

Sowing the Seeds: Radicalization as a Political Tool

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Abstract: *Do radicalized individuals with no logistical assistance from opposition groups generate liabilities or advantages for opposition leaders? To address this question, we develop a theory that articulates a novel strategic channel connecting radicalization, defined as self-motivation to dissent, to repression targeting an opposition group's operational capacity or its leadership. Our main result shows that targeted repression is strictly decreasing in the proportion of radicalized citizens. We endogenize opposition leaders' decision to radicalize citizens and show that opposition leaders, even absent any direct benefit to radicalize, nevertheless invest effort into radicalization. Thus, radicalization is a political tool to deter repression by decreasing its usefulness. To better understand this strategic consequence, we analyze two common policy interventions—economic and psychological—and show that improving economic conditions reduces both radicalization efforts and dissent, while making individuals psychologically less susceptible to radicalization can sometimes backfire and increase dissent because it increases leaders' radicalization efforts.*

Radical groups that espouse extreme, and often violent, political agendas have recently gained prominence, and in some cases political power. Many groups—such as the Islamic State and several white nationalist groups—share a number of parallels, including the methods they use to radicalize people. For example, these groups employ complex media strategies to disseminate propaganda, taking advantage of platforms such as Facebook, Twitter, YouTube, and 8kun. It is noteworthy that these opposition groups devote considerable effort and resources to radicalizing people because radicalized individuals usually conduct dissident activities outside the groups' direct control.

Further, opposition groups commonly increase efforts into radicalization when they anticipate a growing threat from the government. For example, in 2009, the Malian counterterrorism units *Echelons Tactiques Inter-Armees* were formed and began receiving U.S. military

training (Tankel 2018). Around the same time, several Malian opposition groups joined with Al-Qaeda, whose radicalization program was well developed—perhaps best illustrated by a manual created and circulated by Al-Qaeda, “A Course in the Art of Recruiting,” which outlines several radicalization methods and encourages their use. The manual is notable in that it illustrates that Al-Qaeda's leaders understood that radicalizing individuals is a costly and time-consuming process—but they nevertheless felt the need to persuade their operatives that radicalization was important enough to warrant valuable time and resources. Prior to a targeted repression campaign, Mali experienced an explosion in the level of dissident activity from various radical jihadist and separatist groups, which included suicide bombings and other terrorist attacks (see Figure 1, left panel).

Similar patterns have been observed in other contexts. For example, since the 1990s, the far-right “Patriot”

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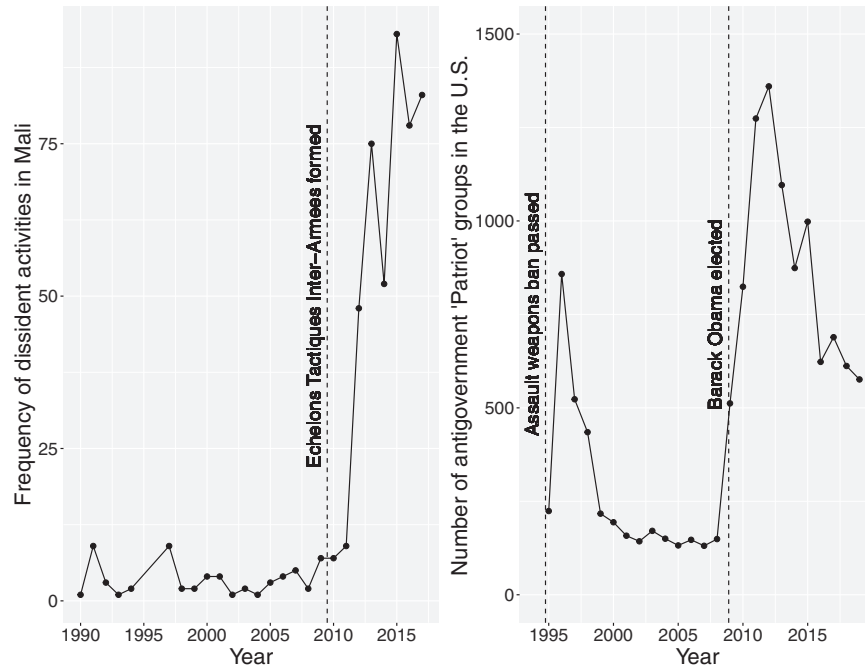
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FIGURE 1 Examples of Extremist Activity following Perceived Government Threats



Note: The left panel shows a spike in extremist activity in Mali after 2009, when Malian counterterrorism units were first formed and began receiving U.S. training. The right panel shows spikes in the number of U.S. extremist groups following the 1994 Federal assault weapons ban, and again following Barack Obama's 2008 presidential election. *Source:* Salehyan et al. (2012) (left) and Southern Poverty Law Center (2019) (right).

movement in the United States has served as a growing source of extremist dissidence. Many groups affiliated with the movement are largely motivated by a perceived threat to their property rights, especially gun ownership. In the early 1990s, a pair of high-profile events where federal law enforcement agencies used aggressive tactics against gun owners, followed by the passage of the federal assault weapons ban, led to an increase in radicalization efforts and a subsequent spike in the number of these antigovernment groups (Levitas 2002). Coinciding with this growth in opposition groups was the bombing of a federal building in Oklahoma City, which was committed by two individuals radicalized by the movement. Another sharp increase in groups occurred after 2008, when there was rampant fear that the Obama administration would enact strict gun-control policies (Depetris-Chauvin 2015). Many subsequent extremist activities in the United States, such as the mass shooting of a Black Charleston church, the Charlottesville "Unite the Right" rally, and various insurrectionary plots against the national and several state-level governments, were perpetrated by individuals radicalized by the far-right (see Figure 1, right panel).

Radicalization is a time-consuming process that instills a set of extreme values and priorities relative to the general population and inspires individuals to act autonomously. But given this autonomy, why do opposition leaders find radicalization to be such a valuable tool? Figure 1 illustrates a puzzling pattern where opposition leaders seemingly increased radicalization efforts in anticipation of increased repressive capacity by the government. Why would opposition leaders devote limited resources to escalate activities *they do not control* as they become more vulnerable? Are leaders simply motivated to gain disciples, benefiting directly from engendering like-minded devotees? If so, what explains the variation exhibited by Figure 1? Alternatively, are there more instrumental motives for radicalizing people?

We develop a theory to identify and isolate a novel strategic channel that explains these puzzles by highlighting the use of radicalization as a political tool: radicalization produces self-motivated followers who engage in decentralized dissidence, making targeted government repression against the opposition organization and its leadership less important in reducing dissent. As a result, radicalization serves to protect the opposition

from the government—an important indirect strategic benefit.

