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*Journal of Conflict Resolution* 2005; 49; 278

DOI: 10.1177/0022002704272830

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# Does Democracy Promote or Reduce Transnational Terrorist Incidents?

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This article studies the various mechanisms by which democracy affects transnational terrorism. New theoretical mechanisms are identified that either complement or encompass existing arguments. Different effects of democracy on transnational terrorism are assessed for a sample of about 119 countries from 1975 to 1997. Results show that democratic participation reduces transnational terrorist incidents in a country, while government constraints increase the number of those incidents, subsuming the effect of press freedom. The proportional representation system experiences fewer transnational terrorist incidents than either the majoritarian or the mixed system.

**Keywords:** *transnational terrorism; democracy; government constraints; democratic participation; electoral system; negative binomial*

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**H**ow does democracy affect transnational terrorist activities? Two theoretical arguments in the literature posit opposite expectations (see, e.g., Schmid 1992; Eubank and Weinberg 1994, 1998, 2001; Eyerman 1998; Ross 1993). The first argument expects that democracy reduces transnational terrorism. Democratic societies offer access for citizens to seek recourse to their grievances, while democratic rules ensure the nonviolent resolution of conflicts of interest. Hence, groups in democratic societies are more likely to pursue nonviolent alternatives rather than costly terrorist activities to further their interest. The second argument, however, suggests that democracy encourages terrorism. Democratic countries provide relatively more freedom of speech, movement, and association, permitting parochial interests to get organized and reducing the costs of conducting terrorist activities. Open democratic societies therefore facilitate terrorism.

Most but not all of the empirical evidence to date supports the notion that democracy encourages transnational terrorism. In a pioneering paper, Eubank and Weinberg (1994) examine whether democratic or authoritarian regimes host more terrorist

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**AUTHOR'S NOTE:** The author wishes to thank Todd Sandler, Bruce Russett, Navin Bapat, Alex Braithwaite, Pat James, Leonard Weinberg, and the anonymous referees for their helpful comments and suggestions. Young Hun Kim and Tatiana Vashchilko provided valuable research assistance. An earlier version of this article was presented at the annual meeting of International Studies Association, Montreal, Canada, March 2004. The replication data set is available at <http://www.yale.edu/unsy/jcr/jcrdata.html>.

JOURNAL OF CONFLICT RESOLUTION, Vol. 49 No. 2, April 2005 278-297

DOI: 10.1177/0022002704272830

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groups. They find that terrorist groups are more often found in democratic societies than in authoritarian ones. They conclude that political and civil liberties are positively associated with political terrorism. Sandler (1995) challenges the finding by Eubank and Weinberg on methodological grounds. He argues that events data, rather than the number of terrorist groups, are more appropriate for assessing the relationship between democracy and terrorism. In response, Eubank and Weinberg (1998) reanalyze the relationship between democracy and terrorism by employing the international terrorist events data from the RAND–St. Andrews Chronology of International Terrorism and the U.S. State Department. They investigate whether political regime type is linked to the frequency of international terrorist events within countries in 1994 and 1995. They find that terrorist events are substantially more likely to occur in free and democratic countries. Moreover, countries undergoing regime change are more likely to experience transnational terrorism. Meanwhile, however, Eyerman (1998) finds somewhat contradictory evidence based on a multivariate negative binomial regression using the ITERATE (International Terrorism: Attributes of Terrorist Events) database. He finds that established democracies experience fewer terrorist events than nondemocracies, while new democracies tend to have more terrorist incidents than other types of states. In a follow-up analysis, Eubank and Weinberg (2001) also employ the ITERATE database to classify terrorist events according to their location, the perpetrator nationality, and the victim nationality. They find that terrorist attacks occur most often in stable democracies and that both the perpetrators and victims of those attacks are from the same democratic states. Recently, Li and Schaub (2004) have used the ITERATE data to analyze how economic globalization affects terrorist incidents. From their multivariate negative binomial regression, they find that democracy as a control variable has a statistically significant positive effect on the number of transnational terrorist incidents in countries.

