

Conflict Escalation and the Origins of Civil War

**Christian Davenport
David A. Armstrong II
Mark I. Lichbach**

**Mailing Address:
University of Maryland
3140 Tydings Hall
College Park, MD 20742**

**Email Addresses:
cdavenport@gvpt.umd.edu
darmstrong@gvpt.umd.edu
mlichbach@gvpt.umd.edu**

Abstract

Recent analyses of civil war have suggested that these events grow out of lower-level conflict dynamics involving state repression and political dissent. Unfortunately, this work has been unable to distinguish between rival explanations because it relies upon relatively indirect proxy measures to operationalize explanatory variables. Examining 149 countries from 1976 to 1999, we develop new measurements for lower-level conflict and explore the validity of existing research. Our results disclose that: 1) while proxy variables are reasonable predictors of lower-level conflict, actual measures of conflict are superior, and 2) civil war emerges when urban dissident strategies become inflamed by repressive behavior, conditioned by per capita income – representing a modified version of the “Grievance” argument. The research has significant implications for how we understand and examine the origins of large-scale political violence.

Where do civil wars come from? While existing research has improved our understanding of onset in numerous ways (e.g. Collier and Hoeffler 2002; Reynal-Querol 2002; Elbadawi and Sambanis 2002; Fearon and Laitin 2003),¹ perhaps no insight has been as significant as the acknowledgement that large-scale conflict grows out of lower-level state-dissident interactions and that the key to understanding civil war onset lies in identifying the escalatory process that leads from one form of contention to another (e.g., Collier and Hoeffler 2002; Sambanis and Zinn 2002; 2005; Fearon and Laitin 2003). This theoretical innovation is particularly important because it simultaneously weaves together disparate elements contained within previous literature (e.g., actors, motives, actions and contexts) while diminishing the significance of essentially invariant structural characteristics in guiding theoretical explanations – something pervasive in earlier work.

At present, there are three variants of the escalation argument that can be found in the literature. Within one, the “*inflammation*” hypothesis (derived from the “Grievance” proposition [e.g., Gurr 1970; Peterson 2002]), civil war emerges when state repression prompts dissidents to increase their rebellious efforts. Here, prior repressive activity enrages citizens who subsequently increase dissident behavior to the level of civil war. Within another, the “*incapacity*” hypothesis (derived from the “Greed” argument [e.g., Collier and Hoeffler 2002]), large-scale conflagration emerges when political authorities are unable to apply significant levels of state repression. Here, repressive behavior is initially low, challengers perceive a weakness in state coercive power (which reduces the potential costs of collective action), and in this context, dissidents increase their rebellious efforts to civil war. Within a third, the “*ineffectiveness*” hypothesis (derived from the “Insurgency” argument [e.g., Fearon and Laitin 2003; Sambanis and Zinn 2005]), large-scale conflagration emerges when governments apply coercion and

¹ See Sambanis (2002) for a good review.

dissidents simply outlast or outfight states. Here, repressive behavior is initially high, subsequent dissident activity is high, challengers perceive a weakness in state coercive power (despite sustaining costs), and in this context those in opposition to authority increase their rebellious efforts, resulting in civil war.²

To date, research has been inconclusive in its examination of these rival hypotheses. Currently, advocates of all three propositions claim support from empirical analysis, but this work suffers from three limitations, which hinder our ability to understand the escalatory process of violent conflict. First, existing literature has relied upon indirect proxy variables to operationalize key elements of the different theories. It is unclear, however, if the proxies used accurately represent/substitute for repression-dissident dynamics in a manner consistent with civil war research because no one has ever examined the topic explicitly. Individuals have analyzed the influence of repressive behavior on dissent (e.g., Hibbs 1973; Gupta et al. 1993; Moore 1998) but no one has investigated the conditions under which different outcomes of lower-level conflict are observed. This issue is especially problematic in the case of repressive incapacity and ineffectiveness because these two use similar proxy variables to operationalize distinct theoretical arguments. Second, existing research has ignored measurement options that focus on actual state and dissident behavior. Employing proxy variables is always a last resort, viable only when direct measures of [political] phenomena do not exist or are otherwise unobtainable. This is not the case for lower-level conflict as there are a number of variables measuring lower-level dissident and state activity; these will be utilized within our study. Third, existing research suggests that contextual variables could be used in a manner completely different from their current application. For instance, some analyses suggest lower-level conflict

² There are other elements to the Grievance, Greed and Insurgency arguments (e.g., micro-foundations and the role of economic factors), but we focus on those that appear to be central to the theories themselves as well as those elements of the theories that concern conflict escalation.

is derivative of structure (e.g., Fearon and Laitin 2003); if this is the case, then models of civil war need to be estimated sequentially where context leads to lower-level conflict which in turn leads to civil war. In contrast, other analyses suggest that the effects of lower-level conflict are conditioned by structure (e.g., Fearon and Laitin 2003; Sambanis and Zinn 2005); if this is the case, then models of civil war onset need to be more specifically tailored to estimate this type of relationship by including interaction terms. Finally, these contextual factors may exert some influence on civil war onset in and of themselves, but when they are used as proxy measures for various forms of conflict, this simply cannot be tested. These differences are important for how we understand causal relationships but also for how we study them.

Within this article, we draw upon and extend the insights of prior research by addressing the limitations identified above. Our investigation begins with an overview of civil war literature. In the second section, we discuss the deficiencies with this work and outline a new approach to the examination of onset. The third section provides the data and methodological technique employed for statistical analysis. Our results are provided in section four. From the examination, we find that: 1) while structural variables do have some predictive power over repression and dissent, they are inferior to using the actual measurements of these phenomena and 2) one theory of civil war onset is consistently supported – inflammation, but only with regard to urban dissident strategies and conditioned by per capita income. Cognizant that we may only be able to understand the origins of large-scale conflict in terms of this more complicated empirical picture, our findings compel us to revisit the civil war literature. We address these issues within the conclusion (section five).

Alternative Approaches to Civil War Onset

Explanations for civil war tend to focus on two disparate causal factors: motivation (the objectives of state challengers) and opportunity (the perceived window within which challengers can push forward claims with contentious behavior). There is variation with regard to which element is highlighted; some focus more on motivation, others focus more on opportunity and still others focus equally on both. Additionally, explanations for civil war tend to focus on lower-level state-dissident interactions and the escalation from lower to higher levels of conflict as being essential components of any causal explanation. Again, there is variation in these accounts: some conceive of these factors as structural while others conceive of them as motivational. Regardless of the specific approach, however, all rely upon similar components.

For example, according to the argument commonly referred to as “Grievance,” civil war onset exclusively involves motivation insofar as it concerns redressing past injustice (e.g., Muller 1985; Huntington 1996; Gurr 2000; Sambanis and Zinn 2005).³ In this work, political, economic and cultural behavior and/or structures create specific inequities (e.g., political victimization [discrimination/ repression], access to power [autocracy], and economic inequality [income concentration]) and in an effort to redress these inequities, individuals engage in civil war. Within this approach, the role played by lower-level conflict and behavioral escalation is obvious. As state repression is expected to enrage citizens and provoke large-scale conflict, it is clear that the repressive “inflammation” hypothesis is associated with this tradition.

Empirical support for the Grievance argument, in general, and inflammation argument, in particular, is mixed. Employing diverse structural characteristics (e.g., political democracy) and

³ Invoking older critiques of grievance-based explanations for lower-level conflict, not all have been as exclusive in their focus. For example, Hegre et al. (2001) argue and support the claim empirically that grievances alone are not sufficient to explain civil war; rather, they maintain that it is also necessary to consider opportunities (e.g., the type of regime in place). This represents a distinct approach within this research tradition.

behavior (e.g., language discrimination), some studies find support for this argument but only with regard to specific groups (e.g., Gurr 2000) or subsets of civil wars (e.g., Sambanis 2000; others, however, find no support at all for the Grievance argument (e.g., Collier and Hoeffler 2002)

In contrast to the more myopically focused “Grievance” model, the “Greed” argument highlights elements of both motivation and opportunity (e.g., Collier and Hoeffler 2002 Collier and Sambanis 2002; Elbadawi and Sambanis 2002).⁴ First, there is the motivation (or incentive) for rebellion. This emerges when challengers believe that they can profit from seizing or seceding from the state (e.g., after dividing expected loot or tax revenue among organizational members) and/or when they believe that they are able to sustain themselves through the period of confrontation with political authorities by effectively paying for dissident activity (i.e., hiring rebels away from supporting the state and/or remaining neutral). Second, there is the opportunity for rebellion (Collier and Hoeffler 2002 3). This involves two factors: 1) the expected cost of dissent (the “financing to procure arms and rebel labor” [Elbadawi and Sambanis 2002, 309] as well as the amount of potentially forgone economic opportunity for rebels lost by joining insurgent campaigns) and 2) the perceived strength of the government (e.g., the ability to counter domestic challengers).

Differing from the “Grievance” approach, lower-level conflict and behavioral escalation are not as prominently featured within “Greed” research for it tends to focus on the financing of rebel labor. Nevertheless, one can find discussions of the topic that allow us to differentiate this argument from the others available within the literature. For example, repressive “incapacity” appears relevant to this tradition because it is commonly expected within this work that states which cannot wield significant levels of state repression will signal to potential challengers that

⁴ Some do not particularly care for the Greed-Grievance distinction at all (e.g., Berdal and Malone 2000).

they are incapable of imposing costs/punishments and are therefore vulnerable. This increases the likelihood that rebellious activity and civil war would take place because dissidents would not expect significant costs to be imposed – if at all; in other words, within certain contexts opportunities for escalation are perceived.

