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Domestic Political Violence:

Working Towards an Answer to a Timeless Question

Research Honors
John Gutowski

From April 30 to May 3, 1992 Los Angeles erupted in riots causing untold damage in financial and human terms, as most of America watched horrified. The following year a car bomb exploded in the parking garage of the World Trade Center resulting in the death of six people, leaving more than 1,000 injured, and causing in excess of half a billion dollars damage (Blumenthal, 1993). And in quite possibly the worst terrorist attack ever on US soil, on April 19, 1995, terrorists bombed the Federal building in Oklahoma City causing the death of more than 160 people. In the past it was commonly thought that domestic political violence was something confined to far off places such as Northern Ireland or Israel, but increasingly Americans find that this is no longer the case.

What causes domestic political violence? Riots, domestic terrorism, assassinations, and other forms of domestic violence are all acts that affect everyone within a country. If the violence does not directly affect the general population, it is often indirectly affected by the laws and restrictions which governments employ to suppress the violence (Combs, 1997).

This paper compares two of the more prominent theories that explain the causes of domestic political violence: the older more established relative deprivation theory, and the much newer rational action theory. Deprivation theory remains the most prominent theory in the field, but rational action theory presents a formidable challenge. The following section places these two theories in the broader literature on domestic political violence. The next section presents the research design, including the operationalization, measurement, and specification of the models. The final section presents the analysis and conclusions from the models.

Literature Review

There exists a rich literature on domestic political violence (Combs, 1997; Gurr 1968; Gurr 1970; Tilly 1978; Thompson 1989; White and White, 1993). In fact, research on domestic political violence is coincidental with the study of politics. Aristotle and other early social philosophers postulated that the underlying cause of domestic political violence is economic inequality (Muller, 1985). Muller (1985) refers to this as the classical hypothesis, which was best articulated by De Tocqueville when he wrote, "Almost all of the revolutions which have changed the aspects of nations have been made to consolidate or to destroy social inequality ([1835] 1961)."

The traditional elegance of the classical hypothesis does not stand up to empirical scrutiny, for vast inequalities persist in many countries without significant violence. Hence, more recent studies focus more on the *level* of economic development as the primary explanatory variable of domestic political violence. Sigelman and Simpson (1977) found in their study that the level of economic development was a strong predictor of domestic political violence. They proposed that greater levels of violence are much more likely in less developed countries.

The resource mobilization school of thought takes a different tack in trying to explain domestic political violence. They argue that groups must have the means to foment domestic political violence. More specifically a dissident group must be able to acquire the resources needed to obtain the desired goal (Gamson, 1975; Jenkins and Perrow, 1977; Oberschall, 1973; Tilly, 1978). For example, Tilly (1978) postulated that with adequate resources dissident groups would respond with violence when the government responds to protest activity with repression. These resources include among

others: availability of recruits, access to arms, and availability of money. Unfortunately, the difficulties of operationalizing this theory makes it practically impossible to test.

Deprivation Theory:

Probably the largest and most dominant area of literature dealing with domestic political violence is an offshoot of the classical hypothesis, relative deprivation theory. Ted Robert Gurr first tested relative deprivation in his 1968 paper, "A Causal Model of Civil Strife: A Comparative Analysis Using New Indices." He later fully elaborates a more complete model of relative deprivation in his landmark book Why Men Rebel. Gurr's work on relative deprivation is the indisputable benchmark in the field. Both the large numbers of papers that cite and use Gurr's ideas, and the considerable amount of empirical research demonstrates its importance (Henderson 1991; Muller and Weede, 1990; Muller, 1985; Ross, 1993; Sigelman and Simpson, 1977; Thompson, 1989; White and White, 1993).

Gurr (1970) defines relative deprivation as "the actor's perception of the discrepancy between their value expectations and their value capabilities." Relative deprivation, then, is the difference between the goods and conditions to which people believe they are entitled, and those they think they are actually able to achieve. According to the theory, an affluent group may perceive itself as deprived if it feels that it should live in better conditions. Conversely, a group living in horrible conditions may in fact not experience a high degree of relative deprivation.

