Policy Disputes, Political Survival, and the Onset and Severity of State Repression*

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Abstract

Under what conditions will a state repress its citizens? The literature examining human rights violations lacks consensus over exactly how repression and dissent are interrelated. I argue that contradictions have arisen because scholars have not derived expectations consistent with modeling three common assumptions: (1) dissent and repression are causally interrelated; (2) states and groups are in conflict over some policy or good; and (3) authorities repress to remain in office. I develop a formal model based on these principles, and I predict that changes in the same independent variable can have divergent effects on the *onset* and *severity* of repression. Using coded event data for all states from 1990 to 2004 and a two-tiered estimator, I find that increases in executive job security decrease the likelihood that repression will occur in the first place, but increase the severity of observed violations.

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States violate human rights to control the population and retain power. Despite agreement on the purpose of state repression, scholars differ in their approaches to explaining the conditions under which violations occur. Some scholars examine the conflictual relationship between the population and the state, helping us to understand what motivates the occurrence of repression (e.g., Tilly 1978, Fransisco 1995, Moore 2000, Shellman 2006, Pierskalla 2010). Others study how incentives can constrain state authorities from using overt, violent, or widespread repression, estimating how shifts in sanctions or institutions will affect the severity of rights violations (e.g., Davenport and Armstrong 2004, Bueno de Mesquita et al. 2005, Hafner-Burton 2005, Wood 2008, Conrad 2011). In practice, these two types of studies—the first focusing on repression as part of a conflict and the second treating it as a fluctuating status quo—yield predictions over different dependent variables: the onset of repressive events[1] and the overall severity of repression. These different approaches are actually two important aspects of the same process. How is the choice to enter a dispute related to the way in which it is fought? How is the onset of repression connected to its severity?

Though their predictions differ and sometimes even conflict, theories of repression share common assumptions about which there is little disagreement.[2] First, states and citizens have opposed preferences over something, whether a policy, a set of policies, an allocation of power, a division of a good, etc., which can potentially lead to conflict. Second, the decisions to repress and dissent are interrelated, such that each is dependent on the other. Third, the consequences of the conflict over policy affect the likelihood of authorities' political survival. Though they agree on these principles, scholars have not derived theoretical expectations consistent with modeling them as a strategic, interdependent process. As a result, they have examined pieces of the repression-dissent process without being able to tie them together.

I present a formal model that endogenizes the decisions of potential repression based on these clarified tenets: the setting of policy in a disputed policy space, the decision to enter conflict over the chosen policy, and how severely to repress in the effort to influence the final policy position and secure political power. This structure allows me to examine the preconditions for the onset of conflict as well as its severity. Further, without assuming that repression or dissent is either beneficial or detrimental to a leader's political position, I am able to derive the conditions under which a leader will repress or accommodate dissent in expectation of the decision's effect on his ability to remain in power.

A key implication of the theory is that *changes in the same independent variable can have divergent effects on the likelihood and severity of domestic conflict.* Though part of a single decision-making process, states decide whether to engage in repression separately from their choices from among possible tactics. The very same conditions that induce state authorities to repress can prevent them from doing so on a wide scale. Specifically, as state authorities become increasingly secure in power, they will be *less likely* to engage in repression, but any realized repression will be *increasingly severe* in scope and coerciveness.

Using international event data from 1990 to 2004 coded for the level of conflict severity, I test the implications of the theory for the likelihood of onset and the level of severity for both dissent and repression. I use a two-tiered (or hurdle) tobit model to estimate the two separate but connected decisions as a function of the same independent variables. The empirical results support the implications of the theory: as executive job security increases, the occurrence of dissent or repression becomes less likely, but the severity of observed behaviors increases. This suggests that an important independent variable can have divergent effects on these two aspects of conflict behaviors, and treating them as one process can conflate—or, worse, bias—our predictions

of directional effects. The results helps explain why ostensibly divergent findings have emerged across repression studies, as well as providing new empirical implications as to the decisions of when and how state authorities repress as a function of their expected job security.

Repression and Dissent

Repression is defined here as *coercive actions political authorities take to inhibit the will or capacity of people within their jurisdiction to influence political outcomes.*[3] Authorities can utilize fear tactics such as political arrests, torture, and extrajudicial killings to influence citizens' will to challenge the status quo (e.g., Rejali 2007). In contrast or in combination, authorities may restrict movement, organization, resources, etc. to inhibit popular capacity to mobilize against the state (e.g., Tilly 1978, Davenport 2007*b*). Repression may be violent or non-violent, legal or illegal, widespread or targeted.

Dissent is defined in contrast as *a coordinated attempt by non-state actors within the territorial jurisdiction of the state to influence political outcomes that is not organized by the state.* This definition excludes such state-organized methods of participation as voting or running for office, but it includes legal forms of dissent, such as sit-ins or peaceful protests that are officially permissible in many states.[4] It can range from non-violent, including organized letter-writing campaigns and peaceful marches, to very violent, including riots and violent attacks on persons and/or property. Additionally, a dissident group can be of any size from among the population, can have any defining characteristics, and exhibit any level of organization.[5]

Scholars contend state authorities repress to control challenges that threaten the regime. Texts dating back to Machiavelli and Hobbes have argued for governments to respond to threats

with coercion, and statistical studies of the behaviors frequently find that states repress in response to or in expectation of dissent (see, e.g., Henderson 1991, Davenport 1995, 1996, Gartner and Regan 1996, Moore 2000, Shellman 2006). Nevertheless, not all dissent elicits repression. Carey (2010) finds that only the most violent dissent makes repression more likely to occur, and less disruptive forms have no effect on its likelihood. In democracies, dissent leads to repression less often and at lower levels than in nondemocracies for a variety of structural and normative reasons (cf. Davenport and Armstrong 2004), yet democratic states do repress citizens, usually engaging in restrictions (Davenport 2007*b*) or otherwise concealing violations (Rejali 2007). These patterns suggest states substitute tactics when pressured to do so (cf. Moore 2000), and dissent leads to variation not only in the *frequency* of repression but also in *kind*. When, and how, will state authorities repress their citizens?