While most empirical evidence shows that democracy encourages transnational terrorism, extant theoretical and empirical work suffers several important weaknesses. First, at the theoretical level, the positive effect of civil liberties on transnational terrorism is epiphenomenal of some other fundamental regime attribute. I argue that it is the institutional constraints on the government that drive the positive effect of democracy on terrorism. In addition, previous arguments in the literature have ignored the heterogeneity of democratic systems across countries. I argue that such institutional differences account for cross-country variations in transnational terrorist activities.

Second, there exists a disconnection between theoretical arguments and empirical analyses in the literature. Competing theoretical expectations are derived from consideration of different attributes of democracy. Existing empirical analyses, however, all employ some aggregate indicator of political regime type. This approach is problematic because an aggregate indicator cannot offer an empirical separation of the positive and negative effects of democracy if competing effects are at work at the same time. Hence, aggregate indicators of regime type are not useful for evaluating arguments on disparate effects of different attributes of democratic institutions.

Finally, the widely cited analyses by Eubank and Weinberg (1994, 1998, 2001) do not control for additional factors such as economic development and income inequality that may confound their findings. The multivariate analysis by Eyerman (1998)

fails to address important statistical problems such as heteroskedasticity and serial correlation in the error term that may affect statistical inferences. These empirical issues need to be addressed.

In this article, I focus on the various mechanisms by which democracy affects transnational terrorism. I identify new theoretical mechanisms that either complement or encompass existing arguments. Different effects of democracy are assessed using a multivariate analysis in a sample of about 119 countries from 1975 to 1997 using the ITERATE database. The findings have important policy implications for the war on terrorism and for promoting democracy around the world.

### **THEORETICAL ARGUMENT**

In this analysis, terrorism is defined as the premeditated or threatened use of extranormal violence or force to obtain a political, religious, or ideological objective through the intimidation of a large audience (e.g., Enders and Sandler 1999, 2002). Because extant empirical evidence in the democracy-terrorism literature is exclusively based on transnational terrorism data, I choose to focus on transnational terrorist incidents in this article. A transnational terrorist incident in a country involves victims, perpetrators, targets, or institutions of another country. Based on the incident venue, transnational terrorist incidents can involve (1) terrorist attacks initiated by foreign terrorists against some domestic target in a country, (2) attacks by domestic terrorists against some foreign target in a country, or (3) attacks by foreign terrorists against some other foreign target in a country.

Democracy in this article refers to the notion of representative democracy that typically implies free and fair elections of the executive and legislative offices, the right of citizens to vote and compete for public office, and institutional guarantees for the freedom of association and expression such as an independent judiciary and the absence of censorship (Dahl 1971, 1998). Distinct institutional characteristics of democratic polity produce different effects on transnational terrorism.

### **NEGATIVE EFFECT OF DEMOCRATIC PARTICIPATION**

One argument in the democracy-terrorism literature posits that aspects of democracy reduce terrorism. In nondemocratic societies, the lack of opportunities for political participation induces political grievances and dissatisfaction among dissenters, motivating terrorism (Crenshaw 1981, 383). In contrast, in democratic societies, free and fair elections ensure that rulers can be removed and that desirable social changes can be brought about by voters, reducing the need to resort to violence (Schmid 1992). Democratic rules enable nonviolent resolution of political conflict. Democracies permit dissenters to express their policy preferences and seek redress (Ross 1993). Different social groups are able to participate in the political process to further their interest through peaceful means, such as voting and forming political parties (Eubank and Weinberg 1994, 2001). Since democracy lowers the cost of achieving political goals

through legal means, groups find costly illegal terrorist activities less attractive (Ross 1993; Eyerman 1998).

