Threat and Repression: The Non-Linear Relationship Between Government and Opposition Violence

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Abstract:

An understanding of the causes of political repression has continually eluded researchers for the past decade. We argue that much of this can be tied to the theoretical specifications of the models employed. We developed a decision-theoretic model that predicts the level of repression used by governments to suppress political opposition. We believe that analysis of repression needs to include the political contexts in which states operate. In particular, we theorize and find that the nature of the threat posed by an opposition group influences the impact of both the domestic and international factors on the government’s decision to repress. We argue that the international and domestic costs associated with a given level of government repression are best represented by separate, non-linear functions of the level of demand made by a dissident opposition group. From this model we deduce an equilibrium level of repression for any given demand; we then empirically test these predictions against original data generated from 18 Latin American countries, 1977-1986. We find that as the nature of the threat posed by an opposition group moves from minor to extreme, the marginal increment of government repression decreases. Analyses of these data support our theoretical propositions, and suggest that both non-linear approaches and the inclusion of opposition group demands provide a useful tool for steadying state repression.
1. Repression and Threat

The violent repression of political opposition has been a permanent fixture of the modern world. Although more recent times have not seen the banishing of violent methods of political control, they have witnessed a more concerted effort both to understand the causes of political repression, and to impose international standards for the treatment of political opposition. In terms of international convention at least, the violent repression of all dissent is no longer acceptable. But neither attempts to constrain political violence, nor efforts to understand the causal mechanisms that lead some governments to choose repression while others choose political integration, have been entirely successful. Despite only moderate successes, we believe that a better understanding of the systematic causes of political repression will lead to an increased ability to minimize the degree to which governments resort to violence against their own people.

In this article we argue that a government's choice to repress opposing political groups is a function of domestic and international costs. These costs, in turn, vary non-linearly with the nature of the opposition group's demand. Assuming that the particular form of political control adopted by a government is a result of conscious policy decisions, we attempt to contribute to the study of political repression on three fronts. First we add theoretical rigor to this area of research by introducing a decision-theoretic model of political repression. Our model not only adopts the assumptions of a rational, utility maximizing political leadership, but also formalizes the international and domestic constraints that they face when choosing between the political integration and the political repression of opposition groups. We believe that two reasons for the limited success of previous studies are their failure to control for the violent nature of political dissent, and their reliance on linear approaches. Despite the intuitive appeal of non-linearity and a sensitivity to opposition forces, these innovations have yet to be sufficiently incorporated into either theoretical or empirical analyses. Second, we subject
to empirical scrutiny a formally derived hypothesis that predicts the specific conditions under which international and domestic constraints will impinge on the decision maker's choice to repress. We test this prediction against data on eighteen Latin American countries between 1977 and 1986. Third, we explicitly attempt to address a lacuna in the literature on repression. As Lichbach stated, future research on repression should focus on the ongoing process of challenge and response by dissidents and regimes (Lichbach, 1995, p. 259). This study specifically deals with this interaction and the corresponding levels of political repression that results from it.

2. Why Do States Repress?

One of the consistent, and key, results in the literature on political repression is that democratic regimes are less repressive than their authoritarian counterparts (Poe & Tate, 1994; Henderson, 1991; Rummel, 1995). These results have been further supported by the literature on the democratic peace in inter-state behavior (see Morgan & Campbell, 1991; Hagan, 1994; Bueno de Mesquita & Siverson, 1995). Although the range of indicators used varies considerably across studies, most of these studies use some attributes of regime type.
Building on this work, we disaggregate the concept of regime, and identify critical domestic political elements and mechanisms that we think influence the decision to repress. As we will argue below, we capture the role of domestic politics through the extent of the demands and domestic pressures faced by the ruling elite, variables that capture more micro-level political processes, and are therefore more likely to fluctuate than regime type. This is particularly important for analyzing government repression in regions such as Latin America which, while largely undemocratic, experience serious changes in the domestic political scene. We believe that the results of our analysis largely support the arguments regarding regime types and repression.

While these studies of regime type identify a critical aspect of domestic politics, probably the most thoroughly researched aspect of political repression involves the nexus of US foreign aid and the levels of repression in recipient countries. These studies, however, have produced mixed results in both causal directions (Regan, 1995a). On the one hand, there is evidence that aid levels are responsive to repressive practices (Poe, 1991, 1992; Cingranelli & Pasquarello, 1985), though these results have been questioned by others (Stohl, Carleton & Johnson, 1984; Mitchell & McCormick, 1988; McCormick & Mitchell, 1989). On the other hand, there is reason to believe that aid should be an effective tool in manipulating levels of repression (US House of Representatives Committee on Foreign Affairs, 1979), though again, evidence suggests otherwise (Muller, 1985; Regan, 1995b).