When considering repression, state authorities evaluate its likely effects on dissent. Some scholars argue repression suppresses dissent as intended, negatively affecting a group's capacity to mobilize (Tilly 1978). The expectation of severe responses from states with institutionalized or otherwise low-cost repression allows states to rule through fear and keep dissent at bay (Regan and Henderson 2002). Conversely, repression can spur increased dissent by creating new grievances to which groups respond by challenging the state (Hibbs 1973). Citizen responses to repression vary as a function of time (Rasler 1996, Carey 2006) or sequence (Shellman 2006), and they substitute tactics in light of state actions (Lichbach 1987, Fransisco 1995, Moore 1998). The conditions under which repression will prevent or curb dissent rather than instigating mobilization remain less than clear, for scholars—and quite likely—for state decision-makers.

To explain the conditions under which a state will repress its citizens, one must model the decision-makers' expectations as to how repression is likely to affect dissent. A more complete

picture of repression includes the reason citizens are likely to challenge state authorities (disagreements over something) and the reason authorities want to fight back (the consequences of dissent for political survival). By including the motivations of these actors in a theory, we can better understand not only when states will repress dissent, but also how.

The First Principles of Repression and Dissent

While scholars disagree as to how repression and dissent are related, they generally agree on the core principles that drive state and dissident behavior. First, the actors are in conflict over some policy or good. Second, dissent and repression are interdependent. Third, authorities expect the consequences of the dispute to affect their hold on political power. I discuss these principles in turn.

Just as war is an extension of politics, repression and dissent are extensions of a disagreement over some good or policy. The government sets a policy within a policy space, either closer to the government's ideal policy or the opposition's ideal policy.[6] In any case, a policy is set, and a group can either accept it or dissent in the attempt to change it. Collective challenges damage state resources and/or undermine the government's legitimacy to rule, and groups hope authorities will accommodate their demands to avoid incurring these costs. State authorities can either accommodate the group, offering a policy closer to its ideal point, or repress it in an attempt to maintain the state's preferred policy.

The disagreement over a policy or good is an important foundation for a theory of rights violations as a catalyst for conflict. Citizens and states do not simply fight—repression and dissent are not inherent and can be quite costly. They are in a dispute *over something*—otherwise there

would be no conflict. Citizens rebel as the result of grievances (Cederman, Wimmer and Min 2010) combined with opportunities to rebel (Kuran 1991, Lichbach 1995). Relative deprivation studies argue citizens rebel when there is a difference between what they expect from the state and what they receive (e.g., Gurr 1970), but they will not do so otherwise. Scholars thus contend that the ability (or inability) to agree on a policy or allocation directly affects the likelihood of repression and dissent (Cetinyan 2002). However, this insight does not help us predict *when* a disagreement will lead to repression and/or dissent—a bargaining framework can reveal when the actors will be likely to reach a mutually acceptable agreement.

The two sides of the dispute over policy are endogenous: dissent incentivizes repression and vice versa. As established in the previous section, scholars have posited theories as to repression's effect on dissent and dissent's effect on repression, with empirical evidence to support each causal direction. As Poe et al. (2000, p. 30) write, "...repression and dissent are inextricably linked; it would be impossible to fully understand the impact of threat on repression without also considering the question, 'what is the impact of repression on threat?'" In short, both state authorities and dissident groups are strategic in their decision-making. A strategic actor makes a decision based on what she expects her opponent to do with the understanding her decision may affect her opponent's choice. For example, Moore (1995, p. 140) describes the conflict between African dissidents and Rhodesians as interdependent: "As the Zimbabwe nationalists are concerned with Rhodesia's behavior toward them, Rhodesia is concerned with the nationalist's behavior when formulating its behavior toward the nationalists." Authorities repress not only based on the expected level of dissent but also in anticipation that the group will decide how to dissent based on what it expects the authorities to do.

The conflict not only affects the policy outcome but also the leader's political survival, and

his expectation of these consequences influences his decision to repress. Holding power provides political officials with significant benefits, such as influence over policies, the distribution of rents, and even power itself, that they prefer to retain (Bueno de Mesquita et al. 2003). Popular challenges destabilize governmental control over policies, imposing costs and disrupting society, especially if violent or multidimensional. Furthermore, dissent undercuts authorities' legitimacy to rule, suggesting to interested observers that they cannot control the population (Davenport 1995). If a leader's supporters come to believe he cannot control policy outcomes or rule effectively, they become less likely to support his position in office, shifting to support a challenger instead (Bueno de Mesquita et al. 2003). A leader concerned that he may lose power therefore faces incentives to repress potentially destabilizing dissent, within resource limits.

Research built on these three principles indicates they have important implications for the prediction of repression. First, the policy-setting stage is a critical part of the entire conflict process: the ability to reach a mutually acceptable agreement makes conflict less likely. If authorities and dissidents have foresight, they should be able to avoid a conflict entirely or enter it when it is likely to be advantageous. Second, interdependence means states and citizens not only anticipate the other's actions but also expect their opponents to anticipate their own. Finally, authorities wanting to protect their hold on power repress in this effort, but not under all conditions. Strategic actors should be able to predict when a leader will be more accommodating to opposition versus free to repress.

However, social scientists are not developing theories and deriving predictions consistent with *all three principles.* Scholars who study rights violations as a conflict have modeled repression and dissent as an integrated, strategic process (see, e.g., Fransisco 1995, Moore 1995, Carey 2006, Shellman 2006, Bennett 2008, Pierskalla 2010). Some scholars have even incorporated

two of the three core assumptions. Cetinyan (2002), for example, includes a policy allocation in his strategic formal model, but he leaves aside the pressure the potential to lose office can put on a conflict decision. Pierskalla (2010) steps furthest, presenting a model that includes the ability to remain in power as a function of interdependent repression and dissent in the context of policy disagreement. The implications of his model arise as a result of information asymmetry—repression occurs because the actors are testing the waters, leading to essentially accidental conflict. However, as I demonstrate in the next section, citizens will dissent even with a full understanding of authorities' incentives, leading the state to repress severely.

I present a bargaining model of policy allocation in the context of domestic conflict and its potential to influence executive political survival. I explicitly model the three assumptions on which the scholarly literature relies to explain repression and dissent, which allows me not only to derive how these assumptions influence our predictions over repression, but also to predict how each assumption interacts with the others. I argue that the onset and severity of repression are a function of leaders' expectations of how the choice will influence dissent and thus their probability of remaining in power. I relax the common simplifying assumption that conflict choices are dichotomous (e.g., Pierskalla 2010, Moore 1998, Lichbach 1987, Shellman 2006), modeling the choices leading to the onset of repression and dissent as well as how severe those actions will be on a continuous scale. The theory yields novel hypotheses as to how political survival affects both the onset and severity of repression and, relatedly, dissent.