Wide democratic participation also has beneficial consequences that remain largely unnoticed in the literature. To the extent that democratic participation increases political efficacy of citizens, terrorist groups will be less successful recruiting new members in democracy than in autocracy. This may reduce the number of terrorist attacks in democracy. Within the context of transnational terrorism, wide democratic participation helps to reduce incentives of domestic groups to engage in terrorist activities against foreign targets in a country. When citizens have grievances against foreign targets, greater political participation under a democratic system allows them to exert more influence on their own government so that they can seek favorable policy changes or compensation more successfully. Joining a terrorist group and attacking the foreign target become less appealing options. To the extent that democratic participation leads to public tolerance of counterterrorist efforts, a democratic government will be more effective stopping a variety of terrorist attacks, including those by domestic terrorists against foreign targets as well as those committed by foreign terrorists in the country.

*Hypothesis 1:* Greater democratic participation reduces the number of transnational terrorist incidents in a country.

#### **CIVIL LIBERTIES, REPORTING BIAS, AND POSITIVE EFFECT OF GOVERNMENT CONSTRAINTS**

A second argument in the literature claims that democracy encourages terrorism. This is based on the premise that democracies provide greater civil liberties (e.g., Schmid 1992). By guaranteeing civil liberties, democracies allow terrorists to become organized and maneuver easily, reducing the costs of conducting terrorist activities (Ross 1993; Eyerman 1998). Expansive and secure civil liberties also make it harder for the legal systems in democracies to convict terrorists and for democratic governments to prevent or retaliate against terrorism (Schmid 1992; Eubank and Weinberg 1994, 2001). As Crenshaw (1981, 383) notes, "The desire to protect civil liberties constrains security measures."

The hypothesized effect of civil liberties, however, involves two confounding issues. First, civil liberties may also generate a mitigating effect on terrorism. Citizens enjoying more civil liberties are more likely to influence the political process successfully. To the extent that civil liberties reduce political grievances, they may also reduce terrorist activities. Therefore, civil liberties alone do not help us separate the positive and negative effects of democracy, either theoretically or empirically.

Second, press freedom, as part and parcel of civil liberties, may induce possible terrorist incident reporting bias and create an additional incentive for terrorism. The bias in the reporting of terrorist incidents between different regime types has been widely recognized (see, e.g., Schmid 1992; Eubank and Weinberg 1994; Sandler 1995; Li and Schaub 2004). Terrorist incidents are more likely to be reported in democratic countries but less so in nondemocratic ones. This is so because democratic countries place

fewer restrictions on the media, the less restrained news-seeking media in democracies tend to provide more extensive coverage of terrorist events, or both. In contrast, reporting of such incidents in nondemocratic countries is heavily controlled and censored. Since data on terrorist incidents are collected from open sources, one is likely to conclude that democracies have more terrorist incidents. Even if nondemocratic countries experience the same number of incidents, observers may never find out, using data collected from open sources. The reporting bias may falsely cause one to observe a positive correlation between the level of civil liberties and the number of terrorist events.

The reporting bias, however, may be more real than it seems. A terrorist group succeeds because of its ability to terrorize. To terrorize a wide audience, terrorists pursue recognition and attention by seeking to expand publicity and media coverage of their activities (see, e.g., Crenshaw 1981; Atkinson, Sandler, and Tschirhart 1987). Press freedom increases the opportunities for terrorists to be heard and watched by a large audience and hence their ability to create widespread fear. All else equal, that press freedom can satisfy the desire of terrorists for publicity creates greater incentives for terrorist activities. In addition, because of the newsworthiness of terrorist events, free press often reports terrorist incidents with excessive details, helping to recruit, teach, and train new terrorists (Schmid 1992). Press freedom and its alleged reporting bias thus generate a real positive effect on transnational terrorist incidents.

I argue that the positive effect of civil liberties, particularly press freedom, on terrorism is epiphenomenal of a crucial attribute of democratic governance—the institutional constraints on the decision-making power of government. The enormous freedom of speech, movement, and association in democracy terrorists take advantage of is contingent in nature. Regardless of regime type, a country that experiences terrorist attacks often attempts to prevent future attacks by adopting policies that circumscribe the freedom of terrorists. These counterterrorist strategies, however, often restrict civil liberties for society as a whole. Counterterrorist intelligence gathering, for example, infringes on personal privacy for all citizens. Because the state monopolizes the legitimate use of force, the degree of civil liberties depends on the strength of institutional constraints on the freedom of action of the government.