Gurr points to an indirect relationship between relative deprivation and violence. Relative deprivation leads to violence through what Gurr refers to as the deprivation-frustration-aggression (DFA) linkage. Relative deprivation causes frustration within a country's entire population, or (more likely) a segment of the population. This, in turn,

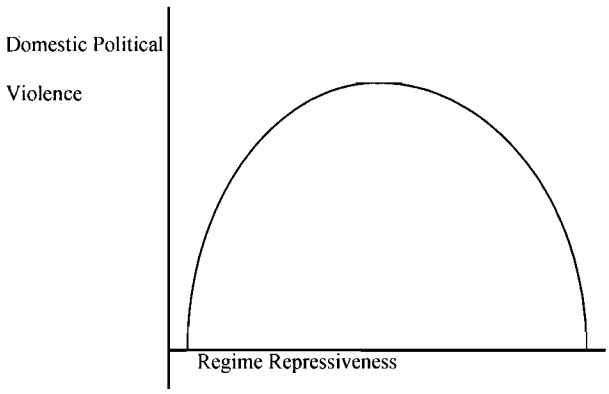
manifests itself in the form of violence (Gurr 1970).

Rational Action Theory:

While relative deprivation theory provides a compelling explanation of domestic political violence, rational action theory explains that individuals calculate costs and benefits of rebellion and political violence (Muller and Weede, 1990; Muller, 1985; Muller and Seligson, 1987). If the costs of violence are too large, or if the opportunity for the achievement of their goals through peaceful means is likely, they will choose not to rebel. Rational action theory measures these costs as a function of regime repressiveness (Muller and Weede, 1990). This study uses Muller and Weede's (1990) study as the general outline for the rational action model. It is important to note that Muller and Weede (1990) make several assumptions about an individual's rational action calculus. These assumptions include: "(a) when repression is high, the expected benefits of either rebellion or peaceful collective action will be relatively low because of high costs and low expectations of success; (b) when repression is low, the expected benefits of rebellion will be exceeded by the expected benefits of peaceful collective action; but (c) when repression is intermediate, the expected benefits of rebellion will exceed those of peaceful collective action."

Rational action theory hypothesizes that at low levels of regime repressiveness individuals will find it in their best interest not to use violence because their goals are better achieved through peaceful means. At high levels of repression individuals will find the costs of violence too high compared to the benefits, and therefore will not rebel. It is difficult to imagine the rioting or terrorist activity that took place in the twilight of the Soviet Union occurring during Stalin's rule. The area where rational action theory does predict a high level of violence is at the intermediate levels of regime

repressiveness. At these levels the costs of violence are not sufficiently high to deter its use, and the individual usually does not see a peaceful method as a realistic means to achieve their goals. Based on rational action theory the relationship between domestic political violence and the amount of regime repressiveness should be in the form of an inverted U-curve (as seen below).



Northern Ireland is a perfect example of a state that has this intermediate level of regime repressiveness. Many of the Catholic minority feel that living under British rule is no longer a viable option. They feel that their rights in the past were infringed upon, and that as a minority group they cannot attain their goals through democratic means. Thus several factions in the Catholic minority turned to violence by participation in such groups as the P.I.R.A. The reaction of the British is typical of a government where an intermediate level of violence exists. Beyond creating or allowing for the initial atmosphere that precipitated the violence, the security forces in turn responded by more repression. The level of repression applied by the British Government has not been enough to quell the violence, but in fact has probably made the violence worse (Thompson, 1989; White and White, 1995).

Research Design

As stated earlier this study compares two theories that focus on different variables when trying to explain why levels of domestic political violence vary between countries. This study uses a statistical method of analysis, including regression analysis, because it allows for greater confidence that the results are not in some way biased in the case selection process. The statistical method also allows for a comparison between the variance explained by each model, which allows a comparison of the two theories.