In our theory we focus on radicalization that creates self-motivation to conduct dissident activities.¹ For example, in 2016, after being radicalized by “Pizzagate” conspiracy theories that later evolved into QAnon, a lone man raided the pizzeria Comet Ping-Pong in Washington, DC, armed with an assault rifle. His actions were motivated by a desire to “self-investigate” conspiratorial accusations that a human-trafficking ring connected to U.S. government officials was being run out of the restaurant’s basement (Merlan 2019, chap. 3).² Prior to the incident, hundreds of others, presumably influenced by on-line propaganda, had also threatened the owners of the restaurant and nearby businesses. As another example, in 2019, a Saudi aviation student killed three U.S. sailors on a naval base after being radicalized by Al-Qaeda propaganda; comparable attacks have occurred frequently worldwide in recent years. When considered in isolation, these events do not provide insights into why opposition leaders devote efforts into radicalizing such individuals. Yet these events are more than just isolated “lone-wolf” incidents. Instead, they highlight how a group’s radicalization efforts create self-motivated individuals who act without an opposition group’s express control, coordination, or logistical support—which, as our theory shows, provides indirect benefits to the group. Our theory thus provides an answer to why opposition groups, such as ISIS and Al-Qaeda, have often rushed to claim responsibility for lone-wolf attacks: they seek the indirect protection such an association provides, despite seemingly inviting greater targeted repression by claiming responsibility.³

Our theory focuses on the choices made by a government, an opposition group, and members of a citizen population. Our baseline model examines two stages. First, the government, seeing an exogenous level of radicalization among citizens, chooses how much effort to devote toward eliminating an opposition group, which includes actions such as destroying the opposition’s organizational apparatus, freezing its financial assets, or eliminating its leaders. Thus when evaluating the government’s actions we focus specifically on *targeted repression* designed to eliminate the group’s operational capacity.

¹We contrast our conceptualization with others below.

²The accusations were unfounded, and moreover, the restaurant did not have a basement.

³Moreover, our theory can explain *when* groups will claim responsibility for a lone-wolf attack: when the protection benefit is more valuable than the government’s responses.

Second, all citizens decide either to join an economic sector or participate in dissidence. Citizens in the economic sector receive material benefits (like a wage), and citizens participating in dissidence receive benefits psychologically, based on whether they are radicalized, or materially, based on rewards such as opposition-provided public goods or access to services. Our theory therefore relies on an important conceptual distinction between citizens’ material (extrinsic) benefits—which depend on education, skill, and talent—that motivate citizens regardless of their ideology (Becker 1968; Berman, Shapiro, and Felner 2011; Dube and Vargas 2013), and psychological (intrinsic) benefits, which activate an ideological concern that overpowers material interests (Gates 2002; Mitts 2019). In our theory, radicalization activates a psychological self-motivation toward undertaking dissident activities and works similar to the “duty” payoff in classic decision-theoretic models of voting (Riker and Ordeshook 1968).

We present a number of results in our baseline model that highlight our main contribution. Because the opposition provides material rewards to mobilize dissident activities, the total level of dissent decreases when the opposition’s operational capacity is eliminated. As radicalization among citizens increases, more citizens are self-motivated, leading to more decentralized dissent, perhaps by lone wolves, small independent cells, or loosely affiliated autonomous groups. As a result, the importance of the opposition group for organizing dissent declines, leading to the key strategic force in our model: the level of targeted repression against an opposition group is strictly decreasing in radicalization among citizens.

Our model highlights the *ecology of dissidence*—the ideological/material composition of individuals who dissent—which helps reconcile an empirical puzzle where insurgent members, who experience severe risks, are paid considerably lower salaries than other members of a community (e.g., Bahney et al. 2013). We show that this puzzle results from the combination of two distinct empirical problems: (i) a selection effect in material incentives; and (ii) the fact that radicalized citizens’ motives are not generally reflected in empirical measures—a problem similar to a compliance problem in experiments.

Our baseline model, however, is not the whole story. Many opposition groups—for example, ETA, Falun Gong, FARC, Golden Dawn, Hezbollah, and the Red Brigades—influence the level of radicalization in a population. Opposition leaders devote valuable resources into radicalization, either by focusing attention on salient political issues or engendering credulity with

anti-government propaganda (Little 2017). Recent accounts of the growing influence of political entrepreneurs in the alt-right movement characterize these individuals as opportunists and hucksters, rather than ideologues.⁴ For example, one alt-right leader, Mike Cernovich, publicly proclaims antagonism toward racial diversity but has a nonwhite spouse and children, while another leader, Lauren Southern, promotes traditional gender roles but privately expresses disdain about experiencing misogyny. These anecdotes suggest that opposition groups might use radicalization for reasons other than a simple intrinsic commitment to an ideology.

To understand the opposition's strategic motives, we develop an extended model that endogenizes the opposition's decision to devote effort into radicalizing citizens. Although in some cases leaders may use radicalization to profit financially or psychologically from devotees, we focus on the hard case where the opposition does not directly benefit from radicalizing citizens, and consequently, would not devote effort toward radicalization absent some kind of indirect benefit.⁵ We show that because radicalization reduces targeted repression, it becomes valuable protection for opposition groups, suggesting that even when an opposition does not directly benefit from cultivating like-minded followers, it will nevertheless expend resources on radicalizing citizens. Our theory thus emphasizes the protection that radicalization affords opposition leaders. Furthermore, our theory contributes to understanding the intricate relationship between repression and dissent (Lichbach 1987; Ritter and Conrad 2016; Tyson 2018), where several studies have found a correlation between repression and radicalization (della Porta 2018; McCauley and Moskalenko 2008). Our results identify a novel causal channel: anticipating government efforts to eliminate a group's operational capacity or leaders creates an upstream strategic incentive for opposition leaders to radicalize citizens. Therefore, the threat of targeted repression can cause radicalism and increased dissent where it would not otherwise exist.

We complete our analysis by focusing on two counteropposition policy avenues, economic and psychological, and the implications that follow from our extended model. Economic conditions are captured in our model by the distribution of economic returns available to citizens, and can correspond to a number of empirical factors, such as economic inequality and unemployment.

We show that improvements in economic conditions lead the opposition to shift its resources toward better mobilizing unradicalized citizens, which causes a subsequent decline in dissent. Therefore, our results suggest that opposition groups will devote more resources toward radicalization during periods of economic recession or stagnation. Our results also suggest that the government can reduce radicalization and dissent by promoting growth policies that increase citizens' economic prospects.⁶

The psychological susceptibility toward radicalization can be influenced by a variety of factors. For example, it can be affected by the level of access to citizens enjoyed by opposition groups, corresponding to factors such as internet availability, the number of citizens likely to be exposed to radical messages, or potential diffusion levels in social networks.⁷ The susceptibility toward radicalization can also be impacted by deteriorated social connections caused by armed conflict, forced migration, genocide, and climate change (Curtis and Curtis 1993; Cushman 1986). When considering the role of a population's susceptibility toward radicalization, the story is more nuanced because there are countervailing effects. A decrease in radicalization susceptibility implies that fewer citizens become radicalized at a fixed effort choice. However, we show that decreased radicalization susceptibility also leads to increased efforts into radicalization. Hence, the overall impact on dissent from decreased radicalization susceptibility is ambiguous, varying across different substantive cases, depending on which effect dominates—increased efforts into radicalization or lower ease of radicalization. Therefore, our results suggest that government policies promoting a decline in a population's susceptibility to radicalization—such as censoring information or limiting access to propaganda—might reduce dissent, but could also backfire and increase dissent.