We believe that there are two important reasons that help explain the ambiguous findings on repression and foreign aid. First, most of these (and other studies of repression, e.g.; Henderson, 1991, 1993; Park 1987) employ linear analyses without theoretical grounds to expect a linear relationship. Some scholars have recently argued that the factors that influence state violence manifest through non-linear mechanisms (Rummel, 1995; see also Gurr, 1994, 1989). Lichbach has argued that The returns to collective violence are likely to be highly nonlinear throughout the range of violence
These analyses challenge the implicit assumption of linear relationships between the varied independent variables and repression that is so widespread in the literature. If, as others have found and we argue below, the relationships between the factors that influence repression and observed violence are non-linear, than the assumption of linearity helps to explain these ambiguous results. Much more important, however, is the exclusion of domestic politics.

Regardless of their findings, studies of the impact of US foreign aid on government repression tend either to ignore domestic political factors or specify domestic variables as separate, independent effects. We believe that domestic political factors influence the effect of international variables, such as foreign aid, to influence government repression. Thus, in our view, international variables, such as aid, are important factors in explaining government repression, but domestic politics plays a critical interactive role in influencing the effect of these international variables on the decision to repress.

3. Theoretical Argument

We view the level of repression as a choice made by the ruling elite that incorporates a range of options, from facilitating political integration to violent suppression. We formally define how critical factors of concern to the elite affect the costs and benefits that influence the elite's choice of political response. In order to construct this model, we first create a decision-theoretic framework.

3.1 A Decision-Theoretic Framework

In developing a theoretical framework we work from a rational choice perspective. We posit that a government's decision to repress one's citizenry is a function of the perceived costs and benefits of choosing a violently repressive strategy over other less violent approaches. Implicit in this formulation is the assumption that the level of repression is a
purposeful decision taken by a central decision maker. And while one may challenge the
notion that any decision maker consciously chooses a particular level of repression, or
even that the scope and intensity of repression are controlled from some central location,
we believe that this assumption is warranted. Not only does this set of assumptions allow
us to draw useful generalizations about political behavior (Riker, 1991), but we feel that
to some extent they reflect the referent world we seek to understand. Much of the
research in this area, moreover, implicitly adopts rational choice assumptions (e.g.;
Schoultz, 1981; Muller, 1985; Pion-Berlin, 1988), and on the rare occasion has done so
explicitly (Lichbach, 1987; DeNardo, 1985). The central authority need not be the one
planning and prosecuting each specific repressive act, but what we assume is that this
leader has the ability to control those agencies or actors who are the most aggressive
persecutors. For example, when the level of political violence waged against opposition
forces in South Africa or El Salvador got particularly bloody, both the people on the
ground in those countries and the international community called on Presidents De Klerk
and Cristiani, respectively, to put a halt to the political abuse.

We assume, furthermore, that repression is not a dichotomous choice, where a
government either does or does not engage a repressive strategy, but rather can be
thought of as a continuous outcome. A leader may choose to move incrementally along
the coercive path, expecting that a "little more repression" might serve both to placate
domestic coalitions and sufficiently threaten the political opposition. Similarly, the
government might choose to decrease repression in order to increase international or
domestic support. Therefore, at equilibrium, decision makers choose the level of violence
that maximizes their expected payoffs.

3.2 Opposition Demands and Elite Repression

We also posit that the decision to opt for a repressive strategy is rooted in a
challenge to the ruling coalition or the status quo. This challenge, or the demands placed
by the opposition group on the ruling coalition, is the attempt to move from the status quo to which the ruling coalition must respond. As such, there is a range of options available to the regime, from acquiescence to the demands of the opposition to the initiation of a civil war aimed at eliminating opposing factions. In the first instance, the regime would make a complete concession to the opposition; in the latter, it would refuse to make any concession. Seen in this context, the decision to repress can be viewed as a weighing of the various costs and benefits associated with different strategies, with the adopted strategy being the one that affords the greatest expected utility. This decision calculus can be expressed formally in terms of the nature of the opposition groups' demand and the extent of the repression. For example, if we let `D` be the demand placed on the ruling coalition, then this ruling group has to respond with some amount of repression `R` such that they maximize their expected payoff. We can say that the decision to repress is \( f(D, R) \), where the function \( f \) is increasing in \( D \) and decreasing in \( R \) (the more severe the demand the greater the concession for any given level of repression; and the greater the repression the lower the concession for any given demand).