The Strategic Setting

This section describes a finite game theoretic model of domestic conflict between a state leader or set of authorities (S) and a group of potential dissidents (G) under complete information, including (1) the sequence of moves, (2) the actors' utility functions, and (3) the intuition of the assumptions. The interaction follows this sequence:

1. The state proposes a policy or a division of a good, $x \in [0,1]$.

2. The group can either accept this offer as proposed (and the state keeps the remainder $1-x$) or reject it.

3. Rejection sends the actors into a "conflict", in which they simultaneously choose how severely to repress ($r > 0$) and dissent ($d > 0$).

4. The outcome of the conflict is decided, such that the group receives its ideal policy $x = 1$ with probability $\frac{d}{d+r}$ but the state receives its ideal policy ($x = 0$) with probability $1 - \frac{d}{d+r}$.

5. After the group accepts a policy as offered *or* after the conflict leads to a policy outcome, the leader or authorities remain in power with probability $\frac{p}{1+y}$, such that y indicates the policy outcome: $y = x$ if the group accepts and no conflict occurs, $y = 1$ if the group wins the conflict, and $y = 0$ if the state wins the conflict.

Each actor makes two choices. The state sets a policy and chooses how severely to repress should it enter a conflict with the group. The group decides whether to accept the policy and

how severely to dissent should it reject the offer. The actors' utility functions are:

$$U_S = \begin{cases} \frac{p}{1+x} & \text{if G accepts} \\ -\frac{r}{c} + \left(1 - \frac{d}{d+r}\right)\left(\frac{p}{1+0}\right) + \left(\frac{d}{d+r}\right)\left(\frac{p}{1+1}\right) & \text{if G rejects} \end{cases}$$

$$U_G = \begin{cases} x & \text{if G accepts} \\ -\frac{d}{k} + \left(1 - \frac{d}{d+r}\right)(1-p) + \left(\frac{d}{d+r}\right) \times 1 & \text{if G rejects} \end{cases}$$

Much like bargaining models of international conflict, the authorities set the policy ($x \in [0,1]$) at the outset, and the group either accepts that policy as offered or rejects it, leading to a costly conflict involving simultaneous repression and dissent. Rejection of a policy (or established status quo) is equivalent to a demand for a different policy. If the offer is rejected, the actors choose the severity of their actions simultaneously, and these decisions affect how policy benefits and political power are allocated at the end of the game.[7] The levels of severity represent levels of coercion, disruption, or violence connected with repression or dissent and could increase on a number of dimensions, including the number of participants, the amount of destruction or violence, or the amount of threat the opponent perceives from a given action (Davenport 1995, Taylor et al. 1999, Shellman 2004).[8]

Repression and dissent are increasingly costly as they increase in severity, but some actors can engage in these behaviors more efficiently than others. The same act of dissent (such as a peaceful march) can vary in costs, as when a group is particularly vulnerable, has difficulty organizing or solving collective action problems, or has a limited pool of resources. We can think of the group's efficiency (k) as its capacity to absorb the costs of a given level of dissent (d). States also vary in their ability to repress efficiently; Tunisia may be able to torture dissidents at lower

cost than Italy, whether because of its invulnerability to international sanctions or its capacity to do as it pleases without significant hurdles in domestic government. The state's efficiency (c) refers to its capacity to absorb the costs of a given level of repression (r).[9] The first term in each of the rejection equations $\left(-\frac{r}{c}$ and $-\frac{d}{k}\right)$ represent the costs of conflict, a combination of the resources required to repress and dissent at a chosen level of severity and the efficiency of the actors in these actions.

The relative severity of repression and dissent determine the probabilistic victor: the group receives its ideal policy with probability $\frac{d}{d+r}$, which increases in dissent and decreases in repression, and loses the entire good with probability $1-\frac{d}{d+r}$. If it loses the conflict, however, the group still can receive positive utility if the leader loses office as the result of the conflict, normalized to 1.[10] The leader's propensity to remain in power (determined probabilistically at the final stage) is a function of how much he loses in the interaction with the group. The leader holds power with an underlying probability of political survival, p, which is a function of his personal characteristics, the structures that determine removal, and policy outcomes during his time in office. I refer to this concept as his baseline job security, representing his expectation of retaining power prior to conflict outcomes. His baseline job security is then mitigated by the bargaining and conflict outcomes: it decreases if he cedes assets to the group in a conflict or accommodates the group's demands in the bargaining stage; a leader who bargains becomes less secure as a function of the amount offered to the group, $\frac{p}{1+x}$, and a defeated ruler who loses the entire policy faces the lowest survival probability, $\frac{p}{1+1}=\frac{p}{2}$.[11]

Equilibrium Analysis

The game has a unique pure strategy Subgame Perfect Equilibrium, such that there is a singular outcome for a given combination of parameter values. This section begins with a formal statement of equilibrium behavior, followed by a more intuitive discussion of why the equilibrium holds. Proofs of the proposition and implications can be found in the supplementary appendix.

Proposition 1. *The following strategies constitute the Subgame Perfect Equilibrium:*

$$\textit{Group}\begin{cases} \textit{accept when } x \geq x', \textit{ where } x' \equiv 1 - \dfrac{cp(c+4k)}{(c+2k)^2}; \textit{ reject otherwise} \\ d^* = \dfrac{2ck^2p}{(c+2k)^2} \end{cases}$$

$$\textit{Executive}\begin{cases} x^* = x' \textit{ when } p > p', \textit{ where } p' \equiv \dfrac{c(c+2k)^2}{(c+4k)(c^2+2ck+2k^2)}; \\ \qquad x^* = 0 \textit{ otherwise} \\ r^* = \dfrac{c^2kp}{(c+2k)^2} \end{cases}$$

For any set of parameter values, the game ends in one of two equilibrium outcomes: the players either reach a mutually acceptable bargain or enter a conflict of repression and dissent. In the bargaining outcome, the state authorities offer the minimum bargain the citizens will accept, avoiding repression and dissent entirely. The group will accept any offer greater than its reservation value, x'. At this point, the group is indifferent between the policy and the conflict—any offer more generous than this is more advantageous than entering the conflict with its attendant resource loss. However, the conflict becomes increasingly valuable to the group as the leader becomes more likely to lose office. The leader has no incentive to offer more than the minimum the group will accept, proposing the group's reservation value and reaching a bargain when he expects the conflict to be more costly than any concession would be, such as

when he faces a high probability of losing power or repression is politically costly.