The freedom of action of an autocratic government is largely defined by the support of the elite. The democratic government, in contrast, is held accountable to the legislature and the electorate through checks and balances and elections. Relative to the autocratic ruler, the democratic government faces a wider range of institutionalized constraints over its exercise of power. This institutional difference between regime types means that there are more veto players over government policy in democracy than in autocracy. Such political constraints prevent the democratic government from encroaching on civil liberties. Democracies with inadequate executive constraints are less likely to respect civil rights. Therefore, the effect of civil liberties on terrorism is epiphenomenal of the institutional constraints on government because the extent of civil liberties, particularly press freedom, is fundamentally determined by the strength of those constraints.

Institutional constraints on the democratic government are likely uncorrelated with the negative effect of democracy on terrorism. Policy inaction and political deadlock

often occur in democratic polities as a result of the constraints on the policy-making power of government. To the extent that policy inaction and political deadlock fail to reduce grievances but heighten public frustration, government constraints do not reduce but rather encourage terrorism. If one considers the implication of Fearon and Laitin's (2003) argument on civil war, terrorist groups are typically extremely marginal groups whose political grievances are too narrow to be resolved through a democratic system. Policy inaction and political deadlock, induced by institutional checks and balances, will increase the grievances of marginalized groups, pushing them toward violence.

More important, I argue that institutional constraints significantly weaken the ability of the democratic government to fight terrorism. Because the winning coalition in democracy tends to be larger, institutional checks and balances hold the democratic government accountable to a broader range of societal interests. It is, therefore, difficult for democracies to enact antiterrorist strategies that are as strict as those commonly adopted by nondemocratic regimes (Wilkinson 2001). Enacting repression and effective deterrence is more costly to the government in a competitive political system because it may harm political support and cause the government to lose power. In contrast, the largely unconstrained, repressive military regime, for example, can disregard civil liberties, effectively crush terrorist organizations, and reduce terrorist incidents (Crenshaw 1981).

Finally, I also argue that institutional constraints perversely strengthen the strategic position of terrorists in their interactions with the government. Institutional checks and balances allow a broad range of interests to influence government policy making and involve careful and regular oversight and scrutiny of government performance and policy failures. As a result, the security of a vast number of citizens becomes the concern of the democratic government. Creating a general terrorist threat that affects most citizens is likely to be effective in democratic countries. Also, the cost of generating such a threat is low because of the abundance of targets valuable to the democratic government. In nondemocratic countries, the government is constrained only by the ruling elite, so an effective terrorist threat need only target those in the small ruling coalition. Because the ruling elite are easier to protect than the general population, an effective terrorist threat is much more costly and difficult to mount in nondemocratic regimes.

Within the context of transnational terrorism, the effect of government constraints applies to both domestic terrorists and foreign terrorists in a country, thus influencing all three types of transnational terrorist attacks.

*Hypothesis 2:* Countries with more institutional constraints on their governments experience more transnational terrorist incidents.

#### **DIFFERENT EFFECTS OF ALTERNATIVE DEMOCRATIC SYSTEMS**

Democracies are not homogeneous but have different electoral systems. As these systems aggregate preferences differently, they influence citizen satisfaction and political grievances differently, producing disparate effects on the incentives to engage

in terrorism. Huber and Powell (1994) explore how two different democratic systems affect the congruence between citizen preferences and public policies. The majoritarian system creates single-party majority governments, while the proportional representation system produces legislatures that often represent the preferences of all citizens. In the majoritarian system, the government winning the election is committed to policies corresponding to the preferences of the median voter. In the proportional system, bargaining in the legislature that reflects the preferences of all citizens results in policies that are linked to the position of the median voter. With regression analysis of the proportional, mixed, and majoritarian systems in twelve nations in the late 1970s and early 1980s, Huber and Powell show that, on average, the proportional system leads to closer congruence between citizen self-placements and the estimated positions of governments than the other two systems.

