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Greed, Grievance, and Mobilization in Civil Wars

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Greed, grievances, and mobilization are generally offered as explanations for rebellion and civil war. The authors extend arguments about the precursors to nonviolent protest, violent rebellion, and civil war. These arguments motivate a series of hypotheses that are tested against data from the Minorities at Risk project. The results of the analysis suggest, first, that the factors that predict antistate activity at one level of violence do not always hold at other levels; second, the response by the state has a large impact on the subsequent behavior of the rebels; and third, the popular notion of diamonds fueling civil unrest is generally not supported. The authors draw inferences from their results to future theoretical and policy development.

Keywords: rebellion; civil war; violence; greed

Recent arguments and evidence suggest that civil wars are rooted in causes that reflect a combination of "greed and grievance" (Collier 2000). The more widely accepted explanations generally focus on the grievance dimension, which assumes some form of resource or political deprivation (e.g., Gurr 1970, 2000). The greed explanation, on the other hand, assumes that rebels act in pursuit of self-interested material gain. Oil, diamonds, timber, and other primary commodities form the basis of the contestable resources over which rebels fight their governments. The term *greed*, moreover, serves as a convenient moniker to describe self-interested behavior and the resources available to pay selective benefits. In effect, a strong resource base serves as a mechanism for mobilization.

We posit that grievance-based issues are at the core of the process that leads to civil conflict but that "greed" becomes salient when the rebel leadership begins to face a difficult task of motivating soldiers. In effect, grievance leads to collective behavior, but defection is always a problem, so rebel leaders resort to selective benefits that tap into self-interested behavior. That is, since preferences of the leadership and soldiers generally differ, the leaders must pay selective benefits to keep rebel soldiers from defecting. This is made easier when extractable resources are contested and controlled by rebel forces. The most visible instances currently involve sub-Saharan African coun-

tries trading in easily extractable diamonds, but the opiate trade in Asia and South America also reflects this role of exploitable resources as one mechanism for fueling civil wars. Our argument proceeds as follows. First, we ground our discussion in a general body of literature on civil conflicts, for which the greed explanation provides a small but influential component. Next, we present a theoretical framework from which to think about the role of self-interested versus collective behavior in civil wars. We then present a research design and analysis that uses data on civil conflicts in the post–World War II era to test hypotheses derived from our model. Finally, we discuss the results of our analysis. Briefly, these results suggest that income and distributional issues, repressive policies of the state, and access to exploitable resources are each associated with the onset of protest, rebellion, and civil war. Ethnicity and regime type provide mixed results.

GRIEVANCES, MOBILIZATION, AND CIVIL WARS

There is a rather long history in the study of internal conflicts, with much of the early research on internal conflict focused on questions related to levels of inequality and deprivation. Gurr (1970) and others (e.g., Davies 1962) articulated models suggesting that the gap between expectations and achievement would contribute to the willingness of people to rebel; in particular, rebellion was fueled by movements in this perceived deprivation. In effect, if recent trends led to the expectation of a continued increase in the satisfaction of economic and social needs, any sharp or sudden decline from that trend would result in an intolerable gap between expectations and achievements. Gurr outlined the social determinants of relative deprivation and made more explicit the criteria with which to evaluate the desires and achievements of a social group. The evidence supporting the deprivation arguments was not overwhelming, but despite this, the logic behind the arguments had intuitive appeal (Brush 1996). Numerous scholars have alternatively challenged or advanced these types of arguments with varying degrees of empirical or logical success (e.g., Gurr and Moore 1997; Lichbach 1994).

A variant of the relative deprivation argument posits that inequality is a cause of internal dissent and revolution. Structural inequality has been linked to the mass political violence characteristic of revolutionary movements in the developing world, although the evidence is mixed as to whether it is income or land inequality that is of greatest importance (Russett 1964; Midlarski 1988; Muller and Seligson 1987). The inequality—either land or income—generates discontent among those who go without, resulting in large-scale political violence that, if handled poorly by the state, can evolve into civil war. As with evidence pertaining to relative deprivation as a cause of civil conflict, inequality as an explanation rests on strong theoretical foundations, although the evidence is mixed, possibly a result of unreliable data sources (Brockett 1992).

The difference between relative deprivation and inequality as an explanation for civil upheaval may seem subtle at first, but the underlying causal mechanisms are pro-

foundly different. In the former instance, the perceived deprivation is a psychological process in which judgment is made relative to one's own expectations. The aggregation of these individual perceptions and frustrations leads to a social movement intent on violent political change. The mechanisms of inequality work differently. Rather than an individual judging his or her situation relative to his or her *own* expectations and achievements, inequality is judged relative to *others* within society. Both explanations are consistent with each other, and both are likely to be evident concurrently. But those who argue for inequality as the causal mechanism are implicitly positing that issues of social and economic justice generate the motives behind armed opposition movements.