Our analysis proceeds by presenting a stylized set of models, where factors omitted from our model are effectively held fixed. This follows because there is a natural and insightful analogy between a formal model and an ideal experiment, implying that our results should be viewed as all-else-equal comparisons, which is a common and fruitful approach to theoretical models (Guala 2005; Haavelmo 1944; Paine and Tyson 2020). Although the inclusion of additional causal channels into our model might achieve a more literal (albeit still incomplete) representation of reality in a descriptive sense, the introduction of extraneous considerations would obscure the mechanism we articulate—that radicalization reduces

⁴Lombroso, Daniel. "White Noise: Inside the Racist Right." *The Atlantic*. <https://www.theatlantic.com/white-noise-movie/>.

⁵In the supporting information (SI) Appendix B (p. 5), we consider when leaders enjoy radicalizing per se.

⁶We formalize economic instruments in SI Appendix C (p. 8).

⁷See Larson (2016) for a description of network diffusion.

targeted repression—without contributing additional insights or conceptual clarity.

Radicalization and Opposition Tactics

There are many ways of defining radicalization, each of which is conceptually incomplete (Kundnani 2012). Although understanding all the mechanisms of radicalization is important, our theory is not about what traits lead some individuals to become radicalized or how such traits can be manipulated. To fix ideas, and focus our contribution, we conceptualize radicalization narrowly as a process that creates a self-motivation to participate in political dissidence *even if the opposition's resources or leaders are eliminated*. In our model, being radicalized alters how a citizen evaluates material and ideological incentives and, in our extended model, is something that opposition leaders are capable of influencing. Bénabou and Tirole (2003) develop an agency model with a similar distinction where extrinsic (material) rewards chosen by a principal may influence the agent's intrinsic, or self-motivated, incentives, which arise from self-image considerations or reputational concerns.

By formalizing the concept of radicalization as self-motivated dissent, we blackbox other aspects that may be important toward fully understanding the psychology of radicalization. This restriction, however, is a key strength of our approach because it means that our theory is not heavily reliant on a particular psychological mechanism of radicalization, and is thus consistent with several different accounts featuring self-motivation. Consequently, the novel mechanism we study—that radicalization provides a protective strategic advantage to opposition groups—will arise in a number of different applications and contexts, although its total effect may be mitigated by other mechanisms.

Radicalization can happen in a number of ways, depending on a variety of individual and societal level factors (Green 1972; Sargent 1957), and resulting both from bottom-up and top-down forces (Sageman 2004; Wiktorowicz 2005). An example of bottom-up radicalization is when government overreaction to terrorism radicalizes otherwise passive civilians (Bueno de Mesquita and Dickson 2007; Kydd and Walter 2006), whereas top-down radicalization involves explicit efforts. In our initial baseline model, radicalization is exogenously held fixed but can depend on previous repression among other factors left out of our model. In our extended model, we focus on the opposition's efforts to manipulate the level

of radicalization among citizens.⁸ Such top-down methods capture the efforts by opposition leaders to frame or make salient events to galvanize antigovernment views among citizens.

Radicalization engendering self-motivation may stem from religious or secular ideologies and can be transmitted through various media, including posters, pamphlets, independent newspapers, radio, television, and more recently, the internet and social media (Mitts, Phillips, and Walter 2019). Other forms of contact can include public meetings, visiting religious institutions, and infiltrating sympathetic political groups (Jamieson 1990). Some opposition groups have exploited elements of popular culture such as music and video games. For example, neo-Nazis and white supremacists pervaded the Oi! punk rock scene in the 1980s, and Hezbollah has established a first-person shooter game where targets are Israeli soldiers (Gruen 2006). As technology has advanced, social media platforms have become increasingly instrumental in radicalizing individuals (Bräuninger and Marinov 2019; Gates and Podder 2015).

Our study focuses on the tactical use of radicalization which may be manipulated by opposition leaders as a method of protection. The tactical decisions of opposition leaders have been studied extensively, including the decision to adopt terrorist tactics (Bueno de Mesquita 2013; Carter 2015b; Kydd and Walter 2006), spoiler actions (Kydd and Walter 2001), and provocation (Carter 2016), though no study (to our knowledge) considers the tactical decision of opposition group leaders to radicalize as a survival tool.⁹

Recent studies have emphasized the organizational and managerial economics of opposition groups, with ideology and radicalism playing an important role in controlling group members. For example, Bueno de Mesquita (2005b), Shapiro (2013), and Shapiro and Siegel (2012) use a principal-agent framework to understand organizational features of insurgent groups. Bueno de Mesquita (2005a) focuses on selection among recruits by terrorist leaders and Bueno de Mesquita (2008) considers the relationship between policy preferences and factional splits. Furthermore, the managerial advantages of radicalism for opposition groups is stressed by Berman and Laitin (2008), Berman (2011), and Iannaccone and Berman (2006) who argue that because rad-

⁸In SI Appendix D (p. 13), the government manipulates radicalization with measures such as propaganda, public education, or hearts and minds policies.

⁹In contrast to analyzing state sponsorship of foreign extremist groups (Bapat 2007, 2012; Carter 2015a), our theory focuses exclusively on tactical advantages to opposition groups.

icalization leads individuals to have reduced outside options, it helps religious groups avoid defection. Andvig and Gates (2010) show that child soldiers provide tactical advantages to insurgents for similar managerial reasons. Beber and Blattman (2013) present a model of child soldiering where indoctrination is formalized as the exogenous cost of effort from undertaking dissent, rather than self-motivation. These studies explore the organizational dynamics of motivating and controlling extremists. Our focus, in contrast, blackboxes organizational features of the opposition to focus on radicalization's downstream strategic consequences.

Other studies of participation in extremist activities focus on the motivational role of material incentives, theoretically (Lohmann 1993) and empirically (Collier and Hoeffler 1998). With respect to recruitment by insurgent groups, several studies focus on the influence of economic factors (Humphreys and Weinstein 2008; Weinstein 2005), while others consider ideological motives (Eck 2010; Oppenheim et al. 2015). Morris and Shadmehr (2018) study how revolutionary leaders cultivate nonrival psychological rewards to inspire effort from citizens in the presence of coordination frictions and screening. We instead focus primarily on the strategic calculus of the government and opposition leaders.

The Baseline Model

Our baseline model involves a government and a citizen population. In the first stage, nature determines which citizens are radicalized.¹⁰ The second stage is the *repression stage*, where the government chooses a level of (preventative) repression determining the probability the opposition's operational capacity or leadership is eliminated. The final stage is the *dissent stage*, where citizens (independently) choose between joining an economic sector or dissenting.¹¹ In our model, dissidence can include several behaviors depending on context and could correspond to popular pressure for policy concessions or democratization, the overthrow of the current regime, establishment of a parastatal economy, terrorism, etc.¹² To remain consistent with different concrete scenarios,

¹⁰Radicalization will be strategically manipulated next, when we introduce the opposition as a strategic actor.