Similar to Grievance research, those examining Greed generally proxy all components of the model with diverse structural characteristics (e.g., per capita income, economic growth, educational attainment, primary commodity exports and population size), which simultaneously capture motivations and opportunities. Within the literature, most would argue that the Greed hypothesis has been met with a great deal of empirical support. Results consistently disclose that the variables associated with this argument achieve statistical significance and they influence civil war onset in the manner consistent with the theory. Additionally, when compared to variables concerning Grievance, it is clear that Greed-related factors normally outperform them.

The “Insurgency” model discussed by Fearon and Laitin (2003) represents a third approach to the topic where again motivation and opportunity are combined. In this argument, societal members hold a wide variety of grievances and desires derived from diverse political, economic and geographic factors. What accounts for civil war, however, is a presentation of an opportunity. This is similar to the Greed argument but, in this case, the discussion focuses more directly on lower-level conflict processes and behavioral escalation.

For example, according to Fearon and Laitin (2003), large-scale conflagration is most likely to emerge only when structural conditions are “right” – that is when “small, lightly armed bands practicing guerilla warfare from rural base areas” (Fearon and Laitin 2003, 79) can survive government efforts at counter-insurgency and protest policing.⁵ When is this most likely (i.e.,

⁵ This is a source of some confusion within Fearon and Laitin. At one point (2003, 79), repression in the form of restrictions on civil liberties is an indicator of grievance but at a latter point (2003, 80) repression in the form of

what is a “favorable” context)? Fearon and Laitin (2003, 79-82) argue that state repressive capability is undermined and challengers are favored when the economy is poor, population is high, there is large mountainous terrain, there is non-contiguous territory and political life is fragile.⁶ Under these circumstances and only under these circumstances, can rural-based insurgency resist state repressive efforts, become a successful military strategy, and produce civil war.

This approach is directly relevant to the current discussion because it explicitly invokes what we referred to as repressive “ineffectiveness.” In this tradition, civil wars emerge when authorities apply state repression, but dissidents are able to outlast and/or outfight the state – i.e., when they are unable to eliminate previous dissident behavior. In the wake of these lower-level victories, challengers perceive that they can win future contests and they escalate to higher levels of contention. Investigating the influence of diverse proxies, it is argued that Fearon and Laitin provide a great deal of support for their argument; under the context described above, civil war onset is much greater. Additionally, similar to the research associated with Greed, when paired up against variables associated with Grievance, the Insurgency argument tends to outperform all rivals. Interestingly, despite similar operationalizations, there is no explicit comparison made with the Greed argument.

Drawing upon both Grievance (inflammation) and Insurgency (ineffectiveness) arguments as well as representing a fourth approach to the study of civil war onset is Sambanis and Zinn (2005). Attempting to bridge a gap between lower-level conflict and civil war, this

counterinsurgency (e.g., search and destroy missions) is a measure of opportunity. Within the literature specifically focused on state repression, these are comparable.

⁶ Another set of variables used to explain civil war onset derive from theories that Fearon and Laitin hope to falsify. Since some claim that civil wars are contingent on factors such as “ethnicity, discrimination, and grievances” (Fearon and Laitin 2003, 78), their models also include ethnic fractionalization, religious fractionalization, and democracy. Although there are no results provided, the authors also suggest that civil liberties restrictions were examined as well.

research focuses on state-dissident interactions as both a motivational force and opportunity for large-scale conflagration. Differing from existing research, Sambanis and Zinn (2005) argue that repression can enrage citizens, prompting a shift in tactics or compelling challengers to redouble their efforts (inflammation). Additionally, repression can prove to be incapable of increasing costs and decreasing dissident behavior, thereby facilitating conflict escalation because challengers believe that they can win.⁷

To examine these hypotheses, Sambanis and Zinn examine the direct effect of dissent (e.g., social movement organizations engaging in lower-level violent and non-violent activity) and repression (proxied by the imposition of direct rule, restrictions imposed on group autonomy and system type) on the onset of separatist war – a type of large-scale conflagration. They also examine the influence of repression on tactical shifts from non-violent to violent lower-level activity as well as the interactive effects of repression (proxied by anocracy) with non-violent dissident behavior. The results of this analysis show that prior repression and dissent increase the likelihood of civil war. Additionally, they find that repression leads to a tactical shift in dissident strategies, which in turn prompts large-scale conflagration. These results are consistent with both the inflammation and the ineffectiveness hypotheses. These results are particularly important for they suggest that there might be multiple paths to civil war, moving beyond the singular paths discussed within the literature.

Limitations and a New Direction

⁷ Behaviorally, this is similar to the Fearon and Laitin argument (as repression leads to increased dissent) but the framing of the dynamics are completely different. In the Fearon and Laitin study, civil wars emerge because challengers perceive an inability of the state to eliminate them but in the Sambanis and Zinn study civil wars emerge because challengers become enraged by state efforts to control them but also because states are incapable.

While advancing our knowledge of civil war in a great number of ways, we argue that existing research is limited and that it has hindered our understanding of civil war onset.

Specifically, three problems are worthy of attention.

Perilous Proxies. The first limitation with prior research concerns the use of proxy variables. At present, scholars use diverse measures of political, economic and geographic context to measure (i.e., “stand in” for or proximate) state-dissident conflict, but this is a questionable practice in this particular area of research.

To begin, one cannot simply assume that lower-level conflict follows context as this has not generally been the case (Pye 1964, 179). For example, depending upon what type of dissent one is discussing, students of dissident conflict have found that democracy sometimes increases but at other times decreases contentious behavior (e.g., Gurr and Moore 1997). Researchers have varied influences of land inequality on societal conflict (Lichbach 1989; Moore et al. 1996).⁸ Similarly scholars of human rights violation have found negative (e.g., Poe and Tate 1994), inverted-U shaped (e.g., Fein 1995) and threshold effects (e.g., Davenport and Armstrong 2004) of political democracy on relevant state activity. Trade openness has also been found to increase (e.g., London and Williams 1988; Apodaca 2001), decrease (e.g., Richards et al. 2001), and have no influence on political repression (e.g., Timberlake and Williams 1984; Mitchell and McCormick 1988; Apodaca 2001).

⁸ In contrast, research has consistently shown that lagged values of protest and repression are among the strongest predictors of subsequent conflict activity (e.g., Davenport 1995; 1999; Gurr and Lichbach 1979; Hibbs 1973; Lichbach and Gurr 1981; Moore 1998; Poe and Tate 1994). Although this influence is discussed in diverse ways (“action-reaction processes” [e.g., Lichbach 1987; Moore 1998], “bureaucratic inertia” [e.g., Gurr 1986], and the development of specific “repertoires” [e.g., Tilly 1978]), it is clear that this plays a role in the occurrence of future contentious behavior. This simultaneously identifies the problem with using contextual variables to proxy state-dissident behavior while revealing the importance of the point that the onset of large-scale conflagration is likely connected to lower-level conflict dynamics.

The use of proxies is further problematized by the fact that these measures are supposed to substitute for a particular influence of repression on dissent but previous analyses of repressive behavior have identified numerous influences on dissident activity. Indeed, within research commonly referred to as the “conflict-repression nexus” (e.g., Lichbach 1987), every type of influence of repression on dissent has been identified: e.g., sometimes the impact is negative (e.g., Gurr 1968; Hibbs 1973; White 1989); sometimes it is positive (e.g., Feieabend and Feieabend 1972; Hibbs 1973; Eckstein 1965; Lichbach and Gurr 1981 Ziegenhagen 1986; Khawaja 1993; Francisco 1996), sometimes the influence is inverted U-shaped (e.g., Muller 1985), sometimes the influence is alternatively negative or positive (e.g., Bwy 1968; Gupta and Venieris 1981; Weede 1987; Gupta et al. 1993; Rasler 1996; Moore 1998), and sometimes there is no impact at all (e.g., Gurr and Moore 1997). This variation is important because it is necessary to acknowledge that the influence of repression on dissent is not uniform and that specific state-dissident interactions/outcomes are expected to lead to civil war but not all of them. The variation in repressive-dissident behavior is also important to identify because to our knowledge, no one has ever attempted to examine the structural conditions under which different combinations of lower-level conflict are found.⁹ It is thus not clear what proxies are legitimate indicators for repressive inflammation, incapacity and ineffectiveness. This problem is compounded by the fact that the civil war literature is divided about what factors should be relevant to specific state-dissident interactions.

⁹ While inflammation and ineffectiveness have not been considered at all, one of the outcomes – incapacity, has received attention. This work was not concerned with the inability of the state to apply repression but rather the magnitude at which state repression was applied; behaviorally these are equivalent: low applications could be thought of as instances of incapability, whereas higher applications could be thought of as instances of capability. Are the explanatory variables associated with lower-level conflict consistent with the arguments of repressive incapacity? We would have to conclude that this is not the case. Although research identifies that some measure of economic development decreases state repression, there are some that increase this behavior. Most research identifies that dissent, political democracy and lagged repression carry the bulk of the explanatory weight.

For example, Fearon and Laitin provide the most comprehensive argument about the diverse factors that influence lower-level conflict. As conceived, ineffectiveness is negatively influenced by per capita income, but positively influenced by population, mountainous terrain, non-contiguous territory and political instability. Within other research, however, it is argued that ineffectiveness is associated with system type (Sambanis and Zinn 2005).

