Constrained by the bank and the ballot: Unearned revenue, democracy, and state incentives to repress

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Abstract

Why does the discovery of oil lead to increased government repression in some countries and not others? Why is there variance in the extent to which democracy constrains state violations of human rights? We assume that an executive's propensity to use violence against citizens is a function of the extent to which he is dependent on his citizenry. We assume that executives can be dependent on their citizenry in two ways: (1) at the bank for financial resources, and (2) at the ballot box for political support. We argue that these considerations jointly influence executive decisions to engage in state repression, and consequently, observed human rights abuse. Using a dataset of 146 countries from 1981 to 2011, we find that democratic institutions have a moderating effect on the positive relationship between unearned revenues and human rights violations. Further, decreased reliance on citizens for revenue does not weaken and may actually strengthen the pacifying effect of democratic institutions on state terror. Our results suggest that pursuing democracy is a useful way to reduce political violence, both directly and indirectly, even in the presence of a resource curse. Furthermore, the discovery of oil and other unearned revenues is unlikely to undermine the positive relationship between democratic institutions and domestic protections for human rights.

Keywords

Democracy, human rights, natural resources, repression

Introduction

Although the discovery of natural resources increases a country's overall wealth, heightened revenue from oil is positively associated with civil war (Collier & Hoeffler, 2001; Ross, 2006) and negatively associated with political and economic development (Karl, 1997; Shafer, 1994; Sachs & Warner, 2001).[1] Recent research suggests

that the discovery of oil leads to an additional resource curse: increases in state repression (Bueno de Mesquita & Smith, 2009; DeMeritt & Young, 2010; Smith, 2008). In the early 1990s, for example, oil was the mainstay of Nigeria's economy, accounting for over one-third of export revenues and 60% of all government revenue, and providing around 96% of Nigeria's dollar receipts (Frynas, 2000: 9–10). As the state's dependence on natural resource income increased, so did its willingness to use violence against civilians: By the early 1990s

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[1] See Alexeev & Conrad (2009), Basedau & Lay (2009), Brunnschweiler & Bulte (2009), Fjelde (2009), and Kurtz & Brooks (2011) for recent challenges and refinements of this conventional wisdom.

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extrajudicial killing, arbitrary detention, floggings, rapes, looting, and extortion were pervasive throughout the country (HRW, 1995).[2] Although many countries fall prey to this variant of the resource curse, there are exceptions. In Norway, oil exploration began in the late 1960s. Exports of oil and gas grew over the next 20 years and by the late 1980s amounted to about half of Norwegian exports by value (Knudsen, 1990: 103). Unlike in Nigeria, however, Norway's reliance on natural resource revenues has had no subsequent impact on repression, and the country maintains widespread respect for personal integrity rights (AI, 2009).

A separate line of research finds that democratic institutions reduce leaders' tendencies to repress (e.g. Davenport, 2007b; Davenport & Armstrong, 2004; Poe & Tate, 1994). In Argentina, for example, the (re)emergence of democracy led to investment in and increased respect for human rights. In the early to mid-1980s, the newly elected leadership drafted and approved a set of laws designed to investigate and punish abusers, and worked to form 'a social consciousness against human rights abuses' (Nino, 1991: 2630). Like the relationship between natural resources and rights, however, the link between democracy and improved respect for human rights is not absolute. At the same time that democracy reduced abuse in Argentina, the democratic institutions of Venezuela failed to constrain its repressive leadership. Instead, that country experienced an increase in human rights violations including arbitrary detention, torture, and extrajudicial killing (e.g. Arat, 2003). Despite being the oldest uninterrupted constitutional democracy in Latin America, 'Venezuelan democracy [did] not guarantee ... respect for human rights' (Rohde, Fellner & Brown, 1993: 1).

Why does unearned revenue lead to repression in some countries and not others? Why do democratic institutions reduce rights violations in some – but not all – states? In this article, we develop a theory that speaks to both questions. We assume that an executive's propensity to use violence is a function of the extent to which he is dependent on his citizenry to stay in power. Executives can be dependent on their citizenry in two ways: at the bank and at the ballot box. With regard to the bank, we follow Bueno de Mesquita & Smith (2009), DeMeritt & Young (2010), and Smith (2008) and argue that natural resources decrease the government's reliance

on citizens for income and thereby increase a leader's propensity to repress. However, previous work on natural resources and state terror fails to make use of a large literature on the ballot and rights violations. In a finding commonly known as the 'domestic democratic peace', democracies consistently repress less often and less severely than their autocratic counterparts (e.g. Davenport, 2007b; Davenport & Armstrong, 2004; Poe & Tate, 1994).

We draw from these previously divergent literatures and argue that although decreased reliance on citizens for revenue may lead to more widespread and severe abuse, this relationship is constrained by the extent to which the state is democratic. A state that does not rely on citizens for income is more likely to repress, but if domestic institutions constrain repression or make it a costly policy, we do not expect to observe abuse. This stylized story fits the examples above. Conversely, a state that relies heavily on citizens for income will not abuse citizens regardless of how institutionally (un)constrained the leader may be. Under this simple framework, we can also explain patterns of respect for personal integrity rights in non-democratic states with little or no external income from fuel (e.g. Ghana, Morocco, or Jordan). Fortunately, the extent to which leaders do not depend on their populations for revenue cannot undermine the positive impact of democratic institutions on human rights abuses. Instead, decreased reliance on citizenry at the bank may not affect, or may actually strengthen, the pacifying effect of democratic institutions on state power. Our results suggest that pursuing democracy is one way to reduce political violence, even in the presence of a potential resource curse.

This juxtaposition of work on natural resources and regime type establishes the previously unrecognized possibility that leaders face heterogeneous constraints when deciding whether and how much to repress. Although previous research has discussed the ways in which unearned revenues and democracy separately affect domestic respect for human rights (e.g. Bueno de Mesquita & Smith, 2009; DeMeritt & Young, 2010; Smith, 2008), we show that each type of population dependence is dependent upon the other. Our population dependence theory also provides a broad framework under which future research can further investigate influences on human rights violations as well as a wide range of other political phenomena. We contribute to the literature by using our conditional theory to generate hypotheses about the effect of ballot constraints on the relationship between bank constraints and repression as well as about the effect of bank constraints on the

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[2] We focus in particular on the violation of physical integrity rights including extrajudicial killing, torture, disappearance, and political imprisonment (Cingranelli & Richards, 1999; Poe & Tate, 1994).

relationship between ballot constraints and repression. This practice is a stronger test of a conditional theory than the more common practice of developing only one of the two modifying relationships; consequently, it improves our confidence in the value of our theory (Berry, Golder & Milton, 2012). Lastly, by studying the interaction of domestic and international influences on state behavior, we continue to blur the distinction between International Relations and Comparative Politics (e.g. Bueno de Mesquita et al., 2003; Lake & Powell, 1999). As we show below, discarding this traditional distinction reveals new explanations for human rights abuse.

Population dependence and state repression

Executives are better able to use violence on their citizens when they are not dependent upon their support to remain in office. Here, we are particularly interested in whether the leader can violate human rights without facing significant threats to his grasp on power. In making decisions about state repression, leaders consider the potential benefits of repressive action (e.g. longer tenure in office) and the potential costs of institutional constraints (e.g. electoral removal, domestic adjudication). To date, the literature focuses on two means by which executives depend on constituent support to remain in power.

First, there is a link between natural resource wealth and civil war (Collier & Hoeffler, 2001; Ross, 2006), and recent work on the resource curse highlights another negative effect of the discovery of natural resources: increases in state repression (Bueno de Mesquita & Smith, 2009; DeMeritt & Young, 2010; Smith, 2008). When the state depends on a productive citizenry to generate tax revenues, the leader is less likely to abuse human rights. Because natural resource wealth provides the leader with a stream of income that is less dependent on the populace, human rights violations often increases in the wake of natural resource discovery. Second, another line of scholarly work highlights the effect of democratic institutions on state terror. Because they require the executive to depend on the citizenry institutionally in order to remain in power, democratic regimes are consistently found to engage in less frequent and less severe abuse than non-democracies (e.g. Davenport, 2007b; Davenport & Armstrong, 2004; Poe & Tate, 1994).