¹¹This timing resembles the timing in Grossman (1991), or more recently, Di Lonardo, Sun, and Tyson (2020).

¹²Terrorism is arguably the most radical form of dissent, however, in countries where political demonstrations are illegal, protests could also be considered dissent. For example, Falun Gong's protests against the Chinese government, including several mem-

we keep dissidence somewhat abstract, supposing that it captures activities the government wants to reduce.¹³

First, there is a unit mass of citizens, indexed by $j \in [0, 1]$. We denote citizen j 's radicalization status by $s_j \in \{0, 1\}$, where $s_j = 1$ denotes that citizen j has become *radicalized*, and $s_j = 0$ designates that citizen j remains unradicalized. Each citizen's radicalization status, s_j , is independent across j , and is determined by $\rho = P(s_j = 1)$. This implies that ρ citizens are radicalized while $1 - \rho$ remain unradicalized.

Second, before the dissent stage, the government can implement targeted repressive actions designed to eliminate the operational structure, logistical and financial apparatus, and leaders of the opposition, the totality of which we refer to as the opposition for short. The survival status of the opposition is denoted by the indicator $z \in \{0, 1\}$, where $z = 1$ signifies that the opposition has survived the government's repression, and $z = 0$ signifies that the opposition has been eliminated. Formally, the government chooses a level of repression, x , which gives the probability that the opposition is eliminated before the dissent stage according to the smooth and strictly increasing function $\pi(x) = P(z = 0 | x)$. For many reasons, repression entails opportunity costs to the government, captured by the smooth, strictly increasing, and strictly convex cost function $c(x)$.

In the last stage of the game, citizen j independently chooses whether to join an economic sector, denoted by $y_j = 0$, or instead, to undertake dissident activities, $y_j = 1$. Citizen j 's material return from the economic sector is given by w_j , which is received only if she joins the economic sector. Individual economic returns are independently drawn from a distribution function F , with support $[0, \bar{w}]$ and density function f , where \bar{w} represents the maximum earning potential in the economic sector. The distribution F reflects the overall state of the economic sector by determining how economic returns are distributed across citizens.

Radicalized dissidents are distinguished from unradicalized dissidents in that they receive an ideological benefit from dissenting, which is distinct and independent from material rewards. In particular, a radicalized dissident receives a benefit, D , from dissenting, which is possible with or without the opposition. The opposition provides material rewards in the form public or club goods (e.g., Berman 2011; Berman and Laitin 2008),

bers' self-immolations, would fall under the category of decentralized dissent, despite the lack of violence against others.

¹³Note that representing preferences over dichotomous outcomes would require specifying additional pieces of the environment, such as a contest success function.

denoted by $B > 0$, to nonradicalized dissidents, which reflects the net benefit of individual participation, that is, the benefits the opposition provides minus the potential punishments inflicted by the government (which can be stochastic).¹⁴ The material rewards provided by the opposition could be derived from drug trade, natural resource extraction, or illicit financial networks (see Limodio 2019). Because our main contribution is about the strategic link between radicalization and repression, we abstract from public finance concerns of opposition groups.¹⁵

For an individual citizen j , her preferences depend on her economic opportunities, w_j , her radicalization status, s_j , the survival of the opposition, z , and her decision of whether to dissent, y_j .¹⁶ Specifically, citizen j 's preferences are represented by the payoff function:

$$u(y_j; s_j, w_j, z) = y_j(s_j \cdot D + z \cdot (1 - s_j)B) + (1 - y_j)w_j.$$

To keep our analysis simple, we restrict attention to cases when $D > \bar{w}$, which means that economic incentives are not strong enough to overcome radicalization, even for a citizen with the most promising economic prospects.¹⁷ This simplifies the presentation and is not necessary for any of our results (see SI Appendix C, p. 8).

Denoting the total level of dissent by Y_z , the government's expected payoff is

$$-\pi(x)Y_0 - (1 - \pi(x))Y_1 - c(x).$$

We restrict attention to cases when targeted repression is not prohibitively costly, $\lim_{x \rightarrow 0} \frac{c'(x)}{\pi'(x)} = 0$, nor is it sufficiently cheap for infinite repression to be pursued, $\lim_{x \rightarrow +\infty} \frac{c'(x)}{\pi'(x)} = +\infty$.

A strategy profile corresponds to a level of repression, $x^*(\rho)$, and a decision rule for citizens, $y^*(w_j, s_j, z)$, regarding whether to join the economic sector or participate in dissidence. An equilibrium in our model is a subgame perfect Nash equilibrium.

An important part of our analysis regards economic conditions, captured by the distribution of material rewards that could be enjoyed by citizens if they join the economic sector, F . Because each citizen's material

well-being is determined by a random draw from F , an improvement in economic conditions corresponds to a higher likelihood that an individual citizen's material payoff from the economic sector is higher. This kind of change is reflected by a first-order stochastic increase in the distribution F , which means that higher economic returns are more likely for an individual citizen.¹⁸

In the model we assume that the distribution over economic returns, F , and the distribution over radicalization, ρ , are independent ex ante, and we derive an endogenous correlation between radicalization and economic returns arising naturally from individual choices. It is straightforward to introduce a mechanical correlation between F and ρ , which would then compound the endogenous correlation we study.

The exclusive role of the opposition in our baseline model is that it organizes dissidence by providing material rewards for participation, and the organizational capacity of the opposition refers to all the logistical features that have been established to recruit, organize, and compensate individuals who participate in dissidence. This could include leadership hierarchies and networks designed to transfer money surreptitiously across the globe (Shapiro 2013; Shapiro and Siegel 2007), or it could be the core group of leaders and their ability to pay rent, find meeting spaces, travel, and offer salaries (Davenport 2015). Because the public finance details differ by context, we abstract from the concrete details of the opposition's financial and logistical apparatus.

The individual benefit of dissenting for radicalized citizens, D , essentially reflects an expressive concern, much like the duty term in decision-theoretic models of expressive voting (Dhillon and Peralta 2002; Fiorina 1976; Jones and Hudson 2000; Ortoleva and Snowberg 2015). Several scholars provide microfoundations of the duty term in a strategic voting context (e.g., Feddersen 2004; Feddersen and Sandroni 2006; Palfrey and Rosenthal 1985), and similar strategic foundations would apply to our D term as well.

The Ecology of Dissidence

We begin our analysis at the last stage of the game by focusing on the decisions of individual citizens, some of whom have been radicalized while others are motivated purely by material incentives. At this point in the game,

¹⁴We connect B with opposition resources next.

¹⁵In SI Appendix Appendix E.1 (p. 19), we consider when opposition-provided benefits exhibit rivalry.

¹⁶Coordination motives between citizens (e.g., Tyson and Smith 2018) would complicate the analysis in a straightforward way and would not entail additional insights.

¹⁷Note that radicalized citizens are rational in the sense of having complete and transitive preferences. We adopt the standard formulation where preferences are taken as given and are not chosen by actors.

¹⁸A random variable with distribution F_1 , first-order stochastically dominates another, with distribution function F_2 , if for every z , $F_1(z) \leq F_2(z)$.

the survival status of the opposition, $z \in \{0, 1\}$, has already been determined, and consequently, is held fixed.