Guided by Grievance research, repressive inflammation appears to be more focused upon cultural and political factors but it seems reasonable to argue that additional factors are relevant. Drawing upon this work, one could make a case that governments are more likely to inflame citizens when the economy is poor, population is high, mountainous terrain is limited, political instability is prevalent, there is no contiguous territory, democracy is high and ethno-religious differences are significant. Under these circumstances, it makes sense that political authorities would apply repression and that citizens would be less inclined to take it without responding. In these contexts, challengers have little motivation to remain quiescent, there are few economic benefits to be acquired, there are a large number of individuals with concerns about what takes place, there is no physical space within which individuals could withdraw, unstable government institutions promote ineffective public policy, political expectations of state-dissident interactions are less tolerant of government abuse and biased socio-cultural practices increase the likelihood of mass fears regarding prosecution and behavioral backlash.

Incapacity is generally focused on economic characteristics, guided (as it is) by the Greed argument, but it seems reasonable to make the case that governments are most likely to be incapable of applying repression when the economy is poor, population is high, mountainous terrain is extensive, political change is prevalent, there is contiguous territory, democracy is high and ethno-religious fractionalization is limited. In these contexts, authorities do not have the

resources to engage in repressive action, the potential targets or the group that could potentially be mobilized against the regime is large, navigating the physical domain is complex (in terms of mountains and contiguous territory), institutions are unstable, democracy hinders repressive behavior through institutions as well as behavior, and ethno-linguistic fragmentation reduces the overall ability of the state to identify targets and enact relevant behavior. Many similarities exist across theoretical arguments but numerous differences exist as well.

Finally, and likely most problematic for this research, the contextual factors identified above may very well exhibit influences on civil war onset that are unrelated to the influence they have on lower-level conflict dynamics. However, given the current operationalization of the arguments above, it is impossible to untangle these different influences of structure on large-scale conflict.

Direct Delegation. The second limitation with civil war research concerns the fact that it ignores a relatively large body of work that provides a more explicit strategy for how to measure lower-level conflict (e.g., Taylor and Jodice 1983; Moore 1998). For instance, one could observe the *actual* efforts of authorities to control their populations as well as the *actual* efforts of citizens to challenge authorities in an effort to assess repressive inflammation, incapacity and ineffectiveness. This sounds like a reasonable strategy because the major issue for the civil war literature is the behavior of authorities and dissidents as well as the perceptions of combatants regarding these activities.¹⁰ While only the first part is addressed by the literature on repression and dissent, even highlighting this component would be a major improvement on the existing measurement strategy.

¹⁰ Sambanis and Zinn (2005) moved in this direction but they still employed proxies for specific aspects of state behavior, assuming that particular types of regimes were ineffective at using repression.

The approach suggested here is also straightforward. For instance, one could argue that states “inflare” citizens when applications of state repression at time $t-1$ are met with increased dissent at time t . By similar logic, states would be “incapable” of applying repression when values of relevant behavior at time $t-1$ was decreasing while dissent at time t assumes a wide range of values. In contrast, states are relatively “capable” when repressive activity at time $t-1$ was high. Repression is “ineffective” when the state applies high amounts of coercive behavior at time $t-1$ and subsequent levels of dissent (at time t) are high. Correspondingly, states are “effective” at applying repression when significant applications at time $t-1$ have correspondingly low values of dissent at time t .

The adoption of this measurement strategy is important because although repression and dissent play a vital role in all three escalation arguments, the precise nature of that role varies considerably and existing research is not sensitive to these differences – impeding our ability to differentiate between them. For example, if repressive *inflammation* leads to civil war, then it is the objectives and behavior of challengers along with the unintended consequences of state repression that are relevant to civil war onset. This compels one to think about the motivations of those that challenge the state (e.g., “cultural frames” in the social movement literature) and the unacceptability of coercive behavior for those who are subjected to that behavior (e.g., the normative framework adopted by the human rights movement). This also compels one to reflect about the type of mobilizing structures underlying resistance efforts that are not only undeterred by state repression but that are provoked by them. Indeed, in cases of repressive inflammation coercion is not perceived as a cost to collective action (something that is generally assumed by rationalists). The argument is that as individuals get more enraged by repression, they are more

likely to engage violent conflict with the state. Thus, increased coercion acts much more like a benefit here rather than a cost (e.g., Zwerman and Steinhoff 2005)

In contrast, if *incapacity* leads to large-scale conflagration, then this suggests that civil war is associated with the inability of the state to apply repressive behavior. While this commonly brings to mind the rationalist conception of costs frequently discussed in civil war research, this is very similar to the concept of “political opportunity” found in the social movement literature (e.g., McAdam 1996, 23). In this latter work, groups challenge governments when the broader political system appears to be vulnerable to such behavior (i.e., when extensive costs could not be imposed against those challenging authority). The social movement literature is also relevant because several have argued that repression is one (and perhaps the best) measure for this system characteristic because of its direct impact on social movements and citizens (e.g., Della Porta 1995).¹¹

Finally, if repressive *ineffectiveness* leads to civil war, then this tells yet another story about the genesis of large-scale political conflict. In this context, it is the state’s inability to eliminate dissent and not their inability to apply repression that is of interest. This perspective leads us to a different understanding. Specifically, invoking the standard rationalist account about reduced cost and opportunities¹² but also investigations of conflict management (e.g., Kitson 1971), the ineffectiveness argument highlights a repeated interaction between two actors, which provides a systematic updating of the group’s chances of success. Here, when prior repression is unable to deter challenger’s efforts, then it would be perceived that conflict escalation has a higher likelihood of being successful and effort would be extended toward this

¹¹ One could also associate this concept with research on political development and “state failure” for this work frequently discusses the idea that when political authorities are no longer able to function properly (in this case as the sole actors able to wield coercive power), domestic challenges are likely to emerge.

¹² This time in the face of cost but not insurmountable ones.

end. However, when prior repression decreased dissident behavior, then escalation would not be perceived as a viable strategy and no effort would be extended in this direction.

Adjudicating Arguments. The third and last limitation with existing literature concerns the fact that it may misrepresent how context influences civil war. For example, one could argue that individuals such as Fearon and Laitin suggest that structure produces specific state-dissident interactions, which, in turn, escalate to large-scale conflagration. Alternatively, one could view the same work and conclude that pre-existing state-dissident interactions interact with structure, escalating to civil war. Take for instance the following statement:

(m)ost important for the prospects of a nascent insurgency... are the *government's police and military capabilities and the reach of the government institutions into rural areas*. Insurgents are better able to survive and prosper if the government and military they oppose are relatively weak – badly financed, organizationally inept, corrupt, politically divided and poorly informed about goings-on at the local level (Fearon and Laitin 2003, 80).

On the one hand, one can interpret this as saying that well-financed and bureaucratically competent states lead to effective counter-insurgency. On the other hand, one can interpret this as saying that poorly financed and bureaucratically incompetent states weaken a state's ongoing efforts at counter-insurgency.

Essentially, the arguments identified above and the broader literature concerning civil war onset are agnostic about the causal process involved, but the implications of the difference for how one would go about identifying relationships and how one understands these relationships is crucial. For example, if context *produces* (i.e., leads to) lower-level conflict, then there is a sequential dynamic that must be identified. Here, one would need to examine how

context leads to lower-level conflict and then how lower-level conflict leads to civil war. If, however, context *conditions* (i.e., influences other variables as they impact) lower-level conflict, then there is an interactive dynamic that must be identified and one would need to examine this relationship (the interaction between context and conflict) explicitly as it influences civil war. Because of the current reliance upon proxy variables to stand in for lower-level conflict, however, none of these issues can be addressed within existing literature. We outline an approach to rectifying this problem as well as the others identified above within the following section.

Data and Methods

To operationalize and test the rival escalatory arguments identified above, we employ data from a number of different sources, including Banks' (2001) Cross-National Time-Series Data Archive, Gibney's (2005) Political Terror Scale, and the replication dataset provided by Fearon and Laitin (2003) – which we view as being the state of the art within the civil war literature.¹³ Immediately, after comparing across the databases one is able to discern that there are some differences between our sample and the Fearon and Laitin study. For example, due to the coverage of the Political Terror Scale, our analysis only covers the years 1976-1999¹⁴ and includes 149 countries. This differs from the Fearon and Laitin research because within their study there are 12 additional countries. Due to the shortened time frame, we also lose 59 civil war onsets.¹⁵

¹³ We obtained these data from the authors at the following url: <http://www.stanford.edu/group/ethnic/publicdata/publicdata.html>. We refer the interested reader to their article (Fearon and Laitin 2003) for a more detailed discussion.

¹⁴ We use Poe and Tate's (1994) back-coding of the Political Terror Scale to fill in where Gibney's is missing.

¹⁵ There are 111 in the Fearon and Laitin study and 52 in ours. Even within our range of years, we are missing 13 onsets as there are 40 onsets coded by Fearon and Laitin in the years between 1983 and 1999. Some of our future work will use multiple imputation to recover some of these cases and bring these civil war onsets back into the analysis.

While we would have liked to examine the rival escalation arguments within exactly the same sample as one of the pre-eminent analyses within the civil war literature, there is no reason to believe that our study would be inappropriate. First, despite the differences in sampling, the unconditional distribution of civil war onsets remains relatively similar (e.g., onsets are 1.68% of the observations in the Fearon and Laitin study and 1.69% in ours). Second, no scholar in the civil war literature discusses nor demonstrates empirically that either temporal or spatial influences exist; consequently, it should not matter where one truncates time or space.¹⁶

Civil War Onset

As with most in the field, civil war onset is our dependent variable. In the interest of space and parsimony of presentation, we focus specifically on overall civil war onset, but our basic argument and statistical model could easily be applied to the different operationalizations of civil war offered within the literature (e.g., ethnic civil war or the onset measures provided by the Correlates of War, Collier and Hoeffler as well as Sambanis).

