a unified, inclusive coercive apparatus in the 1950s (Levitsky and Way 2010, 312; Greitens 2016, 75-111). In Egypt, starting with the Nasser regime in the 1950s, the primary objective of its military policy was to combat Israel, which it perceived as a strong anti-Arab threat. Although its exact strategies for war preparation shifted over time, it generally did not select recruits based on any standard loyalist characteristics, and for a period in the 1970s conscripted all eligible males (Barnett 1992, 80-152).

Rwanda is a "least likely" case for creating a national military given its history of racial tensions between Hutu and Tutsi. After the Hutu Revolution of 1959 terminated the historical Tutsi monarchy, Hutus monopolized all political and military positions from independence through the early 1990s.¹⁴ A Tutsi-dominated rebel group, the Rwandan Patriotic Front (RPF), overthrew the

¹⁴Vogt et al. (2015) provide information on political positions, and Harkness (2018) on military composition.

government in 1995 following a failed attempt at military integration and the ensuing Rwandan genocide. Despite this inauspicious history, the RPF immediately sought to nationalize the new state army—the core of which was now their armed wing. During the RPF's campaign, many with extremist beliefs about "Hutu power" fled to neighboring Zaire and posed a strong radical threat to the new regime, especially because Tutsis were only about 15% of the Rwandan population. Acknowledging this threat, "the RPF regime sought to ensure the security and defense of the country by forming a coherent national defense force, and it thus began the process of converting the RPA from a guerrilla army into a larger and more conventional force that could defend the country." Incorporating a large number of Hutu soldiers from the ex-state army was "[o]bviously a big risk" (Burgess 2014, 92), but deemed necessary given the large and radical outsider threat.

Other cases meet the professionalization aspect of my conceptualization of a "national" military despite recruiting only within a specific political community. In fact, it was precisely the groups not incorporated into the political community that the regime perceived as strong and radical outsider threats. Slater (2010) argues that the primary factor that shaped the organization of Malaysia's post-colonial regime was "a mass organization [that made] radical redistributive demands" (14). Specifically, the Chinese-dominated Malayan Communist Party caused mass disturbances and violence during the decolonization period and in 1969. This caused the regime to double-down on its strong coercive foundations to engage in a major military buildup (147-8). Although ethnic-majority Malays (60% of the population) dominated the security forces, within this community, the emphasis was on creating a strong coercive apparatus to counter the strong and radical outsider threat, rather than to stack the military with sycophants.

White-dominated South Africa is an even more extreme case given the small size of the national political community until franchise expansion in 1994. Like Rwanda, there were "least likely" aspects for South Africa to develop a professional military that recruited broadly among whites, given the historical animosity and fighting between English and Dutch descendants. However, white settlers had traditionally dominated the best land in the country and subjugated Africans to

create a cheap work force. Fear of economic redistribution caused them to perceive the African majority (80% of the population) as a radical threat, and changes unleashed by World War II— such as African urban migration and decolonization across Africa—increased the severity of this threat (Paine 2019). Cooperation among whites also engendered the social consensus needed for an effective tax state (Lieberman 2003) and to conscript the entire white population for a strong military (Truesdell 2009), which was necessary to overcome their numerical deficiency.

5.2 INCOMPETENT PERSONALIST MILITARIES

On the whole, the aforementioned national militaries performed at least adequately, and in some cases quite effectively, against the strong and radical threats they were tasked with defeating. Thus, the potential upside of creating a competent military is readily apparent when contrasting these cases with the many cases in which personalist militaries performed poorly. It is natural to think of creating a personalist military as the default strategy for authoritarian rulers, whether because they perpetuate colonial legacies or do not want to needlessly expose themselves to high coup risk (if not compelled by a strong outsider threat). One common tactic is to recruit along narrow ethnic lines despite making the regime vulnerable to outsider threats. Herbst (2004) discusses African cases such as Uganda in the early 1980s and Sierra Leone and Liberia in the early 1990s in which rulers hollowed out the military to prevent coups. In these cases, the insurgencies initially were quite weak, involving a several hundred or fewer people. However, a lack of accurate intelligence (particularly in rural areas distant from the capital) impeded the state from conducting effective counterinsurgency. Instead, coercive agents often relied on indiscriminate repression, which caused these movements to grow.¹⁵ Similarly, Roessler (2016) provides evidence from Sudan that the Khartoum government's limited intelligence networks in Darfur in the early 2000s led it to rely on incompetent and brutal *janjaweed* militias to conduct counterinsurgency, which

¹⁵In terms of the model, we can think of these cases as having low θ_O but Nature draws a strong opposition (which, for a fixed θ_O , is more likely when the ruler creates a personalist rather than national military).

triggered a broader civil war and genocide. Beyond Africa, the Marcos regime in the Philippines provides an example of this phenomenon in an urban setting (Slater 2010; Greitens 2016), and South Vietnam and Iraq amid battles in international wars (Talmadge 2015).

These cases also highlight the perilous position for rulers if the nature of the threat changes over time. In the 1980s, many African regimes accrued considerable aid from the United States or Soviet Union to prop up their personalist militaries, but this aid diminished considerably after the Cold War ended. This weakened the state and strengthened outsider movements. Rulers would have been better-positioned to combat these threats had they created broader-based militaries during the Cold War period (when the outsider threat was lower). There are seventeen cases in Sub-Saharan Africa of a rebel group gaining control of the state after militarily defeating a non-colonial government; of these, three occurred before 1990, and fourteen in 1990 or later.¹⁶

5.3 CONFRONTING NON-RADICAL THREATS

These advantages might seem to suggest that dictators would always prefer a national military, and that factors not included in the model (perhaps fiscal constraints or institutional legacies) are in fact more important that the ideological aims of the outsider for shaping military choice. However, various cases highlight a clear drawback of national militaries: when facing non-radical outsiders, they are less scared of relinquishing power. The Arab Spring of 2011 provides a set of well-known cases. Amid pro-democracy protests that emerged across Arab countries in early 2011, the nationally recruited Egyptian army acquiesced to regime transition, but the ethnically stacked army in Syria feared takeover by non-Alawites. Writing on the eve of the Arab Spring movement, van Dam (2011, 134-35) asserted, "[I]t appears to be very difficult to imagine a scenario in which the present narrowly based, totalitarian regime, dominated by members of the Alawi minority, who traditionally have been discriminated against by the Sunni majority, and who themselves have on various occasions severely repressed part of the Sunni population, can be peacefully transformed into a more widely based democracy" in which Alawis could count on "much understanding from

¹⁶Author's calculation.

a ... regime which would for instance be dominated by members of the Sunni majority." The civil war that resulted from the Syrian military's willingness to fight outsiders is still ongoing as of 2020. Although members of the al-Asad regime may consider the Sunni opposition as radical, in cases such as this, a national military would likely consider the protesters' and rebels' espoused democratization goals as non-radical—implying that disparities in repression incentives arise from differences between narrow- and broad-based militaries rather than from the outsider's radical-ism.

Bellin (2012) discusses broader variation in outcomes during the Arab Spring. She argues that militaries in Egypt and Tunisia acquiesced to a transition because of their higher institutionalization and national organization, whereas personalist militaries in Syria and Bahrain defended the regime. Libya is an intermediate case; although personalist elements of the regime fought to defend president Muammar Gadhafi, they were ultimately too weak to defeat the insurgent movement that emerged. These cases also highlight the danger of changes over time in the nature of the threat. As noted, the primary goal in the organization of the Egyptian military was to combat the Israeli threat. However, in early 2011 when urban protesters became the primary threat, the national orientation of the military became a liability rather than an asset.