In the conflict outcome, the group rejects the offer and both players choose a severity of conflict that balances the potential for success against the resources required to win. If the leader wins the conflict, he maintains his baseline probability of remaining in political power, which is higher than his *ex post* job security given any other possible outcome. The leader will therefore try to maximize his probability of success by choosing a higher level of repression. However, the resource costs of repression increase in its severity. The group similarly wants to dissent as severely as possible in the attempt to receive its preferred policy but is limited by resource constraints. Balancing these tradeoffs, the actors determine their optimal levels of repression and dissent, respectively: $r^* = \frac{c^2 kp}{(c+2k)^2}$ and $d^* = \frac{2ck^2 p}{(c+2k)^2}$.

Conflict occurs when appeasing the group would be so costly that the leader prefers to repress rather than buy off dissent. If the group loses the conflict, they will receive nothing *unless the leader loses office.* The more secure he is, the more likely it is that losing the conflict will leave the group with nothing to show for it but the costs expended. In such a case, the group should be willing to make compromises in the bargaining stage. However, as the leader becomes less secure in power, the group faces less risk in challenging him, so the minimum policy the group is willing to accept in a bargain increases. The more the group demands, the less likely they are to be accommodated. Thus, as the leader becomes less secure even if he wins the conflict, the group becomes more likely to make high demands to push him out of power.

The insecure leader could accommodate the group to avoid costly repression and dissent, but to do so would be very damaging to his position of power. Repression could allow him to remain in office with probability p if he won, but making an offer the group will accept makes him less likely to retain power: $\frac{p}{1+x}$. The lower p is, the more he will have to yield to them to

avoid conflict. Below a certain point (p' defined in Proposition 1), the policy he would have to concede would be so damaging to his position in office that he is willing to pay the costs of repression to try and win the conflict and maintain a probability of remaining in power p rather than the much worse $\frac{p}{1+x}$. Thus, as authorities become increasingly vulnerable, they will accept the costs of repression rather than conceding a chance to retain power in the bargain that would be required to buy off a group likely to overturn him even if they lose the conflict.

Otherwise put, as the probability that a victorious leader would remain in power increases, dissent and repression are both less likely to occur. This is because groups will accept a wider range of policies as he would be less likely to lose office in the event of losing the conflict, and leaders will be more likely to accommodate those decreasing demands.

Implication 1. *The onset of dissent is less likely as the probability of executive political survival increases.*

Implication 2. *The onset of repression is less likely as the probability of executive political survival increases.*

Once a conflict begins, the expectation of the leader's security impacts the *severity* with which he represses as a function of what he expects the group to do in equilibrium. Repressing more severely improves the authorities' ability to maintain the status quo policy relative to the group's efforts $\left(1-\frac{d}{d+r}\right)$, and winning his preferred division of the disputed good yields a higher survival probability (p versus $\frac{p}{2}$). A higher probability of remaining in power thus makes winning the conflict all the more valuable. A leader who is very likely to lose office even if he wins will not benefit from winning sufficiently to balance the costs from repressing severely enough to win. Yet secure leaders, expecting to keep the benefits of power if they win the con-

flict, will repress increasingly severely in order to win their preferred policy. Indeed, there is little difference between winning and losing the policy for insecure leaders, since they are likely to lose power either way. The difference between winning the conflict and losing the policy to the group is increasingly large as the leader becomes more secure, so he will repress more severely in the effort to put down the dissident group. Increasingly secure leaders can expend more resources to win the policy and retain a high probability of remaining in power, because the benefits of doing so allow them those resources. Authorities repress severely to protect their position of power precisely under the conditions when it is least necessary—when they sit securely in power—because that is when the effort is most valuable.

Implication 3. *The severity of repression increases as the probability of political survival increases.*

We should also observe more severe *dissent* as his baseline job security increases. As p increases, the group knows it is increasingly likely to see the incumbent reappointed, *ceteris paribus*. Per Implication 3, groups expect a secure leader will repress severely. To win its preferred policy and a chance at future spoils of power, the group dissents at a severity that competes with the state's level of repression. Once embroiled in a conflict (which is increasingly rare as the leader becomes more secure), the group will only succeed against high levels of repression if they dissent as severely as possible.

Implication 4. *The severity of dissent increases as the probability of political survival increases.*

These four empirical implications combine to suggest an exciting insight into repression and dissent: *the decision that leads actors to initiate repression or dissent events differs from that which determines their severity.* Scholars agree that dissent threatens authorities' power,

and they repress to retain it. I argue states and citizens will look to the leader's *ex ante* job security to determine when and how their efforts to either retain or threaten his power will be most effective. However, these questions of "when" and "how" differ from one another. While a secure leader will repress more severely (widely, disruptively, violently, etc.) and be the target of more severe dissent, he will be less likely to enter the conflict in the first place, accommodating the citizens' (relatively low) demands in the policy stage because he expects repression to be dangerously costly. The very same independent variable—in this case, executive job security—predicts divergent effects: *less likely, but more severe* repression and dissent.

At the extremes of the range of political survival, we can predict two very different scenarios. When the executive is securely in power, we should rarely observe repression or dissent. Opposition groups will accept even poor bargains rather than invest the resources of dissent for the high risk of failure and severe repression—this is what many scholars would predict of closed regimes or otherwise "effective" repressors (Galtung 1969, Regan and Henderson 2002, Simmons 2009). On the rare occasions when repression and/or dissent do occur, however, they should be severely coercive, disruptive, and/or violent. At the other end of the spectrum, a leader vulnerable to removal is likely to see many instances of dissent and respond often with repression, but these actions are likely to be low in severity, narrow in scope, etc. Rather than lashing out with widespread personal integrity violations, he may narrowly target leaders or groups rather than the population as a whole, or he may substitute tactics, restricting civil liberties and otherwise choosing less violent actions than a more secure leader would use.