Constrained at the bank: Revenues and human rights

Leaders rely on income to satisfy their citizens and to rule with minimum threat to their tenure in office (e.g. Levi, 1989; Snyder, 2006; Thies, 2005). This is because

leaders require quiescence from their populations to maintain power. How does state income affect citizen quiescence? Depending upon the number of supporters necessary for a leader to survive in office, leaders can pursue quiescence through the provision of public goods (to satisfy a large winning coalition) or the provision of private rewards (to satisfy a small winning coalition) (Bueno de Mesquita et al., 2003). Both policies are costly; regardless of how a leader pursues survival, he requires revenue to successfully provide either public or private goods. As state revenues rise, leaders are increasingly successful in pursuing quiescence, regardless of the size of the selectorate (Bueno de Mesquita et al., 2003; Bueno de Mesquita & Smith, 2009; Smith, 2008).

Bueno de Mesquita et al. (2003) suggest that revenues increase quiescence because states are able to satisfy the subsets of their populations that must be satisfied in order to remain in power. We submit that oil revenues also increase quiescence by increasing the state's ability to repress civilians. Two assumptions underlie this claim. First, government power is a function of the resources it controls (Levi, 1989). As leaders increasingly monopolize economic resources, they become more powerful. Second, we assume that powerful states are able to implement their goals vis-à-vis other groups in society (Migdal, 1988). More powerful states are better able to implement desired policies, including repression.

We do not argue that increasing overall revenue leads to heightened observed repression. Instead, the ability to repress and observed rights violations are distinct concepts. If they were not, then more powerful states would repress at higher rates than others. The literature on which we build demonstrates quite the opposite: strong states that can easily repress generally do not. Instead, they rely on less coercive means to implement goals and maintain control (e.g. Henderson, 1991; Levi, 1989; Migdal, 1988; Young, 2009). Part of the explanation can be found in the literature on threat (e.g. Gurr, 1988; Moore, 2000; Poe, 2004), which we engage below. Yet dissent does not explain all observed variance in repression among strong states; we believe another important part of the story is the conflation of earned and unearned income and we build on existing work by developing this distinction below.

Regardless of whether a leader pursues survival by providing public or private goods, he needs revenue to succeed. Where does revenue come from, and how can it help explain patterns of observed repression? State income generally comes from one of two places. One potential source of revenue comes from citizens and domestic business. We refer to this type of government

income as earned revenue.[3] The primary stream of earned revenue to the state comes through taxation, which makes human rights violations costly for two reasons. First, repression reduces citizens' perceptions of a fair and credible tax system and thus makes them less willing to cooperate with tax laws. It affects widespread satisfaction more than the satisfaction of private audiences. As the public is increasingly repressed, it is decreasingly willing to contribute to national wealth.[4] Second, violations of human rights may reduce revenue by removing citizens from the workforce. Smith (2008: 780) describes earned income as 'taxation on productive economic activities', and this language underscores the link between repression and earned revenue. As the average citizen faces a higher probability of enduring human rights abuse at the hand of the state, her likelihood of being able to work and contribute to national wealth decreases. Thus, leaders must weigh the benefits of abuses (e.g. quelling dissent within the populace) against its costs (e.g. lost revenue as compliance declines and citizens are removed from the workforce) when deciding whether or not to violate human rights.

Importantly, not all states are equally reliant on the populace to generate government wealth. Some leaders can raise funds without popular support through 'free resources' (Bueno de Mesquita & Smith, 2009; Goldsmith, 2001; Smith, 2008), including natural resources like oil. Diamonds and metals are other common examples of free resources or unearned revenue (Humphries, 2005; Le Billon, 2001), as is foreign aid (Goldsmith, 2001; Smith, 2008). Theoretically, we expect these forces to affect repression in the same way as oil, but focus only on the latter in the pursuit of parsimony. We call this type of government income unearned revenue, and it is the main type of revenue of interest for our arguments about human rights abuses.

When states rely on their citizens for income, they are unlikely to risk alienating those citizens and thereby undermining their grasp on power. Unlike earned income, unearned revenue does not require a credible state or popular compliance. When the state gets income from the ground instead of from citizens, it can rely on a coercive apparatus to maintain order. Where that apparatus is in place and able to promote quiescence,

repression is less costly and leaders learn that violence works (Gurr, 1988). Where unearned revenues are higher, the state is less dependent on satisfying citizens to remain in power (Karl, 1997; Shafer, 1994). Instead, leaders accumulating unearned revenue can increasingly consider repressing civilians. States that acquire revenue from natural resources are less reliant on citizens for cash flow than their non-resource-wealthy counterparts. With that decrease in reliance on the populace comes a decrease in the costs of human rights abuse. These states are both wealthy enough to violate human rights and less concerned than their tax-reliant counterparts about undermining productive (i.e. tax-based) sources of income that are dependent on individual citizen compliance and productivity. Put generally, the costs of repression fall as leaders decreasingly rely on citizens for taxable revenue.

Constrained at the ballot: Democracy and human rights

In addition to considering the tax base, leaders must also consider institutional costs when making decisions about human rights abuses. Within a given country, leadership must see repression as a useful policy to promote quiescence and maintain power, even after accounting for additional considerations. We argue that a state's political regime type affects the potential costs of repression and thus leaders' willingness to engage in repression against their citizens.

Democratic institutions that diffuse power across actors are less prone to violence than institutions concentrating power in a single individual (e.g. Bueno de Mesquita et al., 1999, 2005; Powell, 1982; Rummel, 1994).[5] The link between democracy and a decreased willingness to commit violence is not new in international conflict: Gartzke (1998: 2) argues, 'Current explanations ... share the conviction that something associated with joint democracy constrains or mitigates the conflict behavior of democratic nations. That is, bases for contention between democracies exist, but they are contained by some mechanism unique to, or far more developed between, democratic states' (Gartzke, 1998: 6–7). Prevailing democratic norms influence the tactics leaders use to quell dissent, and 'most Western democracies have evolved non-violent styles of responding to challenges' (Lichbach & Gurr, 1981: 10). Democracies have similar national preferences, including those against

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[3] Bueno de Mesquita & Smith (2009) and Smith (2008) distinguish between earned and unearned income and show that unearned income affects leaders' tendencies to alter public goods provisions in the face of a revolutionary threat.

[4] This is not true in a private rewards system, where the small winning coalition is unlikely to be victimized by repression.

[5] Others argue that democratic norms play an important role in encouraging the peaceful resolution of disputes (e.g. Finnemore & Sikkink, 1998; Maoz & Russett, 1993).

international violence. The democratic peace functions through this mechanism; since a democratic dyad is composed of two states less likely to go to war, they are unlikely to go to war with one another (e.g. Maoz & Russett, 1993; Russett, 1994).

The peaceful dyadic relationships between democracies are echoed by an empirical finding about violence within states known as the domestic civil peace (Hegre et al., 2001) or domestic democratic peace (Davenport, 2007b): on average, democratic leaders are less likely than their non-democratic counterparts to use violence internally (Benson & Kugler, 1998). They engage in fewer civil-war years than other states (Krain & Myers, 1997) and tend not to kill their own citizens (Rummel, 1995). Democracies are also less likely than other states to engage in widespread human rights violations (e.g. Davenport, 1999, 2007b; Davenport & Armstrong, 2004; Poe & Tate, 1994).