Earlier in history, the fear that broadly recruited militaries would mutiny was a driving factor in the embrace of "martial race" recruitment practices by European colonizers. The Indian Rebellion of 1857 highlighted the stark potential of disloyalty, which led Britain not only to reorganize its military in India, but also future militaries in Africa. As Frederick Lugard, an influential colonial administrator, wrote: "Where a handful of white men are engaged in the difficult task of introducing peace and good government ... the chief danger ... lies in possible disaffection among the troops." He favored "battalions or wings of battalions, composed of races which have no affinities with the population of the region in which they are serving, and even the introduction of an alien battalion may be a wise precaution" (Lugard 1922, 577). Given agreements among European powers to not fight wars over their African territories, and their ability to call upon metropolitan troops

if facing a widespread rebellion, the overwhelming priority was simply to find troops that would comply with orders to shoot.

Various selection effects anticipate why evidence of the unreliability of national militaries should be primarily confined to cases of peaceful urban protests. Members of ethnic groups that are excluded from power in the central government are considerably more likely to rebel than members of groups with access to power (Cederman, Gleditsch and Buhaug 2013). Beyond ethnicity, exclusionary and personalist governments are more susceptible to social revolutions (Goodwin and Skocpol 1989). Although it is certainly possible to have a regime in which civilian positions are tightly concentrated within a particular group but the military is broadly based, opposition to the government should not typically take the form of a civil war when there is a nationally recruited military. Another selection effect is the affinity between the commitment of an opposition group to democracy and their unwillingness to use violence (Huntington 1993). Thus, groups harboring moderate aims are more reluctant to use violence.

Despite these selection effects, the brief rebellion that brought Idriss Déby to power in Chad in 1990 provides an example of a de facto negotiated transition by a national military when facing a non-radical rebel group. The state military prior to Déby was broad in its recruitment. Hissène Habré gained power via a rebellion in 1982, and his Armed Forces of the North (FAN) became the new state military. However, Habré then incorporated splinter groups from the former state military, and by 1986, the military had lost much of its former northern bias (Tartter 1990, 172-80). "In this manner, Habré deliberately transformed his own guerrilla group, the FAN, into the Chadian National Armed Forces (FANT), going so far as to remove the name North from the army's title, in a symbolic bid for national unity" (Atlas and Licklider 1999, 44). The rebellion that eventually toppled Habré began in 1989 when he purged three of his top army commanders. Only one, Déby, survived their escape from the capital with a few dozen men. He regrouped in Libya to organize a new military staffed largely by soldiers from the state military. Thus, rather than posing an existential threat to existing elites, the rebel movement represented a segment of

existing elites. Despite facing a manpower disadvantage of 2,000 relative to the 30,000-strong state military, the Patriotic Salvation Movement (MPS) won a string of victories in 1990 amid "FANT soldiers fleeing or defecting to the MPS" (Dixon and Sarkees 2015, 643) that coincided with a broader "quiet opposition to the regime" among civil servants (Foltz 1995, 30). Consequently, "the new government was generally welcomed. In N'Djamena many former ministers and party officials rallied to the new government" (Nolutshungu 1996, 246).

5.4 INSIDER THREATS IN PERSONALIST MILITARIES

The same reluctance of personalist militaries to negotiate a transition also creates a substitution effect that can cause them to pose a greater insider threat than the national military—precisely because personalist militaries prefer coups to transitioning as their outside option. Research on ethnicity and coups focuses nearly exclusively on *inter*-ethnic interactions without discussing potential threats from co-ethnics. Two examples highlight the insider threats posed by personalist militaries, which is perhaps a fruitful topic to study in future research.

In post-independence Sudan, northern riverine Arabs have dominated civilian and military positions. However, despite ethnic dominance, riverine Arab troops have participated in eleven coup attempts, of which five succeeded.¹⁷ In 1989, a coup occurred while the Khartoum government combated a civil war with the south. This is an example not only of the insider threat posed by co-ethnics, but specifically of the logic of substitution between coups and transition that the model highlights. After taking power, Colonel Omar al-Bashir escalated violence against the south (i.e., using the coup to preserve power for his faction) and rejected calls to negotiate a settlement to the war (i.e., transition). His reluctance to transition to a regime that incorporated southern African groups is notable given the moderate stance of John Garang, the main rebel leader during the Second Sudanese Civil War. Rather than seek radical societal transformation and marginalization of northern groups, he proclaimed: "I would like to reiterate that the SPLA/SPLM is a genuine Sudanese movement that is not interested in concessions for the south, but a movement that is open

¹⁷Data from Roessler (2016), plus another coup in 2019.

to all people of the Sudan to join and participate in the building of a new and democratic Sudan" (quoted in Roessler 2016, 115-16).

Mamluk Egypt (1250–1517) provides a historical example. Mamluks were slave soldiers of non-Muslim origin and born outside the Mamluk state. These soldiers nearly perfectly meet the present concept of a personalist military with a low outside option to outsider rule. They were completely isolated from Egyptian society and were educated in different schools, lived in separate places, and spoke Turkish rather than the colloquial Arabic. Their position was non-hereditary as their children, who were not born as slaves, could not becomes Mamluks. This also prevented Mamluks from gaining landed control over their *iqta* lands. Furthermore, they also formed a highly effective fighting force, unlike typical personalist militaries staffed with sycophants (Finer 1997*b*; Blaydes and Chaney 2013).

Despite these seeming advantages, high-ranking Mamluks frequently overthrew incumbent sultans. Mamluk generals initially established their regime by overthrowing the Ayyubid-appointed ruler for Egypt in 1250, and in-fighting remained rampant throughout the regime. As with contemporary Sudan, their unwillingness to share power with societal groups appears important for explaining frequent coups. Finer (1997*b*, 733, 736) summarizes the main attributes of the political process in Mamluk Egypt as follows: "on the one side the intense in-group solidarity of the *entire* Mamluk establishment and its studied self-seclusion from Egypt society which it ruled absolutely, on the other intense and often lethal conflicts between rival amirs and their followings, to become sultan ... Unlike so many ruling groups, none of its factions ever thought of inviting foreigners or elements of their own subject population to join them in their internecine struggles." Thus, although the military was the ideal organization for defeating outsider threats, it still posed a considerable insider threat—in part because no alternative sources of disloyalty (such as allowing outsiders to participate in politics) substituted for coups.

6 CONCLUSION

This paper analyzes a formal model in which a dictator facing an outsider threat chooses between a personalist and a national military. The military can either exercise repression to defend the regime or transition to outsider rule, and the main extension provides an additional option for the military to stage a coup. Table 1 summarizes the main theoretical findings.