These two scenarios—one in which repression and dissent occur frequently at low levels and the other in which they rarely occur but are quite severe when observed—are very different from one another. Inverted-U theorists, for instance, argue that the tails of the governing spec-

trum are observationally similar, in that states repress the least at these extrema and the most in the middle.[12] My model, based on simplified underlying assumptions, also suggests a dangerous "middle", in that leaders with middling probabilities of remaining in power should see comparatively frequent onset of relatively severe repression. Critically, this model distinguishes between the tails others might consider observationally equivalent. A few instances of severe repression, such as torture or disappearances, is a very different scenario from many instances of low-level repression, such as mail surveillance or verbal threats. I do not attempt to determine whether one scenario leads to a better quality of life for citizens than the other. However, these are clearly different empirical patterns, as well as very different experiences for victims.

Empirical Analysis

The primary focus of this article is to better understand the conditions leading to repression, but to do so requires a theory in which potential dissident groups make choices that state authorities take into consideration (Pierskalla 2010). Thus, though my interest is in predicting repression—its onset and severity as separate but connected decisions—the theory also yields interesting predictions over the onset and severity of dissent. The implications derived above yield the following hypotheses for empirical analysis:

Hypothesis 1. *As the probability of executive political survival increases, the onset of repression will be less likely to occur, but the severity of observed repression will increase.*

Hypothesis 2. *As the probability of executive political survival increases, the onset of dissent will be less likely to occur, but the severity of observed dissent will increase.*

To test these hypotheses, I estimate two hurdle models using an international dataset covering the years 1990 to 2004. The theory predicts the onset of repression and dissent, such that a sample should include both observed conflict behaviors and "dogs that don't bark", or latent conflict behaviors. Thus, the unit of analysis is aggregated to the state-year to account for both unobserved and observed repression and dissent.[13] The data includes 137 states with data for all of the indicators and 15 years of data, though the actual temporal coverage varies by country.

The Data

I construct the four dependent variables—*Repression Onset, Repression Severity, Dissent Onset,* and *Dissent Severity*—using event data. While some human rights studies measure violations on a scale of severity (Gibney and Dalton 1996, Cingranelli and Richards 2010) and others use counts of repressive events (Davis, Leeds and Moore 1998), such indicators do not account for the theoretical difference between the decision to initiate violations and the severity of those violations. The Integrated Data for Events Analysis (IDEA) dataset includes over ten million events reported in over 200 countries from January 1, 1990, to December 31, 2004 (King and Lowe 2003). The Virtual Research Associates (VRA) developed software to cull the lead sentences of Reuters news reports and code them according to the type of event reported, as well as categorize the source and target of each event.

From this raw data, I extracted all conflictual events, using the Taylor et al. (1999) Conflict-Cooperation Scale for Inter- and Intrastate Interactions as my guide. Taylor et al. asked scholars of intrastate conflict to rank the IDEA event categories on scales of contention-accommodation, coercion-altruism, and physical violence and collapsed these scales into a single index of con-

flict and cooperation, with a particular goal of creating a scale for low-intensity events such as non-violent protests or curfews. I weighted each intrastate conflictual event[14] according to its Taylor et al. index score, coding events with a government source and civilian target as repression and events with a civilian source and government target as dissent. I aggregated the weighted repressive and dissent events, respectively, annually by state and divided these totals by the number of events reported for that state-year to control for systematic over- or under-reporting for some countries. This process yielded a score for the severity of all reported repression and dissent events, respectively, in a state year. Finally, I created a dichotomous indicator of Onset that equals 1 if any repression event was reported in that state-year and 0 otherwise, and likewise for dissent. However, the weighting and collapsing of over fifty distinct behaviors onto a single scale can be a bit conceptually murky. To improve the clarity of concepts, the reported estimates use only armed or unarmed violence and curfews or non-violent protest for repression or dissent, respectively. Estimates using the entire set of conflict events are reported in the supplementary appendix and produce similar results to those reported here.

The measure representing authorities' job security is an estimate of survival based on state- and leader-specific predictors. Political survival is a function of supporting institutions, leader characteristics, and policy outcomes. Chiozza and Goemans (2004) find that leaders are more likely to lose office as they become older, that democracies see the most turnover, and leaders of economically developed states enjoy longer tenure. Individual characteristics and political outcomes thus influence the leader's probability of survival outside of his repression decisions. Cheibub (1998) developed a measure of a leader's job insecurity using parametric survival models based on a leader's time in office, his/her age, previous trends in leadership change, institutions constituting regime type, and economic growth. Following Young (2008), Conrad and Rit-

ter (2013) reestimate Cheibub's (1998) model with data extended geographically and temporally and subtract the predicted likelihood that a given leader will lose office from 1. The resulting predictions represent a leader's expectation of his security in office based on observable data, which I use as the primary explanatory variable of Job Security in both models.

I include control variables that have been shown to be important predictors of repression and/or dissent. In all equations, I include measures of the percentage of the population serving in the national military (from the Correlates of War National Material Capabilities Dataset v4.0 (Singer, Bremer and Stuckey 1972)), involvement in interstate conflict (from the International Crisis Behavior Project (Wilkenfeld and Brecher 2007)), economic development (GDP per capita from the World Bank Indicators (*World Bank* 2009)), and state population (World Bank Indicators).[15] Following Poe, Tate and Keith (1999), I lag each of the independent variables by one year. Finally, I include the lagged values of repression and dissent onset in both onset equations and the lagged severity of repression and dissent in both severity equations. Descriptive statistics of all measures used in this analysis are in the supplementary appendix.

The Estimator

The onset and severity of repression are distinct but interconnected decisions and should be estimated as such. The decision for one or the other actor to begin the dispute is based on the anticipation of the levels of conflict that are likely to be chosen in the latter stage. Likewise, the severity is part of a selection process; the sample in which a level of severity can possibly be chosen is determined first by the process that leads the actors into the dispute and so is non-random. An empirical model of the severity of repression should model the selection process

to approximate the data-generating process described in the theoretical model and avoid bias.

Unlike many common selection problems but like many strategic processes, the game theoretic model posited here explicitly predicts that the identical set of explanatory variables affects both the onset and the severity of the conflict. The work-horse of selection models, the Heckman (1979) selection model, requires an exclusion restriction—at least one explanatory variable that affects the selection equation but not the outcome equation. When the researcher has theoretically-based reasons to suspect that the explanatory variables influencing both decisions are the same—as I do—Sartori (2003) contends that using a Heckman model with an exclusion restriction will bias the estimates of their effects. This leads me to search for an estimator that will model both the decision to enter a group (onset) and the actor's decisions once that threshold is crossed (severity) based on the same independent variables in both equations.