Others argue, however, that grievances are not sufficient for organized internal conflict and point to the need to have mobilized groups acting collectively (e.g., Tilly 1978; Tarrow 1994). Those who view mobilization as the key to civil unrest tend to minimize the importance of inequality or relative deprivation-type factors, arguing that these conditions are, for the most part, always present (e.g., Tilly 1978). Given that there are structural "reasons" for expressing discontent, it is the ability to mobilize resources that determines the extent of internal conflict. To Tilly (1978), this is conceived as groups contending over political issues, while Huntington (1968) framed this in terms of the incongruity between political mobilization—meaning political modernization—and political institutions that results in revolution.

DeNardo (1985) and Lichbach (1990) formalized the decision to participate in opposition movements, strengthening the logical arguments at the core of the mobilization thesis. DeNardo demonstrates that civil wars require, among other things, effective strategies; strategies facilitate the mobilization around issues of discontent. Lichbach (1990) uses a game-theoretic approach to show that a rational person will not rebel against inequality, absent a change in the expected payoff from participation in the movement. That is, inequality alone is not sufficient to generate a rebellion. Effectively, the collective action problem should prevent the rational peasant from participating in an organized rebellion (Lichbach 1994; Olson 1971). Overcoming the collective action problem appears to be a critical link in mobilizing mass action, with selective incentives appearing to be a necessary ingredient (Lichbach 1994), although others minimize the role of the collective goods problem in social movements (e.g., Tarrow 1994). In essence, DeNardo's analysis suggests one way to conceive of a solution to the collective goods puzzle by insulating the nonelite from the elite and, ultimately, from the government's response. Put differently, strategists are able to deflect some of the costs associated with participation in armed conflict and therefore change the potential payoff to the participants.

Many of these ideas have been tested empirically against data on groups with the potential for protest and rebellion. Gurr (1993, 2000) identifies a population of minority groups at risk and uses data on a number of contextual variables to draw inferences about the conditions under which these groups are more likely to engage in protest or rebellion. It is presumably the at-risk population that is the most likely to rebel against state authority. Critical to the likelihood of at-risk groups protesting or rebelling are incentives and opportunity (Gurr 2000). According to Gurr, incentives are generally

rooted in various forms of discrimination, while opportunity depends on a number of factors, one of which is the authority of the rebel leadership. The greater the level of authority accorded the leadership, the easier it is to mobilize soldiers in pursuit of a collective good. As the authority wanes, so too does the support of the populace. The evidence he presents points to a combination of three factors as the critical determinants of civil conflict: domestic structures, opportunity to mobilize, and the structure of incentives.

An economic variant of the mobilization argument has suggested that civil war might be fueled by self-interested behavior, such that rebels are motivated by "greed" rather than grievance (Collier 2000; Collier and Hoeffler 2000). In effect, the argument presents an economic model of rebellion, in which participation is a form of crime and the rebels are criminals acting in pursuit of economic gains. Accordingly, the popular conception of rebellion as a result of severe deprivation is misleading and generally reflects a view of extant conditions used by the rebel leadership to generate support of potential rebel soldiers (Collier 2000, 4). An economic model does not deny that grievance plays a role in explaining civil conflict but sees grievances as being ubiquitous across most at-risk countries. Those rebel organizations that are able to mobilize troops and sustain a war effort are those that are and remain economically viable. Without resources, even the most extreme grievances will be insufficient to generate civil unrest. When operationalized in terms of export commodities, the evidence seems to support the economic basis of civil violence (Collier and Hoeffler 2000).

The economic constraints model and the mobilization variant converge conceptually on the focal point of generating participation in the rebel cause, whether as a form of labor or as a result of identity with a group. In effect, entrepreneurs are able to capitalize on either economic or social needs to organize an opposition to the state. Both assume that grievances are a common condition in risk-prone countries and that the largest factor preventing civil war is the constraints on the ability to mobilize. To the mobilization theorists, these constraints are rooted in the collective action problem in which private side payments are necessary to overcome the free-rider problem. Without selective benefits, it is difficult to get the soldiers to join the movement.

From the economic perspective, the soldiers are employees working for a wage, and the source of revenue to pay the soldiers is the looting associated with the conflict. Heath et al. (2000) and Mason (1996) present this as a maximization issue for potential rebel soldiers deciding whether to support the government or the rebel movement. Each participant, from this perspective, is a self-interested actor, even though the soldiers might be manipulated into believing that they are fighting in pursuit of the redress of grievances (Collier 2000).

Given this background on theoretical antecedents, we articulate a model that builds on both the mobilization and grievance dimensions. We argue that grievance forms the backbone of protest and rebellious movements but that resources become necessary to pay selective benefits to keep the rational rebel soldier supporting a rebellious movement and to offset government efforts to lure the rebel soldiers away.