Analyzing the effects of different democratic systems on civil wars, Marta Reynal-Querol (2002) argues that the proportional system has a lower probability of group rebellion than the majoritarian system. This is so because the opportunity cost of rebellion is higher under the more participatory proportional system than under the majoritarian system. She finds that countries of the proportional system have a lower probability of experiencing civil wars than those of the majoritarian system.

Based on the analyses by Huber and Powell (1994) and Reynal-Querol (2002), I argue that variations in democratic electoral systems also systematically influence transnational terrorism. Because the proportional system is most inclusive and has the closest congruence between citizen preferences and public policies, the proportional system is more likely to resolve political grievances than either the majoritarian or the mixed system, reducing incentives to resort to terrorism. Alternative nonviolent solutions to grievances also are more accessible under the proportional system than under the majoritarian system. Within the context of transnational terrorism, citizens under the proportional system will have less incentive to turn violent against some foreign target within their countries than those under the majoritarian or the mixed system. Different democratic systems will experience different frequencies of terrorist attacks.

*Hypothesis 3:* Democratic countries with the proportional system have fewer transnational terrorist incidents than those with the majoritarian or the mixed system.

## RESEARCH DESIGN: MEASURES, DATA, AND METHODS

An empirical analysis is designed to test the above hypotheses. The unit of analysis is country year. The main estimation sample covers about 119 countries from 1975 to 1997. The dependent variable is the annual number of transnational terrorist events that occur in a country. Data are from the ITERATE database (Mickolus et al. 2003). The ITERATE database includes 12,104 incidents from 1968 to 2001. The estimation sample is smaller due to data availability of the independent variables.

A measure of *democratic participation* for testing hypothesis 1 combines the electoral participation variable in Vanhanen's (2000a, 2000b) Polyarchy data set with a

dichotomous indicator of democracy.<sup>1</sup> A country is defined as a democracy if the widely used composite indicator of regime type from POLITY IV (Marshall and Jaggers 2000), computed as the difference between the 10-point democracy index (DEMOC) and the 10-point autocracy index (AUTO), is greater than or equal to 6.<sup>2</sup> Vanhanen's electoral participation variable is the percentage of the population that actually voted in general elections. *Democratic participation* is coded as equal to Vanhanen's electoral participation variable only if a country is a democracy and coded zero for nondemocracies.<sup>3</sup>

Two issues related to the variable are worthy of clarification. First, voter turnout may be high in nondemocratic countries because of the repressive nature of the regime (e.g., Iran, Libya). While these countries have high voter turnout records based on Vanhanen's (2000a, 2000b) electoral participation data, turnout is not voluntary since absence may lead to political persecution. Hence, the statistics for this type of countries should not be used to measure the extent to which their citizenry are participatory and satisfied with their political regime. This justifies coding *democratic participation* as equal to the voter turnout only if a country is democratic. Second, voter turnout in some highly advanced countries such as the United States is often low, not because the citizens are unhappy but arguably because they are generally satisfied and rarely have serious grievances against the political system. To control for this confounding effect, real gross domestic product (GDP) per capita is included in the model.<sup>4</sup> In addition, these cases only make it harder for the effect of *democratic participation* to be statistically significant, posing a tougher test of hypothesis 1. *Democratic participation* is expected to have a negative effect.

*Govt constraint* measures the extent of institutionalized constraints on the decision-making power of chief executives, reflecting the checks and balances in the policy-making process. This variable is based on the executive constraints variable from the POLITY IV database (Marshall and Jaggers 2000). It is on a 7-point scale, with 1 indicating *unlimited authority* and 7 denoting *executive parity or subordination*.<sup>5</sup> *Govt constraint* should have a positive effect.