In order to understand fully the decision to repress dissent violently, it is not enough to argue simply that a government chooses the level of repression that maximizes expected utility. The international and domestic constraints faced by any decision maker will to a large degree shape the necessary cost and benefit calculations associated with the decision process. By formally specifying the utility function that guides this process, we are better able to understand the forces that come to bear on decision makers during times of domestic tension. In specifying this utility function we make a number of empirical assumptions: 1) a regime does not choose to repress its citizens in a political vacuum, 2) the international community will impose costs when the level of political abuse goes beyond some threshold of toleration, and 3) the domestic economic elite will influence decision making by imposing costs if the government's attempts at control are either insufficient or excessive.
If there were no serious challenges to the status quo, the ruling elite would not risk its dominant position by violently repressing minor political outbursts from a marginalized segment of the population. Non-violent methods of quieting the opposition would suffice. That is, the government only benefits from the potential outcome of repression; the act of repressing itself provides no utility, and in certain political contexts (which we specify) repression is quite costly. We have to begin, then, with a credible challenge from some segment of the populace which presents an issue that portends to alter the status quo ante (Gurr, 1986). This challenge is generally rooted in either political or economic ideology (Pion-Berlin, 1984), though it would probably be difficult to disentangle these two factors. A political challenge, for instance, could be in the form of efforts to bring down a military -- or some other form of authoritarian -- regime, while economic threats to the status quo could be the result of rising expectations, relative deprivation or land tenure patterns (e.g.; Gurr, 1971; Tanter & Midlarsky, 1967; Midlarsky, 1988).

Given this political or ideological chasm, the opposition presents a challenge to the ruling coalition. Rather than running counter to any of the above-mentioned frameworks of why men rebel, this suggests that rebellion is preceded by a period of challenges and counter-challenges. The underlying conditions for a full-blown rebellion might be in place, but efforts are undertaken to achieve a mutually agreeable outcome short of rebellious activities. Efforts to resolve the dispute short of rebellion might involve varying degrees of repression on the part of the government.

If we think in terms of Cartesian space, with axes reflecting political and social characteristics of the government and opposition, it is the spatial distance between the status quo and the demands made by the opposition group that will determine the benefits that accrue to the regime in power by standing firm or acquiescing. When the gulf between the demands of the opposition and the current situation is wide, the potential benefits to remaining resolute are high. When this distance is relatively small, the
potential benefits to be gained in the dispute are few. We essentially posit that this relationship between repression and demands is linear. All things being equal, in the former instance the probability of the violent suppression of political expression is quite high; in the latter some form of negotiated settlement may prevail. Depending on this spatial distance between demand and status quo, the government has to choose an ideal strategy from the range of options available, but this range of options is not without its own set of constraints. The structure of the costs associated with various strategies form the basis of our second set of empirical assumptions.

3.3 Domestic and International Constraints on Repression

We group the government's costs and benefits into two general categories: 1) those associated with external constraints, and 2) those that need to be borne internally. In neither case, we posit, is the relationship between the costs incurred by a particular strategy a linear function of the level of repression. Presumably, if the strategy adopted to address the challenge is particularly reprehensible to the international community, the government may have to suffer the consequences of international pressure (e.g.; Cingranelli & Pasquarello, 1985; McCormick & Mitchell, 1989; McCormick & Mitchell, 1988; Poe, 1992). The international community, however, may be quite content to tolerate levels of repression consistent with the tactics and demands of the opposition, though the level of toleration quickly diminishes as regime brutality becomes excessive. This could be seen to some degree in the response by the United States to repression in El Salvador. The US tolerated a fairly high level of repression by the ruling coalition in response to the quite violent tactics of the FMLN (Farabundo Martí National Liberation Front), but when the government forces resorted to killing nuns and Jesuit priests, the US immediately clamped down with cutoffs in various forms of aid. The degree of toleration, therefore, is not only a function of the amount of repression, but also related to the nature of the challenge to the ruling coalition. Internationally derived costs, therefore, will be
small when repression appears to be consistent with, or less than the nature of the demand. As repression begins to exceed the level of response deemed appropriate by the international community for the given demand, the costs rise steeply until the repressive regime is completely ostracized diplomatically and economically. A plot of these costs would approximate a logistic function, asymptotic at the upper and lower bounds, with a steeply sloping curve in between. The inflection point, furthermore, shifts with the level of opposition demand (see Figure 1). These external costs can be quite visible, such as economic sanctions and restrictions on trade, manipulations of foreign aid, or support for an insurgency. Conversely, if the dispute is handled democratically or addressed through institutional channels, aid, trade, and praise may flow toward the regime.

(Figure 1 about here) Internal constituencies also act as constraints on the decision maker. As with internationally imposed costs, domestic costs are tied to both the extent of the repression and the demands of the challenger. We believe that interstate actors react most strongly to extremes (Gartner, 1993). These internal costs are both political and institutional, and will in part be determined by the strength of existing institutions that act as countervailing forces within society. An independent judiciary, a strong economic sector, or a democratic form of government may all contribute to the cost of any strategy adopted by the political leadership (e.g.; Prichard, 1988; Henderson, 1991). For instance, a strong and independent legislative body may hamper the executive charged with resolving a dispute with an opposition group. Likewise, a judiciary that takes an active stance against the use of arbitrary detention or torture will increase the costs of pursuing such a course of action. The physical resources required to repress dissent also figures into the political calculation, and their diversion can facilitate the coalescing or shifting of coalitions (Organski, 1965). On the other hand, these same domestic actors may impose costs on the government for not taking aggressive action to suppress opposition. The potential instability that results from a response that is not well calibrated to meet the challenge will lead to a withering of support for the government.
from the political, economic, and institutional elites. Recent events in Mexico and Peru are poignant examples of the role played by internal domestic constituencies. In both instances, confidence in the governments' ability to ensure political and economic stability resulted in the flow of money out of the country, as well as a drastic slow down in foreign investments coming into the country. Unable to cope with the economic uncertainty caused by lack of investor confidence, Presidents Fujimori in Peru and Zedillo in Mexico increased the intensity of efforts to repress the Shining Path and Zapatista movements. In Peru at least, these policies of increased repression have restored the confidence of the economic elite; the case of Mexico is still uncertain at this juncture.