A THEORETICAL FRAMEWORK

We work from the rather long tradition that posits that political mobilization reflects rational behavior (e.g., Popkin 1979; Lichbach 1990; Heath et al. 2000). That is, people mobilize against their state in response to current or anticipated deprivation, but they do so only if it is in their interest. This deprivation can be rooted in access to either material or political resources, although both are often linked through the mechanisms for distributing a society's wealth. We also assume that the preferences of the solider (nonelite rebel) and the movement leader differ on at least one significant dimension (Mason 1996). Rebel leaders seek authority and control, albeit possibly so that they can help redress actual grievances. But at the core, they view success in terms of a new distribution of political power, whether that is through a power-sharing arrangement or outright and total control over the bureaucracy. Nonelite rebels, on the other hand, are motivated by personal gain in the form of a minimally accepted improvement in their personal standard of living. That is, while the rebel leadership will demand a share of political power, rebel soldiers will only demand adequate provisions that provide for conditions associated with their physical quality of life. One implication of this difference in goals is reflected in the importance of protection and resources in the provision of selective benefits provided to rebel soldiers.

We start with the notion of grievance. Grievance borne of deprivation is an individual concern that manifests itself collectively. Quite often, material and political deprivation is aggregated within specific groups with a homogeneous cultural identity. For example, a religious or linguistic minority might suffer disproportionately in a given society, and this form of aggrievement can lead to unrest across the social lines that distinguish the minority group (Gurr 2000). Therefore, while collective cohesion is a function of targeted maldistributions, it is individual penury that allows for this collective mobilization. We look for the roots of revolution and civil war in the maldistribution of resources within society that affects disproportionately particular communities of people. In effect, deprivation writ large borders on a necessary condition for civil war, although deprivation is not a sufficient condition. Lichbach (1994, 389) captures this notion of individual motivation by articulating what scholars see as several truths of peasant upheavals:

1. peasants are unconcerned with broad purposes, philosophical systems, political theories, and the like;
2. peasant grievances are specific and well defined, limited and local;
3. peasant actions are . . . designed to satisfy material self interest; and therefore,
4. peasants will . . . participate in collective action when they stand to gain particularistic benefits.

The rebel elite, on the other hand, are willing to risk more but also portend to gain more if they are successful—even if success entails a compromise outcome. That is, their motivation for leading a rebellion will be more in line with altering the material and political resources of a collectivity of people over self-interested accumulation. In effect, in pursuit of this broad goal, the rebel elite will organize those for whom the

deprivation is personal and, when necessary, pay selective benefit to keep rebel soldiers in the fold.

Put differently, grievances are not socially constructed by rebel entrepreneurs (Collier 2000) but instead lie at the core of the motivation to organize in response to the maldistribution of resources, such as land (Midlarsky 1988), income (e.g., Muller and Seligson 1987), or political access. Initially, such involvement brings with it very little cost. However, as the state begins to respond to what it perceives as a threat, costs will be incurred at the individual level (Regan and Henderson 2002; Gartner and Regan 1996). As the cost of protest or rebellion increase, a rational individual will look to defect from the movement, unless the rebel leader can find a way to counterbalance the costs by way of selective benefits. As the opposition movement germinates, the requirements of the selective benefits can be rather low, but as the threat to the state increases, so too does the level of repression and subsequently the demands by rebel soldiers for selective side payments. That is, there is a distinction between the conditions for protest and those for higher levels of civil conflict. Mobilization may be a necessary condition for civil conflict, but nonviolent protest and violent rebellion are distinct. This is evident in the data on Minorities at Risk (Gurr 2000). Because initial mobilization may carry minimal cost, grievances may well be sufficient to motivate the disaffected to participate in protest activities. In economic terms, the cost of rebel labor is low because the size of the potential labor pool is large. However, the costs associated with full-scale revolt or civil war are such that only the provision of selected benefits that outweigh the costs imposed by the state for participation can spur an individual to remain committed to the cause, and protection may be the most important side payment (e.g., Heath et al. 2000).

Mason (1996; see also Heath et al. 2000) poses the question of when the nonelite will support the rebels or the government. Presumably, each individual has the option of whether to lend support to one side or neither, and that choice is predicted on maximizing their utility for a given level of effort. Three factors influence the conditions under which the nonelite support a rebel movement: anticipated benefits, costs, and estimates of the likelihood that support for one group would be detected by the other. In the latter instance, the costs are incurred when participation is detected. Using a maximization model analogous to the choice between paying or evading taxes, Mason demonstrates that when there are public benefits from rebel participation (i.e., nonexcludable), then rebel support will be largely a function of the fear of punishment if their support is detected (Mason 1996, 70). When fear of detection is high, the rebel leadership must resort to paying selective benefits (excludable). However, when the rebels control a specific region and rebel soldiers can be adequately protected, selective benefits can be reduced in proportion to the amount of protection offered by the rebels. Protection comes primarily in the form of shielding participants from the political repression meted out by the state, such that as the state increases repression, more people will mobilize around the rebel cause to avoid the abuse at the hands of the state.