Repression, Guerrilla War and Dissent

To operationalize the concepts of repressive inflammation, incapability, and ineffectiveness, we employ three different variables – repression (the Amnesty International version of Gibney’s Political Terror Scale), guerrilla war (a lagged dummy variable representing the presence of guerrilla war in the previous period taken from Banks Cross National Time Series Data Archive) and protest (an additive scale of anti-government demonstrations and riots also taken from Banks with mean zero and unit variance).¹⁷ We combine these variables in various ways to represent distinct state-dissident interactions. First, we create dummy variables representing inflammation, incapacity, and ineffectiveness along the following guidelines:

¹⁶ This is true assuming that the sample size provides sufficient degrees of freedom for the inferences made.

¹⁷ Cronbach’s $\alpha=0.76$

1. Inflammation occurs when dissent_{t-1} is greater than its grand mean and repression_{t-2} takes on any possible value.
2. Incapacity is a situation where repression_{t-2} is below its grand mean and dissent_{t-1} takes on any value.¹⁸
3. Ineffectiveness is characterized by a situation where repression_{t-2} is greater than its grand mean and dissent_{t-1} is greater than its grand mean.

We also examine distinct forms of dissent (i.e., rural strategies [guerrilla war], urban strategies [protest] and both rural as well as urban strategies [general instability]). This is done in an effort to gauge the robustness of the escalation arguments, and because we believe that there needs to be some explicit consideration given to the strategies adopted by political challengers.¹⁹ As discussed above, existing models focus exclusively on the *potential* activities of rebels principally in a rural context (e.g., Fearon and Laitin 2003).²⁰ This approach ignores, however, the *actual* role played by guerrillas but also the role played by peasants, students, workers, indigenous people, ethnic minorities and everyday citizens throughout the country in question who engage in resistance efforts – in other words, this approach ignores all individuals who, prior to civil war, challenge authorities.²¹ These differences are important because it is not only the behavior of challengers in the countryside that is of interest. Indeed, scholars of domestic conflict have identified three distinct paths to large-scale conflagration, differentiated by specific dissident behavior, in the period immediately preceding civil war.

¹⁸ Since incapacity only concerns the level of repression, it does not change across the different dissent variables. When we employ these variables and break them out into urban and rural contexts, incapacity will be identical in all these situations.

¹⁹ When we refer to dissent above its grand mean, we are referring specifically to protest > 0 and guerrilla war = 1.

²⁰ We say “potential” activities because of the use of proxy variables. Sambanis and Zinn (2005) consider actual dissident behavior but they do not consider whether repression influences this behavior; they simply explore interactions between dissent and the proxies they use for repression.

²¹ Che Guevara’s theory of the “*Foco*” illustrates this argument quite well (Moreno 1970).

For example, within the so-called “Eastern model” of rebellion, a rural-based strategy is adopted (which is similar to the argument outlined by existing civil war scholars) but there is also some attention given to the so-called “Western model,” where a more urban-based approach is used (e.g., Crozier 1960; Pye 1964; Moore 1966; Huntington 1968; Skocpol 1979; Dix 1983; Shugart 1989). Within yet a third strategy – the so-called “Latin American model”, both rural and urban strategies of dissent challenge political authorities (Huntington 1968; Shugart 1989). The validity of the latter two approaches is discussed by Dix (1983, 284) when he acknowledges that

it would be misleading to contend that the revolutionaries in (specific) countries won by moving from the countryside to the capital, as in the Eastern model. They did that, but to stop there obscures a vital part of the picture, namely, that probably as much, and perhaps more, of the revolutionary action took place in towns and cities as in the country-side.

Through a comprehensive assessment of the various ways that political authorities could be challenged, we thus provide a thorough investigation of the different circumstances that facilitate large-scale conflagration.

Other Exogenous Variables

To assess the importance of different contextual variables we also use the structural characteristics highlighted by previous civil war scholars. There are, however, a couple of notable exceptions. First, since we are estimating a transition model (discussed below), which uses only observations where civil war at time $t-1$ is zero, the “previous war” variable found to be significant in earlier research is not employed because it does not vary within this sample. We also drop the “new state” variable in Fearon and Laitin (2003) from our analysis as it has no

variation in this sample.²² The complete list of variables employed in this analysis are provided in Table 2.²³

[Insert Table 1 about Here]

The Models

In order to investigate the escalation models discussed above, we use a number of different statistical examinations. The first analysis explores whether the structural factors employed in existing research accurately “proxy” (or otherwise are reasonable predictors of) diverse repression-dissident interactions. We explore this by estimating separate logistic regression models for the “inflammatory”, “incapable” and “ineffective” variables. The contextual variables we use in these models are specifically – GDP/capita, Population, Mountainous Terrain, Noncontiguous Territory, Ethnic Fractionalization, Religious Fractionalization, Instability, Regime (Polity2 and its square) and Oil Exporter. For the second and third examinations, we employ a Markov transition model (Beck et al. 1999). Here, we estimate the probability of onset with a logistic regression model on a sample truncated to only include those observations where $civil\ war_{t-1}=0$.²⁴

Initially (within the second examination), we provide a set of models offering a simple bivariate test of the argument that the three repressive-dissident interactions lead to civil war. For this, we estimate a binary logit predicting civil war onset with the different categories of repression-dissident dynamics for rural, urban and rural plus urban strategies of dissent. We also present a table of probabilities of civil war onset for each contentious interaction. As designed, if

²² It is not that there are no new states in this period, because there almost certainly are. The lack of variation is owing to the lagged variables employed. We are essentially chopping off the first three years of a country’s existence by employing these lagged variables, thus there are no new states in the sample any longer.

²³ Fearon and Laitin (2003) and Sambanis and Zinn (2005) have argued that anocracies may be more civil-war prone than regimes occupying the extremes of regime type. To allow for this possibility, we include Polity2² in our models. The general finding of these authors is upheld.

²⁴ See Beck et al. (2002) for a discussion of this and other interesting models for binary TSCS data.

both the first test and this test are supported (i.e., if the proxies can predict different repressive outcomes and/or these outcomes can predict civil war onset in a manner consistent with existing expectations), then this provides support for prior research. If only the first or second are supported, however, then this suggests that prior research is incorrect.

Within the third examination, we estimate somewhat more sophisticated statistical models where repression is interacted with two different operationalizations of structure. To begin, we generate a variable representing “favorable” circumstances for rebels. We interact this with repression and dissent. This will allow state-dissident dynamics to have different effects on civil war onset in “favorable” times versus “unfavorable” times. Finally, as most of the civil war literature stresses the importance GDP/capita in understanding civil war (e.g., Collier and Hoeffler as well as Fearon and Laitin), we interact repression and dissent with GDP/capita to see the effect that this particular type of structure has on civil war. As economic characteristics in particular are used to proxy opportunity (i.e., state-dissident interactions) as well as motivation (e.g., the amount of lootable resources that the state holds), by explicitly considering lower-level conflict behavior we will be better able to gauge the influence of GDP/capita as a motivational factor in large-scale conflagrations.

The Empirical Findings

Investigating and Evaluating Proxies. We initiate our analysis by considering the extent to which diverse structural characteristics predict three different repressive-dissident interactions (as defined above). Table 2 shows the coefficients for the logistic regression set forth above.

[Insert Table 2 about here]

The results of these analyses provide limited support for existing literature. If the use of proxies was valid, then the model's ability to predict the category of repression-dissent interactions would have to be extremely high and the causal influences of relevant independent variables would have to be consistent with theoretical expectations. This is not uniformly the case.

Addressing the first issue, model fit, we follow the suggestions of King and Zeng (2001) who argue that we should examine the Receiver Operating Characteristic (ROC) curve, especially the area under the curve. The area under the curve has a range of 0.5 to 1 with numbers closer to 1 being more preferred. The area under the ROC curve within our analysis ranges between 0.75 and 0.83. This suggests that the structural variables employed within the literature to proxy lower-level conflict behavior are reasonably good predictors of repressive-dissident interactions, though they are far from perfect.

Results also disclose that although most of the variables are statistically significant predictors of repressive-dissident interactions, they are not always consistent with the expectations of this work. For example, the expectations about incapable repression are generally incorrect. GDP/capita, population, mountainous terrain, instability, ethno-religious fractionalization and oil exporter are all significant predictors of "incapable" repression, but they are in the wrong direction. In contrast, Polity2 and non-contiguous territory are significant and in the expected direction.