It is the potentially powerful economic elite that needs to be assured of the stability of the government; without that assurance they cannot have confidence in future investments. Therefore, levels of repression appropriate to the challenge are tolerated -- even sanctioned -- even though the repression may appear threatening to this segment of society. What is more threatening is the potential loss of control. But when the level of repression is either insufficient to maintain stability or excessively brutal, and therefore threatens stability, the government will incur domestic costs. Under strong demands by the opposition, the cost of not employing some coercion will be high, though as the level of coercion begins to mirror the opponent's challenge, the domestic costs decline rather precipitously. On the other hand if the repressive tactics are considered overly severe relative to the demand, the domestic costs begin to increase. Too much repression may leave the opposition little alternative to revolt; too little repression for a given demand may present the opposition with too many incentives to press for further demands (Gurr, 1971; Lichbach, 1987). This cost function associated with internal factors will approximate that of a U-shaped, convex function (as if generated by the function X2 for all real X). This is depicted graphically in Figure 2.

(Figure 2 about here)
It might seem reasonable to suspect that the shape of the domestic cost curve would differ between a democratic and an authoritarian form of government, yet closer inspection sheds doubt on this assertion. This is not to say that the two types of regimes are equally repressive, but rather that the domestic costs from adopting a particular strategy to deal with political dissent may be similar across regime types. If the response by the government is insufficient to meet the challenge, then the economic elite reacts to the threat to the institutions and the economy; when the response is excessive there is an additional cost imposed from the institutions. Highly democratic countries generally do not repress as much as those less democratic varieties, not because the potential costs are different, but rather because the extent of the challenges to the status quo in highly democratic countries is generally insufficient to make the benefits of violent repression outweigh the costs.

Two recent events in Russia serve as a useful contemporary example. As the leader of a country struggling to institute democratic procedures, President Yeltsin faced a severe challenge to his rule from a group of national legislators in 1992. The threat posed to the stability of the government by the renegade legislators was sufficiently strong to incur the violent response of the Yeltsin faction. His strategy to quell the opposition, while quite extreme, was apparently consistent with the extent of the demand, and appears to have been sanctioned by his domestic constituency and international allies. Domestically, Yeltsin was faced with the potential of a loss of support if he did not act decisively, while internationally there was almost universal support for his actions because the opposition left him few alternatives.

Currently, however, Yeltsin faces another challenge to his authority from the Republic of Chechnia, to which he is again responding with deadly force. But if Yeltsin generally received support for his actions against the national legislature, he has been all but condemned for his response against the Chechnians. International financial sources talk of restricting investments and loans, while the domestic coalitions denouncing his
policies are quite visible and vocal. Comparatively speaking Yeltsin is paying a higher price for his use of force in Chechnia than he did in Moscow, with this disparity in costs linked to the seriousness of the challenge posed by the respective dissenting groups. The legislative revolt posed a national threat and therefore internal and external constraints were moderated. However, the more local threat in Chechnia appears to be met with an exaggerated level of force relative to the character of the threat posed by the Chechnian opposition. The international and domestic communities, it appears, are responding in kind.

Expressing these relationships formally we postulate that the government's objective is to:

\[
\min_{R} (C_i(D, R) + C_d(D, R))
\]

where \(C_i\) reflects the international costs, \(C_d\) reflects domestic costs, \(R\) is the level of repression, and \(D\) is the nature of the opposition's demands. We argue that \(C_i\) and \(C_d\) are a function of \(R\) and \(D\), such that \(C_i(D, R) = c_i(R-D)\) and \(C_d(D, R) = c_d(R-D)\).

Furthermore, we assume that \(C_d\) is a quadratic expression, and that when \(c_d(R-D = 0)\) then \(c_d=0\). Finally, we postulate that \(C_i\) is a logistic function

\[
\frac{1}{1+\text{demand}^{1.3}\text{Repression}^{0.7}} + 0.015((\text{Demand} - \text{Repression}) + (\text{Repression} - \text{Demand})^2)
\]

and that when \(c_i(R-D =0)\) then \(c_i=0\). Put simply, when the order of magnitude of repression equals that of demand, the state faces neither domestic nor international costs.