The general arguments present a picture of a group that seeks redress from its absolute or relative level of deprivation, most often a result of formal or informal govern-

ment policies to channel resources in particular patterns. This distribution of resources—or maldistribution—increases the incentives for the nonelite to support the elite who are organizing an armed challenge to state authority. But rebel soldiers act rationally and only support a movement when they expect to gain materially from participation. Absent a strong philosophical attraction to the rebel movement, the soldiers will be motivated most directly by the provision of both excludable and nonexcludable benefits. Both the state and the rebel elite jockey for the support of the masses by providing a mix of protection, punishment, and benefits.

Our argument suggests that the importance of economic incentives or, at the extreme, avarice depends on two factors: the level of repression a state administers toward suspected rebels and the amount of protection the rebel movement can provide the individual. When repression is high, the individual will be more concerned with protection, thereby decreasing the importance of economic concerns. In effect, the excludable good provided by the rebel elite is protection against acts of violence perpetrated by the state. However, as coercion by the government decreases, concerns over protection gives way to those of income, with the result that the individual participant must be paid for by means of some other excludable good, which we might think about in terms of income paid for his or her labor.

The escalation from political protest to civil violence or war is a function of the actions and reactions of the rebels and the state and, we argue, follows an identifiable sequence (Moore 1998). As grievances lead to opposition against state policies, political entrepreneurs begin to mobilize opposition supporters. The state response is to try to minimize mobilization through efforts at coercion or concession (Regan and Henderson 2002). As the state gets more coercive, the rebel entrepreneurs have a greater opportunity to provide protection to potential supporters, possibly despite not being able to offer economic incentives comparable to those offered by the state (Heath et al. 2000). Initially, the opposition may adopt nonviolent means, but as the opposition grows, it will press for greater demands or concessions from the state, in part because their ability to do so has increased but also because their constituency will reflect a wider spectrum. As the state responds with increasing repression, the level of violence moves from protest to rebellion and possibly to civil war (Gurr 2000).

From this theoretical framework, we articulate a series of testable hypotheses:

> *Hypothesis 1:* The greater the level of inequality, the higher will be the probability of observing protest, rebellion, and civil war.

Since the ability to provide excludable or nonexcludable benefits sufficient to secure the support of the masses will be partially a function of the level of discontent at the status quo position, the lower the level of absolute or relative level of penury—political or material—the greater the marginal utility of each increment of a public or private benefit. Therefore, potential rebels can be mobilized more easily when the preconflict status quo position provides for a rather low level of utility. This would be reflected in the wealth of the country that is distributable (per capita gross domestic

product [GDP]) and the degree to which there is systematic discrimination in the distribution of resources.

> *Hypothesis 2:* Higher levels of political repression will decrease the likelihood of protest but increase the incidence of rebellion and civil war.

Civil wars do not emerge wholly from the wellspring of discontent but rather move from lower levels of unrest toward large-scale violence and civil war. Recruitment and mobilization are critical. The ability to recruit and organize rebel soldiers will be a function of the degree of protection that can be provided in return for support or, conversely, the level of random punishment meted out by the government. Initially, repression will help to dissuade potential protesters from participation, but people involved in violent forms of rebellion will respond differently to government repression. When the opposition engages in violence, high levels of state repression will lead potential rebel supporters to conclude that the probability of punishment is high and approaching certainty. Under these conditions, potential supporters will join the movement in pursuit of protection from random punishment by the state.

> *Hypothesis 3.1:* The existence of exploitable resources will increase the likelihood of observing rebellion and civil war.
> *Hypothesis 3.2:* However, given the lower cost for participation in protest activity, extractable resources will have no effect on the likelihood of protest.

The ability to pay private selective benefits only to those who participate in the rebel movement is vital to a movement's viability. In general, the government will have greater access to resources with which to pay selective benefits, even though it may choose to attempt to stifle participation through repression. For the rebel elite to compete with the state in providing private benefits, they must obtain access to resources. Localized and easily extractable resources provide the most efficient means to generate income. Once—or if—they acquire access to exploitable resources, these can be converted into private benefits that increase the incentives for the soldiers to maintain loyalty. The greater the ability to pay these selective benefits, the more loyal the rebel soldiers and the more difficult is the task facing the state in trying to offer its own array of private benefits.

We now move to present the results of tests of these hypotheses against data on protest, rebellion, and civil wars in the latter quarter of the twentieth century. We describe our research design and testing procedures as follows.

RESEARCH DESIGN

Our theoretical discussion suggests that we view civil conflict as a process that has discrete levels or breakpoints. These begin with low levels of protest and proceed through higher levels of rebellion and finally, if not sufficiently addressed, to civil war. To test this conception of civil conflict, we require data that are capable of capturing civil violence on a scale that reflects these levels of conflict. We use data derived from

the Minority at Risk (MAR) project for our outcome variables, with a temporal period spanning the years 1976-1997.[1] We are restricted by data limitations to this time period, although we have no reason to expect a different underlying process during earlier or later periods. We use a logit estimator on three outcome variables reflecting nonviolent protest, violent rebellion, and civil war and then transform the coefficients associated with the logit into estimates of the predicted probabilities of observing each outcome. The difference among our indicators reflects the degree of violence, if any, associated with each type of action, with protest being nonviolent, rebellion a violent activity, and civil war large-scale violence by armed and organized opposition forces.