Leaders are motivated by their desire to retain power, and the use of repression threatens executive survival differently in democracies and non-democracies. Democratic institutions make human rights violations costly in two ways. First, diffusion of power means that government structures outside the executive create hurdles to implementing violent policies (Krain, 2000; Rummel, 1997).[6] As Davenport & Armstrong (2004: 540) note, 'the actions of one government authority can be blocked or countered by another'. Attempting to repress, only to be so blocked, weakens the leader's monopoly on the forces of coercion (Gurr, 1988). Since leaders are motivated to maintain power, this weakening impact is a direct cost of attempted, failed abuse. Alienating other government entities with repression may also have longer-term costs for the leader, making it difficult for him to implement other desired, potentially non-repressive policies down the road. Second, democracy provides institutionalized mechanisms by which to air grievances against the state (Benson & Kugler, 1998; Collier & Hoeffler, 2001). This argument is prevalent in the comparative politics literature, which argues that participation makes it possible to resolve conflict without violence (Powell, 1982: 154; see also Lijphart, 1984; Shugart & Carey, 1992). The most direct way to punish an abusive leader is by removing him from office via popular vote (e.g. Benson & Kugler, 1998; Poe & Tate, 1994). As Davenport (2007a: 10) notes, 'democratic

institutions are believed to increase the costs of using repressive behavior because, if their actions are deemed inappropriate, authorities can be voted out of office'.

Democratic institutions leave leaders vulnerable to punishment for repression. 'Because democratic leaders are more accountable to everyday citizens as well as to elites . . . they become less willing to provoke the wrath of these constituents (which theoretically could result in their removal from power)' (Davenport, 1999: 96). Repression threatens leaders' survival in office, and that threat is stronger in democracies than in other regimes. Put generally, costs of abuse rise as a state is increasingly democratic.

Conditional impacts

We argue that incentives to abuse human rights vary with the anticipated costs of repression. Those anticipated costs decline as states depend more on unearned revenue and less on citizens for income. They increase as democratic institutions leave leaders vulnerable to punishment for abuse. However, we did not posit hypotheses about the independent effect of either type of population dependence on state repression. This is because we expect the balance between these considerations to impact the leaders' decisions about repression, and consequently, observed human rights abuse.

Population dependence at the bank and ballot are not independent concepts.[7] For abuses to be observed, we believe lack of population dependence of both types must exist concurrently. Our argument is not simply that unearned income and the lack of democracy inevitably lead to more repression. Instead, we believe that the relationship between unearned revenue and repression is affected by regime type and vice versa. Unearned wealth increases state incentives to repress, while democracy decreases those incentives. *Ceteris paribus*, unearned income leads to more repression. As the level of democracy increases, however, that positive relationship grows weaker. States with high levels of unearned wealth face incentives to repress when they are not otherwise constrained by democratic institutions. As states dependent on unearned revenue become increasingly constrained at the ballot box (and via other domestic democratic institutions), leaders are not as free to violate rights. This discussion leads to our first hypothesis about the

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[6] Diffuse power only prohibits repression when the status quo is peace; when the status quo is repression, it may inhibit the termination of violations (e.g. Conrad & Moore, 2010).

[7] This is in line with the literature on rentierism, which argues that governments use UER to alleviate social pressures that might otherwise lead to demands for democratic reforms (e.g. Beblawi, 1990; Luciani, 1990; Mahdavy, 1970).

conditioning effect of democracy on the positive relationship between unearned wealth and state violations of human rights.

> _Hypothesis 1_: The positive effect of unearned revenues (UER) on state repression weakens as democracy increases.

Our conditional theory also generates a hypothesis about the effect of bank constraints on the relationship between ballot constraints and state terror. Although generating conditional hypotheses about the modifying impact of Z on the relationship between X and Y is becoming commonplace in the literature on state repression and human rights, stronger tests of conditional theories require an additional hypothesis about the modifying impact of X on the relationship between Y and Z (Berry, Golder & Milton, 2012). Our theory suggests not only that democracy mitigates the problematic relationship between unearned revenues and human rights, but also that unearned revenue may weaken the positive association between democracy and state protections for human rights.

Democratic executives depend on a majority of the citizenry for political power, which constrains their ability to repress. Simultaneously, leaders rely less on citizens for financial support when they experience natural resource windfalls. Incentives to repress increase as a result. Increasing freedom at the bank works against the desirable impact of democracy so that, in general, the negative impact of democracy on abuse is weakened by the danger of natural resource wealth. Democratic states are constrained from abuse when they also rely on citizens at the bank. As they become decreasingly constrained at the bank, leaders are freer to violate rights. Thus, we expect the negative impact of democracy on state repression to be weaker in states with high levels of unearned revenue. Our second hypothesis about the extent to which unearned wealth conditions the negative relationship between democracy and state repression is as follows.

> _Hypothesis 2_: The negative effect of democracy on state repression weakens as unearned revenues (UER) increase.

Although the effects of democracy and unearned revenue on human rights have been investigated separately, their joint impact has not been investigated until now. As suggested by Berry, Golder & Milton (2012), we generate conditional hypotheses about (1) the modifying effect of democracy on the relationship between unearned revenue and state repression, and (2) the modifying effect of unearned revenue on the relationship between democracy and state repression. We present and test both hypotheses, assuming that each constraint exerts similar levels of pressure on executive decisions to repress. It is possible, however, that one pressure exerts a greater influence on the executive than the other. Because this project is the first to examine the joint effect of democracy and UER on human rights, we prefer to determine empirically whether or not one pressure is stronger than the other.

Data and empirics

We test our hypothesis with a time-series cross-sectional (TSCS) research design. Unfortunately, data on resource rents are notoriously limited in coverage (Collier & Hoeffler, 2005). To increase confidence in our results, we measure the concept 'unearned revenue' in two ways: with a continuous measure of fuel rents per capita (fuel rents; Ross, 2008), and with a binary measure of states earning at least one-third of all export revenues from oil (oil exports; Fearon & Laitin, 2003). Our temporal domain begins in 1981, changing slightly across our measures of unearned revenue. Temporally, the data on fuel rents are available through 2001, while data on oil exports are available through 1999. Spatially, our fuel rents data include 92 countries for which all variables are available over the temporal domain. Our spatial domain extends to 146 countries when we instead employ a measure of oil exports.[8]

Dependent variables

We are interested in the joint effect of unearned revenues and democracy on state repression. As a result, our dependent variable captures the extent to which states engage in violations of the physical integrity of the person: the Political Terror Scale (PTS; Gibney & Dalton, 1996; Wood & Gibney, 2010).[9] The PTS index is particularly useful for our purposes because it incorporates the presence and severity of the full set of rights we use to define state physical integrity violations: political imprisonment, disappearance, torture, and extrajudicial killing. PTS ranges from 1 to 5, with higher values capturing increasing levels of personal integrity abuse within

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[8] A list of countries included in each spatial domain can be found in our online supplement.

[9] In our online supplement, we show that our results are robust to using the Cingranelli-Richards (CIRI) personal integrity rights index (Cingranelli & Richards, 1999) as our dependent variable.

a given country-year. PTS provides two measures, one based on Amnesty International (AI) Annual Country Reports and the other based on United States State Department Country Reports on Human Rights Practices. We use the data coded from US State Department reports because its coverage is more consistent and it covers more countries over the time period being analyzed than the AI-based alternative.[10]

Independent variables

We operationalize one manner of population dependence via unearned state revenues. We consider state revenues to be 'unearned' if they do not rely on the citizenry for their accrual. As noted above, we measure this concept in two ways. First, we use data on fuel rents from Ross (2008). The variable measures oil production value as per capita rents from oil and natural gas, less country-specific extraction costs (including the cost of capital). To simplify the presentation of these results, we take the natural log of each observation. Second, we use data on oil exports from Fearon & Laitin (2003) that identify those countries earning at least one-third of all export revenues from oil. Although this measure does not match our concept as closely as the Ross (2008) variable, as noted above it has the distinct advantage of having a much larger spatial domain. We include it to increase confidence in our results and inferences.