The basic logic of the model involves two phenomena. First, for each given demand, there is one incentive to repress up to the level of that demand (domestic benefits), but

For operational purposes these are expressed as: \(c_d = X_2\) for all real \(X\); \(c_i = 1/(1+Ae^{-kr})\), where \(A\) & \(k\) are constants. When parameterized to fit our scales, the specific equation used to produce Figure 3 is:
two disincentives to repressing more than the level of demand (international and domestic costs). Second, both international and domestic costs are a function of the level of the opposition demand. As the demand changes, so do the international and domestic costs and benefits associated with varying amounts of repression. Together, these two factors create the underlying structure of the theoretical approach. This structure can be seen most clearly in graphic form.

3.4 Theoretical Predictions and a Testable Hypothesis

Figure 3 illustrates the costs incurred at high, medium, and low levels of opposition demand (for illustrative purposes demand and repression are on a fifteen point scale with zero reflecting no demand and no observable repression and fifteen reflecting an extreme demand and maximum repression). We would predict that the equilibrium point would be the level of repression for a given demand at which the regime minimizes its costs. The positions of the equilibrium vary with changes in the nature of the demand. For example, with a medium demand of eight, the combined costs are rather high when the ruling regime uses very low levels of violent coercion, but diminish quickly as the regime's response appears to be consistent with the nature of the demand. But at a level of repression much above six on the fifteen point repression scale, the costs incurred from additional repression increase sharply. Domestically the government could tolerate repression slightly higher than the level of demand, but international costs move the equilibrium level of repression somewhat below the level of the opposition's demand. Likewise, when the demands by the opposition are modest (such as a two), the slope of the cost curve from violent repression is monotonically positive and the costs appear to be imposed immediately. Here again, the domestic community would be willing to tolerate modest amounts of repression before extracting concessions, while the international community is quite intolerant of any use of violence. This might reflect the situation found in Western democracies.
At the opposite end of a range of possible demands (such as a demand of fifteen) the cost of not employing coercive measures is initially quite high, though costs decline precipitously as the level of government response converges with the opposition's demand. The equilibrium point, at which costs are lowest, however, falls well short of the demands placed on the government. When the demand is for the complete overthrow of the government (fifteen on our fifteen point scale) the domestic elite will encourage extreme amounts of repression. The international community, however, is far less tolerant of the use of extreme levels of political repression, forcing the rational leader to moderate his or her use of coercion.

A final word about the logic of the model is in order. As we have outlined it, the model accounts for the specific choice of the amount of repression by the ruling elite. Alternative strategies for addressing opposition demands are evident in the difference between the nature of the challenge and the government's response. For example, if an opposition group demands sweeping changes in the social and economic organization of the society, the elite can choose to use military force to "cleanse" the country of the challengers, thereby using extreme repression and no concessions. But the ruling elite may also choose to institute partial reforms as well as repressing some of the opposition's activities, in this case adopting a mixed strategy. In our model this should show up as the amount of repression being moderated relative to the nature of the opposition's demands. Furthermore, we argue that our model will predict the level of repression which optimizes this mix of strategies, even though we do not suggest what any of the alternatives to repression might entail.

Having outlined the theoretical reasoning by which international and domestic constraints structure the choice of strategies used to address political opposition, we should now be able to use this model to make predictions as to the actual levels of repression observed --
somewhat restrained relative to the threat posed by the opposition, when the nature of the demand falls at the middle to high levels of our spectrum. But when faced by a relatively minor challenge we would expect repression to be consistent with the demands faced by the government if not marginally more aggressive relative to the opposition. The moderated response that results from the combination of international and domestic pressures, therefore, should be more evident when the challenge to the regime is strong, and diminishes as the challenge becomes more one of increased political access, rather than attempts at the complete overthrow of the ruling government.

In practical terms, if the response by the government is not calibrated to meet the challenge posed by the opposition groups, then the domestic and international communities will impose costs proportionate to the distance from the equilibrium response. The international community will be tolerant of repression if the government's response falls far short of the opposition's demands, though intolerance will rise sharply as repression becomes excessive. We might expect to see this changing attitude reflected in, for instance, the amount of foreign aid flows to the government under scrutiny. Domestic sanctions, furthermore, will be strongest when the government's response is either minimal or excessive. This reflects the threat to the stability of the political, social, and economic institutions so valued by the local elite. Rates of capital flows might be a useful indicator in this instance.

As discussed, the literature generally ignores the effects of opposition on repression and portrays the incentive structure influencing decision-makers in a linear manner. Our theoretical approach suggests simple, but we think conceptually compelling,

1 Our model assumes that international and domestic costs have similar effects on the decision makers' utility function. If one believed that this was not the case, then the relative effect of international and domestic costs could be weighted proportionally.
reasons for why dissent should make a difference in the observed level of repression. If we find, as predicted, that the nature of decisional constraints influences the level of repression in a non-linear manner, then the next step would be to push our understanding yet further and empirically examine our underlying assumptions about domestic and international costs used to develop our theoretical approach. These factors, however, are only interesting if we can determine that the predicted relationship holds.