OUTCOME VARIABLES

In an effort to capture the underlying process of civil conflict, we used the MAR measures of protest and rebellion to create a 12-point ordinal scale that we believe captures something of a continuum in the level of civil conflict. The amount of protest is measured on a 5-point scale that, at the low end, are instances of "verbal opposition" and "symbolic resistance" and, at higher values, indicate small-, medium-, and large-scale demonstrations, respectively. The key element is that violence is not part of the protest indicator and therefore captures the early stages of civil unrest. The MAR Rebellion scale reflects a condition in which violence becomes part of civil unrest and, to our minds, involves an increasingly contentious period with greater risk of spiraling toward civil war. The MAR data record rebellion on a 7-point scale that measures the occurrence and intensity of rebellion within society. At the low end, this variable captures the occurrence of "banditry and sporadic terror," up to "intermediate guerilla activity," "large-scale rebellion," and finally "protracted civil war." We combine protest (0-5) and rebellion (6-12) into a single 12-point scale. Using this scale, we create three dichotomous variables of protest, rebellion, and civil war. If the highest action in a single year falls between 1 and 5 on this scale, *protest* takes a value of 1. If the highest action is between 6 and 9, *rebellion* takes a value of 1. Finally, if the highest action is between 10 and 12, *civil war* takes a value of 1. These three dichotomous variables are our dependent variables.

To clarify the coding procedure, we combine two ordinal scales to create our index, rather than using the two scales separately, because we needed to capture the highest level of activity in a country-year. The two independent scales, that is, can have overlapping incidents of protest and rebellion. Conceptually, the independent scales make sense in that it would not be unusual to have both lower and higher levels of opposition behavior taking place simultaneously. From our perspective, however, this would result in a form of double counting and potentially bias our results in favor of more robust findings. We make the assumption that the two independent scales do reflect in the aggregate one ordinal scale of the highest level of protest or rebellious activity.

1. Specifically, we used the MARGene (Bennett and Davenport 2003) to generate country-year data on protest and rebellion. The MARGene program produces data on the minimum, maximum, and mean levels of protest or rebellion in a country-year. We use the maximum level for each of our indicators. If a country experiences both protest and rebellion in one year, we use the higher level of action.

The difference between protest and rebellion resides not in the size of the action but in the degree of threat targeted at the state. That is, the rebellion scale is differentiated from the protest scale by the fact that rebellion is classified by the MAR data as antiregime in nature. Therefore, actions on the rebellion scale will be seen as a greater threat to the regime, and in response, the regime is likely to increase the cost for those actions. Small-scale banditry and sporadic terror may well be of a smaller scale than a large demonstration, but because the risk to the state is much higher when rebels use violence to attempt to destabilize or overthrow the state, the cost imposed by the state for participating in rebellious activities will be significantly higher for the individual.

PREDICTOR VARIABLES

Our predictor variables reflect conditions extant in the country that we argue should account for the frequency with which we observe protest, rebellion, or civil war. The data are derived from various sources; we report on each in turn.

Discrimination index. We adopt the political discrimination index from the MAR data. The indicator is an attempt to measure how public policy and social practice are used to either alleviate or promote political inequalities. The variable is a 5-point scale (0-4), where 0 represents *no discrimination* and 4 suggests *substantial restrictions on political freedoms*. We focus on political discrimination based on an assumption that political access translates, even if indirectly, into economic access/discrimination. Put differently, a group with considerable political access is more likely to also have access to the economic infrastructure of society, and those without will tend to fall at the lower bounds of the economic ladder.

Per capita GDP. Per capita GDP reflects the wealth of a country without consideration of how that wealth is distributed. We use the natural log of per capita GDP as our indicator of national wealth, using data provided by Sambanis (2001).

Lagged political repression. To measure repression, we use the Political Terror Scale lagged at one year (Poe, Tate, and Keith 1999; Gibney and Dalton 1996). The Political Terror Scale measures human rights violations on a scale of 1 to 5, with 5 being *more severe violations*.[2] The mean level of repression in a country-year is just over two; the mode is one.

Extractable resources. Extractable resources are commodities for which the source is controllable in a defined area, the resource is easily extractable and exportable, and the proceeds from the sale can be substantial. We operationalize this in terms of three categories of exploitable commodities: diamonds, other gemstones, and opiates. Both

2. The Political Terror Scale is calculated using either U.S. State Department or Amnesty International annual reports. We rely on the State Department data as they are a more complete. The Amnesty International data contain roughly 25 percent more missing data.

diamonds and other gemstones—such as rubies, sapphires, and emeralds—are located in specific regions that can be controlled by rebel movements and are small and easily transportable. Opiate production—poppy and coca—is also adaptable to specific locations and is transportable and marketable. We make the assumption that if a country produces any of these extractable resources in one year, then it has access to do so in all years. A diamond mine, for instance, does not go away simply because production declines in any particular year. Data for diamond, gemstone, and opiate production are derived from the Diamond Registry, the National Gemstone Association, and the U.S. Drug Enforcement Agency, respectively.