Non-radical threat	Radical threat
(National military has	(National military has
high value to outsider rule)	low value to outsider rule)
\downarrow	\downarrow
Personalist military defeats outsider	Personalist better against weak outsider threat
with higher probability regardless of threat size	National better against strong outsider threat
\downarrow	\downarrow
No tradeoff between insider	Tradeoff between insider
and outsider threats	and outsider threats
\downarrow	\downarrow
No guardianship dilemma	Guardianship dilemma

Table 1: Summary of Main Findings

My findings challenge and offer important conditionalities for two common arguments in the literature. First, rulers trade off between guarding against insider and outsider threats. Second, stronger outsider threats compel the dictator to choose a national military despite posing a greater insider threat. I instead show the crucial importance of the outsider threat's ideological orientation, which affects the reliability of the national military. The empirical cases discussed at the end suggest that the main theoretical implications are empirically plausible, and the additional theoretical extensions highlight the coup threat posed by personalist military, incorporate a flee option for mercenary armies, and examine the endogenous relationship between repression and radicalism.

These findings could be extended in numerous ways. On the regime side, I assumed a binary distinction between a national and a personalist military, which, in broad strokes, captures important distinctions among militaries. However, it is also possible to disaggregate these categories further. For example, Quinlivan (1999) and Greitens (2016) distinguish recruitment strategies (socially inclusive versus exclusive) from whether the security apparatus is unitary or fragmented (e.g., whether there are counterbalancing institutions). On the society side, one could model the outsider as a strategic actor that can choose how to organize its movement. The present logic suggests an important tradeoff for an opposition leader. Even if they would like to dramatically transform society, organizing a radical movement will trigger a strategic reaction on the part of the government to upgrade their military, since the ruler knows that the radical threat will induce the national military to support the ruler. Thus, the anticipated reaction of the government can endogenously influence rebel tactics. Overall, better understanding how dictators navigate insider and outsider threats should open up new avenues for research on authoritarian survival strategies and reactions by the opposition.

REFERENCES

- Acemoglu, Daron, Andrea Vindigni and Davide Ticchi. 2010. "Persistence of Civil Wars." *Journal of the European Economic Association* 8(2–3):664–76.
- Acemoglu, Daron and James A. Robinson. 2006. *Economic Origins of Dictatorship and Democracy.* Cambridge University Press.
- Albertus, Michael and Victor Menaldo. 2018. *Authoritarianism and the Elite Origins of Democracy*. Cambridge University Press.
- Atlas, Pierre M and Roy Licklider. 1999. "Conflict among former allies after civil war settlement: Sudan, Zimbabwe, Chad, and Lebanon." *Journal of Peace Research* 36(1):35–54.
- Barnett, Michael N. 1992. *Confronting the Costs of War in Egypt and Israel*. Princeton University Press.
- Bates, Genevieve, Monika Nalepa, Ben Konstan and Jordi Vasquez. 2020. "Transitional Justice Against Agents of Repression and the Threat of Regime Change.". Available at: https: //www.monikanalepa.com/uploads/6/6/3/1/66318923/coupstj_1_.pdf.

- Bellin, Eva. 2012. "Reconsidering the Robustness of Authoritarianism in the Middle East: Lessons from the Arab Spring." *Comparative Politics* 44(2):127–149.
- Besley, Timothy and James A. Robinson. 2010. "Quis Custodiet Ipsos Custodes? Civilian Control Over the Military." *Journal of the European Economic Association* 8(2–3):655–63.
- Blaydes, Lisa and Eric Chaney. 2013. "The Feudal Revolution and Europe's Rise." *American Political Science Review* 107(1):16–34.
- Bratton, Michael and Nicolas van de Walle. 1994. "Neopatrimonial Regimes and Political Transitions in Africa." *World Politics* 46(4):453–489.
- Burgess, Stephen. 2014. From Failed Power Sharing in Rwanda to Successful Top-Down Military Integration. In *New Armies from Old: Merging Competing Military Forces after Civil Wars*, ed. Roy Licklider. Georgetown University Press pp. 87–102.
- Cederman, Lars-Erik, Kristian Skrede Gleditsch and Halvard Buhaug. 2013. *Inequality, Grievances, and Civil War*. Cambridge University Press.
- Chenoweth, Erica and Maria J. Stephan. 2011. Why Civil Resistance Works: The Strategic Logic of Nonviolent Conflict. Columbia University Press.
- Debs, Alexandre. 2016. "Living by the Sword and Dying by the Sword? Leadership Transitions in and out of Dictatorships." *International Studies Quarterly* 60(1):73–84.
- Dixon, Jeffrey S. and Meredith Reid Sarkees. 2015. A Guide to Intra-State Wars: An Examination of Civil, Regional, and Intercommunal Wars, 1816-2014. Washington, DC: CQ Press.
- Dragu, Tiberiu and Adam Przeworski. 2019. "Preventive Repression: Two Types of Moral Hazard." *American Political Science Review* 113(1):77–87.
- Dragu, Tiberiu and Yonatan Lupu. 2018. "Collective Action and Constraints on Repression at the Endgame." *Comparative Political Studies* 51(8):1042–1073.

- Egorov, Georgy and Konstantin Sonin. 2011. "Dictators and their Viziers: Endogenizing the Loyalty-Competence Trade-Off." *Journal of the European Economic Association* 9(5):903–930.
- Finer, Samuel E. 1975. State- and Nation-Building in Europe: The Role of the Military. In *The Formation of National States in Western Europe*, ed. Charles Tilly. Princeton University Press pp. 84–163.
- Finer, Samuel Edward. 1997a. The History of Government from the Earliest Times: Ancient Monarchies and Empires. Vol. 1 Oxford University Press, USA.
- Finer, Samuel Edward. 1997b. The History of Government, Volume II. The Intermediate Ages. Oxford University Press.
- Foltz, William J. 1995. Reconstructing the State in Chad. In *Collapsed States: The Disintegration and Restoration of Legitimate Authority*, ed. I. William Zartman. Lynne Rienner pp. 15–31.
- Geddes, Barbara. 1999. "What Do We Know About Democratization After Twenty Years?" Annual Review of Political Science 2(1):115–144.
- Geddes, Barbara, Joseph Wright and Erica Frantz. 2018. How Dictatorships Work. Cambridge.
- Gibilisco, Michael. 2020. "Decentralization, Repression, and Gambling for Unity." *Journal of Politics, forthcoming*.
- Goodwin, Jeff and Theda Skocpol. 1989. "Explaining Revolutions in the Contemporary Third World." *Politics & Society* 17(4):489–509.

Greitens, Sheena Chestnut. 2016. Dictators and Their Secret Police. Cambridge University Press.

- Harkness, Kristin A. 2018. When Soldiers Rebel: Ethnic Armies and Political Instability in Africa.Cambridge: Cambridge University Press.
- Herbst, Jeffrey. 2004. "African Militaries and Rebellion: The Political Economy of Threat and Combat Effectiveness." *Journal of Peace Research* 41(3):357–369.