The unit of analysis in this study, as in most quantitative studies seeking explanations of different rates of domestic political violence between countries, is the state (Dixon and Moon, 1989; Gurr, 1968; Muller, 1985; Muller and Weede 1990; Weede 1981). Both the independent and dependent variables are aggregate numbers taken at the national level. This particular study uses 96 separate countries, which constitutes the universe of case for which data are available. The population of 96 nations used in this study is large and geographically varied enough that it allows for large degree of confidence in the significance of the results. The specific break down of countries is as follows: 22 countries from North and South America, 21 countries from Europe, 27 African counties, 10 Middle Eastern countries, and 16 from Asia. In other words, the large "N" of this study should assuage fears that the results are not in some way due to either a biased selection of cases or a statistical anomaly[1].

The dependent variable for each regression is the log of the death rate for domestic political violence that occurs in each country. The source for the raw data is the *World Handbook of Political and Social Indicators* (Taylor and Jodice, 1983). This

[1] For a complete list of the counties used in this study see Appendix A.

measure suffers from less reporting bias then other measures of domestic political violence, such as: assassinations, deaths caused by armed attacks, or composite indexes (Muller, 1985; Muller and Weede, 1990; and Weede, 1981). The logarithmic transformation of the dependent variable smoothes out many of the outliers, giving a more representative dependent variable for the regressions (Muller, 1985). Because a different regression tests both deprivation and rational action theory each has separate independent variables, which are operationalized by different means.

Rational Action Theory:

The independent variables for rational action theory are regime repressiveness, and the square of regime repressiveness, and the specific rational action theory hypotheses are:

H_1 People will resort to domestic political violence when the benefits of violence outweigh the costs.

H_2 An increase in domestic political violence has an inverted "U" effect on domestic political violence (Muller and Weede 1990).

This study operationalizes regime repressiveness by using the ratings of political rights and civil liberties provided by Raymond Gastil (Taylor and Jodice, 1983). This variable is the average of the numerical value of political right and civil liberties in each country for the years 1973-1977. Gastil's measure ranges from a low of 1.0 to a high of 7.0. This means that a state with a very low score has a low level of regime repressiveness (a range of 1-2.49). A country with a score between 2.5-5.5 is semi-repressive, and a country with a score between 5.5-7.0 has a highly repressive regime (Muller and Weede, 1990).

This study uses the square of the regime repressiveness variable because it makes

it possible to test for the inverted "U" relationship hypothesized by rational action theory using ordinary least squares regression (OLS). OLS regressions predict how well an independent variable explains a straight line through the data. However, rational action theory predicts a nonmonotonic relationship. It is possible to show this relationship using standard OLS regressions by running the independent variable and its square. If the coefficient for the regular independent variable is positive, and its squared term negative, then the relationship between the dependent variable and the independent variable is in the form of an inverted "U" (Muller and Weede, 1990). This is the relationship looked for in this study.

Relative Deprivation Theory:

The independent variables for the model testing relative deprivation theory are from Gurr's 1972 data for his study, "A Causal Model of Civil Strife." These variables measure the amount of relative deprivation in a country and by dividing deprivation into persistent and short-term. The specific relative deprivation hypotheses tested in this study are:

H_3 The greater the level of deprivation in a country, the greater level of frustration, which leads to a higher level of domestic political violence (Gurr 1970).

H_4 Increases in persistent deprivation lead to increases in the level of domestic political violence within countries (Gurr 1972).

H_5 Increases in short-term political deprivation lead to increases level of domestic political violence within countries (Gurr 1972).

H_6 Increases in short-term economic deprivation lead to increases in the level of domestic political violence within countries (Gurr 1972).

The persistent deprivation variable is a weighted average of six measures of conditions that Gurr (1972) describes as common and relatively unchanging sources of

deprivation. These six measures include: (1) economic deprivation, (2) political discrimination, (3) potential separatism, (4) dependence on foreign capital, (5) religious cleavages, and (6) lack of educational opportunities.

Gurr (1972) also includes short-term deprivation variables, which he describes as measures on a priori grounds as common sources of deprivation susceptible to short-run change, compared to those he classified as long-run persistent deprivation. This study includes the short-term variables because they allow a comparison between short and long-term deprivation in predicting levels of domestic political violence. The variable for short-term economic deprivation created by Gurr (1972) is a weighted average of five separate measures. These measures include: (1) Short-term relative declines in total value of foreign trade, 1957-1960 compared with the 1950-75 base; (2) Short-term relative declines in total value of foreign trade, 1960-1965 compared with the 1950-1960 base; (3) Relative increases in inflation rates, 1960-1963 compared with 1958-1961; (4) Relative decreases in GNP growth rates, 1960-1963 change compared with a 1950's base period; (5) Economic adversity 1960-63 (estimates of the extent and intensity of specified types of adverse internal economic conditions).