Citizen Choice

An individual citizen prefers to participate in dissidence if and only if the benefit from doing so exceeds what she gets from joining the economic sector. In particular, citizen j actively dissents when

$$w_j \leq s_j D + z(1 - s_j)B. \tag{1}$$

The left-hand side of (1) corresponds to citizen j 's return from joining the economic sector, whereas the right-hand side of (1) represents citizen j 's payoff from dissenting. This latter part depends on whether citizen j is radicalized, s_j , and whether the opposition has survived targeted repression, z .

Lemma 1. *There exists a unique cutoff, $w^*(s_j; z) : \{0, 1\}^2 \rightarrow [0, D]$, such that citizen j dissents if $w_j \leq w^*(s_j; z)$, and joins the economic sector if $w_j > w^*(s_j; z)$. Specifically, citizens follow the (symmetric) decision rule:*

$$y^*(w_j, s_j, z) = \begin{cases} 1 & \text{if } w_j \leq w^*(s_j; z) \\ 0 & \text{otherwise,} \end{cases}$$

where

$$0 = w^*(0; 0) < w^*(0; 1) = B < w^*(1; z) = D.$$

Citizens in our model are motivated by *both* material and ideological interests, and inspection of (1) highlights how both kinds of incentives motivate dissent for both radicalized and unradicalized. For a radicalized citizen, $s_j = 1$, and because $D > \bar{w}$, she does not face a trade-off between material and ideological concerns—her ideological interests overwhelm potential material rewards gained from the economic sector, and hence, $w^*(1; z) = D$ for every $z \in \{0, 1\}$.

An unradicalized citizen ($s_j = 0$), whose material payoff from joining the economic sector is w_j , prefers to dissent, rather than joining the economic sector, if and only if $w_j \leq w^*(0; z)$, which depends on whether the opposition has been eliminated, z . When the opposition has been eliminated ($z = 0$), then no material rewards are provided for dissenting. Because unradicalized citizens do not receive an ideological benefit from dissenting, no unradicalized citizen will dissent, that is, $w^*(0; 0) = 0$. Alternatively, when the opposition survives ($z = 1$), then material rewards of B are provided to citizens for dissenting. Because the material benefit the group provides equals B , unradicalized citizens with relatively poor economic options actively dissent, reflected by the cutoff $w^*(0; 1) = B \in (0, \bar{w})$.

Joining the economic sector and participating in dissent are perfect substitutes in our model, reflected by the additive separability of the citizen payoff function, implying that citizens will not choose to participate in both activities.¹⁹ This feature of our model is not necessary for any of our results, which rely only on citizens who participate in dissent having reduced access to economic opportunities.

Before moving on, we connect features of individual incentives to existing empirical studies of insurgency. Some studies have noted an empirical puzzle that insurgent groups, such as Al-Qaeda in Iraq and the Islamic State, pay considerably lower salaries relative to the local population, especially considering the risks (Bahney et al. 2013).

Remark 1. *The average return earned in the economic sector is strictly larger than the material benefits received by actively dissenting citizens.*

Remark 1 follows by noting that the unradicalized, who would otherwise earn less in the economic sector, are attracted to the material benefits provided by the opposition (when it survives). This selection effect implies that the economic sector's observed average wage does not reflect what unradicalized dissidents would have earned in the economic sector. Lemma 1 shows that those counterfactual wages would be systematically lower than those who ultimately join the economic sector, biasing upward the observed average wage. Additionally, similar to a compliance problem in experiments, radicalized dissidents are “compensated” through ideological benefits that outweigh whatever they might have received in an economic sector. The psychological benefit, D , implies that the choices of radicalized citizens are not indicative of material tradeoffs, but this is not generally reflected in empirical measures.

Aggregating Citizen Choices

Opposition groups exhibit both centrally organized dissent and decentralized activities. We interpret participation by unradicalized citizens as dissent that is organized and directed by the opposition and participation by radicalized citizens as decentralized dissent, such as lone-wolf attacks or small cells with little operational and logistical dependence. This interpretation is natural as it aligns with dissidence that depends on logistical assistance, and

¹⁹It also implies that all our results would be identical if the decision y_j were continuous. If, however, citizen utility were not linear in y_j , it is straightforward to see that some citizens might split effort between dissent and economic activities.

dissidence that is independent of the presence of the opposition, respectively.²⁰

Dissidence follows by considering which citizens, radicalized and unradicalized, are motivated to participate. The level of dissidence among citizens is given by the proportion of citizens who participate:

$$Y_z(\rho) = \int_0^1 y_i(w_i, s_i; z) di,$$

which can be broken up into two pieces

$$Y_z(\rho) = \underbrace{\rho \int_0^1 y_i(w_j, 1; z) di}_{\text{decentralized dissidence}} + (1 - \rho) \underbrace{\int_0^1 y_i(w_j, 0; z) di}_{\text{organized dissidence}}.$$

The first term reflects the level of decentralized dissidence resulting from the participation of radicalized citizens, whereas the second term is the organized dissidence that comes from the participation of unradicalized citizens.

Proposition 1. *Dissidence is given by*

$$Y_z(\rho) = \rho + z(1 - \rho)F(B), \tag{2}$$

which is strictly increasing in the level of radicalization, ρ , opposition survival, z , and opposition-provided material benefits, B , and strictly decreasing in economic conditions, that is, first-order stochastic increases in F . Moreover, dissidence has strict decreasing differences between z and ρ .

Radicalized citizens participate in decentralized dissidence, reflected by the first term of (2). The second term of (2) represents the participation of citizens who remain unradicalized, and depends on two features. First, due to an opportunity cost consideration, only when faced with poor economic prospects will an unradicalized citizen dissent. Second, material benefits from participating are only available when the opposition has not been eliminated. This latter feature—that dissidence is strictly increasing in the survival of the opposition—highlights the importance of the organizational apparatus behind dissident movements.

Proposition 1 also identifies the direct effect of material benefits on the level of dissent. First, increasing opposition-provided benefits, B , increases the level of dissent. This result is consistent with existing studies that show a positive relationship between resources and activities by opposition movements (Limodio 2019). Additionally, improvements in economic conditions, which in our model correspond to a first-order stochastic increase in F , reduce dissidence, which is consistent with research

focusing on the role of economic conditions and terrorism (Benmelech, Berrebi, and Klor 2012; Blomberg, Hess, and Weerapana 2004). The intuition for this direct effect is straightforward: a first-order stochastic increase in F corresponds to higher returns from joining the economic sector. As economic prospects improve, fewer unradicalized citizens are willing to forego what they can earn in the economic sector, reducing dissent from unradicalized citizens.

The last part of Proposition 1 is important because it demonstrates the key mechanism in our model, that dissidence exhibits strict decreasing differences between the survival status of the opposition, z , and the level of radicalization, ρ . Substantively, this means that as the level of citizen radicalization increases, the importance of the opposition in producing dissidence declines, a feature which is critical in our analysis of targeted repression to eliminate the opposition’s operational capacity or leaders.