To test hypothesis 3, I construct three dummy variables following Huber and Powell (1994). *Proportional* (or *majority* or *mixed*) is coded 1 if a country is democratic, based on the POLITY IV data and the same coding rule discussed above, and if

1. For robustness check, I also use the index from Freedom House instead of the POLITY scale. The overall freedom index codes each country's overall status as being free, partly free, or not free, based on the combined average of each country's political rights and civil liberties ratings. Using the Freedom House index as the democracy cutoff does not change the results of variables.

2. The cutoff value of 6 follows the conventional practice of many other international relations scholars (see, e.g., Dixon 1994).

3. The behavior-based electoral participation variable may correlate with other regime variables in the model. To reduce collinearity, the electoral participation variable is centered before being used to construct *democratic participation*. This procedure follows the suggestion of Aiken and West (1991).

4. Because such countries typically belong to the Organization for Economic Cooperation and Development (OECD) group, I assess whether the results are sensitive to the OECD membership. Including the OECD dummy does not change the results.

5. Following the suggestion of Aiken and West (1991), the variable is centered to reduce collinearity.

it also has a proportional representation (or majoritarian or mixed) system and zero otherwise. The excluded reference category is the nondemocratic system. Testing hypothesis 3 requires the equality tests between *proportional*, on one hand, and *majority* and *mixed*, respectively, on the other hand. Data are from Golder (forthcoming), which record the years of all institutional changes for 199 countries from 1946 to 2000.<sup>6</sup>

The control variables include economic development, income inequality, regime durability, country size, government capability, history of terrorist incidents, post-cold war change, military conflict involvement, and regional differences. Details of these control variables are in the appendix. While most of the control variables follow those in Li and Schaub (2004), the history of terrorist incidents is measured differently, and regime durability is a new variable, both requiring clarification.

*Regime durability* is the number of years since the most recent regime change.<sup>7</sup> The variable is too important to exclude. Several previous studies (e.g., Eubank and Weinberg 1998; Eyerman 1998) find that countries undergoing regime changes are more likely to experience terrorist incidents and that new democracies experience more terrorist incidents than other countries. The confounding effect of regime change thus must be controlled for in analyzing the effect of democracy. The variable should have a negative effect.

*Past incident* measures the history of a country as a venue of terrorist incidents. Many countries experience persistence of terrorism (e.g., Israel). Li and Schaub (2004) control for this path dependence effect by including the lagged dependent variable. The use of the lagged dependent variable, however, has two weaknesses. First, it takes up too much variation in the dependent variable that should be explained by other substantive variables (see, e.g., Achen 2000). Second, the lagged dependent variable reflects the immediate past. A country's historical involvement with terrorism runs much longer than that. *Past incident* is the logged average annual number of terrorist incidents within each country since 1968 or since independence if after 1968.

Because the dependent variable is event count, ordinary least squares (OLS) estimates can be inefficient, inconsistent, and biased (Long 1997). The negative binomial regression (Negbin I) is thus applied (Cameron and Trivedi 1986). Robust standard errors clustered by country are estimated, producing standard errors robust to both heteroskedasticity and a general type of serial correlation within the cross-sectional unit (Rogers 1993; Williams 2000). *Past incident* and *post-cold war* dummy also help to control for temporal dependence. One-tailed tests are applied because the hypotheses are directional. Because terrorist incidents may affect many of the right-hand variables (e.g., GDP per capita), all independent variables are lagged one year behind the dependent variable to control for possible simultaneity bias.

6. Reynal-Querol (2002) uses data from Colomer (2001) to create these variables. I use data from Golder (forthcoming) instead because Colomer (2001) covers only eighty-four countries.

7. This is defined as a 3-point change in the POLITY score over a period of three years or less, with the end of the transition period defined by the lack of stable political institutions, or the year 1900, whichever came last. The variable is log transformed to address skewed distribution.

## FINDINGS

Table 1 presents the statistical results. Model 1 provides the benchmark test of hypotheses 1 and 2 based on central arguments of the study. The effect of *democratic participation* is statistically significant and negative, consistent with hypothesis 1. Voter turnout in democratic societies reduces the number of transnational terrorist attacks in these countries. This finding stands in contrast with previous research, which has failed to find any systematic evidence that can substantiate the mitigating effect of democracy on transnational terrorism.