Next, we measure dependence on the population at the ballot with political regime type. This is an appropriate operationalization because as a state becomes more democratic, its institutions make repression increasingly costly. Although there is some debate in the literature about the appropriate way to conceptualize and measure democracy (e.g. Bollen & Jackman, 1989; Cheibub, Gandhi & Vreeland, 2010; Munck & Verkuilen, 2002), measurement decisions should be made based on research questions (Collier & Adcock, 1999). Because we are interested in how the level of democracy affects human rights abuse, we measure democracy using the Polity IV democ-autoc scale, which ranges from –10 to 10 with higher values capturing increasing levels of democracy (Marshall & Jaggers, n.d.).[11] To test our interactive hypotheses, we create interaction terms that multiply regime type by each measure of UER.

We are interested in the effects of regime type and UER on personal integrity abuse. To increase confidence in our results on these relationships, we include in our models other factors that we expect are related to our key independent and dependent variables (Achen, 2002; Ray, 2005). First, because state wealth and income tend to be related to government coercion (Davenport, 1995, 2007a; Poe & Tate, 1994; Ziegenhagen, 1986) and are likely correlated with our other covariates, we control for gross domestic product (GDP) per capita and the natural log of midyear population using data from the Penn World Tables and the World Bank.

Second, threats to the state raise the benefits of repression and therefore increase its occurrence. We have argued that population dependence increases the costliness of repression, and therefore reduces its occurrence. Yet above, we assume that leaders consider both costs and benefits when deciding whether and how much to repress. In line with a large body of research, we assume that a major benefit of rights abuse is its ability to quell internal dissent and thereby (re)assert a monopoly on the forces of coercion (e.g. Franklin, 2009; Gartner & Regan, 1996; Gurr, 1988; Moore, 2000; Poe, 2004). This work argues that the regime's preference for and use of repression increase with the level of domestic threat. The benefits of human rights abuses (e.g. the need to quell domestic threat) vary. To test our hypotheses, which follow from an argument about changing costs, we need to consider and control for that variance.

We consider threat in three ways. First, the most immediate threat a regime can face is a full-scale civil and/or international war (Poe & Tate, 1994). We include a binary indicator from the Correlates of War (COW) project, which equals 1 in country-years experiencing civil and/or international wars (Sarkees, 2000). Next, domestic dissent also presents a threat to the state, increasing the benefits of repression and therefore its occurrence (Davenport, 2007b; Franklin, 2009; Lichbach, 1987; Moore, 2000). We measure dissent using the Banks Cross- Sectional Time-Series Data Archive, creating a count of the number of violent acts against the state (guerrilla tactics, riots, and assassinations) that occur in each country-year. Third, if governments respond to threats with repression, then past values of the two should covary positively: higher levels of recent violations capture, at least in part, higher levels of recent threat. We control for this with a one-year lag of our dependent variable. By controlling for threat in these ways, we believe we can estimate the effects of changing costs (i.e. revenue and regime type) on subsequent human rights abuse.

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[10] Results using the AI-based PTS alternative are available in our online supplement.

[11] We engage alternative conceptualizations of democracy, theoretically and empirically, in the online supplement. Results are robust to each consideration.

Model specification

Since our dependent variable is categorical and ordered, we model repression using ordered logit. Previous studies have used Ordinary Least Squares (OLS) to model this outcome (Davenport & Armstrong, 2004; Poe & Tate, 1994). While OLS has a more straightforward interpretation, it also assumes that our dependent variable is continuous and normally distributed. Using OLS when these assumptions are violated can lead to inefficient and/or inaccurate estimates (King, 1986). Because there are only five categories in the PTS measure, we prefer not to use OLS and focus on results from ordered logit analyses (Kastellec & Leoni, 2007).[12] Temporal dynamics are addressed with a one-year lag of the dependent variable (Davenport, 2007a) and error correlation within panels is handled through robust standard errors clustered by country (Rogers, 1993).

Results and discussion

We hypothesized that democracy weakens the positive effect of unearned revenue and that unearned revenue weakens the negative effect of democracy on repression. We test this hypothesis using the Polity IV democracy–autocracy scale (Marshall & Jaggers, n.d.), two measures of UER, and the interaction of our Polity scale with both measures of unearned revenue on the Political Terror Scale. Table I demonstrates, as established in existing work and suggested by our theory, that democracy decreases and natural resources increase states' overall propensities to repress. Democracy is negatively signed in all models and statistically significant in two, while our natural resource measures are positively signed and significant in all models.

Recall, however, that we do not hypothesize independent effects of UER and democracy on state repression; instead, we expect the two to interact in influencing human rights abuses. We determine support for our hypotheses in three ways. We begin, as recommended by Berry, DeMeritt & Esarey (2010), by examining the statistical significance of our product terms. The interaction term is negatively signed in all models, and statistically significant in one. As Berry, DeMeritt & Esarey (2010) demonstrate, this provides mixed support for the expectation that regime type and unearned revenue interact in influencing the state's underlying, unbounded propensity to repress. Do the same variables interact to

Table I. Estimated impacts on government repression

	β *(r.s.e.)*	β *(r.s.e.)*
Fuel rents	0.112***	
	(0.035)	
Oil exporter		0.692***
		(0.187)
Democracy	−0.022	−0.038***
	(0.015)	(−0.028)
UER*Democracy	−0.008**	−0.028
	(0.003)	(0.021)
GDP	−0.0001***	−0.0001***
	($9.34e^{-6}$)	($8.52e^{-6}$)
Population	$1.18e^{-7}$	$2.14e^{-7}$
	($2.13e^{-7}$)	($2.55e^{-7}$)
Dissent	0.089**	0.113***
	(0.038)	(0.035)
War	1.542***	1.415***
	(0.199)	(0.149)
PTS_{t-1}	2.529***	2.480***
	(0.129)	(0.099)
N	1598	2443
Pseudo $R^1 2$	0.5132	0.4808
LPL	−1167.7857	−1902.1924
Wald $x^2 2$ (3 df)	38.03***	53.75***

***$p \leq 0.01$, **$p \leq 0.05$, *$p \leq 0.1$ (two-tailed). Dependent variable: PTS. Models estimated via ordered logit. Robust SEs (clustered by country) in parentheses. Wald χ2 tests show whether our key independent variables, taken together, impact the severity of repression.

influence the severity of observed repression in the manner suggested by our theory?

A growing body of recent work suggests that we cannot draw inference about interaction solely from the statistical significance of a product term (e.g. Berry, DeMeritt & Esarey, 2010; Brambor, Clark & Golder, 2006). Brambor, Clark & Golder (2006: 74), for example, show that 'it is perfectly possible for the marginal effect of X on Y to be significant for substantively relevant values of the modifying variable Z even if the coefficient on the interaction term is insignificant'. Thus, although only one of our product terms is significant at conventional levels, we continue to examine support for our hypotheses in all models. We next examine Wald χ2 tests. These tests determine whether our three key independent variables, taken together, impact repression (Wooldridge, 2003: 143–148). The results in Table I support our expectation of interaction: regardless of which measure of UER we employ, it interacts with regime type to influence rights abuse. The joint significance tests in the bottom row of Table I show that democracy, oil, and their combination exert a statistically significant effect on repression in all models.

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[12] Results using OLS are in our online supplement.