- Huntington, Samuel P. 1993. *The Third Wave: Democratization in the Late Twentieth Century*. University of Oklahoma Press.
- Levitsky, Steven and Lucan A. Way. 2010. *Competitive Authoritarianism*. Cambridge University Press.
- Levitsky, Steven and Lucan Way. 2013. "The Durability of Revolutionary Regimes." *Journal of Democracy* 24(3):5–17.
- Lieberman, Evan S. 2003. *Race and Regionalism in the Politics of Taxation in Brazil and South Africa*. Cambridge: Cambridge University Press.
- Lugard, Sir F.D. 1922. *The Dual Mandate in British Tropical Africa*. William Blackwood and Sons.
- McMahon, R. Blake and Branislav L. Slantchev. 2015. "The Guardianship Dilemma: Regime Security Through and from the Armed Forces." *American Political Science Review* 109(2):297– 313.
- Meisner, Maurice. 1999. *Mao's China and After: A History of the People's Republic*. Simon and Schuster.
- Moore, Will H. 2000. "The Repression of Dissent." Journal of Conflict Resolution 44(1):107-27.
- Myerson, Roger B. 2008. "The Autocrat's Credibility Problem and Foundations of the Constitutional State." *American Political Science Review* 102(1):125–139.
- Nalepa, Monika. 2020. "Ritual Sacrifices? Transitional Justice and the Fate of Post-Authoritarian Democracies.". Available at: https://www.monikanalepa.com/uploads/6/6/3/ 1/66318923/book.pdf.
- Nolutshungu, Sam C. 1996. *Limits of Anarchy: Intervention and State Formation in Chad*. Charlottesville: University of Virginia Press.

- Paine, Jack. 2019. "Redistributive Political Transitions: Minority Rule and Liberation Wars in Colonial Africa." *Journal of Politics* 81(2):505–523.
- Paine, Jack. 2020. "The Dictator's Powersharing Dilemma: Countering Dual Outsider Threats." American Journal of Political Science, forthcoming.
- Pierskalla, Jan Henryk. 2010. "Protest, Deterrence, and Escalation: The Strategic Calculus of Government Repression." *Journal of Conflict Resolution* 54(1):117–145.
- Powell, Jonathan M. 2014. "Trading Coups for Civil War." African Security Review 23(4):329-338.
- Quinlivan, James T. 1999. "Coup-Proofing: Its Practice and Consequences in the Middle East." *International Security* 24(2):131–65.
- Ritter, Emily Hencken. 2014. "Policy Disputes, Political Survival, and the Onset and Severity of State Repression." *Journal of Conflict Resolution* 58(1):143–168.
- Roessler, Philip. 2016. *Ethnic Politics and State Power in Africa: The Logic of the Coup-Civil War Trap.* Cambridge: Cambridge University Press.
- Shadmehr, Mehdi. 2015. "Extremism in Revolutionary Movements." *Games and Economic Behavior* 94:97–121.
- Slater, Dan. 2010. Ordering Power: Contentious Politics and Authoritarian Leviathans in Southeast Asia. Cambridge: Cambridge University Press.
- Sudduth, Jun Koga. 2017. "Strategic Logic of Elite Purges in Dictatorships." *Comparative Political Studies* 50(13):1768–1801.
- Svolik, Milan W. 2013. "Contracting on Violence." Journal of Conflict Resolution 57(5):765–794.
- Talmadge, Caitlin. 2015. The Dictator's Army. Cornell University Press.
- Tartter, Jean R. 1990. National Security. In *Chad: A Country Study*, ed. Thomas Collelo. Washington, D.C.: Federal Research Division, Library of Congress pp. 169–208.

- Truesdell, Amy. 2009. "Achieving Political Objectives: South African Defense Priorities from the Apartheid to the Postapartheid Era." *African Studies Review* 52(3):107–25.
- Tyson, Scott A. 2018. "The Agency Problem Underlying Repression." *Journal of Politics* 80(4):1297–1310.
- van Dam, Nikolaos. 2011. The Struggle for Power in Syria. I.B. Tauris.
- Vogt, Manuel, Nils-Christian Bormann, Seraina Rüegger, Lars-Erik Cederman, Philipp Hunziker and Luc Girardin. 2015. "Integrating Data on Ethnicity, Geography, and Conflict: The Ethnic Power Relations Data Set Family." *Journal of Conflict Resolution* 59(7):1327–1342.
- Zakharov, Alexei V. 2016. "The Loyalty-Competence Trade-Off in Dictatorships and Outside Options for Subordinates." *Journal of Politics* 78(2):457–66.

Online Appendix

CONTENTS

1	Con	tributions to Existing Research	6
2	Base	eline Model with Outsider Threat	9
	2.1	Setup	9
	2.2	Analysis	11
3	Insider Threats and the Guardianship Dilemma		14
	3.1	Setup: Military's Coup Option	14
	3.2	Repression, Transition, or Coup?	15
	3.3	Ruler's Choice of Military	18
	3.4	Rethinking Canonical Tradeoffs for Authoritarian Coercion	19
4	Add	itional Extensions	22
	4.1	Repression and Endogenous Radicalism	22
	4.2	Mercenaries and the Military Flee Option	23
5	Арр	lication to Empirical Cases	24
	5.1	Strong/Radical Outsider Threats and National Militaries	24
	5.2	Incompetent Personalist Militaries	26
	5.3	Confronting Non-Radical Threats	27
	5.4	Insider Threats in Personalist Militaries	30
6	Con	clusion	32
A	Sup	porting Information for Model	1
	A.1	Unmodeled Constraints on Choice of Military	1
	A.2	Non-Degenerate Probability of Repression Success	2
	A.3	Proofs for Baseline Model and Coup Extension	3
	A.4	Repression and Endogenous Radicalism	6
	A.5	Mercenaries and the Military Flee Option	9

A SUPPORTING INFORMATION FOR MODEL

A.1 UNMODELED CONSTRAINTS ON CHOICE OF MILITARY

A key element of the model is that the ruler *chooses* how to construct her military. This assumption is empirically realistic in some circumstances, as many dictators enjoy considerable leeway to personalize (or refrain from personalizing) the officer corps, especially early in their tenure. Greitens (2016) argues that rulers shape their coercive apparatus in reaction to what they perceive as the dominant threat upon attaining power, and provides evidence from three case studies: Taiwan, the Philippines, and South Korea. In Harkness's (2018) case study of Cameroon, she argues that the first post-independence ruler had wide leeway to shape the military because the country lacked a military at independence. Meng and Paine (2020) analyze regimes that came to power by winning a civil war. They show that during the fight for power, the (future) ruler had wide leeway over how to structure the rebel military—which typically became the new state military upon attaining power. Geddes, Wright and Frantz (2018, 85-89) provide quantitative data on the large extent of personalization that occurs earlier in rulers' tenures. Their measure includes military-specific features such as whether the ruler gains control over promotions and whether she creates a separate paramilitary.

In other cases, rulers face exogenous constraints to creating their preferred type of military, or do not need to sacrifice competency to achieve a loyal military. To more clearly situate my model in the literature, I next discuss existing research that raises these considerations. However, from the standpoint of setting up a parsimonious model to isolate a distinct mechanism (Paine and Tyson 2020), incorporating these additional elements would distract from my goal of understanding the strategic incentives that dictators face in scenarios where they *choose* a type of military. I focus solely on how the military's *strategic choices* generate a tradeoff for the ruler (as long as the military with greater endowed coercive capacity also has a better exit option), which I show is sufficient to develop a novel strategic logic.

Existing research discusses two other factors that, in the real world, could constrain rulers' choices. First, rulers face a threat of countercoups if they try to purge members of the existing officer corps (Sudduth 2017), in particular if recruitment patterns are perceived as favoring members of the ruler's own ethnic group. Horowitz (1985) and Harkness (2018) show that this problem was particularly acute for post-independence rulers that inherited a military not already stacked with members of their own ethnic group. Ahram (2011) shows that rulers face impediments if they try to switch from a conventional military to a state-sponsored militia. Rulers may also be constrained when attempting to nationalize the military: White (2020) shows that rulers are more susceptible to coup attempts by existing members of the military when they attempt to implement civil war settlements that call for integrating members of the rebel military into the state military.