The final independent variable tested in the deprivation model is short-term political deprivation. This is a weighted average of two measures of short-term political deprivation: (1) New restrictions on political participation and representation 1960-1963, (2) New value-depriving policies of governments 1960-1963 (Gurr, 1972).

Table 1

Independent Variables Tested

Rational Action Theory:	**Deprivation Theory:**
Regime Repressiveness	Persistent Deprivation
Regime Repressiveness Squared	Short-term Economic Deprivation
	Short-term Political Deprivation

As has already been noted, this study uses old data. There are, however, several justifications. The first and most important is that these theories test hypothesized levels of violence for given conditions, and as such there is no reason to believe they are temporally bound. This study assumes, (*ceteris paribus*), that the propensity for political violence remains constant.

There are also several more practical reasons for the use of older data. The first is that the older data are easier to obtain. These data are also accepted and have been used in previous research (Gurr, 1968; Muller, 1985; Muller and Weede, 1990; Sigelman and Simpson, 1977; Weede, 1981). Another reason for the use of older data is due to the independent variables for the deprivation model. By using independent variables constructed and specified by Gurr (1972) it becomes possible to not only to test deprivation theory using unbiased measures, but also use a level of sophistication in the independent variables that would have otherwise been far outside the scope of this study. To reap these benefits it is necessary to use the older 1960's data.

The use of Gurr's induces does not in any way mean that this study was simply a repeat of Gurr's 1972 study. The purpose of this study is to independently test deprivation and rational action theories, and then compare the results in the hopes of determining which theory best explains why countries experience domestic political violence. While it is certainly true that this study creates no new theories the work it does in testing and comparing the two theories is important.

Analysis

Rational Action Theory:

This section first tests rational action theory with some encouraging results. A simple means test compares the difference between the average number of deaths per million caused by domestic political violence for each of the three levels of regime repressiveness. If rational action theory holds, we would expect to find the average deaths per million for states classified as having a low level of repression to also have a low average. A state classified as a semi-repressive regime should have a higher average number of deaths per million caused by domestic political violence, than states with low levels of repression. Finally, rational action theory predicts that states classified as highly repressive have a lower average than semi-repressive states.

In this study, the data supports the predictions made by rational action theory. The average for states in the low regime repressiveness category was .52 deaths caused by domestic political violence per million of population. This average increases to 2.21 deaths per million for semi-repressive regimes, and then drops back down to .83 deaths per million for highly repressive regimes.

Bolstered by the results from the average number of deaths per million, regression analysis was used to further test the rational action hypothesis. The results of this model are in Table 2.

Table 2
Rational Action Theory[2]

	Dependent Variable: Log of Deaths
Independent Variables:	
Regime Repressiveness	9.06 (.0025)
Regime Repressiveness Squared	-1.32 (.0025)
Intercept	-16.77 (.0006)
Adjusted R^2	.13030
Number of Cases	92

Note: In the above table the top number for the independent variables is the coefficient, and the bottom number in parentheses is its significance of T value.

The results of the model testing rational action theory using the log of domestic political violence as the dependent variable are supportive of the theory. Both of the independent variables have values for their significance of T that are well below the .05 level, demonstrating that the variables are significant. Therefore, the T values are low enough to reject the null hypothesis that no relationship exists. The adjusted R^2 for this model is also quite good. An adjusted R^2 of .13 means that the independent variables explain almost 13 percent of the variance in the dependent variable. It is important to note that while an adjusted R^2 of .13 may not seem high, it is comparable to Muller and Weede's (1990) adjusted R^2 of .16. Although lower than Muller's (1985) adjusted R^2 of

[2] Note for the model testing rational action theory four counties had numbers for deaths per million that were extreme even after the log was taken. These countries are thrown out as outliers.

.24, however Muller (1985) uses a much smaller sample than the one used in this study.