Next, as recommended by Berry, DeMeritt & Esarey (2010) and Brambor, Clark & Golder (2006), we examine predicted substantive effects. We construct plots showing how the predicted effect of one variable varies with the value of another.[13] Figure 1 presents the mediating effect of democracy on the positive relationship between unearned revenue (as measured by the natural log of fuel rents per capita) and the probability of a country-year experiencing widespread repression (PTS=3 or 4).[14] The dark lines show the central predicted effects of UER in democracies (solid line) and autocracies (dashed line). The gray lines represent 95% confidence intervals around each of these effects.[15]

Both panels in Figure 1 show that increasing UER increases the severity of human rights abuse regardless of regime type. But the magnitude of the effect of unearned revenue on the probability of widespread abuse is smaller in democracies than in autocracies. When revenues from oil and gas are lower, there is no significant difference between the expected probabilities of widespread abuse across regime types. As revenues from unearned resources increase, autocracies become 30% more likely to be coded PTS=3 and 1.5% more likely to be coded PTS=4. In the same situation, democracies become 24% more likely to be coded PTS=3 and 0.9% more likely to be coded PTS=4. These results support our first hypothesis: the positive impact of UER on the probability of widespread repression is weaker in democracies than autocracies. As fuel rents increase, democracy has an ever stronger effect on constraining repression.

Figure 2 presents the moderating impact of democracy on the relationship between UER (oil exports) and repression. Oil exporters are more likely to engage in widespread repression, and regime type affects this relationship. In the top panel of Figure 2, an autocracy that becomes an oil exporter increases Pr(PTS=3) by 12%, and the difference is statistically significant. In the same panel, the overlapping confidence intervals for democracy show that becoming an oil exporter has no significant impact on the likelihood that PTS=3. Moving to the bottom panel of Figure 2, the general pattern remains the same. Becoming
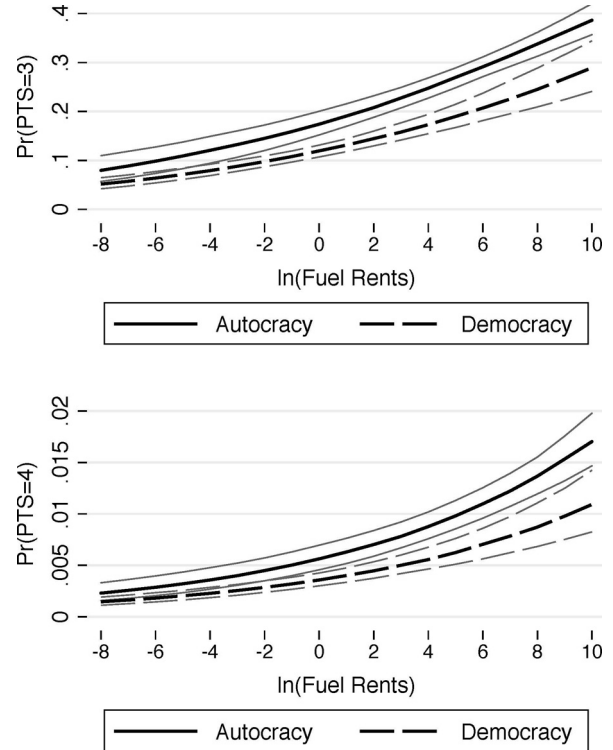

Figure 1. Moderating impacts of democracy on the relationship between UER (fuel rents) and repression
Source: Table I, column 1. Values are predicted probabilities of being in each PTS category as revenues from oil and natural gas increase for full autocracies (Polity = –10) and full democracies (Polity = 10).

an oil exporter doubles Pr(PTS=4) from 1% to 2%, while the same increase in UER has no significant impact in democracies. These results further support for Hypothesis 1: oil exports increase the likelihood of widespread repression in autocracies, but the effect is so weak that it disappears in democracies.

Figure 3 shows the mediating effect of UER (ln(fuel rents)) on the negative relationship between democracy and human rights abuse. We present the predicted effects of democracy on the probability of widespread repression (PTS=3 or 4) across meaningful values of UER. Democracy reduces repression, but this figure does not support our second hypothesis. Instead, the negative effect of democracy on state terror appears to strengthen as unearned revenues increase. Democracy has little to no impact on Pr(PTS=3,4) in states with minimum fuel rents. In states earning high levels of unearned wealth from fuel, democracy actually decreases Pr(PTS=3) by 10% and decreases Pr(PTS=4) by 0.6%.

Figure 4 measures UER using the binary oil exporter alternative. Again, democracy reduces repression regardless of natural resource wealth, but the magnitude of that

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[13] Plots were generated using Clarify (King, Tomz, & Wittenberg, 2000) and models presented in Table I. Control variables are held at their median values.
[14] Insights for Pr(PTS=1,2,5) do not differ substantially from those reported herein. Full results are included in our online supplement.
[15] Presenting predicted probabilities this way requires us to dichotomize democracy. As shown in the online supplement, our results hold using marginal effects to estimate impacts of UER and democracy across the full range of the other (modifying) variable.
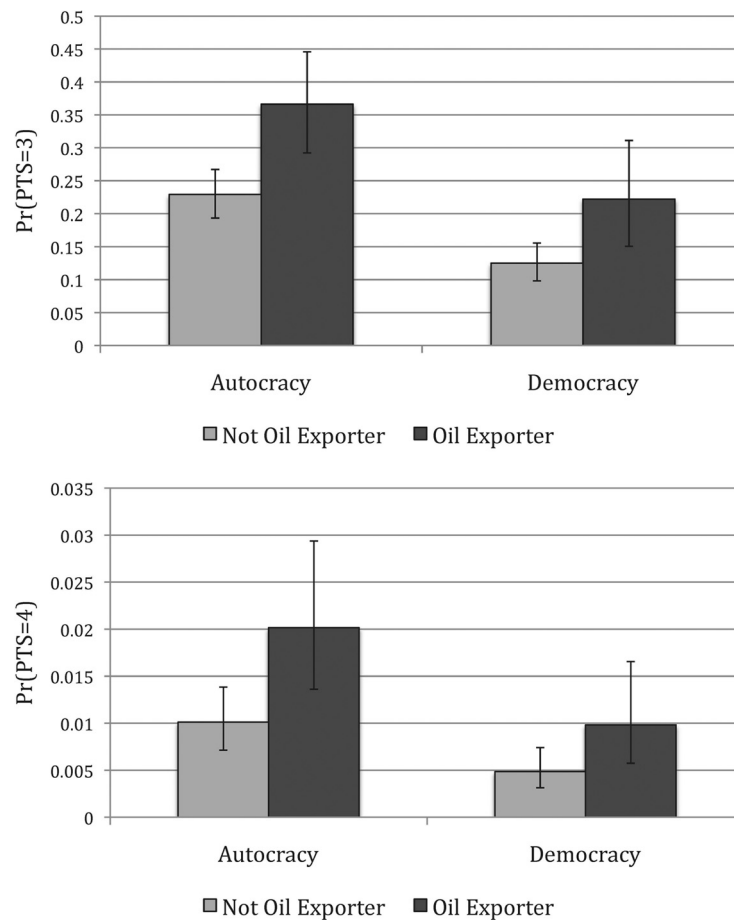
Figure 2. Moderating impacts of democracy on the relationship between UER (oil exports) and repression
Source: Table I, column 2. Values are predicted probabilities of being in each PTS category for states that do and do not earn at least one-third of export revenues from fuel for full autocracies (Polity = –10) and full democracies (Polity = 10).

effect does not weaken with UER. In some cases, it strengthens. Democracy reduces Pr(PTS=3) by 12% in both oil-exporting and non-exporting states. It reduces Pr(PTS=4) by 0.5% in non-exporters, and reduces the same likelihood by 1% in exporters. Figures 3 and 4 do not support Hypothesis 2, but both tell the same story: the pacifying impact of democracy persists as states are decreasingly constrained by the bank. Why might this be the case?