Population. Population size is often associated with more frequent occurrences of civil violence (Powell 1982). With a larger population, the pool of possible rebels is larger; this decreases the risk that any one individual is punished for his or her rebellious action and, as a result, makes rebellion more attractive. To control for the effects of population size on the frequency of civil violence, we include a logged population variable into the model. Data are derived from Poe, Tate, and Keith (1999).

Regime type. We control for the regime characteristics in a country using the POLITY IV data. Our scale is based on the established 21-point index created by subtracting the autocracy from the democracy scores (–10 to 10). To test for a possible curvilinear relationship between regime type and civil violence, we normalize the regime data to zero and include a squared term into the model (Regan and Henderson 2002).

Ethnolinguistic fractionalization. Ethnic heterogeneity has been demonstrated to be related to the onset of civil war (Sambanis 2001), such that the more heterogeneous the population, the higher the likelihood of observing a civil war onset. We control for fractionalization using data provided by Sambanis (2001). In his indicator, the higher the value of ethnolinguistic fractionalization, the more heterogeneous the population; technically, it captures the probability that two people meeting randomly are from the same ethnic group.

Peace years and splines. To control for autocorrelation, we control for the number of peace years and include spline functions.

RESULTS

We present the results for all three models in Table 1. Model 1 reflects the conditions that lead to nonviolent protest, model 2 those conditions associated with violent rebellion short of civil war, and model 3 with civil war. We interpret the results of the analysis together in this section and subsequently discuss the implications of each model individually in the following section.

TABLE 1
Logit Analysis of the Onset of Civil Conflict

	Model 1 (Protest Onset)		*Model 2 (Rebellion Onset)*		*Model 3 (Civil War)*	
Discrimination	.086	(.075)	.507	(.043)**	.835	(.096)**
Per capita	−.092	(.176)	.449	(.105)**	−.193	(.136)
Lag repression	−.249	(.126)*	.138	(.063)*	1.18	(.115)**
Extractables	.076	(.281)	.052	(.149)	−.454	(.207)*
Log population	−.115	(.089)	.238	(.046)**	.523	(.069)**
Democracy	−.040	(.102)	.299	(.051)**	.082	(.079)
Democracy^2	.001	(.005)	−.011	(.002)**	−.004	(.004)
Ethnolinguistic fractionalization	−.003	(.005)	.008	(.002)**	.013	(.003)**
Peace years	−5.01	(.421)**	−.759	(.086)**	−.937	(.147)**
Spline 1	−.434	(.041)**	−.009	(.004)*	−.011	(.005)*
Spline 2	.093	(.009)**	.001	(.003)	.002	(.006)
Spline 3	-.002	(.004)**	.003	(.002)	.005	(.005)
Constant	5.55	(2.01)**	−8.44	(1.19)**	−10.90	(1.59)**
Log-likelihood	-315.99		−806.68		−394.50	
Chi-square	541.50**		481.14**		259.58**	
n	2,019		2,019		2,019	

NOTE: Standard errors are in parentheses.
*$p < .05$. **$p < .01$.

We start with our indicator of political discrimination. As the level of discrimination increases, there is a marked increase in the likelihood of observing rebellion but an even greater increase in the onset of civil war. There appears to be no systematic relationship between political discrimination and the onset of protest activity. Per capita income, as measured by lagged GDP, is insignificant in two of the three models. The per capita wealth in a country is only related to the onset of rebellion, not protest or civil war, and the relationship to rebellion is such that as income increases, so too does the likelihood that we observe violent rebellion in a country. Somewhat counter to the popular wisdom and considerable academic justification, extractable resources in the form of diamonds, gemstones, and opiate production are not a terribly strong predictor of protest or rebellion, and the evidence suggests that the existence of these resources actually is associated with a decrease in the onset of civil war. This is counter to our expectations and is also counter to other research pointing toward the role of resources as a factor in fueling civil war, as well as the conventional wisdom of diamonds being at the core of civil war. While we offer an interpretation later, the role of extractable resources may influence more the ability to sustain a civil war than its onset. In fact, such resources contribute to the national wealth and may be available to the state to buy out some of the resource-based grievances. Once a war has begun, however, either side can contest those resources.

Lagged levels of political repression are a very strong predictor of the current level of civil unrest. In regards to protest, the coefficient is negative—the more repression meted out by the state in year *t* – 1 leads to less antigovernment protest in the current

year. That is, repression seems to work as a means of intimidating the population; however, this seems to be true only in regard to lower level antigovernment activity. On the other hand, repression increases the probability of rebellion and, quite significantly, the likelihood of full-scale civil war. Even though the interpretation of the coefficients is not straightforward, the magnitude of the coefficient associated with rebellion is about 10 percent that of the coefficient associated with civil war. This suggests that as repression increases, the targets of state repression begin to look to rebel movements for protection, and at high levels of repression, rebels will mobilize to the level of civil war.