Eliminating the Opposition

In the previous section, the survival status of the opposition, represented by $z \in \{0, 1\}$, had already been determined. We now focus on the stage of the game where the opposition is operational, and unless the government eliminates it, will mobilize dissidence. Recall that the effort, time, and resources used to eliminate the opposition is represented by the cost function $c(x)$, and that the probability the opposition is eliminated, $\pi(x)$, depends on the level of targeted repression, x .

To ensure sequential rationality, we incorporate $Y_z(\rho)$ into the government’s problem:

$$\max_x - \pi(x)Y_0(\rho) - (1 - \pi(x))Y_1(\rho) - c(x). \tag{3}$$

The main trade-off is between the expected level of dissidence and the opportunity cost of repression. Combining Lemma 1 with a solution to (3) characterizes an equilibrium.

Proposition 2. *There is a unique equilibrium, characterized by the pair $(w^*(s_j; z), x^*(\rho; F))$, where $w^*(s_j; z)$ is the cutoff level of economic opportunities at which a citizen with $w_j \leq w^*(s_j; z)$ dissents, and $x^*(\rho; F)$ is targeted repression.*

The government knows the proportion of citizens who are radicalized, ρ , and anticipates that eliminating the opposition prevents the mobilization of

²⁰We maintain this distinction for conceptual clarity, and are not suggesting that there are not cases where radicalized individuals participate in organized activities or cases where unradicalized citizens participate in decentralized actions.

unradicalized citizens.²¹ How is repression influenced by social and political factors?

Proposition 3. *Targeted repression, $x^*(\rho; F)$, is strictly increasing in opposition-provided material benefits, B , strictly decreasing in economic prosperity, that is, first-order stochastic increases in F , and strictly decreasing in the level of radicalization, ρ .*

If more resources are available toward motivating unradicalized citizens, then the government compensates by increasing repression. To identify the direct influence of economic conditions on repression, observe that improving economic conditions implies that unradicalized citizens become harder to motivate, that is, B must be higher to achieve the same level of organized dissent. Thus, the benefit of targeted repression is reduced, and consequently, the government represses less. Empirically this result suggests that economic improvements should be negatively associated with targeted repression, all else equal.

The last part of Proposition 3 highlights our main contribution regarding the strategic relationship between radicalization and targeted repression, showing that higher levels of radicalization lead to lower targeted repression. An increase from ρ to ρ' implies that fewer citizens are unradicalized, and hence, a society with a higher proportion of radicalized citizens has fewer citizens who need material rewards for participating in organized dissent. Because dissidence exhibits strict decreasing differences between the level of radicalization, ρ , and the survival status of the opposition, z , the government's benefit from repression is lower when the proportion of citizens who are self-motivated to dissent is higher. As a result, an increase in the level of radicalization among citizens reduces the government's repression targeting the operational capacity of opposition groups.²²

Endogenous Radicalization

We now extend the model by focusing on the opposition's initial decision to devote resources toward radicalizing citizens. As with motivating citizens materially to dissent, radicalization efforts are also logistically demanding, often involving geographically and temporally dis-

²¹The government's problem is equivalent to one where $\pi(x)$ is the expected opposition strength post intervention, although this formulation would require modification of citizens' incentives. In SI Appendix G (p. 23) we examine when $\pi(x)$ is nonmonotone.

²²In SI Appendix F (p. 21), we add responsive repression to our model.

persed activities. What benefit do radicalization efforts provide to an opposition group if it expends limited resources that would otherwise be useful in compensating its mobilized dissidents?

Suppose all citizens begin the game unradicalized, and in the initial stage, the opposition decides how much effort to devote toward radicalizing citizens, $e \geq 0$. The psychological *susceptibility toward radicalization* is the probability that an individual citizen becomes radicalized at a given level of effort e , captured by the smooth and strictly increasing function $\rho(e) = P(s_j = 1 | e)$. We restrict our analysis to cases where radicalization effort bears fruit, but note that a model in which $\rho'(e) = 0$ for all e reduces to our baseline model by setting $\rho(e) = \rho$ for all e .

We normalize the opposition's payoff of being eliminated to zero and assume it enjoys benefits from organized dissent only when it survives. Although there are many reasons politically motivated leaders may find dissidence beneficial, we focus particularly on the hard case where the opposition is concerned only with organized dissent, and not the decentralized dissent produced by radicalized individuals.²³ The level of organized dissent formally corresponds to the participation of unradicalized citizens, $Y_1 - Y_0$, hence, the opposition's preferences are represented by the payoff function

$$z(Y_1 - Y_0).$$

To reflect the opposition's resource constraints, the level of material rewards the opposition provides in the last stage is determined by how many resources were expended into radicalization initially, reflected by the smooth and strictly decreasing function $B(e) : \mathbb{R}_+ \rightarrow [0, \bar{w}]$. Because $B(e)$ decreases, the case where the opposition faces a budget constraint at the beginning of the game, with prices and a finite budget, or the case with ideological backlash from the unradicalized, are special cases of our model.²⁴

Remark 2. *Dissidence, $Y_z(\rho(e))$, is nonmonotone in radicalization effort, e .*

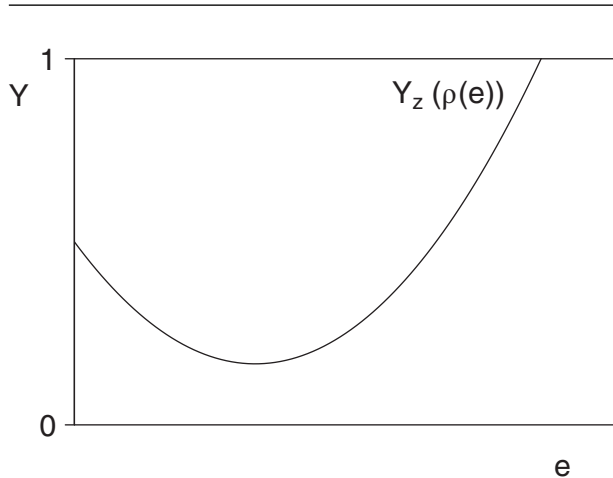
Remark 2 highlights an important feature of radicalization effort, which is best understood by differentiating dissidence with respect to e . Specifically,

$$\frac{dY_z(\rho(e))}{de} = \rho'(e) + z[-\rho'(e)F(B(e)) + (1 - \rho(e))f(B(e))B'(e)]. \quad (4)$$

²³In SI Appendix B (p. 5) we examine when opposition leaders care about total dissidence.

²⁴See SI Appendix Appendix E.2 (p. 21).

FIGURE 2 Nonmonotonicity between Dissidence and Radicalization Effort



Note: This plot illustrates Remark 2, which says that dissidence, $Y_z(\rho(e))$, is nonmonotone in radicalization effort, e . For this plot, $\rho(e) = e$, $z = 1$, F is the distribution function of a uniform distribution, and $B(e) = \frac{1}{2} - e^2$.