4. Data and Sources
In order to test the prediction derived from our model we look to see if the magnitude of the difference between the levels of repression of the oppositions demand varies with the intensity of those demands. In short, we have a non-linear model that we test by looking for a specific type of linear relationship between demands and repression. Data from 18 Latin American countries for the years 1977-1986 were used to identify statistical patterns in the relationship between opposition's demands and elite repression. These 18 countries include all the countries of Central America, Mexico, and South America, with the exceptions of Guyana and Suriname. Of the Latin American island countries, only Haiti was included in our sample.

Restricting our analysis to Latin America has costs and benefits. The major cost is in terms of restricting our ability to generalize to other regions. We accept this, although we have no reason to expect our results to be dramatically altered in other settings. However, there are also benefits to restricting the regional orientation of our sample. Because our coding of demands required ex ante data available to both indigenous domestic political elites and US elites, the New York Times, and its coverage of Latin America provided an appropriate and accessible source for coding this variable.

For the purpose of testing our hypothesis regarding the relationship between demand, repression, and costs, we generated data on both political repression and opposition demands. Data on political repression were derived through the content analysis of the
scale, with each level assigned a numerical value of zero, one, two or three, respectively. The scores across all five indicators were summed to form a political repression score (POLREP) for each country/year. The maximum possible score for each country/year was fifteen. The data on repression ranges from zero to fifteen, with a mean annual value of 5.8 and a standard deviation of 3.4. Inter-coder tests were performed to check the reliability of this procedure, using both different coders and a recoding by the principle investigator after the original coding was performed. These inter-coder tests achieved a reliability of .95 against the summed political repression score, and a mean inter-coder score of .90 against the individual indicators.

Data on the extent of the demands faced by the government were derived from the content analysis of the New York Times. Six categories of demand were identified, ranging from the desire to overthrow the government to satisfaction with the status quo. Deriving a demand score involved a twofold process. First, we used four-quadrant Cartesian space to identify the most salient of the opposition groups. The axes of this space incorporated political and socio-economic dimensions, with the latter ranging from fascism to communism, and the former from civilian to military. The position of the

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Note: Amnesty International does not encourage the systematic quantification of repression scales based on their country reports, and claim to make this task intentionally difficult. However, similar data generated through US Department of State Reports tends to correlate highly with AI based data (.75 over this period), so we would expect these results to hold across data sources (Regan 1995b).

The six categories of demand are: overthrow the government, sweeping political and economic reforms, removal of the current political leadership, moderate economic and social reforms, policy liberalization, and status quo. Coding rules and data are available from the authors on request.
government on these two axes was identified, as were the positions of the opposition groups. Where possible the estimated sizes of the opposition groups were recorded. From this two dimensional Cartesian space a subjective identification of the "most salient" opposition group was determined, and then the demands of that group were used as our indicator -- these demands involved the six point scale discussed above. In effect this procedure has allowed us to identify the nature of the demands placed on the government by the most salient opposition group. The gap between the status quo and the challenge (potentially five points), was then transformed into a fifteen point scale, making it numerically consistent with the repression scale. This transformed rating is our indicator of the opposition's demand. This indicator is an ordinal scale ranging from zero to 15, with discreet values at zero, three, six, nine, twelve, and fifteen. The mean value is 9.2 with a standard deviation of 5.1. This method of generating data on opposition demands, although highly labor intensive, affords us a reasonably high degree of construct validity. Furthermore, through pretesting and intercoder checks we have confidence in the reliability of the data used in the analysis.

The logic behind this coding procedure was predicated on two factors: 1) that the demands of the most salient group would be those considered most pressing by the ruling elite, and 2) international and domestic observers would be most attentive to those threats that posed the most serious challenge. Although we think that this is a sufficiently valid measure of opposition demands, it does suffer from an inability to identify the force with which these demands are pressed. However, given the coding procedures, we can be reasonably confident that the demands identified for each particular country and year reflect the nature of the challenge faced by the ruling coalition, and that based on this challenge they must decide how to achieve the optimal mix of repressive and accommodative strategies.

The rationale behind using the New York Times as a source for such data was twofold: 1) that information published in the New York Times would also be available to
the respective governments at the time they were making their decisions on how to respond to a challenge (meeting ex ante requirements for decision-theoretic analysis), and 2) that the New York Times is a sufficient paper of record to allow for comprehensive coding of data, particularly when the countries under analysis are restricted to Latin America. It is critical when testing a decision-theoretic model that the research strategy incorporate an *ex ante* approach. It is extremely unlikely that information which appeared in the New York Times would be a surprise to the decision makers at that time, and even if it was, it would then become information with which to inform their decision.