As for the other state-dissident interactions (inflammation and ineffectiveness), the findings are generally more accurate. For instance, GDP/capita is almost always significant and negative (as expected in both cases), except for the urban context where it is statistically insignificant. Population and mountainous terrain are consistently significant and positive except

in the context of inflammatory repressive applications in the urban context. Larger populations and mountains tend to be associated with inflammatory as well as ineffective applications of repression which was expected. Political instability is consistently statistically significant and positive in its effect on repressive-dissident dynamics except in one case (i.e., the rural context of ineffective repression – a finding that was also anticipated). Non-contiguous territory is significant and positive for inflammatory and ineffective repression when one considers rural as well as rural along with urban dissident behavior, but non-contiguous territory is not a statistically significant predictor of either repressive-dissident interaction for urban strategies. Regime type is significant for all outcomes and bears out the anocracy argument put forth by Sambanis and Zinn (2005). Ethnic fractionalization is important for explaining both inflammatory and ineffective outcomes with respect to rural dissent (positively influencing the dependent variable, as expected), but the same cannot be said for its effect in the context of urban or urban along with rural dissent viewed together. Religious fractionalization is consistently statistically significant and negative in its impact on all state-dissident interactions. This moves against the expectations of repressive ineffectiveness. Interestingly, oil exporting is positive in its effects on both forms of state-dissident lower-level conflict; oil increases the likelihood of both inflammatory as well as ineffective repressive activity. This was unexpected.

Investigating Direct Influences. Moving to our second examination, Table 3 presents results from seven different bivariate logistic regressions. In each case, onset is the dependent variable and we estimate the probability of onset with each of the binary variables representing incapable, inflammatory and ineffective repression against urban, rural and urban along with rural strategies of dissent.²⁵ In columns 1 and 2, we find the regression estimates of the intercept

²⁵ To remind, since incapable repression does not change across different dissident strategies, we estimate only one model for this variable.

(column 1) and coefficient (column 2) for the binary repression variable for that particular row. Column 3 gives the probability (and confidence interval) of a civil war onset when the repression variable in that row is zero. Column 4 gives the same information when the repression variable equals 1.

[Insert Table 3 about here]

We see from the results that civil wars are actually five times less likely when a government is incapable of imposing repression. This finding goes against the expectations of prior research. The other predictions are more supportive. For instance, the greatest probabilities of civil war come from inflammatory and ineffective repressive applications with regard to rural strategies of dissent (i.e., guerilla warfare). The confidence intervals of these probabilities (0.1 and 0.12, respectively) overlap considerably, however, leaving us unable to discern which theory explains civil war better in the bivariate case. The same holds for models for urban and urban along with rural strategies.²⁶

As the simple models above provide us some insight about what factors are important for understanding onset (refuting incapacity), they provide us with little to no ability to judge between two of the three competing theories of civil war onset (inflammation and ineffectiveness). Consequently, we explore a more sophisticated set of models where we interact continuous variables of repression and dissent in the hopes of teasing out some of the nuance in these relationships. Above, the categorical measures we applied were quite coarse and it is potentially the case that all situations identified as “inflammatory” or “ineffective” are not equivalent. To investigate this, we estimate models with the interaction terms alone and with the complete set of control variables.

²⁶ The magnitudes of the probabilities also differ, but again the confidence intervals for competing models generally overlap and include the competing estimate.

Before presenting the results, it will be instructive to lay out our expectations in graphical form. The inflammatory argument suggests that previous repression is met with subsequent dissent which causes civil war. Here, we would expect to see that when previous repression is high and subsequent dissent is high (though scholars in this tradition are agnostic on the latter condition) – the probability of civil war onset would increase. Put differently, when previous repression is high, the coefficient on dissent should be positive and significant. Figure 1A shows what we would expect to see in the conditional effect plot. Those subscribing to the idea that incapable repression causes civil war would expect to see the mirror image of Figure 1A. Specifically, the expectation is that when previous repression is low, signaling the inability to mobilize resources to repress dissent, subsequent dissent should cause civil war. Here, when previous repression is low, the coefficient on dissent should be positive and significant. This situation is represented in Figure 1B. Finally, the ineffectiveness argument predicts that when previous repression is high dissent will increase the probability of civil war onset. That is, when previous repression is high, the coefficient on dissent will be positive and significant.²⁷ The ideal typical conditional effect plot for this expectation is shown in Figure 1C.

[Insert Figure 1 about here]

To ensure that the conditional effects plots are easily interpretable, we will discuss them briefly here.²⁸ Drawing on the previous discussion, figure 1A shows the relationship that would be expected if the inflammation hypothesis were to hold. The solid line represents the coefficient for dissent given the particular level of this behavior. The dotted lines represent the 95%

²⁷ The insurgent and incapable theories of civil war seem closely related. The main difference is that for those subscribing to the idea that incapable repression increases the likelihood of civil war, low levels of repression is the main factor. The level of subsequent dissent is nearly irrelevant.

²⁸ It is well-known that when using interaction terms, the coefficients in the regression table are of little assistance when it comes to interpretation of the effects. Since the effects are conditional, graphical presentations are really the only way to make sense of the predictions. See Freidrich (1987) as well as Gill (2001) and Golder (2003) for a good discussion on this point.

confidence interval around the conditional coefficient of dissent. There is also a solid, light-gray horizontal line at zero. If this line falls within the confidence bounds, then the effect of dissent is not significant for that particular level of repression. Again, going back to the previous discussion, we suggested that the inflammation argument would hold if previous repression were high and that led some values (probably high values) of dissent to increase the probability of civil war. Figure 1A shows that when repression is low, the left side of the graph, the solid-gray line is within the confidence bounds meaning and that dissent does not cause civil war. On the opposite side of the same graph, the solid line is above zero with its confidence bounds both above zero. This means that at higher levels of repression, dissent will increase the probability of civil war onset.

[Insert Table 4 About Here]

Table 4 presents coefficients for a number of models. The first column in this table shows Fearon and Laitin's (2003) model. Here, population and GDP/capita are the only significant variables. Despite the small number of explanatory factors, however, the area under the ROC curve is still relatively high, 0.789. Column 2 shows the model including only repression, rural dissent and the interaction of those two variables. With just these three, the area under the ROC curve is 0.727, which is more than respectable. Column 3 adds all of the structural variables to model 2. Columns 4 and 5 are the urban (protest) analog to columns 2 and 3.

The models in columns 2-5 imply a set of conditional effects plots as discussed before. Figure 2 shows these plots for all of the results in Table 4. The lines here show something that looks most like the inflammatory or ineffective repression argument. However, the confidence bounds are sufficiently wide that rural dissent is not significant for any values of repression. The

interesting finding comes from looking at as well as comparing the interaction of urban dissent and repression. Here, the graphs, Figures 2A and 2B, show a pattern that looks a like the inflammation/ineffectiveness argument, but the confidence bounds are sufficiently large that we feel uncomfortable suggesting this supports those hypotheses. Figures 2C and 2D show a pattern that looks much more like the incapacity argument. Here, the confidence bounds are just outside the statistically significant range, but the contrast with the previous results raises some questions about alternate paths to civil war. Another noteworthy finding is that in columns 3 and 5, GDP/capita is the only structural variable that is significant. This is important because assuming that our measures are sufficiently good measurements of state and dissident behavior, the fact that GDP/capita is still a significant predictor of civil war means that it is doing something other than acting as a proxy for repressive-dissident dynamics.

[Insert Figure 2 About Here]

Investigating Interactive Influences. While the previous tests of lower-level conflict and context have been illuminating, they have been missing one important piece which brings us to our third examination. Within all three escalation arguments, but especially in the Insurgency research, there is a suggestion that lower-level conflicts escalate to civil war only within specific contexts. For example, Fearon and Laitin suggest that insurgency will only be able to escalate to civil war when the government is in a weakened state (i.e., when the state has low GDP/capita, high population, high percentage of mountainous terrain, instability and non-contiguous territory).

To investigate this, we constructed a variable called “favorable” that combined all of these factors. This measure equals 1 when GDP/capita is below its grand mean, population is above its grand mean, mountainous territory is above its grand mean, instability equals one and

non-contiguous territory equals one. It should be the case that when the conditions are favorable for lower-level conflict, dissent should be a positive predictor of civil war. Initial investigation into this argument, however, is not favorable.

Of our roughly 3000 cases, only 14 have all of the seemingly favorable factors mentioned above; only three countries make up these 14 observations – Angola (1992-1999), Yemen (1991-1992) and the Philippines (1987-1990); amidst these cases, only one country experienced civil war onset – the case of Angola in 1992. Here, overall repression was escalating from 3 (mid-way up the 5-point Political Terror Scale) to 4 from the late 1980's into the early 1990's. Protest was consistently low throughout this period, but there was guerrilla war activity through nearly all of the 1980's and early 1990's leading up to large-scale conflict. A civil war did not erupt, however, until these factors all aligned to create the “opportunity.” Angola, therefore, is a perfect example of the ineffective repression argument. Even the small sample, however, contains a counterargument. For instance, prior to and during the period of state weakness, the Philippines had repression levels similar to those experienced in Angola, generally 4 on the Political Terror Scale. There was also ongoing guerrilla war activity for a decade prior to the onset of state weakness and there was greatly elevated urban protest. Unlike the Angolan case, the Philippines did not experience the onset of a civil war.

These cases are interesting, but they do not tell us much about general patterns. Accordingly, in an effort to test this theory more broadly, we reconsidered the criteria that constituted “favorable” conditions. Specifically, we focused on the first three – low GDP/capita, high population and high percentage of mountainous terrain. Creating a variable which simultaneously considers all three structural characteristics, the new “favorable” measure has 437 observations with 13 civil war onsets (roughly 3 %, which is nearly twice the percentage of

onsets in the unconditional distribution of civil war). Since most of the theories identify GDP/capita as being the most important factor, we also look at just interactions with this variable in isolation to operationalize state weakness (for exploring the point raised above). We use these measures to condition the effects of repression-dissent dynamics. We would expect that the hypothetical relationships identified above in Figure 1 will hold when the state is experiencing a period of weakness, but this will not (in general) be the case during periods of state strength.