The first term in (4) measures the change in decentralized dissent directly resulting from a change in the number of radicalized citizens. This term is positive, reflecting that increased radicalization leads to more citizens being self-motivated to dissent (regardless of their economic opportunities). The bracketed term of (4) is negative, resulting from two natural consequences of radicalization. The first component, $-\rho'(e)F(B(e))$, reflects that increasing the proportion of citizens who have become radicalized necessarily decreases the proportion of citizens who are driven by material concerns, reducing the potential contribution of unradicalized citizens toward dissidence. The last component in (4), $(1 - \rho(e))f(B(e))B'(e)$, indicates that, because the opposition faces resource constraints, that is, $B'(e) < 0$, increasing effort to radicalize citizens means fewer resources are provided as material rewards to unradicalized citizens. In particular, as a direct result of being resource constrained, the opposition cannot simultaneously increase participation from radicalized and unradicalized citizens. The nonmonotone relationship between radicalization effort and dissidence is illustrated in Figure 2, where $\rho(e) = e$, $z = 1$, F is the distribution function of a uniform distribution, and $B(e) = \frac{1}{2} - e^2$.

Our mechanism, highlighted by Proposition 3, generates an important upstream consequence in our extended model where radicalization is endogenous. From Proposition 2, the government’s sequential best response to radicalization effort e is denoted by $x^*(e)$, which by

Proposition 3, and the chain rule, is strictly decreasing in e . By sequential rationality, the opposition’s problem in the initial stage becomes

$$\max_e (1 - \pi(x^*(e)))(1 - \rho(e))F(B(e)). \quad (5)$$

By combining Proposition 1 with Proposition 2 and considering the opposition’s problem, we can characterize the equilibria of the game (details are in SI Appendix A, p. 1). Although endogenizing the decision to radicalize citizens opens up the possibility of multiple equilibria, the comparative static implications we explore next are the same at any equilibrium.

Proposition 4. *There exists an equilibrium, characterized by the triple $(e^*, x^*(e), w^*(s_j; z))$, where $w^*(s_j; z)$ follows from Lemma 1, $x^*(e)$ follows from Proposition 2 with $\rho = \rho(e^*)$, and e^* solves (5).*

The relationship between radicalization and repression, when both are endogenous, introduces an important tradeoff for the opposition. Because of resource constraints, radicalization constitutes a direct cost. But there is also an indirect benefit arising from the strategic influence of radicalization on repression. Specifically, the probability the opposition survives the government’s targeted repression, $1 - \pi(x^*(e))$, increases in radicalization efforts.

Our results show that *even if* leaders do not directly benefit from radicalizing citizens, radicalization nevertheless proves to be valuable because it reduces government efforts to eliminate an opposition group’s operational capacity or leadership. This result arises from two key substantive features reflected in our model. First, material rewards are necessary to motivate unradicalized citizens to dissent, and political organizations are critical to facilitate these kinds of transactions. Second, the opposition is resource constrained, so devoting more resources toward radicalizing citizens leaves less to organize dissent.²⁵ Ultimately, despite the direct costs involved, radicalization provides protection.

Before moving on, it is important to stress why we focus on radicalization efforts that precede targeted repression. From a substantive perspective, radicalization is a time-consuming process that often takes several months or years (McCauley and Moskalenko 2008). By contrast, the kinds of repressive actions our theory focuses on, such as freezing access to financial instruments

²⁵Although the opposition may choose how to use different recruits based on their perception of each recruit’s skill level or radicality (Bueno de Mesquita 2005a; Spaniel 2018), such organizational considerations are beyond the scope of our analysis which is focused on participation in dissidence rather than how an opposition manages its members.

or decapitation strikes, are quick by comparison. Consequently, an analysis of alternative timings, although straightforward, would correspond to different kinds of repression, or other forms of radicalization, which are outside our substantive focus.

From a theoretical perspective, our substantive question is about the *strategic* influence of radicalization on government repression targeting the operational capacity and leadership of opposition groups. An alternative model where the government engages in targeted repression before opposition leaders can devote effort toward radicalizing citizens, or when radicalization and repression are chosen simultaneously, remove the opposition's incentive to put effort into indoctrination, and thus reduces to our baseline model, by setting $\rho(0) = \rho$. This fact is reassuring because these alternative timings correspond to exogenously shutting down the strategic channel we isolate, thus allowing us to conclude that our strategic channel is responsible for the variation in radicalization effort and dissidence we study. If, instead, the opposition's choice of radicalization effort, e^* , were unchanged after altering the order of play, then we would have to conclude that our strategic channel could not be responsible for the radicalization choices of opposition leaders in our model.

Economic and Psychological Effects

We now turn to some additional policy-relevant implications of our model by focusing on the comparative-static implications from changing economic conditions as well as psychological susceptibility toward radicalization.

In our model, dissidence depends on repression and radicalization effort. By substitution in Proposition 1, the *equilibrium* level of dissidence is

$$Y^* = \rho(e^*) + (1 - \pi(x^*(e^*)))(1 - \rho(e^*))F(B(e^*)).$$

Recall that the distribution of economic returns among citizens is reflected by the probability distribution F , which determines the cross-sectional distribution of potential material returns in the economic sector, and an improvement in economic conditions is reflected by a first-order stochastic increase in F . Because the population of citizens is large, a first-order stochastic increase in F also corresponds to a higher proportion of citizens having better economic prospects.

Proposition 5. *Equilibrium radicalization effort e^* strictly decreases in improvements in economic conditions, that is, first-order stochastic increases in F . The equilibrium level of dissidence Y^* strictly decreases in improvements in eco-*

nomic conditions, that is, first-order stochastic increases in F .

The first part of Proposition 5 details the influence of the distribution of economic returns among citizens on opposition effort to radicalize citizens. Improving economic conditions implies that unradicalized citizens are becoming harder to motivate. But because the opposition is motivated by organized dissent, it prefers to radicalize less. Therefore, an improvement in economic conditions leads the opposition to reduce the resources they expend on radicalizing citizens. The second part of Proposition 5 says that this leads to decreased equilibrium dissidence.

We next consider the role of citizens' psychological susceptibility toward radicalization, recalling that a pointwise increase in the function ρ means that at every e , it is more likely an individual citizen becomes radicalized. Similar to the distribution over economic returns, because the population of citizens is large, for a level of radicalization effort e , the value $\rho(e)$ corresponds to the proportion of citizens who become radicalized.

Some concrete factors that may influence psychological susceptibility toward radicalization may include religiosity of the population; migration or forced displacement; access to the internet or propaganda; density of social networks; ethnic fractionalization; or the age distribution, as younger people are more easily radicalized (Curtis and Curtis 1993).