Second, militaries differ in their costs. For example, in the Middle Ages, European rulers relied on ineffective feudal levies because they lacked access to money, whereas Arab rulers could afford standing armies (Finer 1975; Blaydes 2017). More recently, the robust fiscal health of many Middle Eastern regimes has enabled them to build large armies that many rulers in other regions cannot afford (Bellin 2004, 2012).

A related consideration is whether rulers necessarily choose between more competent national

militaries and more loyal personalist militaries (in the sense of having a lower exit option). Some existing theories treat these as independent dimensions and highlight cases in which a military is strong on both. For example, Bellin (2004) distinguishes the "will" and "capacity" of the military to exercise repression. She argues that most Middle Eastern regimes were high on both as of 2004, in part because of aforementioned factors that lie outside my model such as fiscal health. (This earlier article also anticipates her 2012 argument that more "institutionalized," i.e., national, militaries in Egypt and Tunisia would increase their willingness to defect). Levitsky and Way (2010, 54-61) offer a similar distinction between the "cohesion" and "scope" of a regime's coercive apparatus. They highlight how "cohesion may be rooted in solidarity ties forged in a context of violent struggle, such as war, revolution, or liberation movements." In regimes that can capitalize on such solidarity ties, the military can exhibit high coercive capacity despite recruiting solely from revolutionary cadres. This consideration applies to many communist militaries (e.g., Soviet Union, China), as well as to more recent revolutionary regimes such as Zimbabwe and Mozambique. Similarly, Nalepa (2020, 44-45) argues that Park Chung Hee in South Korea was able to achieve the best of both worlds with regard to creating an effective and loyal security apparatus.

A.2 NON-DEGENERATE PROBABILITY OF REPRESSION SUCCESS

In the model, I assume that the military knows for sure whether repression will succeed or fail when he decides whether to repress. The main advantage here is tractability, in part for presenting the baseline results but especially for extending the model to add the coup option. However, the intuition is qualitatively similar if the military faces a non-degenerate probability of winning when moving. Suppose repression yields the following expected payoffs for each type of military.

National: $q_N + (1 - q_N) \cdot \pi^{\text{out}} - \epsilon_R$

Personalist: $q_P - \epsilon_R$

In words, repression by the national military defeats the outsider with probability q_N , in which case he consumes 1. With complementary probability, repression fails and he consumes π^{out} . Repression by the personalist military defeats the outsider with probability q_P , in which case he consumes 1. With complementary probability, repression fails and he consumes 0. For either type of military, repression incurs a sunk cost $\epsilon_R > 0$ which, now, is fixed rather than drawn by Nature. In between the ruler's move and the military's move, Nature draws the continuous probability of defeating the outsider threat: $q_N \sim F_N(q_N, \theta_O)$ and $q_P \sim F_P(q_P, \theta_O)$, each with full support over [0, 1] and with both the cdf's and pdf's strictly decreasing in θ_O . In words, stronger outsiders diminish the expected probability with which the military will be able to defeat the threat. Given the outside option of transitioning that yields consumption of π^{out} for the national military and 0 for the personalist military, it is straightforward to derive the following necessary and sufficient conditions for each type of military to exercise repression:

National:
$$q_N > \frac{c}{1 - \pi^{\text{out}}}$$

Personalist: $q_P > c$

In both cases, the military requires Nature to draw a high-enough probability of winning in order to repress, as he does not want to engage in a costly effort that is unlikely to succeed.

The ruler chooses the national military if and only if the expected probability of successful repression is higher than for the personalist military. These terms incorporate both the probability that the military exercises repression and, conditional on doing so, its probability of succeeding:

$$\int_{\frac{c}{1-\pi^{\text{out}}(r)}}^{1} q_N \cdot f_N(q_N, \theta_O) \cdot dq_N > \int_c^1 q_P \cdot f_P(q_P, \theta_O) \cdot dq_P$$

It is immediately apparent that we recover the finding that higher r increases the valuation of the national military: higher r decreases the lower bound of the integral on the left-hand side (in words, the national military is more likely to choose to exercise repression) and does not affect the right-hand side. Regarding the result for θ_O , we need $\frac{\partial f_P}{\partial \theta_O}$ large enough in magnitude relative to $\frac{\partial f_N}{\partial \theta_O}$. In words, we need stronger threats to diminish the expected probability of winning for the personalist military by a considerably larger amount than for the national military.

It is important that the military has more precise information about the strength of the threat than the ruler. Otherwise, the probability of repression success will enter the ruler's objective function as a quadratic term (because the same probability of winning function would determine the military's decision), which makes it impossible to characterize sharp results even when imposing standard regularity assumptions on the objective function and probability distributions.

A.3 PROOFS FOR BASELINE MODEL AND COUP EXTENSION

Proof of Proposition 1.

Step 1. Higher θ_O strictly increases the ruler's relative preference for the national military:

$$\frac{d}{d\theta_O} \Big[q_N(\theta_O) \cdot \left(1 - \pi^{\text{out}} \right) - q_P(\theta_O) \Big] = \frac{dq_N}{d\theta_O} \cdot \left(1 - \pi^{\text{out}} \right) - \frac{dq_P}{d\theta_O} > 0.$$
(A.1)

The sign follows from $\frac{dq_P}{d\theta_O} < \frac{dq_N}{d\theta_O} < 0$ and $\pi^{\text{out}} < 1$.

Step 2. Given Step 1, if the ruler does not prefer the national military at $\theta_O \to \infty$, then she does not prefer the national military for any θ_O . This is true if $q_P^{\infty} > q_N^{\infty} \cdot (1 - \pi^{\text{out}}(r))$. At least one $\hat{r} \in (0, 1)$ exists such that $q_P^{\infty} = q_N^{\infty} \cdot (1 - \pi^{\text{out}}(\hat{r}))$ because the conditions for the intermediate value theorem hold:

- The lower bound follows from $\pi^{\text{out}}(0) = 1$ and $q_P^{\infty} > 0$.
- The upper bound follows from $\pi^{\text{out}}(1) = 0$ and $q_N^{\infty} > q_P^{\infty}$.
- $\pi^{\text{out}}(r)$ is assumed to be continuous in r.

The unique threshold claim for \hat{r} follows from assuming $\frac{d\pi^{\text{out}}}{dr} < 0$.

Step 3. For all $r < \hat{r}$, at least one $\hat{\theta}_O \in (0, \infty)$ exists such that $q_N(\hat{\theta}_O) \cdot (1 - \pi^{\text{out}}) = q_P(\hat{\theta}_O)$ because the conditions for the intermediate value theorem hold:

- The lower bound follows from $q_N(0) = q_P(0)$ and $\pi^{out} < 1$.
- Step 2 shows that $r < \hat{r}$ implies the upper bound.
- Continuity follows from the assumed continuity of the probability functions.

The inequality in Equation A.1 establishes the unique threshold claim for $\hat{\theta}_O$.