Ethnolinguistic heterogeneity is associated with rebellion and civil war but not protest. That is, ethnic and linguistic heterogeneity significantly increases the occurrence of rebellion and civil war. These results are broadly consistent with much of the theoretical focus in the literature, and the lack of a systematic relationship with protest might point to the effects of democratic pluralism playing a moderating role between group differences and political participation. The level of democracy appears to be related to rebellion in a nonlinear fashion, with the shape of that nonlinearity following an inverted U, but the level of democracy is not systematically related to either the onset of protest or civil war.

We provide estimates of the predicted probabilities of protest, rebellion, and civil war in Table 2. We begin with a baseline probability for each outcome; changes from that baseline probability are then calculated for specific variation on the predictor variables.

For the baseline probability, we set fixed values for each variable that reflects a hypothetical condition, except for population, income, peace years, and splines, which are set at their respective means. The baseline reflects a state with moderate to high levels of discrimination, somewhat high levels of repression, no extractable resources, relatively undemocratic, and reasonably low levels of ethnic fractionalization—in effect, a country with a considerable likelihood of having antistate grievances.[3] This produces a baseline probability of observing protest of only 6 percent and baselines of 65 percent and 66 percent for rebellion and civil war, respectively (see Table 2). We then change the conditions to see how they influence the probability of protest, rebellion, and civil war. We should note that the baseline probabilities for the more violent forms of civil conflict are high because we have set the baseline conditions to high levels on those indicators that would generally predict rebellion and civil war. When we change from the baseline, we are effectively looking at the conditions or policies that might reduce the probability of observing antistate violence. For example, as a state goes from moderately high repression to highly repressive (4-5), the probability that we observe protest activities declines by 17 percent to 5 percent. Clearly, as the state relies on repressive tactics, individuals see the potential cost of protest to be too great. One inference is that repression works to stifle protest activity.

The baseline model for rebellion reflects the same conditions described for protest. Again, altering these variables provides interesting insights into the conditions under

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3. See notes in the table for precise values.

TABLE 2
Predicted Probabilities of Protest, Rebellion, and Civil War

	Probability	Percentage Change in Probability
Protest		
Base model[a]	.06	—
Highly repressive	.15	+17
Rebellion		
Base model[b]	.65	—
Nondiscriminatory	.20	−69
Nonrepressive	.52	−20
Slightly democratic (16)	.67	+3
Highly heterogeneous (60)	.71	+9
Best conditions	.13	−80
Civil war		
Base model	.66	—
Nondiscriminatory	.06	−90
Nonrepressive	.02	−97
Access to extractables	.56	−15
Highly heterogeneous (60)	.74	+12
Best conditions	.003	−99

a. Base model reflects a condition in which all variables are held at their mean/mode except repression. Repression is set at a value of 4, which reflects a moderately/highly repressive regime.
b. Base model reflects a condition in which variables are held at hypothetical conditions where repression is set at a value of 4, democracy is set at a value of 10, ethnolinguistic fractionalization (ELF) is set at a value of 30, there are no extractable resources, and discrimination is set at level 4. The other control variables are set at their means. Best conditions reflect no repression, no discrimination, slightly democratic, moderately homogeneous (ELF = 30), and no extractable resources; the other variables are set at their mean.

which rebellion occurs. As the state becomes less discriminatory to minority groups, the probability of observing a rebellion drops rather sharply. When a state is nondiscriminatory, the probability of observing rebellious activity drops by 69 percent to only 20 percent, holding all else at the baseline conditions. Likewise, the repressive policies of the state have an observable impact on the amount of rebellion. Compared to a repressive state, a nonrepressive state has a 20 percent lower chance of experiencing rebellion. On the other hand, more heterogeneous states are more likely to experience rebellion, as are more democratic states. In fact, as a country moves from a form of government somewhat between highly autocratic and highly democratic (10 on a 1 to 20 scale) to a moderately democratic state (16), the probability of observing a rebellion increases by 10 percent. When we set the conditions at what might be the closer to the optimal conditions to eliminate violent conflict (nonrepressive, nondiscriminatory, relatively homogeneous, moderately democratic), we get an 80 percent reduction in the probability of observing violent rebellion.

Finally, similar transformations are presented for the probability of civil war. Again, the baseline reflects the same conditions as above. A change in the level of repression from moderately high to low results in a decrease in the probability of civil war by about 97 percent from the base rate. When viewed from the inverse perspective,

repression may work to quell small-scale protest, but when used in response to more severe threats to the state, it may actually lead to a higher probability of conflict. Moving from low levels of cultural heterogeneity to high levels (30-60) increases the likelihood of civil war by 12 percent, and nondiscriminatory policies result in a 90 percent reduction in the probability of civil war. In the best of all worlds, where most indictors are set to a level conducive to nonviolent actions—if not peace—there is only less than a 1 percent chance of observing civil war, something akin to eliminating it from the range of likely events.