Proposition 6. *Equilibrium radicalization effort e^* is strictly decreasing in psychological susceptibility toward radicalization, that is, pointwise increases of ρ . The equilibrium level of dissidence Y^* is nonmonotone in psychological susceptibility toward radicalization, that is, pointwise increases of ρ .*

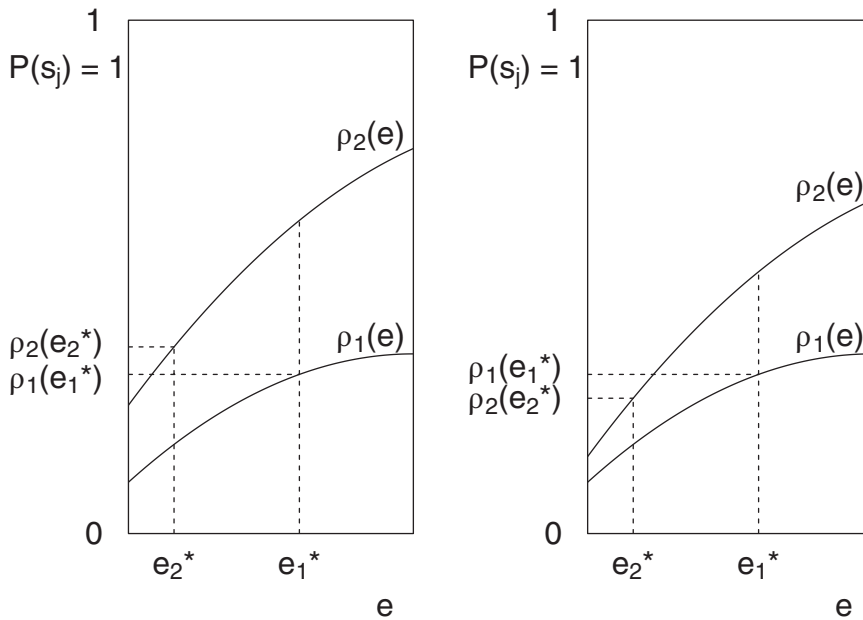
Proposition 6 establishes that as the susceptibility toward radicalization increases, fewer resources are put into radicalizing citizens. A pointwise increase in ρ means that at a fixed level of effort, e , a higher proportion of citizens become radicalized. This creates an opportunity for the opposition to devote more resources to providing material benefits toward mobilizing organized dissent, without necessarily changing the level of targeted repression.

Recall equilibrium dissidence for susceptibility function ρ_t :

$$Y_t^* = \rho_t(e_t^*) + (1 - \pi(x_t^*(e_t^*)))(1 - \rho_t(e_t^*))F(B(e_t^*)).$$

We show in SI Appendix (expression (A.4), p. 3), that the second term, $(1 - \pi(x_t^*(e_t^*)))(1 - \rho_t(e_t^*))F(B(e_t^*))$,

FIGURE 3 Nonmonotonicity between Dissidence and Radicalization Susceptibility



Note: These plots illustrate Proposition 6, which establishes that as the susceptibility toward radicalization ρ increases, (a) lower effort e is put into radicalizing citizens, and (b) the equilibrium level of dissidence Y^* is nonmonotone in susceptibility toward radicalization because it depends on particular features of ρ . The left panel illustrates when equilibrium dissidence increases, and the right panel illustrates when it decreases.

is constant in equilibrium (in t), and hence, for a pointwise increase from ρ_1 to ρ_2 ,

$$Y_1^* - Y_2^* = \rho_1(e_1^*) - \rho_2(e_2^*).$$

This difference can be written as

$$Y_1^* - Y_2^* = \underbrace{\rho_1(e_1^*) - \rho_2(e_1^*)}_{\text{Direct effect}} + \underbrace{\rho_2(e_1^*) - \rho_2(e_2^*)}_{\text{Strategic effect}}.$$

The first term is the direct effect, which is negative because ρ_2 is a pointwise increase from ρ_1 . However, because e is not fixed there is also a strategic effect, exhibited by the second term. As radicalization efforts decrease in pointwise increases in ρ , $e_1^* > e_2^*$, and hence, the strategic effect is positive. When taken together, the overall effect of a pointwise increase from ρ_1 to ρ_2 is ambiguous because which is larger, the direct or strategic effect, is not a systematic feature of the environment. This relationship is illustrated in Figure 3, where the plot on the left illustrates when equilibrium dissidence increases (i.e., when $\rho_1(e_1^*) - \rho_2(e_2^*) < 0$) and the plot on the right illustrates when it decreases. This shows how the total effect of increased susceptibility toward radicalization depends on particular features of the function ρ , which varies across different substantive cases.

Conclusion

Our model focuses on how radicalization that creates self-motivated dissidents alters the government’s motivation to invest in eliminating an opposition group, and how this creates upstream incentives for opposition leaders to radicalize citizens. The primary mechanism we highlight suggests that radicalization serves a tactical purpose in a hostile security environment and need not necessarily reflect opposition leaders’ genuine ideological commitment to radical views. We show how citizen radicalization becomes a method of alleviating pressure against an opposition’s organizational capacity or leadership by reducing the opposition’s importance in producing dissidence. Our most striking result is that *even when opposition leaders do not directly benefit from radicalizing citizens, they nevertheless do so, because radicalization strategically provides protection.*

In addition to presenting a novel strategic mechanism arising from radicalized self-motivated dissidents, we explore how aspects of a country’s social and economic context influence incentives to radicalize citizens. Our analysis has direct policy implications for countering political opposition (see, e.g., Kilcullen 2005), where

most prescriptions revolve around efforts to eliminate the opposition's operational capacity or its leaders (Hansen-Lewis and Shapiro 2015; Jones and Olken 2009; Price 2012), improve individuals' economic prospects (Berman et al. 2011), win hearts and minds (Mikulaschek, Pant, and Tesfaye 2020), or make individuals less susceptible to radicalization efforts (Neumann 2013).

Repressive tactics such as leadership decapitation or targeting organizational finances have received much attention in policy circles. Our model provides an important implication: the threat of such tactics creates upstream incentives to radicalize citizens, and may make the problem of radicalization and dissidence worse for the government. Moreover, our results show that policies designed to reduce psychological susceptibility to radicalization can sometimes backfire and increase dissidence because they increase leaders' radicalization efforts. Accordingly, policies focused on improving citizens' economic prospects may be the most effective channel for governments to reduce radicalization and subsequent dissidence.

We theoretically articulate and isolate a novel strategic mechanism that highlights *the use of radicalization as a political tool*. This distinguishes our study from the majority of work on radicalization that focuses on the characteristics contributing to individual susceptibility toward becoming radicalized. We conclude by noting that empirical work on the political use of radicalization, including those aiming to test the implications of our model, must confront two critical challenges. First, the key components of our model, such as the level of radicalization, are endogenous and cannot naively be manipulated in a manner that could yield credible empirical findings. Second, and perhaps posing an even greater challenge, there are no existing empirical measures of a society's radicalization level. Consequently, the kinds of comparisons that are necessary to study the political use of radicalization using cross-sectional approaches common in political science are severely limited. We argue that this measurement concern is the most important challenge confronting empirical scholarship seeking to evaluate the causes and consequences of radicalization for political purposes.

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Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

- A Appendix
- B Direct Benefit to Radicalization
- C Macroeconomic Effects of Repression
- D Countering Radicalization
- E Public Finance Considerations for Opposition
- F Responsive Repression
- G Nonmonotonic Targeted Repression