Probably the most interesting aspect of this model is that it directly supports rational action theory's inverted U-curve hypothesis. Notice that the coefficient for the regime repressiveness variable is positive, while the coefficient for the square of regime repressiveness is negative. These findings conform to an inverted U-curve relationship between regime repressiveness and the log of the death rate per million caused by domestic political violence, and therefore support the hypothesis put forward by rational action theory.

Relative Deprivation Theory:

The next theory tested is relative deprivation theory. The model testing this theory contained persistent deprivation, short-term economic deprivation, and short-term political deprivation, as the independent variables. Because of the larger number of variables this study began with bivariate correlations as a "first cut" at testing their relationship with political violence. The results are in table 3.

Table 3

Correlation Coefficients for Deprivation Theory Variables

	Log of Deaths
Persistent Deprivation	.2680 P=.086
Short-term Economic Deprivation	.1880 P=.233
Short-term Political Deprivation	.3466 P=.025

Note: The number on top is the coefficient, and the significance level is tested using a two-tailed test.

The bivariate analysis demonstrates the explanatory power of each variable, and justify their inclusion in a multivariate model. Short-term economic deprivation is statistically insignificant at the .1 level, but both persistent and short-term political deprivation are both significant at the .1 level. The correlation coefficients for the

significant variables (.27 for persistent deprivation, and .36 for short-term political deprivation) are correlated in the manner predicted by relative deprivation theory. As both short-term and persistent deprivation are significant at the .1 level these variables are the independent variables for the model testing deprivation theory. The results of the model testing deprivation theory are in Table 4.

Table 4

Relative Deprivation Theory

Independent Variables:	**Dependent Variable:** Log of Deaths per Million
Persisting Deprivation	.0147 (.0895)
Short-term Economic Deprivation	NA
Short-term Political Deprivation	.0124 (.0262)
Intercept	-1.025 (.0666)
Adjusted R^2	.1417
Number of Cases	96

Note: In the table above for the independent variables the top number is its coefficient, and the bottom number in parenthesis is its significance of T value.

Both independent variables in this model remain significant, and the coefficients are positive, as deprivation theory would predict. The model also shows that an increase in either short-term political or persistent deprivation will lead to an increase in domestic political violence. This is exactly the relationship hypothesized by deprivation theory. With both short-term political and persistent deprivation as the independent variables the model has an adjusted R^2 of .14. Using the more stringent .05 test for significance levels, persistent deprivation drops out, and a regression run using only short-term political deprivation yields an R^2 of .10.

It is important to note that although short-term political deprivation is the most statistically significant deprivation variable, bivariate correlations show that all of the deprivation variables are highly correlated. These results are predictable as all of the deprivation variables are ostensibly measuring the same thing, relative deprivation. Thus while the deprivation variables are admittedly correlated, short-term domestic political violence seems to be the most important deprivation indicator in explaining domestic political violence.

This study's adjusted R^2 is not as high as the R^2 of .36 Gurr (1968) found in his original study testing relative deprivation. It is unclear why this study has a lower R^2 than Gurr's (1968) study testing the same variables. One possible explanation is that Gurr's use of a different dependent variable yielded better results. However if this study had used the dependent variable employed by Gurr (1968) it makes the two models tested much less comparable, thus this study uses the same dependent variable for each model.

Conclusions

The regression analysis yielded mixed results. Both models are statistically significant, with each explaining from 13-14 percent of the variance in domestic political violence. An R^2 of .14 is not explaining the majority of the variance in domestic political violence to be sure, but the models do show that both theories are important in accounting for at least some of the variance. Considering that the purpose of each model was to test only one main hypothesis, 14 percent of the variance is quite respectable.

While the results for each model are good, they are also somewhat disappointing. The purpose of this paper is to test and compare two competing theories. The results showed however that each theory did a remarkably equal job in explaining the variance in

domestic political violence between countries. Because the results are so similar, it is impossible to say that one theory is "better" than the other.