Additionally, the distributions of the latent and observable dependent variables have implications for the underlying probability distribution that should be taken into account in choosing the estimator. The first decision process, the onset of a repression-dissent dispute, is a dichotomous one: either the group or state acts, such that an event is observed, or not. In the second stage, state authorities decide on the severity of repression from a latent continuous space. They decide which actions to take, against how many victims, etc., and these choices combine for an overall picture of the severity of repression at that point in time, and the operationalization of severity (additive weighted counts, as described above) takes a relatively continuous form. However, the severity of repression and dissent are limited dependent variables in that they have a lower bound (zero).

I use a two-stage tobit model to estimate the relationship between political survival and the onset and severity of repression and dissent. Cragg (1971) developed this particular model as

an estimator for “corner-solution" or “hurdle" models, in which the probability of observing any positive value is based on different parameters than the actual value selected, given that it is positive.[16] The first decision is represented by a probit model and the second by a truncated regression model (Cragg 1971, 831). The estimator models the observed value of the dependent variable as the result of a selection process, allowing the two outcomes (onset and level) to be determined by different parameters, so the directional effects of the predictors on the outcome may diverge (Cragg 1971). It does not require an exclusion restriction, so that the two equations to be estimated can be based on the same set of independent variables. Additionally, the first stage has a dichotomous outcome, and the second stage has a continuous outcome, truncated at zero. I expect that any influences on repression and dissent outcomes not captured here (and thus relegated to the error term) are likely to be correlated within countries. Therefore, I cluster the errors by country in all estimations below.

Estimation Results and Analysis

Table 1 reports the results of the two empirical models used to test the empirical implications of the baseline theory. Model 1 estimates the likelihood of onset (top half of table) and severity of repression (bottom half), while Model 2 does the same for dissent. Cragg's tobit model estimates repression and dissent as two processes, such that the severity of repression is contingent on repression having begun, as is the severity of dissent. The theory suggests that as a leader becomes more secure in power, repression and dissent will be *less likely* to occur, but observed repression and dissent will be *increasingly severe*. Losing a conflict is particularly costly to both actors when the leader is secure in power, so states and groups are prone to avoid starting con-

flicts but will repress and dissent severely once begun in the attempt to emerge victorious. The empirical results in Table 1 support these expectations.

[Table 1 about here.]

First, the onset of conflict is less likely to occur as state authorities become more secure in power. Actors expecting the leader to be able to weather costly repression and dissent and remain in power at the end of the day will prefer to avoid costly conflict. An increase in Job Security leads to a statistically significant decrease in the likelihood that a state will repress in any form. The mean predicted probability of observing a repressive event among state-years in the observed data below the twenty-fifth percentile of Job Security is 0.618, but the mean among state-years above the seventy-fifth percentile is a much lower 0.481. It also leads to a decreased likelihood that a non-state group will engage in any form of collective dissent. A similar shift in the probability a leader survives in power leads to a decrease in the mean predicted probability of dissent onset from 0.612 to 0.465.[17] In any given state, repression and/or dissent is fairly likely to occur, yet a politically vulnerable leader is significantly more prone to engaging in rights violations than a comparatively stable one.

Second, a politically stable leader is less likely to repress in the first place, but when he does, it is likely to be more severe than the repression used by a more vulnerable leader. As a leader's job security increases, there is a statistically significant increase in the severity of observed repression. Figure 1 plots the predicted severity of repression (given that a conflict has begun) against the level of executive *Job Security* with the estimated 95% confidence interval. A state with a leader at his most vulnerable is predicted to use a significantly lower level of repression than a maximally stable leader. A shift from the minimum political stability to the maximum is

associated with almost a ten percent increase in the severity of repression. The shift is analogous to the difference in severity between censorship and the mobilization of police forces or military for crowd control in the Taylor et al. (1999) Conflict Scale. A similar increase is predicted in the severity of dissent.

[Figure 1 about here.]

If the decision to engage in repression or dissent differs from that determining the actions' severity, a test requires an empirical strategy distinguishing between the two observable manifestations. Empirical strategies are simple if a variable affects the likelihood of onset and severity in the same direction; there are many ways to measure these behaviors that will reveal increases or decreases. Repression scholars usually test their predictions as to increases or decreases in these behaviors with a measure of the conflict level, presence or absence (likelihood), or an environmental measure that incorporates both decisions (cf. Davenport 2007*a*, p. 4-5).

However, if an exogenous variable predicts a decrease in likelihood and an increase in severity or vice versa, using these measures interchangeably to predict increases or decreases in repression or dissent compromises the validity of the measure. To demonstrate the importance of thinking about the onset and level of conflict behaviors as different decisions, I calculated the average partial effect of Job Security on repression conditional on the decision to engage in it in the first place as well as its unconditional average partial effect. Increases in state authorities' job security have a *positive* effect (0.947) on repression that is observed—i.e., its severity. In contrast, increases in job security have a *negative* effect (-1.440) on repression overall, or repression unconditional of the onset decision process. Were we to include all of the repression that does not occur because states manage to avoid conflict with the population in the first place in our

concept of *severity* (as many of our theories and measures do), it would seem that job security makes states repress less, but in practice they repress less often, but more severely than states with more vulnerable leaders.

Conclusion

I have presented a theory of strategic rights violations and popular dissent in a context of bargaining over policy with expected consequences for executive survival. The theory accounts for state and citizen decisions from onset to outcome of a conflictual interaction, and it is built on the three central principles on which repression scholars agree.

State authorities and citizens have opposed preferences, such that repression is needed to control potential or actual dissent over a given policy or allocation. Modeling the decision to set or oppose a policy captures the motivation for domestic conflict, which suggests that the decisions *to initiate* repression or dissent and *how severe* to be may differ with the influence of some independent variables and not with others. Players prefer to avoid disputes they expect to lose; groups will accept increasingly poor divisions of the stakes—and executives are willing to offer these bargains—to avoid costly conflict. Under stable leaders, we should observe high levels of conflict from both parties but bargains that exploit the group's poor conflict position and fewer instances of repression and dissent overall. In other words, there is a theoretical difference between the *likelihood* of repression or dissent and the *severity* of these behaviors that has not previously been explored, and doing so can enrich our understanding of when and how states will repress their citizens.