[Insert Table 5 About Here]

Table 5 presents the coefficients from the models discussed above. Columns 1 and 2 present models for rural dissent.²⁹ In the first of these models, we interact guerrilla war with the favorable variable. This provides basically two distinct sets of conditional coefficients for rural dissident activity. The model provides a set of coefficients for guerrilla war conditional on repression when conditions are unfavorable for dissent as well as the same information for times favorable to dissent. These are both presented in Figure 3.

[Insert Figure 3 About Here]

Here, the straight lines (solid and dotted) represent the conditional coefficient in unfavorable and favorable conditions, respectively. Additionally, the curved lines give the 95% confidence bounds. The effect depicted in Figure 3A is similar to above where the direction confirms the inflammatory or ineffectiveness hypothesis, but the effect is not significant. The fact that the lines are almost on top of each other suggests that there is no interaction effect; put differently, guerrilla war is no more likely to start a civil war in times of state weakness than in times of state strength. This strikes a blow against the ineffectiveness argument.

²⁹ Here, we do not investigate rural and urban behavior together because it is unclear how the two would be meaningfully combined to make a substantively useful indicator. Above, we were taking broad categories of dissent and guerrilla war. Here, with a more nuanced indicator of dissent, the same type of combination is not possible.

The second column of Table 5 displays the results of a model that interacts rural dissent with GDP/capita only. Here, we need not dichotomize GDP/capita as we did when constructing the state weakness variable. Figure 3B is thus a contour plot of the effect of guerrilla war conditioned on both repression and GDP/capita. Basically, every possible point in the 2-dimensional space represents a coefficient for guerrilla war given levels of repression and GDP/capita. From the southwest corner to the northeast corner of the plot, the conditional coefficients are increasing.³⁰ The result here is basically the same as above - there are no conditional coefficients of guerrilla war that are significant conditional on GDP/capita and repression.

The third and fourth columns of Table 5 present identical models as the first two columns, but for urban dissent. Here, we see from Figure 3C that there are no values of repression for which protest is significant in either favorable or unfavorable conditions. While the general direction of the effect tends to support the incapacity argument, the results are statistically insignificant. The contour plot (Figure 3D) shows something more interesting, though. From the southwest corner to the northeast corner, the effect decreases. The solid black lines represent conditional coefficients for protest that are statistically significant. Here, urban dissent is a significant predictor of civil war when repression is in its middle values (2-3) and as GDP/capita moves over its entire range. When repression is at 3, and GDP/capita is low, protest will increase the probability of civil war; this supports the inflammation argument because the amount of subsequent dissent is important for onset but the amount of repression is not particularly high as suggested by the ineffectiveness hypothesis. Haiti provides a good example of this latter situation. In 1989, Haiti's level of repression decreased from 4 to 3. This was met

³⁰ The lines are isoquants – they connect points of equal coefficients in the space. Two points on the same line have the same conditional coefficient for guerrilla war.

with a subsequent increase in repression from below the mean to above. During the same time, Haiti's (log) GDP/capita was around 6.5, in the range where we would expect civil war to occur. In 1991, large-scale conflagration was initiated. If a country's level of repression is 2 with high GDP/capita, protest is expected to increase the probability of civil war; this again supports the inflammation hypothesis because although dissent increases in the subsequent period there is no extensive amount of prior repression employed by political authorities.³¹

Conclusion

Within this research, we set out to advance understanding of the escalatory process that leads to civil war by providing a more appropriate test for three hypotheses on the topic, the “inflammation” argument associated with Gurr (1970) as well as Sambanis and Zinn (2005), which maintains that civil war emerges when authorities enrage citizens, the “incapacity” argument associated with Collier and Hoeffler (2002) which maintains that civil war emerges when authorities cannot use repression, and the “ineffectiveness” argument associated with Fearon and Laitin (2003), which maintains that civil war emerges when authorities use repression poorly. Prior research has been unable to examine these rival explanations for onset for three reasons. First, different arguments employ the same proxy variables within their analyses – each drawing support from statistically significant results. Second, no researchers have explicitly examined the influence of proxy variables on repression-dissident dynamics and thus the assumed relationships that underlie this work are potentially inaccurate. Third, literature specifically concerned with repression and dissent offers better alternatives for measurement, allowing us to differentiate between different arguments.

³¹ Interestingly, the opposite of each statement made above is not true – when repression is 3 and GDP is high or when repression is 2 and GDP is low, protest has no significant effect on civil war onset. Russia's 1994 civil war fits into this scenario quite well. In 1992, repression in Russia had decreased, from 3 on the Political Terror Scale to 2. Dissent was decreasing, but was still well above its mean. Russia's (log) GDP/capita was roughly 9. Here, the civil war onset came when urban dissidents saw an opportunity to escalate to large-scale conflict.

Examining 149 countries from 1976 to 1999, our study reveals that: 1) while proxy variables are reasonable predictors of lower-level conflict, actual measures of conflict are superior, and 2) of the different explanations for onset our results favor the inflammation argument but only in specific economic contexts and with reference to specific forms of urban dissent. We see this work as having numerous consequences.

Reflection. One implication of our research concerns the finding that most civil wars took place under contexts that were identified as repressively “inflammatory” and not those where authorities could not apply repression or where they failed to contain dissent. During these situations, repression assumed a range of lower values while subsequent protest behavior was high. The reasons for this seem clear enough. During inflammatory repressive situations, citizens become aggrieved at the use of political coercion against them and they use civil unrest to improve the situation. This is a fundamentally different context than that identified by scholars such as Collier and Hoeffler or Fearon and Laitin, where individuals increase their challenging efforts when political authorities are unable to apply repression or they are inept at controlling dissent. A focus on urban-based repressive inflammation is important because it leads us to revisit the importance of particular types of grievances as they influence conflict escalation. A focus on repressive inflammation is also important because it leads us to consider these situations as focal points for observation (when they appear and why they exist) as well as for intervention; indeed, if individuals are interested in preventing large-scale conflagration, then our research should influence the direction of aid and humanitarian effort.

Suggestion. On methodological grounds, our research suggests that, to the extent possible, every effort should be made to measure distinct components of a theory. Proxy variables are often necessary as a last resort, but they should never be used when a more

appropriate observed variable exists. This was important in this study because we found that despite numerous analyses supporting the incapacity and ineffectiveness arguments as well as refuting the inflammation argument, when more direct measures were used (that more closely approximated what the theories described), there was no support for the incapacity hypothesis, mixed support for ineffectiveness and consistent support for inflammation. The issue of proper measurement was further reinforced by the finding that explanations for onset were only statistically significant when interactive relationships were considered – using structural characteristics as contextual factors and not proxies for state-dissident interactions.

Clarification. As a way to improve our research, it will be important to refine and improve the work in numerous ways. First, we should increase the number of countries and years examined in the study, recovering as much of the original Fearon and Laitin sample as possible. Second, we should explore alternative measurements of repressive ineffectiveness. For instance, we only considered effectiveness as it related to dissent within the previous year but it may be the case that “chronic” ineffectiveness is more important (observing state behavior across a series of dissident events [e.g., Moore 1998]). Third, we should attempt to identify and/or develop better indicators of pre-civil war dissident activity (including other forms of dissent as well as more refined indicators of guerilla warfare that address spatial dimensions). Our repressive indicators would have to reflect these nuances as well.

Extension. Finally, echoing a point made by scholars within the area of civil war (e.g., Sambanis and Zinn 2002; 2005), our research leads us to conclude that work on large-scale conflict should more explicitly look to scholarship on lower-level conflict (e.g., human rights violation, state repression, genocide/politicide, guerilla warfare, protest and social movements). Invariably, our research forces us to acknowledge that we would not be able to understand civil

war onset until we better understood the role played by lower-level conflict in the escalatory process. Indeed, the research provided here reveals that once one applies a more detailed analysis of lower as well as higher-level conflict behavior, many elements underlying research on civil war weaken. To date, these two areas have been isolated from one another, but newer research suggests that this is inappropriate. In fact, we would go so far as to say that the key to comprehending the origins of civil war reside in better understanding lower-level conflict behavior as well as the processes that move political actors from these activities to larger-scale efforts.

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Table 1: Names and Definitions of Fearon and Laitin Variables

Variable	Definition
Ethnic Fractionalization	The probability that any two individuals drawn at random from a country will be of the same ethnolinguistic group.
Religious Fractionalization	The probability that any two individuals drawn at random from a country will be of the same religious group.
Polity2 _{t-1}	-10 (autocratic) to 10 (democratic) scale of regime type from PolityIV. This measure is lagged one period.
GDP/capita _{t-1}	Gross Domestic Product per capita, lagged one period
Population _{t-1}	Natural logarithm of Total Population (World Bank) lagged one period.
% Mountainous	Natural logarithm of the estimated % of the entire land mass that is mountainous in nature.
Noncontiguous State	Coded 1 if the state has a territorial base separated by distance or water from the state's center, zero otherwise.
Oil	Coded 1 if greater than one-third of the country's export revenues came from fuel export in that year, zero otherwise.
Instability _{t-1}	Coded 1 if the country experienced a change of greater than three points in the polity index in any of the three years prior to the year in question, zero otherwise.
Riots _{t-1} (Banks)	Any violent demonstration or clash of more than 100 citizens involving the use of physical force.
Anti-government demonstrations _{t-1} (Banks)	Any peaceful public gathering of at least 100 people for the primary purpose of displaying or voicing their opposition to government policies or authority, excluding demonstrations of a distinctly anti-foreign nature.
Guerrilla War _{t-1}	Dummy variable indicating an ongoing guerrilla war within the particular country year, from Banks Cross-National Time-Series Data Archive
Repression _{t-1}	1 (better) to 5 (worse) scale of a state's respect of its citizens' Personal Integrity Rights. See Gibney (2005) as well as Poe and Tate (1994) for greater detail and specific coding guide.
Protest _{t-1} 1950-1999	Additive scale of anti-government demonstrations and riots from Banks' Cross-National Time-Series Data Archive ($\bar{x}=5$, $\sigma=1$)

Adopted from Fearon and Laitin (2003).