Perhaps when the state is already constrained at the bank, its ability to repress is limited and thus observed repression is already low. Introducing democracy piles constraints upon constraints, and repression decreases a bit more. As the state is decreasingly constrained at the bank, though, its initial ability to repress is less limited. Observed abuse in unconstrained states increases as a result (Bueno de Mesquita & Smith, 2009; DeMeritt & Young, 2010; Smith, 2008). In this context – where there is room for improvement in respect for human

rights – democracy brings new constraints and repression decreases more than it otherwise could. Our empirics suggest that the baseline level of abuse in bank-constrained states is lower than the comparable baseline in other states. If so, then bank-constrained states may simply have less room to improve human rights practices given increases democracy.

Turning to our other results, threat increases state repression. In each of our models, states involved in an international or civil war, states facing high levels of domestic dissent, and states that had high levels of previous repression are more likely than others to engage in human rights abuse. In addition, government wealth has a negative effect on state repression across our models. These results are highly consistent with the extant literature on repression, which increases our confidence in the findings on our hypothesis tests.

We find that ballot constraints attenuate the violent impact of the absence of constraints at the bank. But, the
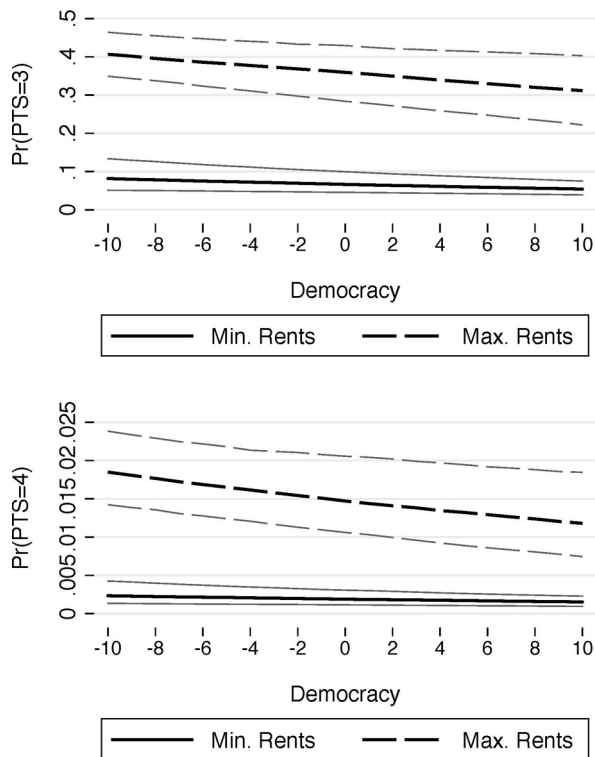
Figure 3. Moderating impacts of UER (fuel rents) on the relationship between democracy and repression
Source: Table I, column 1. Values are predicted probabilities of being in each PTS category as democracy increases for states with minimum and maximum rents from oil and natural gas.

Figure 4. Moderating impacts of UER (oil exports) on the relationship between democracy and repression
Source: Table I, column 2. Values are predicted probabilities of being in each PTS category as democracy increases for states that do and do not earn at least one-third of export revenues from oil.

absence of constraints at the bank does not attenuate the pacifying impact of ballot constraints. From a policy perspective this is excellent news. Yet from a theoretical perspective, it is puzzling: why might democracy attenuate the violence borne of UER, while the reverse is untrue? One possibility begins with recognizing that, to this point, we have treated bank and ballot as equally powerful constraints. Another possibility – supported by our empirics – is that electoral incentives can more effectively constrain abuse than their economic counterparts. When economics allow for repression, regime type can counteract and limit that abuse. But when regime type allows for repression, economics cannot do the same. When states face countervailing incentives to repress, perhaps they do not weigh all incentives equally.

Conclusion

Government repression varies across states because of differently structured domestic political institutions (e.g. Davenport, 1999, 2007b; Davenport & Armstrong, 2004; Poe & Tate, 1994) and threat perception (e.g.
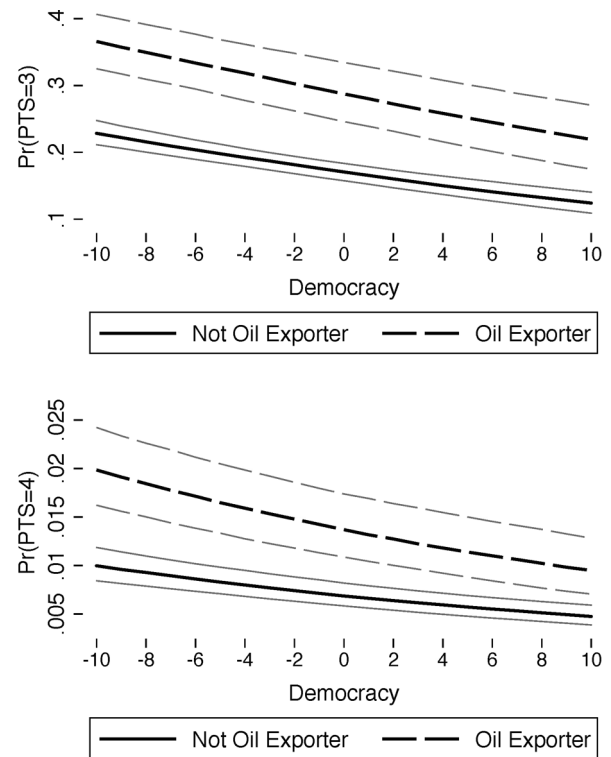
Franklin, 2009; Gartner & Regan, 1996; Gurr, 1988; Moore, 2000). In this article, we propose a more general framework within which to study state repression in which an executive's propensity to repress is a function of population dependence and domestic institutions. We argue that political regime type is an important influence on human rights abuse, while the extent to which the state is (not) reliant on its citizens – either for revenue or for support – proxies for population dependence. We find that decreased reliance on citizens for revenue leads to more severe rights abuse. Importantly, this relationship is constrained by the extent to which a state is democratic.

We do not find support for our second hypothesis that unearned revenue decreases the positive relationship between democracy and respect for rights. Based on our empirical results, democracy appears to be a necessary condition for the protection of human rights. The effect of unearned revenue, on the other hand, depends on the level of institutional level of democracy. For both advocates of democracy and those interested in reducing state incentives to repress, this is good news: democracy can improve rights

in states where executives are not dependent on their citizenry at the bank, but unearned revenue does not appear to undermine citizens' ability to hold their leaders accountable for repression via the ballot.

Unlike previous research on resource allocation (e.g. Bueno de Mesquita et al., 2003; Olson, 1971), our theory explains not only how the distribution of resources matters for state repression, but also how the source(s) of those resources matters for abuse. Following Simon & Starr (1996), we focus both on resource allocation (via regime type) and on resource extraction (via unearned revenue). This more comprehensive treatment of resources reveals previously unrecognized sources of variance in state abuses of rights. Our goal has been to establish, both theoretically and empirically, the possibility that states consider multiple sets of constraints when deciding how much to repress. We find empirical support for this argument, and also uncover the possibility that leaders weigh different constraints differently. Although democracy weakens the violent impact of fuel revenue, fuel revenues do not weaken the pacifying impact of democratic institutions.

This has implications for policymakers and researchers. For policymakers, our findings support and add to prevailing ideas about the value of democratic institutions; not only do they reduce leaders' tendencies to repress, but they also counterweight the violent consequence of resources from oil and gas. This is good news about the constraining power of democratic institutions. Aside from preventing repression on their own, they also limit economic incentives to repress. Our findings on fuel wealth also have policy ramifications. We find that resources from oil and natural gas increase leaders' tendencies to repress. However, this violent effect does not outweigh the pacifying consequences of democratic institutions. Pursuing democracy is one way to reduce violence, even in the presence of a resource curse.