A final word about data manipulation is in order. Our indicators of repression and opposition demands are constructed so as to capture something akin to different orders of magnitude in the observed behavior. These are necessarily gross measures and cannot capture fine gradations in the demands of the opposition or the repressive practices of the ruling coalition. Furthermore, in order to test our predictions we converted the two ordinal scales measuring different -- albeit related -- phenomenons into two scales of comparable dimensions. We view this comparing of scores on the indicators as essentially a scaling exercise where we attempt to determine how the behavior of the opposition and the government can be compared. We predict that these two scales will not be identical and in fact that they will vary in such a way that increases in opposition demands results in increasingly smaller increases in state repression. As we point out below, this is indeed the dominant behavior that we observe.

The metric of the values associated with this remainder (Repression - Demand) is not directly comparable to the values of either one of these variables, nor does it have an intrinsic meaning. The result of this mathematical operation simply gives us a means to compare the difference between the ordinal levels of demand and repression across space and time. The remainder represents a shorthand way of representing the comparison of these ordinal values. High negative or positive values for the remainder suggest that either the state or the opposition group is employing extreme, unrequited violence. As the
remainder approaches zero, it suggests that, in terms of the general order of violent acts, both the state and the opposition groups are behaving similarly.

5. Findings
Table I depicts the difference between the government response and the challenger's demands compared with the strength of the demands presented by the challenger. Our theoretical reasoning would predict that the top row would be empty, and that in the remaining three by three matrix, the cases would be distributed along a diagonal from the upper left to the lower right-hand corner (as shown in Table I). As can be seen from the table, the top row is not empty, suggesting that there are a number of instances where the level of repression far exceeds the predictions of the model. The number of cases in the diagonal, however, is quite substantial with the model correctly predicting 57% of the cells.

(Table I about here)

Recalling for a moment our hypothesis, we predicted that at low levels of demand the international and domestic constraints would be such that the level of repression would be fairly consistent with the opposition's challenge. But as the demand by the opposition increased, the equilibrium repressive strategy would lag behind the increases in the demands. The data appear to reflect this non-linear trend quite strongly. By reformulating the data in Table I we observe that at low levels of demand (0,3) the mean difference between the repressive strategy and the demand is 2, suggesting that repression does mirror the demand. But when the demand is at an intermediate level (6, 9) the mean level of repression is 2.7 points below the level of demand. Likewise, when the demand is quite severe (12, 15) the level of repression is on average 7 points below that of the demand.

There is another approach to interpreting these findings. If we think of this average difference between the levels of repression and demand at low levels of demand
as a baseline, then our findings are supported via another route. Our hypothesis would suggest that the movement away from this baseline should be exponential as the nature of the demand increases. What we find is that as the nature of the demand grows from rather minor demands (low on our scale) to something a bit more threatening to the ruling coalition (medium on our scale), the average difference between repression and demand decreases by 230% from the baseline. Even more significantly, when the demands are extreme we find that the average difference between repression and demand is a dramatic 440% decrease from the low-demand baseline. We infer from these findings that the constraints faced by the government do influence the choice of strategy chosen to address political opponents in such a manner that the observed level of repression will in general be less than that necessary to nullify completely the demand. Some concessions must also be made.

If international or domestic constraints and repression were related in a linear manner, these non-linear trends should not be evident. In order to capture this non-linear relationship we had to combine two seemingly disparate scales. A similar -- and in many ways more interesting -- confirmation of this trend can be illuminated without such creative manipulations. Figures 4 & 5 point to the same non-linear relationship uncovered in Table I and subsequent analyses, yet does not require the same scaling exercise necessary to present the data as in Table I.

(Figure 4 about here)

Figure 4 reflects the mean level of repression for a given level of demand. As can be seen in this figure, the 45-degree line depicts conditions where there is a one to one relationship between the two observed behaviors; the six points going up and across the graph depict the mean level of observed repression for a given level of demand. The first striking feature is that repression and demand are indeed related in a nearly linear manner, consistent with our description of the benefits that accrue from meeting increasingly aggressive demands with greater levels of repression. More important,
however, the 45 degree line and the line reflecting the actual relationship between repression and demand are not parallel, and in fact cross somewhere around a moderate level of demand. This representation demonstrates that governments tend to overreact to demands when they are at relatively low levels (as evidenced by repression being above the 45-degree line), and react with increasing restraint as the level of the demand increases.

(Figure 5 about here)

Figure 5 takes this analysis one step further. First, we statistically created a 45-degree line (by regressing demand on repression with the coefficient associated with demand held at 1), and then found the best fit of a line between demand and repression (by regressing demand on repression, letting the coefficient reflect the empirical relationship). By multiplying the coefficients of the two lines we are able to identify the marginal increment of increased repressive behavior when compared to increases in the demands of the opposition. The strong negative slope of this line suggests that each increase in demand is met by an increasingly moderate repressive response. This result is so dramatic that the data suggest that the marginal increment becomes negative at very high levels of demand. What this tells us is that when opposition groups present very severe demands, the government will moderate its response in an apparent attempt to prevent the conflict from spiraling out of control. It is the ruling coalition and the economic elite, we believe, that have the most to lose from uncontrollable domestic violence, and therefore act as restraining forces. Combined with the role of international forces, this appears to be a sufficient motivation to act moderately in the face of strong domestic challenges.