Table 2: Structure Predicting Various Types of Repression-Dissent Interactions

	Inflammatory			Incapable	Ineffective		
	Rural	Urban	Both	All	Rural	Urban	Both
Log(GDP/Capita) _{t-1}	-0.429*	0.121	-0.187*	0.451*	-0.705*	-0.133	-0.513*
	(0.000)	(0.084)	(0.002)	(0.000)	(0.000)	(0.126)	(0.000)
Log(Population) _{t-1}	0.225*	0.499*	0.451*	-0.621*	0.294*	0.61*	0.541*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Log(% Mountainous)	0.349*	0.069	0.204*	-0.18*	0.432*	0.14*	0.288*
	(0.000)	(0.073)	(0.000)	(0.000)	(0.000)	(0.003)	(0.000)
Instability	0.457*	0.615*	0.685*	-0.444*	0.154	0.455*	0.444*
	(0.001)	(0.000)	(0.000)	(0.001)	(0.346)	(0.004)	(0.001)
Non-Contiguous Territory	1.155*	0.188	0.604*	0.471*	1.006*	-0.08	0.336*
	(0.000)	(0.183)	(0.000)	(0.003)	(0.000)	(0.667)	(0.037)
Oil Exporter	-0.246	-0.297	-0.141	-0.807*	-0.167	-0.125	0.067
	(0.176)	(0.071)	(0.319)	(0.000)	(0.416)	(0.519)	(0.678)
Polity2 _{t-1}	0.013	0.033*	0.022*	0.087*	0.022	0.015	0.012
	(0.216)	(0.000)	(0.005)	(0.000)	(0.062)	(0.197)	(0.222)
Polity2 ² _{t-1}	-0.013*	-0.009*	-0.009*	0.015*	-0.017*	-0.016*	-0.015*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Ethnic Fractionalization	0.728*	-0.202	0.005	0.488*	0.961*	-0.332	-0.004
	(0.001)	(0.331)	(0.977)	(0.018)	(0.000)	(0.17)	(0.985)
Religious Fractionalization	-0.799*	-0.824*	-0.581*	1.435*	-1.598*	-1.35*	-1.184*
	(0.003)	(0.001)	(0.008)	(0.000)	(0.000)	(0.000)	(0.000)
Intercept	-1.062	-6.57*	-3.558*	1.107	0.204	-5.826*	-2.188*
	(0.142)	(0.000)	(0.000)	(0.079)	(0.811)	(0.000)	(0.002)
Area Under ROC Curve	0.782	0.759	0.764	0.835	0.825	0.799	0.813
N	3163	3015	3037	2925	3094	2990	2950

* $p < 0.05$, two-tailed test

Main Entries are Logistic Regression Coefficients, p-values in parentheses

Rural=Guerrilla War, Urban=Protest, Both=Guerrilla War + Protest

Inflammatory=High Dissent, Ineffective=High Repression \times High Dissent

Incapable=Low Repression and does not change across different types of dissent

Table 3: Bivariate Logistic Regression Results Predicting Onset

Variable	$\hat{\alpha}$	$\hat{\beta}$	Pr(Onset=1 $\hat{\alpha}$) [95% CI]	Pr(Onset=1 $\hat{\alpha} + \hat{\beta}$) [95% CI]
Inflammatory (Rural)	-4.357* (0.000)	2.159* (0.000)	0.013 [0.008, 0.017]	0.100 [0.051, 0.149]
Inflammatory (Urban)	-4.435* (0.000)	1.097* (0.001)	0.012 [0.007, 0.016]	0.034 [0.016, 0.052]
Inflammatory (Rural + Urban)	-4.839* (0.000)	1.822* (0.000)	0.008 [0.004, 0.012]	0.047 [0.028, 0.065]
Incapable	-3.469* (0.000)	-1.62* (0.000)	0.030 [0.019, 0.041]	0.006 [0.002, 0.010]
Ineffective (Rural)	-4.336* (0.000)	2.426* (0.000)	0.013 [0.008, 0.017]	0.129 [0.060, 0.199]
Ineffective (Urban)	-4.398* (0.000)	1.454* (0.000)	0.012 [0.008, 0.017]	0.050 [0.021, 0.079]
Ineffective (Rural + Urban)	-4.704* (0.000)	2.022* (0.000)	0.009 [0.005, 0.013]	0.064 [0.035, 0.093]

* $p < 0.05$

Columns 1 and 2, main entries are logistic regression coefficients

Columns 1 and 2, p-values are in parentheses

Table 4: Civil War Onset predicted by Repression, Dissent and Structure

	Fearon and Laitin Model	Guerrilla War		Protest	
Repression _{t-2}		0.76*	0.692*	0.775*	0.761*
		(0.000)	(0.002)	(0.000)	(0.000)
Guerrilla War _{t-1}		-0.045	-1.41		
		(0.984)	(0.606)		
Protest _{t-1}				1.342	1.834
				(0.097)	(0.073)
Guerrilla War _{t-1} × Repression _{t-2}		0.133	0.572		
		(0.818)	(0.431)		
Protest _{t-1} × Repression _{t-2}				-0.406	-0.579
				(0.133)	(0.09)
Log(GDP/Capita) _{t-1}	-0.966*		-1.084*		-1.074*
	(0.000)		(0.000)		(0.000)
Log(Population) _{t-1}	0.238		0.035		-0.009
	(0.054)		(0.823)		(0.953)
Log(% Mountainous)	0.184		0.191		0.192
	(0.109)		(0.162)		(0.159)
Instability	0.272		0.167		0.122
	(0.492)		(0.703)		(0.786)
Non-Contiguous Territory	0.59		1.219		1.134
	(0.34)		(0.097)		(0.134)
Polity2 _{t-1}	0.036		0.049		0.047
	(0.222)		(0.138)		(0.151)
Polity2 ² _{t-1}	-0.016*		-0.013		-0.013
	(0.015)		(0.084)		(0.073)
Oil Exporter	0.802		0.927		0.918
	(0.088)		(0.079)		(0.083)
Ethnic Fractionalization	0.11		-0.102		-0.03
	(0.856)		(0.882)		(0.964)
Religious Fractionalization	-0.433		0.13		-0.006
	(0.595)		(0.893)		(0.995)
Intercept	1.318	-6.22*	1.682	-6.22*	1.93
	(0.545)	(0.000)	(0.505)	(0.000)	(0.464)
Area Under ROC Curve	0.798	0.727	0.851	0.746	0.845
N	2590	2331	2241	2332	2242

* $p < 0.05$, two-tailed test.

Main entries are Logistic Regression Coefficients

P-values in parentheses

Table 5: Logit Models of Onset Using Interaction Terms

	Guerrilla War		Protest	
“Favorable”	0.665		0.641	
	(0.147)		(0.142)	
Repression _{t-2}	0.741*	0.766*	0.761*	0.79*
	(0.000)	(0.000)	(0.000)	(0.000)
Guerrilla War _{t-1}	-0.131	0.297		
	(0.954)	(0.888)		
Repression _{t-2} × Guerrilla War _{t-1}	0.162			
	(0.785)			
Repression _{t-2} × Guerrilla War _{t-1} × “Favorable”	0.026			
	(0.943)			
Protest _{t-1}			1.348	1.558
			(0.101)	(0.095)
Repression _{t-2} × Protest _{t-1}			-0.417	
			(0.135)	
Repression _{t-2} × Protest _{t-1} × “Favorable”			0.03	
			(0.832)	
Log(GDP/Capita) _{t-1}		-0.813*		-0.802*
		(0.000)		(0.000)
Repression _{t-1} × Guerrilla War _{t-1} × Log(GDP/Capita) _{t-1}		0.016		
		(0.828)		
Repression _{t-1} × Protest _{t-1} × Log(GDP/Capita) _{t-1}				-0.057
				(0.162)
Intercept	-6.26*	-0.178	-6.271*	-0.239
	(0.000)	(0.912)	(0.000)	(0.878)