One possible explanation for the similarities between the results of the two models may be due to a correlation between levels of regime repressiveness and relative deprivation. It is quite possible that when people calculate the costs and benefits of political violence that they take into account levels of deprivation. This study tests this idea by running a correlation coefficient between the independent variables in each model. The results support the idea that a relationship exists. Regime repressiveness from the rational action model, and persistent deprivation from the relative deprivation model, are somewhat correlated with a coefficient of .4275, significant to the .000 level. However, the two short-term deprivation variables are not correlated with regime repressiveness. It appears that the relationship between the rational action theory and relative deprivation theory is another area for future research.

As both the models explain approximately 14 percent of the variance, it also shows that neither theory by itself explains the majority of the variance. The literature of this field may help explain why neither theory provides a definitive answer to the question of the causes of domestic political violence. It seems that the answer may simply be too complicated to explain using only one theory. This is probably why there are so many different competing theories and ideas in the field of domestic political violence. Results from this study indicate that deprivation and cost-benefit thinking are involved in why people rebel, but there are certainly other reasons. The literature in the domestic violence field also points to income inequality, economic development, and resource mobilization, as just a few of the other factors involving in the decision making

process. Because the literature points to so many factors future research including a multi-causal model is appropriate.

The study of domestic political violence is as an important area of research now, as it was thirty years ago. The purpose of this study was to fill a very small niche in that field. Of course, more work testing both deprivation and rational action theories is desirable, preferably using more sophisticated research tools. One specific area of improvement would be to use survey data to test deprivation theory. This is because survey data would do a better job getting at how people "feel" than the empirical measures used in this and previous studies[3].

[3] See appendix B.

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Appendix A

United States
Canada
Cuba
Haiti
Dominican Republic
Jamaica
Mexico
Guatemala
Honduras
El Salvador
Nicaragua
Costa Rica
Panama
Colombia
Venezuela
Ecuador
Peru
Brazil
Paraguay
Chile
Argentina
Uruguay
United Kingdom
Ireland
The Netherlands
Belgium
France
Federal Republic of Germany
German Democratic Republic of
South Vietnam
Singapore
Philippines
Indonesia
Australia
New Guinea
New Zealand

Poland
Austria
Hungary
Czechoslovakia
Italy
Yugoslavia
Greece
Bulgaria
Romania
USSR
Finland
Sweden
Norway
Denmark
Senegal
Niger
Ivory Coast
Guinea
Liberia
Sierra Leone
Ghana
Togo
Cameroon
Nigeria
Central Africa Republic
Chad
Congo
Uganda*
Kenya
Burundi
Somalia

Ethiopia*
Angola*
Mozambique*
Zambia
Malawi
South Africa
Morocco
Algeria
Tunisia
Libya
Sudan
Iran
Turkey
Iraq
Egypt
Syria
Lebanon
Israel
Saudi Arabia
Yemen Arab Republic
United Arab Emirates
Afghanistan
People's Republic of China
Japan
India
Pakistan
Burma
Nepal
Thailand

Note: The starred countries were not included in the rational action model.

Appendix B

According to T. Y. Wang (1993) the lack of the use of survey data in the field of domestic political violence is a large gap in the field. This study attempted to use survey data to test deprivation theory, with The World Values Survey (1994) as a possible source for data to fill this empirical gap.

Questions such as, "All things considered, how satisfied are you with your life as a whole? Please answer 1-10," appear to get past the problem of measuring how people feel. After finding suitable questions the problem became finding data for the dependent variable deaths caused by domestic political violence. The World Values Survey (1994) uses two different samples one taken from 1981-1984, and the other from 1990-1993. The data for deaths caused by domestic political from Taylor and Jodice only goes through 1982, and more recent data are not available. Therefore to use The World Values Survey one is forced to choose the older sample.

The problems arise from the both the size and scope of this sample. The sample includes only 22 countries making regression and more sophisticated analysis impossible. The more important problem stems from the countries included in the 1981-1984 sample. Most of the countries in the sample are either Western European or North American, and according to Taylor and Jodice the only deaths caused by domestic political violence in those countries during or directly before the survey were in the US. This effectively negates the dependent variable making any type of statistical analysis impossible. So after a lot of effort it was found that indeed the use of survey data is needed to test deprivation, but at this time it is impossible to do this type of work on the statistical level.