For researchers, our work brings together previously divergent scholarship on the effect of domestic institutions and state wealth on respect for human rights. Under this framework, natural resource wealth – a source of revenue entirely independent of the citizenry – increases human rights violations. Unlike the current literature on the resource curse, we argue that this is not enough to beget repression. Even states with unearned revenues avoid repression if they face ballot constraints that make them unwilling to incur the costs of repression. Although we focus on democracy and unearned revenue from fuel in this article, there are many ways in which scholars can use this framework to increase our understanding of human rights violations. Our results

suggest that democracy and fuel revenue are both able to constrain state behavior, but that – when leaders face both constraints simultaneously – they may not weigh the two equally. Future work should seek to determine how states mediate countervailing constraints. Which constraints are well equipped to condition one another, and which affect behavior regardless of the presence of other, opposing incentives?

Next, although we focus on the relationship between unearned revenue and domestic regime type, a large literature argues that states respond to threats with increased repression (e.g. Davenport, 2007a; Lichbach, 1987; Moore, 2000). Our work supports this conventional wisdom, but in order to focus on our hypotheses about crosscutting constraints, we necessarily treat threat as a control. Does threat overcome institutional constraints at the ballot? Does it amplify freedom from constraints at the bank? Lastly, we focus on regime type as a one-dimensional concept and only one type of UER, ignoring the sources of variation within these concepts. In terms of democracy, what role does institutional veto points or free media play in constraining human rights abuse? Do domestic courts or impartial elections limit state repression given countervailing constraints at the bank? In terms of revenue, how do the impacts of other natural resources (diamonds, gold) compare to the effects of oil and natural gas? Do other sources of unearned revenue (foreign aid) also catalyze state repression? Are these similarly outweighed by the pacifying impact of democracy? We welcome future research to determine how leaders weigh different constraints, how threats to the regime condition these forces, and which institutions and resources limit the abuse of citizens, in the face of heterogeneous opportunities to repress.

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Replication Data

Replication files for the empirical analyses in this article, as well as an online supplement, can be found on the authors' websites and at http://www.prio.no/jpr/datasets.

References

Achen, Christopher (2002) Toward a new political methodology: Microfoundations and ART. *Annual Review of Political Science* 5(June): 423–450.

AI (2009) Norway: Submission to the UN University Periodic Review: Sixth session of the UPR working group of the human rights council, Amnesty International (http://www.amnesty.org/en/library/info/EUR36/001/2009/en).

Alexeev, Michael & Robert Conrad (2009) The elusive curse of oil. *Review of Economics and Statistics* 91(3): 586–598.

Arat, Zehra (2003) *Democracy and Human Rights in Developing Countries*. Boulder, CO: Lynne Rienner.

Basedau, Matthias & Jann Lay (2009) Resource curse or rentier peace? The ambiguous effects of oil wealth and oil dependence on violent conflict. *Journal of Peace Research* 46(6): 757–776.

Beblawi, Hazem (1990) The rentier state in the Arab world. In: Giacomo Luciani (ed.) *The Arab State*. Berkeley, CA: University of California Press, 85–98.

Benson, Michelle & Jacek Kugler (1998) Power parity, democracy, and the severity of internal violence. *Journal of Conflict Resolution* 42(2): 196–209.

Berry, William D; Jacqueline H R DeMeritt & Justin Esarey (2010) Testing for interaction in binary logit and probit models: Is a product term essential? *American Journal of Political Science* 54(1): 248–266.

Berry, William D; Matt Golder & Daniel Milton (2012) Improving tests of theories positing interaction. *Journal of Politics*. In press.

Bollen, Kenneth A & Robert W Jackman (1989) Democracy, stability, and dichotomies. *American Sociological Review* 54(3): 612–621.

Brambor, Thomas; William Clark & Matt Golder (2006) Understanding interaction models: Improving empirical analyses. *Political Analysis* 14(1): 63–82.

Brunnschweiler, Christa N & Erwin H Bulte (2009) Natural resources and violent conflict: Resource abundance, dependence and the onset of civil wars. *Oxford Economic Papers* 61(4): 651–674.

Bueno de, Mesquita, Bruce & Alastair Smith (2009) Political survival and endogenous institutional change. *Comparative Political Studies* 42(2): 167–197.

Bueno de, Mesquita Bruce; James D Morrow, Randolph M Siverson & Alastair Smith (1999) An institutional explanation of the democratic peace. *American Political Science Review* 93(4): 791–807.

Bueno de, Mesquita Bruce; James D Morrow, Randolph M Siverson & Alastair Smith (2003) *The Logic of Political Survival*. Cambridge, MA: MIT Press.

Bueno De, Mesquita Bruce; Feryal M Cherif, George W Downs & Alastair Smith (2005) Thinking inside the box: A closer look at democracy and human rights. *International Studies Quarterly* 49(3): 439–458.

Cheibub, Jose Antonio; Jennifer Gandhi & James Raymond Vreeland (2010) Democracy and dictatorship revisited. *Public Choice* 143(1): 67–101.

Cingranelli, David L & David L Richards (1999) Measuring the level, pattern, and sequence of government respect for physical integrity rights. *International Studies Quarterly* 43(2): 407–418.

Collier, David & Robert Adcock (1999) Democracy and dichotomies: A pragmatic approach to choices about concepts. *Annual Review of Political Science* 2(June): 537–565.

Collier, Paul & Anke Hoeffler (2001) Greed and grievance in civil war. World Bank working paper (http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2000/06/17/000094946_00060205420011/Rendered/PDF/multi_page.pdf).

Collier, Paul & Anke Hoeffler (2005) Resource rents, governance, and conflict. *Journal of Conflict Resolution* 49(4): 625–633.

Conrad, Courtenay Ryals & Will H Moore (2010) What stops the torture? *American Journal of Political Science* 54(2): 459–476.

Davenport, Christian (1995) Multi-dimensional threat perception and state repression: An inquiry into why states apply negative sanctions. *American Journal of Political Science* 39(3): 683–713.

Davenport, Christian (1999) Human rights and the democratic proposition. *Journal of Conflict Resolution* 43(1): 92–116.

Davenport, Christian (2007a) State repression and political order. *Annual Review of Political Science* 10(1): 1–23.

Davenport, Christian (2007b) *State Repression and the Domestic Democratic Peace*. New York: Cambridge University Press.

Davenport, Christian & David A Armstrong (2004) Democracy and the violation of human rights: A statistical analysis from 1976–1996. *American Journal of Political Science* 48(3): 538–554.

DeMeritt, Jacqueline HR & Joseph K Young (2010) A political economy of human rights: Oil, natural gas, and state incentives to repress. Paper presented at the American Political Science Association Annual Meeting, Washington, DC, September.

Fearon, James D & David D Laitin (2003) Ethnicity, insurgency, and civil war. *American Political Science Review* 97(1): 75–90.

Finnemore, Martha & Kathryn Sikkink (1998) International norm dynamics and political change. *International Organization* 52(4): 887–917.

Fjelde, Hanne (2009) Buying peace? Oil wealth, corruption and civil war, 1985–1999. *Journal of Peace Research* 46(2): 199–218.

Franklin, James C (2009) Contentious challenges and government responses in Latin America. *Political Research Quarterly* 62(4): 700–714.

Frynas, Jedrzej George (2000) *Oil in Nigeria: Conflict and Litigation Between Oil Companies and Village Communities*. Münster: LIT Verlag.

Gartner, Scott Sigmund & Patrick M Regan (1996) Threat and repression: The non-linear relationship between government and opposition violence. *Journal of Peace Research* 33(3): 273–287.

Gartzke, Erik (1998) Kant we all just get along? Opportunity, willingness, and the origins of the democratic peace. *American Journal of Political Science* 42(1): 1–27.

Gibney, Mark & Matthew Dalton (1996) The political terror scale. *Policy Studies and Developing Nations* 4(1): 73–84.

Goldsmith, Arthur A (2001) Foreign aid and statehood in Africa. *International Organization* 55(1): 123–148.