Figure 1: Hypothetical Conditional Effects Plots

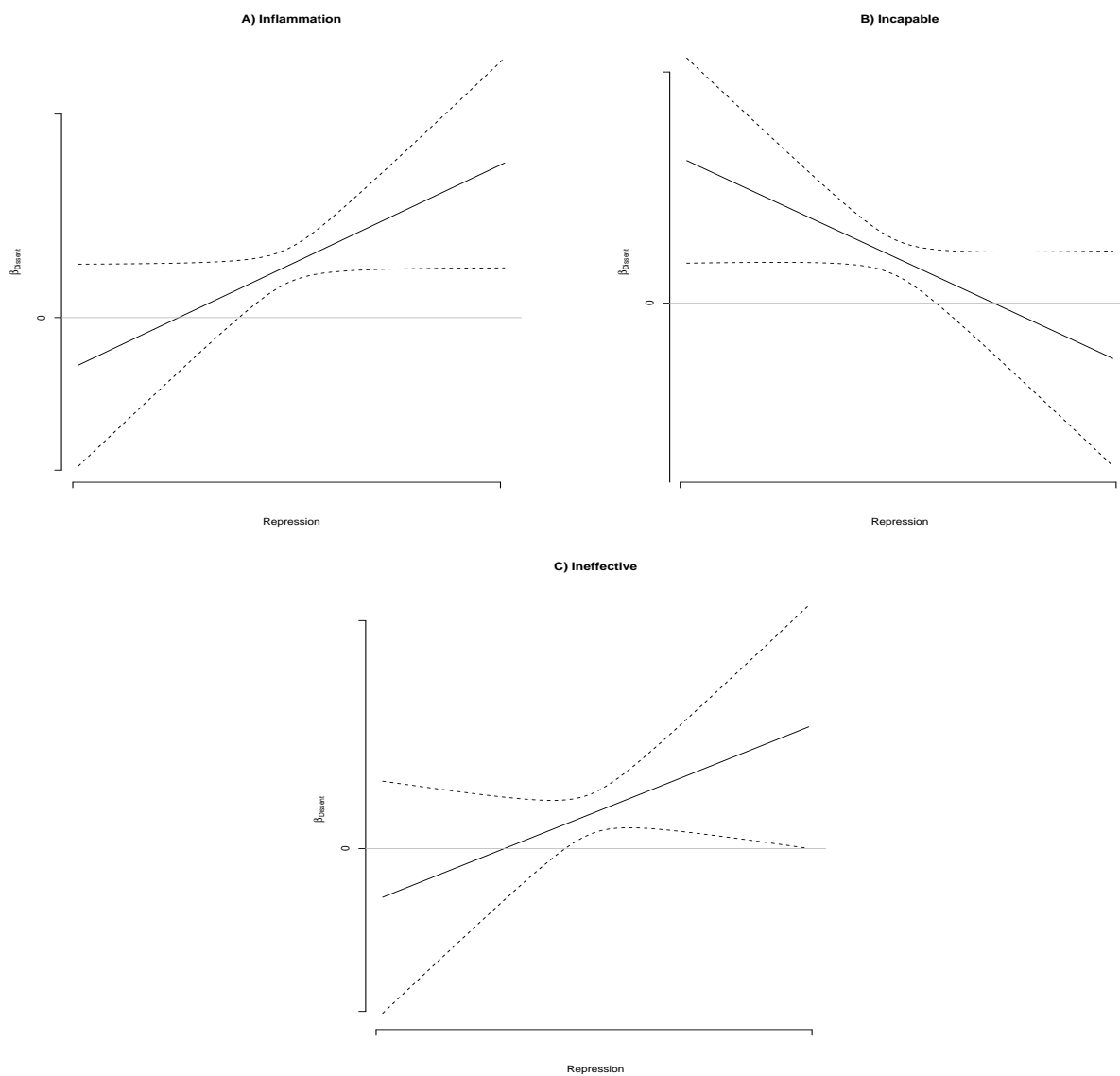


Figure 2: Effect of Guerrilla War and Protest Conditional on Repression (Table 4)

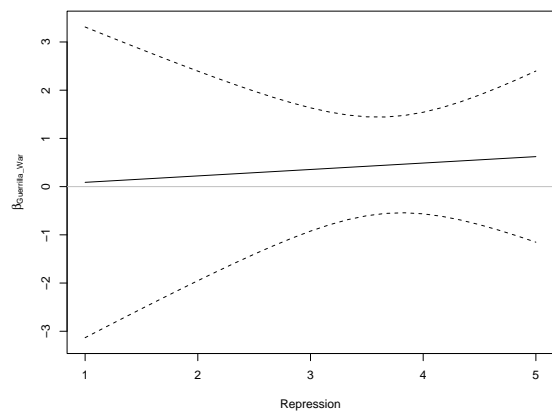
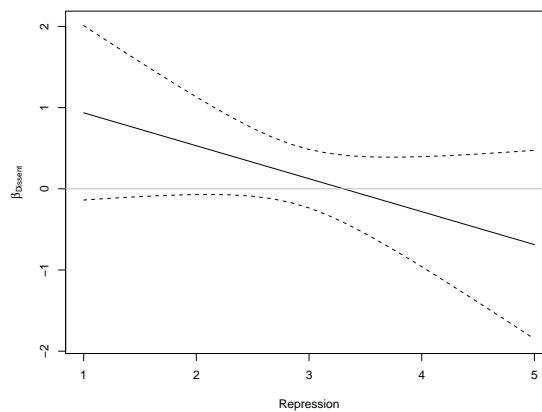
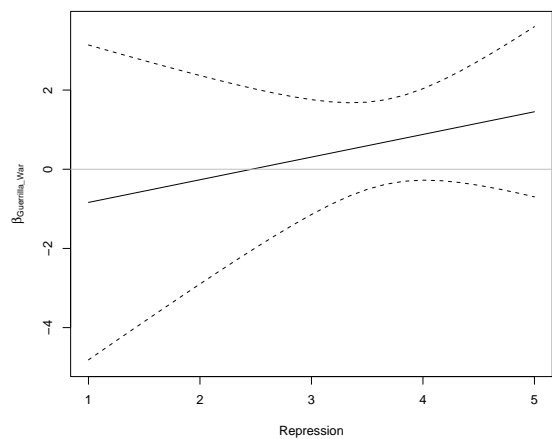
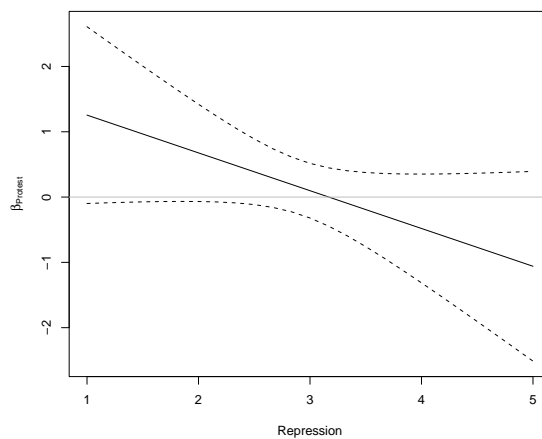
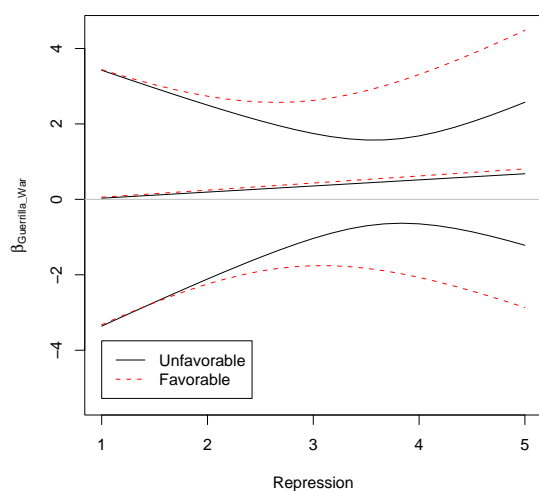
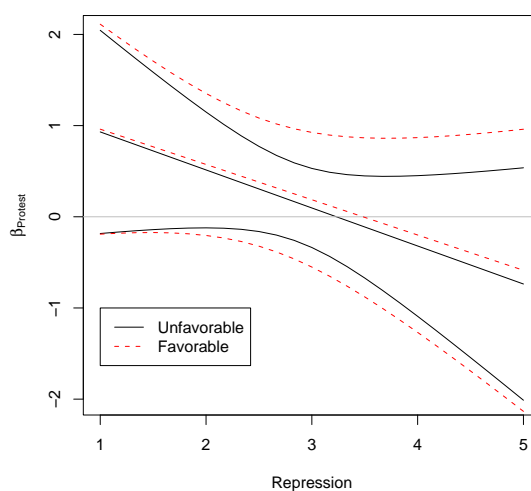
A) Column 2
Only Repression and Guerrilla WarC) Column 4
Only Repression and ProtestB) Column 3
Repression, Guerrilla War and ControlsD) Column 5
Repression, Protest and Controls

Figure 3: Coefficients of Guerrilla War and Protest Conditional on Previous Repression, “Favorable” and GDP/Capita (Table 5)

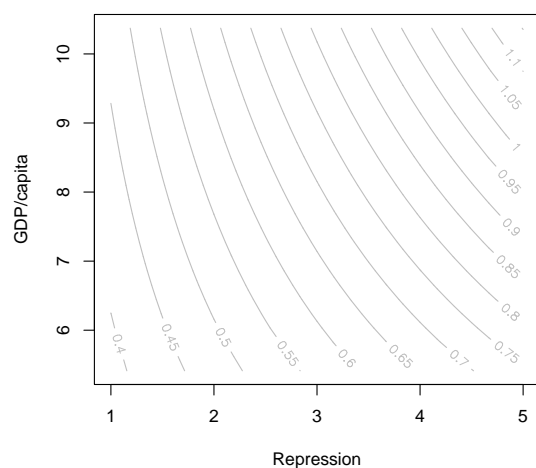
A) Column 1
Guerrilla War (Repression \times “Favorable”)
A) Favorable vs. Unfavorable



C) Column 3
Protest (Repression \times “Favorable”)
A) Favorable vs. Unfavorable



B) Column 2
Guerrilla War (Repression \times GDP/capita)
B) GDP/Capita



D) Column 4
Protest (Repression \times GDP/capita)
B) GDP/Capita