Proposition A.1 (Choosing a military when coup option is available). Unique thresholds $\tilde{r} \in (0, 1)$ and $\tilde{\theta}_O \in (0, \infty)$ exist that have the following properties.

- Non-radical opposition. If $r < \tilde{r}$, then the ruler chooses the personalist military.
- Weak opposition. If r > r̃ and θ_O < θ̃_O, then the ruler chooses the personalist military.
- Strong/radical opposition. If $r > \tilde{r}$ and $\theta_O > \tilde{\theta}_O$, then the ruler chooses the national military.

Proof.

Step 1. Higher θ_O strictly increases the ruler's relative preference for the national military. There are three parts to establishing this claim. (a) For $r < \underline{r}$, the proof for Proposition 1 establishes this claim. (b) For $r > \underline{r}$, we can show:

$$\frac{d}{d\theta_O} \left[q_N(\theta_O) \cdot \left(1 - \frac{\pi_N^{\text{coup}}}{2} - \frac{(\pi^{\text{out}})^2}{2\pi_N^{\text{coup}}} \right) - q_P(\theta_O) \cdot \left(1 - \frac{\pi_P^{\text{coup}}}{2} \right) \right] = \frac{dq_N}{d\theta_O} \cdot \left(1 - \frac{\pi_N^{\text{coup}}}{2} - \frac{(\pi^{\text{out}})^2}{2\pi_N^{\text{coup}}} \right) - \frac{dq_P}{d\theta_O} \cdot \left(1 - \frac{\pi_P^{\text{coup}}}{2} \right)$$

It suffices to show that the second term in parentheses strictly exceeds the first term. Setting this inequality and simplifying yields a true statement:

$$\pi_N^{\text{coup}} - \pi_P^{\text{coup}} + \frac{(\pi^{\text{out}})^2}{\pi_N^{\text{coup}}} > 0.$$
(A.2)

(c) The piecewise function for the probability of the national military exercising repression is continuous at $r = \underline{r}$. Need to show $\lim_{r \to \underline{r}^-} q_N^{\infty} \cdot (1 - \pi^{\text{out}}(r)) = \lim_{r \to \underline{r}^+} q_N^{\infty} \cdot (1 - \frac{\pi_N^{\text{coup}}}{2} - \frac{(\pi^{\text{out}}(r))^2}{2\pi_N^{\text{coup}}})$. Given $\pi^{\text{out}}(\underline{r}) = \pi_N^{\text{coup}}$, each side of the equation easily simplifies to $q_N^{\infty} \cdot (1 - \pi_N^{\text{coup}})$.

Step 2. Given Step 1, if the ruler does not prefer the national military at $\theta_O \to \infty$, then she does not prefer the national military for any θ_O . This is true if:

$$q_P^{\infty} \cdot \left(1 - \frac{\pi_P^{\text{coup}}}{2}\right) > \begin{cases} q_N^{\infty} \cdot \left(1 - \pi^{\text{out}}(r)\right) & \text{if } r < \underline{r} \\ q_N^{\infty} \cdot \left(1 - \frac{\pi_N^{\text{coup}}}{2} - \frac{(\pi^{\text{out}}(r))^2}{2\pi_N^{\text{coup}}}\right) & \text{if } r > \underline{r} \end{cases}$$

At least one $\tilde{r} \in (0,1)$ exists such that equates the two sides of this inequality because the conditions for the intermediate value theorem hold:

- The lower bound follows from the same logic that characterizes the lower bound for \hat{r} (see Step 2 of the proof for Proposition 1).
- The upper bound requires $q_P^{\infty} \cdot \left(1 \frac{\pi_P^{\text{coup}}}{2}\right) < q_N^{\infty} \cdot \left(1 \frac{\pi_N^{\text{coup}}}{2}\right)$, which holds when setting $q_P^{\infty} \to 0$. The rationale for assuming that q_P^{∞} is "suitably small" is that otherwise the national poses poses such a stark coup threat that the ruler will never choose him, even if the outsider threat is maximally strong and radical.
- Establishing continuity is trivial at all points except $r = \underline{r}$, which Step 1 proved.

The unique threshold claim for \tilde{r} follows from assuming $\frac{d\pi^{\text{out}}}{dr} < 0$ and showing continuity at $r = \underline{r}$.

Step 3. For all $r < \tilde{r}$, at least one $\tilde{\theta}_O > 0$ exists that satisfies the following equality because the conditions for the intermediate value theorem hold:

$$q_P(\tilde{\theta}_O) \cdot \left(1 - \frac{\pi_P^{\text{coup}}}{2}\right) = \begin{cases} q_N(\tilde{\theta}_O) \cdot \left(1 - \pi^{\text{out}}(r)\right) & \text{if } r < \underline{r} \\ q_N(\tilde{\theta}_O) \cdot \left(1 - \frac{\pi_N^{\text{coup}}}{2} - \frac{(\pi^{\text{out}}(r))^2}{2\pi_N^{\text{coup}}}\right) & \text{if } r > \underline{r} \end{cases}$$

- The lower bound follows from $q_N(0) = q_P(0)$ and the fact that the term in parentheses on the LHS strictly exceeds either term in parentheses on the RHS. To establish this for the $r > \underline{r}$ case, see Equation A.2. For the $r < \underline{r}$ case, $1 - \frac{\pi_P^{\text{oup}}}{2} > 1 - \pi^{\text{out}}(r)$ easily rearranges to $2\pi^{\text{out}} > \pi_P^{\text{coup}}$. This inequality is true because $r < \underline{r}$ implies $\pi^{\text{out}} > \pi_N^{\text{coup}}$, which in turn is assumed to be strictly greater than π_P^{coup} .
- We just showed that $r < \tilde{r}$ implies the upper bound.
- For either range of r values, continuity follows from the assumed continuity of q_N and q_P .

Step 1 establishes the unique threshold claim for $\hat{\theta}_O$.

Proof of Lemma 3. The threshold is implicitly defined as:

$$q_P(\theta_O) \cdot \frac{\pi_P^{\text{coup}}}{2} = q_N(\theta_O) \cdot \left(\frac{\pi_N^{\text{coup}}}{2} - \frac{\left(\pi^{\text{out}}(\tilde{r}^{\text{coup}})\right)^2}{2\pi_N^{\text{coup}}}\right)$$
(A.3)

At least one $\tilde{r}^{coup} \in (\underline{r}, 1)$ exists because the conditions for the intermediate value theorem hold:

- Lower bound: At $r = \underline{r}$, we have $\pi^{out} = \pi_N^{coup}$ and the RHS of Equation A.3 equals 0, whereas the LHS is strictly positive.
- Upper bound: At r = 1, the RHS of Equation A.3 is $q_N(\theta_O) \cdot \frac{\pi_N^{\text{coup}}}{2}$, which strictly exceeds the LHS because $q_N > q_P$ and $\pi_N^{\text{coup}} > \pi_P^{\text{coup}}$.
- Continuity follows directly from the assumed continuity of π^{out} .

The unique threshold claim follows from $\frac{d\pi^{\text{out}}}{dr} < 0$.