DISCUSSION

The results of our analysis point to interesting inferences about the conditions that contribute to the propensity for protest, rebellion, and civil war. At the outset, it is evident that these three outcomes are not the same. That is, the conditions under which states will experience nonviolent political protest appear to be quite different from the conditions that will lead a citizenry to organize an armed opposition to state authority. For example, regime characteristics are related to the onset of rebellion but not civil war or nonviolent protest. When a country is highly autocratic, there is a considerably lower probability of violent rebellion, but when the political institutions allow some forms of popular participation, the likelihood of rebellion increases. From an inflection point, higher levels of democratic institutions lead to lower levels of antistate rebellion. Even though the results are not statistically robust, the direction of the relationship appears to be the exact opposite for nonviolent protest. There are prescriptions in this result that might point to the way in which states—or international organizations—cater to the demands of the people in countries undergoing some of the rudimentary steps toward democratic governance. For instance, ensuring a mechanism for opposition groups to protest what they see as failed policies of the state might circumvent some of the pressures for these groups to organize into armed opposition.

Resource distribution—as indicated by the extent of political discrimination—is one of the strongest predictors of the onset of violent forms of antistate activity. One implication is that individuals react to calculations of relative wealth or income less so than they do to absolute penury. This result supports much of the early theoretical work on relative deprivation and inequality as explanations for rebellion and might also point the way for further exploration of the role of cultural heterogeneity as a factor associated with civil war. If dominant groups within society are distributing the resources in a manner inconsistent with their demographic representation, then this might account not only for why indicators of ethnolinguistic measures are associated with conflict but also the vehicle behind the relationship between distributional indicators and civil war.

Repression stands out as one mechanism that both appears to control low levels of disenchantment with state policies and yet fuels the mobilization of armed opposition to the state. Gurr (1970) suggested a curvilinear relationship between repression and rebellion, and to a large degree, this is borne out by our analysis. According to our results, if a state engages in high levels of political repression, then the likelihood of

nonviolent protest drops substantially over that of a similar state that does not repress. In effect, repression works to cut off protest activities, but this does not imply that repression is necessarily an effective tool of political control. In fact, our results suggest that highly repressive states have a far greater probability of experiencing a civil war. We infer from this that repression might work with largely unorganized groups but that by repressing, a state might be facilitating that organization. In effect, when the response by the state is sufficiently threatening, potential rebels seek protection from the rebel organizations. The private good they seek is to avoid state-led abuse, and in return, they offer their services to the rebellion.

Two other elements of the contemporary debates about the onset of civil war and lesser forms of antistate activities are addressed by our results. The first is the relationship between access to extractable resources and the ability of opposition groups to mobilize against the state. Much of the current debate suggests that access to resources facilitates the mobilization process and, in effect, serves as a means to purchase rebel labor. Our results point to a different inference. Using diamonds, gemstones, and opiates as our indicator of extractable resources, we find that they bear no relationship to the onset of protest or rebellion and that they are associated with a decreased probability of observing civil war. While we posited the opposite relationship than our data demonstrate, we speculate on why this may be so.

Easily extractable and marketable resources that could be used to fund a rebellion need to be localized, valuable, and easily recoverable. This gravitates toward precious stones and illegal opiates. Precious stones, however, are often mined in industrialized countries that, in general, experience less rebellion than others. Our data, then, would pick up both an increased frequency of precious stone mines and a decreased propensity to rebellion and civil war. Conversely, these same countries might be more likely to experience and tolerate nonviolent protest activities. But even rich industrial countries do not produce opiates as a matter of course, and therefore illegal opiate production would generally be relegated to the less developed part of the world, precisely those countries that would be less tolerant of protest and more likely to experience rebellion and/or civil war. Furthermore, we might be overly ambitious to expect the existence of a diamond mine, for instance, to bear much of a relationship to the onset of antistate violence, but once such violent rebellion has begun, exploitable resources may be a critical element is sustaining a civil war. This topic should be—and, to some extent, has been—taken up by others.

CONCLUSION

The results of our analysis of the factors that lead to protest, rebellion, and civil war suggest that although there are many similarities in the underlying processes, there are also significant differences. For example, repression is one of our strongest predictors of protest, rebellion, and civil war, but that relationship displays a different directional impact depending on the outcome. Repression will tend to decrease protest but increase rebellion and civil war. This is consistent with arguments about the role of protection as one vehicle to overcome the collective action problem.

We also advance the notion that civil war is part of a complex process that probably starts at lower levels of antistate activity and, if handled poorly at low levels, might escalate to higher levels, including large-scale and organized violence. That is, the etiology of civil war is rooted in grievances and responses by the state to demands that are not necessarily initially expressed in terms of organized armed rebellion.

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