The different decision-making processes of onset and severity can help explain the variety

of findings with respect to repression and dissent. The choice to enter the conflict is made separately from the choice as to how severely to repress, even though both may be predicated on the same independent variables. The effect of the probability of executive political survival on repression and dissent highlights this disjuncture. Specifically, a scholar examining the likelihood of repression and dissent is likely to predict and find that an increasingly secure leader will be prone to oversee an equilibrium of *peace* (or at least tense, relative quiet), while another studying levels of severity is likely to find the same leader engaging in *mutual escalation* with a group. These results would appear contradictory in two different studies but are in fact part of the more complete process of repression-dissent conflict.

Consider recent repression and dissent in Burma. A poster case for a regime ruling through fear, a military junta with a decades-long stronghold on power largely kept popular protest at bay. Nevertheless, thousands of monks and civilians took to the streets in protest against the regime in August and September of 2007. Though the protests were largely non-violent, they were extremely widespread and disruptive—spanning the country, shutting down cities, and lasting for over two months. The theory presented here, which explicitly connects dissent and repression to a leader's job security, predicts this large-scale, disruptive dissent. The security of the junta would suggest citizens should for the most part accept even the policies that lead to poverty, since dissent would be far too costly. Dissent would thus be highly unlikely to occur, and repression not needed or observed in practice. However, when it did occur—when the protesters could gain more from conflict than they would risk—the dissent had to be extremely severe to actually endanger the junta's position. Security in office allowed the junta to use severe levels of repression in response, since their security made it cheaper to repress the protesters than granting them their demanded policy change would have been for their position in power.

The differences in these choices thus call for greater precision in theoretical development. When a theory predicts that an independent variable should have the same directional effect on both the likelihood and the level of repression, conclusions are straightforward. Other explanatory variables, however, yield different directional predictions for onset versus severity, as executive job security does here and others might if a theory is sufficiently generalized to account for this variation. Many incentives likely to affect repressive behavior are likely to affect onset and severity differently, and others may do so in non-obvious ways; an exercise in revisiting some findings—particularly those related to executive constraint—is likely to be fruitful. The divergence of these processes should, at a minimum, lead scholars to be precise as to which decision their theory predicts.

Researchers should choose empirical strategies that allow them to distinguish between selection into repression or dissent and the separate process of choosing tactics and their severity. Selection models and/or simultaneous equations can directly model the separate decisions and allow the estimated parameters to vary across them (Zorn 1998, Sartori 2003). Scholars can also use simpler models as long as they carefully map their theories to their choice; for instance, one can limit cases to only those in which repression and dissent have occurred and predict only the severity decision, making note as to why the former restriction is appropriate for their theory. Alternatively, the complexity of these decision processes can be an argument in favor of using qualitative methods with clear *a priori* conceptual definitions distinguishing onset from severity given the context specified by theory.

If actors take account of the way conditions affect their own decisions as well as their opponents, studying repression and dissent as strategic rather than decision-theoretic will offer different and interesting predictions of these behaviors (see also Pierskalla 2010). National at-

tribute or institutional studies assume that violations will occur without accounting theoretically for their motivation and process. A study examining international human rights treaties (IHRTs), for instance, will often predict their effects on state-level human rights violations without considering the simultaneous effects of those institutions on citizen dissent. However, IHRTs not only affect a state's costs for repression but impact mobilized dissent, such that a state faces conflicting incentives to either increase or decrease repression (Conrad 2011, Conrad and Ritter 2013). Consideration of repression together with dissent is critical to understanding how other variables affect human rights practices.

This study adds to the growing body of research that examines how the expectation of leaders' political survival affects conflict behavior. Many scholars look to regime type to explain repression and dissent, arguing nondemocracies repress most (e.g., Davenport and Armstrong 2004, Bueno de Mesquita et al. 2005). Others have argued that the audience costs associated with losing a conflict will prompt leaders to adjust their repression and dissent strategies (Shellman 2006). These studies stand on the argument that dissent destabilizes leaders and authorities repress to retain power. I model this assumption explicitly, beginning from leaders' *ex ante* probability of political survival and assuming repression and dissent influence the probability of removal *ex post*. Focusing on executive job security illuminates far more variation cross-sectionally and over time. The model presented here suggests that while insecure leaders should be more *likely* to repress (Young 2009), they may do so at levels that reflect concern over resource constraints and the risk of loss, and while secure leaders should be less likely to repress, they may do so more severely. The theory relies on a relatively simple assumption as to how repression and dissent affect the probability of executive political survival, and there is a great amount of room for scholars to study more about the mechanisms at work in this as-

sumption. When will dissent actually unseat a leader? Why does repression allow him to hold onto power in some cases and lead to electoral backlash in others? Does his *ex ante* job security affect how repression impacts his political survival? Future study of this assumption can take us a long way in understanding human rights violations.

This theory can serve as a baseline for research on other questions of domestic political violence. A theory predicting repression and dissent need not take this exact structural form to account for the primary assumptions of the literature, but not accounting for one or another can have important effects on the derived predictions. With this theoretical baseline, we can reexamine questions of international and domestic attributes, as well as new ones. How can domestic judiciaries constrain executives without creating new incentives for groups to increase dissent? Can foreign intervention alter the dynamic between state authorities and the population? Can economic sanctions constrain executives and also make violent dissent more costly? Scholars can rely on the assumptions on which they agree to answer these questions in the context of repression and dissent as a conflict rather than a leader's simple choice.

Notes

[1]Though repression is part of a conflict with potential or realized dissent, I do not mean to imply that onset has the same meaning here as in studies of, say, civil war, in the sense of passing a certain threshold of casualties. Instead, I use onset to reflect the choice to repress (rather than not repress) in response to a particular threat of dissent.

[2]For a sample of theories building at least in part on the assumptions listed, see, e.g., Tilly (1978), Lichbach (1987), Davenport (1995, 1996, 2007*b*), Gartner and Regan (1996), Moore (2000), Carey (2006), Shellman (2006), Pierskalla (2010), and the review by Davenport (2007*a*).

[3]This definition is an attempt to account for behavior states use to control citizens' behavior. Civil, political, and personal integrity rights violations are subcategories of state repression, classified as violations of international norms and standards (cf. Davenport 2007*a*, p. 3).