A.4 REPRESSION AND ENDOGENOUS RADICALISM

Setup. Relative to the baseline model (in which the military lacks a coup option), the additional move here is that the ruler initially chooses between transitioning to societal rule and hiring a military that she orders to exercise repression. If she pursues repression, then this initiates a subgame with the same sequence of strategic moves as in the baseline game: the ruler chooses between a national and personalist military, and then the chosen military agent decides between repression and transitioning. However, in the subgame in which the ruler hires a military agent, I now assume that the Nature move for drawing a strong/weak outsider occurs after rather than before the military decides between repression and transitioning; I also eliminate the stochastic cost of exercising repression. Below I comment on the rationale for having Nature move last.

The ruler's utility to outsider rule is now $\pi_R^{out}(r)$, rather than 0 as in the baseline model. As with the equivalent function for the national military, $\pi^{out}(r)$, I assume that $\pi_R^{out}(r)$ strictly decreases in r and that $\pi_R^{out}(1) = 0$. However, unlike the consumption function for the national military, I make $\pi_R^{out}(0)$ a parameter rather than set it to 1. Specifically, $\pi_R^{out}(0) = \beta \in (0, 1]$. We also now need to distinguish between the level of radicalism for the outsider depending on whether repression occurs. To minimize the number of parameters to track, I assume that the outsider is perfectly moderate, r = 0, if there is no repression; and perfectly radical, r = 1, if there is repression.

Analysis. The national military will not repress, and the personalist military will (if Nature draws a weak outsider). To see why, the national military consumes $\pi^{out}(0) = 1$ if he transitions, and expects to consume $p_N(\theta_O) + [1 - p_N(\theta_O)] \cdot \pi^{out}(1)$ from repressing. Because $\pi^{out}(1) = 0$ and $p_N(\theta_O) < 1$ for all $\theta_O > 0$, the national military prefers to transition. (Technically, he is indifferent at $\theta_O = 0$, but adding a small cost to exercising repression would break indifference in favor of choosing to transition.) By contrast, the personalist military consumes 0 upon transitioning, and expects to consume $p_N(\theta_O)$ from repressing. Because $p_N(\theta_O) > 0$ for all $\theta_O \ge 0$, the personalist military will repress.

Thus, the ruler in essence chooses between transitioning to outsider rule or hiring a personalist military to exercise repression. (Technically, she is indifferent between initiating the transition herself or hiring a national military that, in turn, she knows will choose to transition. Adding a small cost to hiring a military agent would break indifference in favor of initiating the transition herself.) The ruler consumes β if she transitions. Alternatively, if she hires the personalist military, he defeats the outsider with probability $q_P(\theta_O)$, which enables the ruler to retain her full rents from holding office, 1. With complementary probability, Nature draws a strong opposition that overthrows the regime. Because we are assuming that exercising repression endogenously raises the level of radicalism from r = 0 to r = 1, in this circumstance, the ruler consumes $\pi_R^{out}(1) = 0$. Thus, the ruler represses if and only if:

$$q_P(\theta_O) > \beta. \tag{A.4}$$

Why does it matter that Nature moves last? The present sequence of moves creates the possibility that the military exercises repression, yet the opposition still takes over. This is important given the assumption that the radicalness of the opposition increases only if the military exercises repression; thus, if repression necessarily defeated the opposition, then there would be no possibility for the ruler to fall to a radical outsider, which would eliminate the key tradeoff here between survival and radical takeover.

Figure A.1 summarizes the main takeaway by shading the region in which the ruler goes the repression route. If the ruler has a bad outside option to sharing power, perhaps because she has a narrow societal support base, then she is more willing to try to hold on. Alternatively, if the outsider is very weak in expectation, then the opportunity cost of repression is low. Thus, narrowly based regimes are more willing to use force. However, as the outsider grows in expected strength, even kleptocratic rulers are forced to share power, given the low likelihood that they will be able to hang on (despite the personalist military's compliance with repression orders). Proposition A.2 formalizes this logic.

Proposition A.2 (Repressing or transition?). Unique thresholds $\beta^{\dagger} \in (0, 1)$ and $\theta_{O}^{\dagger} \in (0, \infty)$ exist that have the following properties:

- If $\beta < \beta^{\dagger}$, then the ruler hires the personalist military.
- If $\beta > \beta^{\dagger}$, then the ruler hires the personalist military if $\theta_O < \theta_O^{\dagger}$, and otherwise transitions to outsider rule. This threshold strictly decreases in β .
- The personalist military always exercises repression if called upon, and the national military never exercises repression.

Proof. The discussion above establishes the optimal actions for each type of military. If the ruler prefers repression at $\theta_O \to \infty$, then it prefers repression for all parameter values. This is true for any $\beta < \beta^{\dagger} \equiv q_P^{\infty}$.



Figure A.1: Will the Ruler Repress or Transition?

Stronger outsider threat, θ_0

Notes: Figure A.1 uses the same contest function for $q_P(\theta_O)$ as in Figure 1, which implies $\beta^{\dagger} = 0.1$.

If instead $\beta > \beta^{\dagger}$, then showing that the conditions for the intermediate value theorem hold proves that at least one $\theta_O^{\dagger} \in (0, \infty)$ exists such that $q_P(\theta_O^{\dagger}) = \beta$:

- For the lower bound, $q_P(0) = 1 > \pi_R^O(0)$.
- We just showed that $\beta > \beta^{\dagger}$ implies the upper bound.
- $q_P(\theta_O)$ is assumed to be continuous in θ_O .

The unique threshold claim follows from assuming that $q_P(\theta_O)$ strictly decreases in θ_O .

Finally, implicit differentiation yields:

$$\frac{d\theta_O^\dagger}{d\beta} = \frac{1}{\frac{dq_P}{d\theta_O}} < 0$$

This finding relates to existing arguments that exclusionary and repressive authoritarian regimes often leave "no other way out" than violence for societal actors (Goodwin and Skocpol 1989; Goodwin 2001). However, these theories do not carefully discuss rulers' strategic incentives, nor explain why a dictator would *deliberately* pursue a policy that raises prospects for radical revolution. Kleptocratic institutions provide a lucrative stream of rents for the ruler that are greatly diminished when either sharing power with the opposition or negotiating a regime transition. Eco-

nomic controls include selective access to essential services, government-owned monopolies, and property confiscation (Chehabi and Linz 1998, 22). In terms of the model, β is low, which causes these rulers to try to hold onto power despite knowing that their actions raise the risk of a radical revolution.

The selection effect embedded in this formal result also helps to make sense of the "repressiondissent" paradox. In circumstances where repression will endogenously increase the radicalism of the opposition, only narrowly recruited armies that perceive a bad fate under outsider rule will be willing to repress. However, these militaries also typically have lower levels of competence because they lack dense communication networks in areas where they operate and because communication lines are hindered within a coup-proofed military. The text provides numerous examples of personalist militaries.

A.5 MERCENARIES AND THE MILITARY FLEE OPTION

Setup. For this extension, I will refer to the national military as the mercenary army and the personalist military as the militia. Other than this alteration of labels, the only difference from the baseline model (i.e., in which the military lacks an option to stage a coup) is that the mercenary army has a third option to flee, which provides a fixed payoff of $\gamma \in (0, 1)$.