This test of the predictions from our model represents a particularly difficult standard to meet. Not only are repression and demand not related in a one-to-one relationship, but their relationship displays the pattern predicted by our approach. As the level of demand increases, the marginal increase in repression decreases. Although
empirically testing the assumptions that underlie this model would be the strongest form of confirmation, this will have to await further research. As it stands, however, the analysis presented here moves us further ahead in our attempts to understand the repressive calculus.

6. Discussion

The results of the test of our central hypothesis provide strong support for the notion that: 1) that ruling coalitions are constrained in their use of violence against their domestic opponents, and 2) that the effect of these constraints is non-linear with regards to the nature of the demands made on the ruling group. Furthermore, these findings suggest that the decision by the ruling regime to adopt repressive strategies can be conceived of as an expected utility calculation, much to the same degree that international conflict can be modeled in this way (Bueno de Mesquita, 1985; Bueno de Mesquita & Lalman, 1992). From these findings a number of inferences can be drawn that offer insights for the researcher and policy maker alike.

First, this analysis contributes to studies of the foreign aid-repression nexus. As discussed earlier, previous studies of this relationship have generally been inconsistent and inconclusive, with various researchers finding conflicting associations between United States foreign aid and political repression. Our study does not reject the impact of US aid on repression, but argues that domestic political variables intervene to moderate its influence. Furthermore, as a result of our theoretical specification, we anticipate that aid has a non-linear relationship with repression. Questioning both the modelsí specifications and the linearity of the relationship is a step toward making sense of these previously disparate findings.

Secondly, our specification of the model and its domestic cost function supports both previous theoretical and empirical studies that demonstrate a negative relationship between democracy and repression (Henderson, 1991; Pritchard, 1988; Poe & Tate,
1994). The role of democracy, therefore, might also be conceived as a political system with fewer extreme demands placed upon it, and as a result is less likely to employ highly repressive means to stifle dissent. If this were the case, then democracies themselves might be capable of repression given a serious enough challenge to the ruling coalition, as events in the newly formed democracy of Russia recently demonstrated. Other examples, for instance India, or that of wartime repression also bears this out (Stam, forthcoming).

Furthermore, although our model proposes a decision-theoretic approach, one might argue that it implicitly incorporates strategic behavior. For example, the opposition group chooses a demand in a political environment greatly affected by government repression. One might expect that, as government repression increased, opposition demands would also increase. But, if both the opposition group and the regime always responded to each in kind, the society would rapidly move to all out civil war. Our approach suggests that this need not be the case. We argue and empirically demonstrate that states should respond to extreme types of opposition demand with comparatively lower levels of repression. In terms of Axelrod's approach (1984), as the demand increases, the regime shifts from a tit-for-tat strategy to a .9 tit for one tat, .8 tit-for-tat etc., such that the regime responds with increasingly smaller marginal additions to its level of repression. This is precisely the behavior that Axelrod argues is necessary for prisoner dilemma situations not to spiral out of control. Thus, as the opposition's demand increases, the two groups do not spiral into a civil war, but end up at some equilibrium point of mutual violence short of civil war. Since it is not in the government's interests, and rarely in the elite's, to foment revolutions, we seem to be capturing a dampening mechanism in government's repressive reactions to rising opposition group demands. This description seems to fit the historical pattern of behavior in countries such as those in Latin America, where violence is common, but revolution is rare (Duff, 1976).
One caveat about strategic behavior is important. Others have tried to model this strategic interaction from the perspective of the opposition, suggesting a mix of potential responses to increased government repression (Gurr, 1971). One widely held view of this interaction posits that as government coercion increases political dissent will increase accordingly, though at some point, where government coercion becomes particularly oppressive, the marginal effect of continued coercion will generate a decrease in overt political dissent. Lichbach (1987), however, demonstrates that the strategic interaction between opposition groups and the ruling coalition is more complex, turning, in part, on the strategies and tactics of the antagonists. Our findings support this notion that the interactions associated with domestic unrest are indeed complex and operate as a series of non-linear relationships.

This complexity points to a further inference that derives from our model and subsequent analysis. Empirically we predict just less than 60% of the cells correctly, leaving one to wonder about the other 40% of the cases. While our level of success is generally quite high, in this complex interactive process there remains room for other sociological or contextual variables to influence the repression calculus, as well as the very real possibility that in any given society the decision to employ violence is arrived at by neither a rational nor a unitary process. In short, an expected utility approach is a useful tool for organizing our concepts of the repression calculus, though in practice there is more to the strategic interactions than we have incorporated into our model.

In summary, our analysis provides a theoretical justification for why we should expect that the nature of opposition groups' dissent has a non-linear effect on state repression. And although we analyzed data from Latin American in the 1980s, we expect that this relationship should hold for other countries and time periods as well. This research supports the application of mathematical approaches to nation-state decision-making, and also suggests that greater attention be given to the political environment in which government leaders operate.