[4]Repression can also inhibit the will or capacity to take part in governance in events organized by the state, as when citizens are afraid to vote according to their true preferences, but I do not include state-organized actions in the definition of dissent for purposes of clarity.

[5]A great deal of literature examines how dissent begins at the *individual* level (e.g, Gates 2002, Regan and Norton 2005, Bennett 2008), whether as a response to grievances (e.g., Gurr 1970, Tilly 1978, Heath et al. 2000) or because she expects to be pivotal or influential (e.g., Kuran 1991, Lichbach 1995). Though I refer to dissidents throughout as a group, the process described here can represent the decision process of even a single actor to join a movement and how involved to become.

[6]States and groups can disagree over a variety of policies, whether of rights violations, as when Palestinians attack Israeli property to protest the restriction of movement in Gaza, or some other type of policy, as when US groups demonstrated against the Vietnam war. There may be opposition to an allocation of goods, as when groups disagree over the distribution of territory (i.e, the West Bank) or resources (i.e., Burmese monks protesting economic disparity). It could also be a package of policies; South African groups protested against the entire system of apartheid. We can think of this policy as an offer, a change, or the status quo.

[7]Many forms of interactions take place empirically: simultaneous action, responsive action, anticipatory action, etc. Nevertheless, scholars agree the behaviors are endogenous, and the simultaneous structure was chosen simply to capture that element of our knowledge. The derived dynamics of dissident and state behavior remain the same even when the model is solved such that one actor moves sequentially prior to the other.

[8]This definition is based on the empirical choices made below.

[9]This term captures any element that affects a state's ability to absorb costs that varies by state. Scholars have suggested a variety of incentives that would make it more or less costly for a state to engage in a given level of repression, including domestic judicial consequences (Powell and Staton 2009), denied benefits of international interactions (Hafner-Burton 2005), the threat of international prosecution (Gilligan 2006), etc. Each of these types of costs have more specific effects on this interaction, which should be explored in models specified to account for those differences, as in Conrad and Ritter (2013).

[10]The group expects that there is some non-zero probability that the incoming leader could

be more favorable to the group's preferred policy. With no change to the implications, we could replace this 1 with a probability of receiving benefits from a future leader. The lower this probability is, the less appealing conflict will be for the group, making it less likely to occur.

[11]The theory models an interaction between state authorities and a single group for the sake of clarity in demands, consequences, etc. In practice, the leader may field demands and threats from several groups at once, or be concerned about potential claims-makers watching for weakness (Walter 2006), incentivizing him to use more costly repression than he would use against a single set of dissidents. Should he manage to contain the threats and retain policy control, the number of dissenting groups would not change the probability that he loses office, but making policy concessions or losing the conflict to more than one group would decrease his probability of political survival even more than conceding to a single group ($\frac{p}{2} < \frac{p}{3}$, etc.). Both consequences of adding groups would shift the magnitude, but not the direction, of the relationships derived below, which are robust to using $y > 1$ with no upper bound.

[12]There has been little empirical support for these theories with the spectrum conceptualized in terms of regime type (see, e.g, Davenport and Armstrong 2004).

[13]The theoretical unit of analysis is the individual policy. However, the variables predicting repression and dissent are difficult to quantify at the level of the individual policy decision. Policies are adopted every day and even more frequently than that, and the independent variables are unlikely to exhibit observable variation at the subdaily level. I use a model at the most disaggregated temporal level for which there is data available for all variables: the year.

[14]That is, each conflictual event short of civil war.

[15]GDP per capita and population exhibit unit roots, such that the mean and the variance are not constant. After taking the natural log to correct for skew, I used the first difference to make the series stationary. Dickey-Fuller tests confirm that no other variables suffer from systematic non-stationarity.

[16]Models like this are sometimes called “two-tier” or “hurdle” models (Wooldridge 2002, 536-538).

[17]Predicted probabilities estimated using code from Burke (2009).

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Table 1: Cragg's Tobit Estimates of the Onset and Severity of Repression and Dissent, 1990-2004

	(1) **Repression**	(2) **Dissent**
	Tier 1: Likelihood of Onset	
Job security (t-1)	-0.785	-1.179
	[-1.581,0.0116]	[-2.232,-0.126]
Repression onset (t-1)	0.859	0.845
	[0.681,1.037]	[0.694,0.996]
Dissent onset (t-1)	0.659	0.711
	[0.506,0.812]	[0.551,0.871]
Military personnel (pct, t-1)	0.0969	0.132
	[-0.0712,0.265]	[-0.0335,0.298]
Involvement in conflict (t-1)	0.407	0.226
	[-0.178,0.993]	[-0.344,0.797]
GDP per capita (differenced, ln, t-1)	-0.694	0.184
	[-1.991,0.603]	[-0.844,1.212]
Population (differenced, ln, t-1)	-1.093	-1.669
	[-3.099,0.913]	[-3.517,0.179]
Constant	-0.0518	0.143
	[-0.724,0.621]	[-0.718,1.004]
	Tier 2: Severity	
Job security (t-1)	0.947	1.125
	[0.271,1.622]	[0.0126,2.237]
Repression severity (t-1)	0.0539	0.0251
	[0.0241,0.0838]	[-0.0139,0.0642]
Dissent severity (t-1)	0.0450	0.0480
	[0.0185,0.0715]	[0.00125,0.0947]
Military personnel (pct, t-1)	-0.00514	-0.0556
	[-0.189,0.178]	[-0.420,0.309]
Involvement in conflict (t-1)	0.291	1.369
	[-0.448,1.029]	[0.824,1.914]
GDP per capita (differenced, ln, t-1)	0.325	-0.194
	[-1.410,2.059]	[-2.577,2.189]
Population (differenced, ln, t-1)	3.950	3.161
	[1.838,6.063]	[-1.285,7.606]
Constant	6.641	6.046
	[6.034,7.248]	[5.137,6.955]
σ	1.421	1.898
	[1.350,1.492]	[1.814,1.982]
Observations	1697	1697
Log pseudolikelihood	-2835.3898	-2640.1834

95% confidence intervals in brackets

Figure 1: Predicted severity of repression, conditional on having chosen to repress, across the range of Executive Job Security. Dashed lines indicate the 95% confidence interval.