The effect of *govt constraint* is positive and statistically significant, consistent with hypothesis 2. Institutional constraints on government increase the number of transnational terrorist attacks within a country. This finding supports my argument on the role of government constraints.

For a one-point increase in the government constraint variable, the expected number of transnational terrorist incidents increases by 6.3 percent in the country; for a one-standard deviation (2.4) increase, the expected number of incidents rises by about 16 percent. In contrast, with a one-unit increase in the voter turnout in a democracy, the expected number of terrorist incidents in the country declines by about 1 percent; with a one-standard deviation (13 percent) increase, the expected number of incidents drops by 11 percent.

The results of many of the control variables are consistent with the findings of Li and Schaub (2004). The level of economic development of a country, measured by real GDP per capita, reduces the number of transnational terrorist incidents in a country. Income inequality is positive but insignificant, possibly due to its high correlation with GDP per capita. The two variables are negatively correlated at 0.76 in the sample. The variance inflation factor (VIF) scores for income inequality and GDP per capita are the highest among all variables, 6.72 and 6.03, respectively.

Countries going through regime changes are vulnerable to more transnational terrorist attacks, while countries with stable regimes tend to experience fewer incidents. Larger countries are exposed to more transnational terrorist attacks than are smaller ones.

Countries with more capable governments tend to experience more terrorist incidents. While they may have more resources to crack down on terrorists, they are more attractive and salient targets for publicity-seeking terrorists. Terrorist activities against more capable governments receive more media coverage, wider influence, and better recruits. While terrorists may have to pay high costs for acting against these governments, the expected returns also are likely to be high.

Military conflict involvement reduces the number of terrorist incidents in the country. While external military conflict creates grievances and opportunities for terrorists, it often leads to tightened domestic security measures, raising the costs of terrorist activities.

Countries with a history of terrorist activities continue to have more terrorist events. Terrorist groups, once operational organizationally, tend to continue their activities. Consistent with the finding of Enders and Sandler (1999), transnational terrorist inci-

TABLE 1  
Effects of Democracy on Transnational Terrorist Incidents within Countries, 1975-1997

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Democratic participation	-0.009** (2.26)		-0.009** (1.99)		-0.008** (1.80)	-0.010** (2.14)	0.003 (0.64)	-0.013*** (2.75)	-0.010*** (2.45)	-0.009** (2.19)
Govt constraint	0.061*** (2.62)		0.062*** (2.43)		0.066* (1.57)	0.060*** (2.44)	0.110*** (5.47)	0.059** (2.26)	0.062*** (2.66)	0.062*** (2.65)
Press freedom		0.550** (2.18)	0.066 (0.33)							
Proportional				0.072 (0.51)	-0.086 (0.34)					
Majority				0.269* (1.57)	0.078 (0.29)					
Mixed				0.383** (1.82)	0.217 (0.79)					
Income inequality	0.001 (0.04)	-0.009 (0.56)	-0.003 (0.21)	0.004 (0.27)	0.005 (0.34)	0.001 (0.03)	0.020** (1.98)	0.014 (1.19)	0.001 (0.07)	-0.0002 (0.01)
GDP per capita	-0.177* (1.63)	-0.087 (0.68)	-0.183* (1.58)	-0.202** (1.88)	-0.191** (1.82)	-0.163* (1.48)	-0.125 (1.18)	-0.153* (1.47)	-0.171* (1.59)	-0.189** (1.71)
Regime durability	-0.076* (1.63)	-0.215*** (3.33)	-0.093** (1.65)	-0.100** (2.18)	-0.080* (1.64)	-0.077* (1.64)	-0.047* (1.38)	-0.102*** (2.52)	-0.068* (1.42)	-0.075* (1.59)
Size	0.118*** (2.66)	0.345*** (6.14)	0.121*** (2.68)	0.094** (1.99)	0.103** (2.21)	0.119*** (2.67)	-0.015 (0.30)	0.219*** (6.01)	0.102** (1.93)	0.122*** (2.75)
Govt capability	0.275** (2.01)	0.627*** (3.39)	0.290** (2.00)	0.295** (2.18)	0.297** (2.13)	0.263** (1.80)	0.242** (2.08)	0.136 (1.10)	0.268** (1.98)	0.293** (2.20)
Past incident	0.547*** (12.17)		0.545*** (11.91)	0.543*** (12.13)	0.545*** (11.83)	0.551*** (12.19)	0.219*** (4.59)	0.570*** (13.45)	0.545*** (12.04)	0.547*** (12.25)