Analysis. Solving this extension requires deriving two additional thresholds. The mercenary army's preferred outside option is fleeing over transitioning if:

Flee over transition for mercenary army:
$$r > r^{\dagger\dagger}$$
, (A.5)

for $r^{\dagger\dagger}$ implicitly defined as $\pi^{\text{out}}(r^{\dagger\dagger}) = \gamma$. There is no stochastic component here, which implies that the ruler has complete information over which outside option the mercenary army prefers. The mercenary army will repress rather than flee if:

Repression over flee for mercenary army:
$$\epsilon_R < 1 - \gamma$$
. (A.6)

The other thresholds are unchanged from the baseline model. It is straightforward to show that the ruler prefers the mercenary army over the militia if and only if:

$$q_P(\theta_O) < \begin{cases} q_N(\theta_O) \cdot \left(1 - \pi^{\text{out}}(r)\right) & \text{if } r < r^{\dagger \dagger} \\ q_N(\theta_O) \cdot (1 - \gamma) & \text{if } r > r^{\dagger \dagger} \end{cases}$$

Figure A.2 summarizes the main intuition: the mercenary army is more effective against the outsider threat compared to the militia for a smaller range of parameter values than when the more competent military (national/mercenary) lacks a flee option. Collectively, the three shaded regions are identical to the shaded region in Figure 2. In region 3a in Figure A.2, the mercenary prefers transitioning over fleeing; hence, the calculus underlying the ruler's preference for the mercenary army in this region is identical to the baseline model.

For $r > r^{\dagger\dagger}$, the calculus differs because the mercenary prefers fleeing over transitioning. In this region, changes in r do not affect the likelihood of exercising repression for either type of military;





Notes: Figure A.2 uses the same functional form assumptions and parameter values as Figure 2, and $\gamma = 0.35$. For these parameter values, $r^{\dagger\dagger} = 0.65$.

 γ is not affected by r, and r never affects the personalist/militia's decision. For high-enough θ_O , the mercenary army is better against the outsider threat because of his superior fighting capabilities compared to the militia. Thus, for the set of (θ_O, r) values in region 3b, the ruler prefers the mercenary despite the flee option binding. The ruler also chooses the mercenary/national military for these parameters in the baseline model, although the logic here is distinct because the binding outside offer differs.

In region 3c, in which the outsider threat is weaker, the ruler prefers the militia to the mercenary despite, in the baseline model, preferring the national military to the personalist military in this region. If transitioning is the outside option, a radical threat leaves the national/mercenary army with little choice but to repress. This bad outside option causes the national military to repress the threat with higher probability than the personalist military, when also taking into account that Nature is more likely to draw a weak outsider when the ruler chooses the national rather than personalist military. However, if r is large enough that fleeing is the outside option, then the exact value of r does not affect the mercenary army's decision. The threshold for "sufficiently strong outsider" to induce the ruler to choose the mercenary is more stringent because very high r does not back the mercenary army into a corner; he can simply flee. Proposition A.3 formalizes this logic.

Proposition A.3 (Mercenary army or militia?). Unique thresholds $r^{\dagger\dagger} \in (0, 1)$ and $\theta_Q^{\dagger\dagger} \in (0, \infty)$ exist that have the following properties:

• If $r < r^{\dagger\dagger}$, then the preferred outside option for the mercenary army is to transi-

tion, and Proposition 1 characterizes optimal behavior.

• If $r > r^{\dagger\dagger}$, then the preferred outside option for the mercenary army is to flee. The ruler prefers the militia if $\theta_O < \theta_O^{\dagger\dagger}$, and prefers the mercenary army otherwise.

Proof. Showing that the conditions for the intermediate value theorem hold proves that at least one $r^{\dagger\dagger} \in (0,1)$ exists such that $\pi^{\text{out}}(r^{\dagger\dagger}) = \gamma$. For the bounds, $\pi^{\text{out}}(0) = 1 > \gamma$ and $\pi^{\text{out}}(1) = 0 < \gamma$; and $\pi^{\text{out}}(r)$ is assumed to be continuous in r. The unique threshold claim follows from assuming that $\pi^{\text{out}}(r)$ strictly decreases in r.

If $r > r^{\dagger\dagger}$, then showing that the conditions for the intermediate value theorem hold proves that at least one $\theta_O^{\dagger\dagger} \in (0,\infty)$ exists such that $q_N(\theta_O^{\dagger\dagger}) \cdot (1-\gamma) = q_P(\theta_O^{\dagger\dagger})$:

- The lower bound follows from $q_N(0) = q_P(0)$.
- The upper bound follows from allowing $q_P^{\infty} \to 0$.
- I assume q_N and q_P are each continuous in θ_O .

The unique threshold claim follows from assuming $\frac{dq_P}{d\theta_O} < \frac{dq_N}{d\theta_O} < 0$.

REFERENCES

- Ahram, Ariel I. 2011. Proxy Warriors: The Rise and Fall of State-Sponsored Militias. Stanford University Press.
- Bellin, Eva. 2004. "The Robustness of Authoritarianism in the Middle East: Exceptionalism in Comparative Perspective." *Comparative Politics* 36(2):139–157.
- Bellin, Eva. 2012. "Reconsidering the Robustness of Authoritarianism in the Middle East: Lessons from the Arab Spring." *Comparative Politics* 44(2):127–149.
- Blaydes, Lisa. 2017. "State Building in the Middle East." *Annual Review of Political Science* 20:487–504.
- Chehabi, Houchang E. and Juan J. Linz. 1998. *Sultanistic Regimes*. Johns Hopkins University Press.
- Finer, Samuel E. 1975. State- and Nation-Building in Europe: The Role of the Military. In *The Formation of National States in Western Europe*, ed. Charles Tilly. Princeton University Press pp. 84–163.
- Geddes, Barbara, Joseph Wright and Erica Frantz. 2018. How Dictatorships Work. Cambridge.
- Goodwin, Jeff. 2001. No Other Way Out: States and Revolutionary Movements. Cambridge.
- Goodwin, Jeff and Theda Skocpol. 1989. "Explaining Revolutions in the Contemporary Third World." *Politics & Society* 17(4):489–509.

Greitens, Sheena Chestnut. 2016. Dictators and Their Secret Police. Cambridge University Press.

- Harkness, Kristin A. 2018. *When Soldiers Rebel: Ethnic Armies and Political Instability in Africa*. Cambridge: Cambridge University Press.
- Horowitz, Donald L. 1985. Ethnic Groups in Conflict. Berkeley: University of California Press.
- Levitsky, Steven and Lucan A. Way. 2010. *Competitive Authoritarianism*. Cambridge University Press.
- Meng, Anne and Jack Paine. 2020. "Rebel Regimes and Military Powersharing: Consequences of Conflict for Authoritarian Durability.". Available at: http://www.annemeng.com/research.html.
- Nalepa, Monika. 2020. "Ritual Sacrifices? Transitional Justice and the Fate of Post-Authoritarian Democracies.". Available at: https://www.monikanalepa.com/uploads/6/6/3/1/66318923/book.pdf.
- Paine, Jack and Scott Tyson. 2020. Uses and Abuses of Formal Models in Political Science. In SAGE Handbook of Political Science, ed. Dirk Berg-Schlosser, Bertrand Badie and Leonardo Morlino. SAGE p. Chapter 11.
- Sudduth, Jun Koga. 2017. "Strategic Logic of Elite Purges in Dictatorships." *Comparative Political Studies* 50(13):1768–1801.
- White, Peter B. 2020. "The Perils of Peace: Civil War Peace Agreements and Military Coups." *Journal of Politics* 82(1):104–18.