Gurr, Ted Robert (1988) War, revolution, and the growth of the coercive state. *Comparative Political Studies* 21(1): 45–65.

Hegre, Håvard; Tanja Ellingsen, Scott Gates & Nils Petter Gleditsch (2001) Toward a democratic civil peace? Democracy, political change and civil war, 1916–1992. *American Political Science Review* 95(1): 33–48.

Henderson, Conway (1991) Conditions affecting the use of political repression. *Journal of Conflict Resolution* 35(1): 120–142.

HRW (1995) *The Ogoni Crisis: A Case-Study of Military Repression in Southeastern Nigeria*. Human Rights Watch (http://www.unhcr.org/refworld/docid/3ae6a7d8c.html).

Humphries, Macartan (2005) Natural resources, conflict, and conflict resolution: Uncovering the mechanisms. *Journal of Conflict Resolution* 49(4): 508–537.

Karl, Terry Lynn (1997) *The Paradox of Plenty: Oil Booms and Petro-States*. Berkeley, CA: University of California Press.

Kastellec, Jonathan P & Eduaro L Leoni (2007) Using graphs instead of tables in political science. *Perspectives on Politics* 5(4): 755–771.

King, Gary (1986) How not to lie with statistics: Avoiding common mistakes in quantitative political science. *American Journal of Political Science* 30(3): 666–687.

King, Gary; Michael Tomz & Jason Wittenberg (2000) Making the most of statistical analyses: Improving interpretation and presentation. *American Journal of Political Science* 44(2): 341–355.

Knudsen, Olav (1990) Norway: Domestically driven foreign policy. *Annals of the American Academy of Political and Social Science* 512(November): 101–115.

Krain, Matthew (2000) Democracy, internal war, and state-sponsored mass murder. *Human Rights Review* 1(1): 40–48.

Krain, Matthew & Marissa Myers (1997) Democracy and civil war: A note on the democratic peace proposition. *International Interactions* 23(1): 109–118.

Kurtz, Marcus & Sarah Brooks (2011) Conditioning the resource curse: Globalization, human capital, and growth in oil-rich nations. *Comparative Political Studies* 44(6): 747–770.

Lake, David & Robert Powell (1999) *Strategic Choice and International Relations*. Princeton, NJ: Princeton University Press.

Philippe, Le Billon (2001) The political ecology of war: Natural resources and armed conflicts. *Political Geography* 20(5): 561–584.

Levi, Margaret (1989) *Of Rule and Revenue*. Berkeley, CA: University of California Press.

Lichbach, Mark Irving (1987) Deterrence or escalation? The puzzle of aggregate studies of repression and dissent. *Journal of Conflict Resolution* 31(2): 266–297.

Lichbach, Mark & Ted Gurr (1981) The conflict process: A self-generating model. *Journal of Conflict Resolution* 21(1): 3–29.

Lijphart, Arend (1984) *Democracies: Patterns of Majoritarian and Consensus Government in Twenty-One Countries*. New Haven, CT: Yale University Press.

Luciani, Giacomo (1990) Allocation vs. production states: A theoretical framework. In: Giacomo Luciani (ed.) *The Arab State*. Berkeley, CA: University of California Press, 65–84.

Mahdavy, Hussein (1970) The patterns and problems of economic development in rentier states: The case of Iran. In: Michael Cook (ed.) *Studies in Economic History of the Middle East*. London: Oxford University Press, 428–467.

Maoz, Zeev & Bruce Russett (1993) Normative and structural causes of democratic peace, 1946–1986. *American Political Science Review* 87(3): 624–638.

Marshall, Monty & Keith Jaggers (n.d.) *Polity IV Data Set Users Manual* (http://www.cidcm.umd.edu/inscr/polity/).

Migdal, Joel (1988) *Strong Societies and Weak States: State–Society Relations and State Capabilities in the Third World*. Princeton, NJ: Princeton University Press.

Moore, Will H (2000) The repression of dissent: A substitution model of government coercion. *Journal of Conflict Resolution* 44(1): 107–127.

Munck, Gerardo & Jay Verkuilen (2002) Conceptualizing and measuring democracy: Evaluating alternative indices. *Comparative Political Studies* 35(1): 5–35.

Nino, Carlos (1991) The duty to punish past abuses of human rights put into context: The case of Argentina. *Yale Law Journal* 100(8): 2619–2640.

Olson, Mancur (1971) *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.

Poe, Steven C (2004) The decision to repress. In: Sabine C Carey & Steven C Poe (eds) *Understanding Human Rights Violations: New Systematic Studies*. Aldershot: Ashgate, 16–42.

Poe, Steven C & Tate C Neal (1994) Repression of human rights and personal integrity in the 1980s: A global analysis. *American Political Science Review* 88(4): 852–872.

Bingham, Powell, G (1982) *Contemporary Democracies: Participation, Stability, and Violence*. Cambridge, MA: Harvard University Press.

Ray, James (2005) Constructing multivariate analyses (of dangerous dyads). *Conflict Management and Peace Science* 22(4): 277–292.

Rogers, William H (1993) Regression standard errors in clustered samples. *Stata Technical Bulletin* 13(1): 19–23.

Rohde, Clifford C; Jamie Fellner & Cynthia G Brown (1993) *Human Rights in Venezuela*. Washington, DC: Human Rights Watch.

Ross, Michael (2006) A closer look at oil, diamonds, and civil war. *Annual Review of Political Science* 9(1): 265–300.

Ross, Michael (2008) Oil, Islam, and women. *American Political Science Review* 102(1): 107–123.

Rummel, Rudy (1994) *Death by Government*. New Brunswick, NJ: Transaction.

Rummel, Rudy (1995) Democracy, power, genocide and mass murder. *Journal of Conflict Resolution* 39(1): 3–26.

Rummel, Rudy (1997) *Statistics of Democide: Genocide and Mass Murder Since 1900*. Charlottesville, VA: Center for National Security Law, School of Law, University of Virginia.

Russett, Bruce (1994) *Grasping the Democratic Peace: Principles for a Post-Cold War World*. Princeton, NJ: Princeton University Press.

Sachs, Jeffrey D & Andrew M Warner (2001) The curse of natural resources. *European Economic Review* 45(4–6): 827–838.

Sarkees, Meredith Reid (2000) The Correlates of War data on war: An update to 1997. *Conflict Management and Peace Science* 18(1): 123–144.

Michael, Shafer, D (1994) *Winners and Losers: How Sectors Shape the Developmental Prospects of States*. Ithaca, NY: Cornell University Press.

Shugart, Matthew Soberg & John M Carey (1992) *Presidents and Assemblies: Constitutional Design and Electoral Dynamics*. Cambridge: Cambridge University Press.

Simon, Marc & Harvey Starr (1996) Extraction, allocation, and the rise and decline of states. *Journal of Conflict Resolution* 40(2): 272–297.

Smith, Alastair (2008) The perils of unearned income. *Journal of Politics* 70(3): 780–793.

Snyder, Richard (2006) Does lootable wealth breed disorder? A political economy of extraction framework. *Comparative Political Studies* 39(8): 943–968.

Thies, Cameron (2005) War, rivalry, and state building in Latin America. *American Journal of Political Science* 49(3): 451–465.

Wood, Reed & Mark Gibney (2010) The Political Terror Scale (PTS): A re-introduction and comparison to the CIRI human rights database. *Human Rights Quarterly* 32(2): 367–400.

Wooldridge, Jeffrey (2003) *Introductory Econometrics*. Nashville, TN: Thomson Southwestern.

Young, Joseph K (2009) State capacity, democracy, and the violation of personal integrity rights. *Journal of Human Rights* 8(4): 283–300.

Ziegenhagen, Eduard (1986) *The Regulation of Political Conflict*. New York: Praeger.

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