Post-cold war	-0.578*** (5.95)	-0.252*** (2.46)	-0.373*** (3.88)	-0.544*** (5.54)	-0.589*** (6.09)	-0.180 (0.82)	-0.668*** (9.12)	-0.418*** (4.19)	-0.571*** (5.79)	-0.587*** (6.01)
Conflict	-0.170* (1.51)	-0.025 (0.18)	-0.199** (1.68)	-0.150* (1.38)	-0.164* (1.45)	-0.082 (0.73)	-0.151 (1.22)	-0.225* (1.36)	-0.179* (1.59)	-0.171* (1.52)
Europe	0.221 (1.10)	-0.133 (0.44)	0.168 (0.88)	0.234 (1.19)	0.281* (1.41)	0.229 (1.09)	-0.047 (0.20)	0.509*** (2.60)	0.232 (1.15)	0.219 (1.10)
Asia	-0.494** (1.99)	-0.949*** (3.24)	-0.521** (2.11)	-0.398** (1.73)	-0.492** (2.00)	-0.502** (1.93)	-0.217 (0.89)	-0.690*** (3.24)	-0.479** (1.95)	-0.500** (2.01)
America	-0.349*** (2.37)	-0.214 (0.80)	-0.324** (2.22)	-0.286** (1.78)	-0.328** (2.17)	-0.364** (2.40)	-0.272* (1.43)	-0.451*** (2.92)	-0.380*** (2.55)	-0.341** (2.30)
Africa	-0.423*** (2.38)	-0.757*** (2.78)	-0.410** (2.26)	-0.357** (1.78)	-0.448** (2.22)	-0.443** (2.42)	-0.672*** (2.40)	-0.851*** (3.67)	-0.443*** (2.47)	-0.405** (2.28)
Trade										
Contraction										
Constant	-0.443 (0.29)	-5.307*** (2.63)	-0.318 (0.21)	-0.120 (0.08)	-0.391 (0.25)	-0.698 (0.44)	-0.360 (0.27)	-2.372** (1.75)	-0.146 (0.09)	0.026 (0.40)
Observations	2,232	2,039	1,974	2,293	2,232	2,232	2,218	1,685	2,218	2,219
Dispersion = 1	4.59	6.72	4.57	4.72	4.53	4.36			4.60	4.57
Wald test ( $\chi^2$ )	1,151	158	1,048	1,114	1,418	1,753	212	706	1,196	1,153
Equality tests ( $\chi^2$ )										
Proportional = majority				1.74*	0.95					
Proportional = mixed				2.24*	2.76**					

NOTE: Robust z-statistics, adjusted over countries, in parentheses, except for in models 7 (country fixed effects) and 8 (population averaged). GDP = gross domestic product. \*Significant at 10 percent. \*\*Significant at 5 percent. \*\*\*Significant at 1 percent.

dents declined in the post–cold war era. The Middle East and Europe are most susceptible to terrorist attacks, while Asia, America, and Africa experience fewer incidents relative to the Middle East.<sup>8</sup>

#### EFFECT OF PRESS FREEDOM

Models 2 to 3 evaluate the effect of press freedom on transnational terrorism and the results in model 1. *Press freedom* is based on the measure developed by Van Belle (1997, 2000). Using the descriptive summaries of the International Press Institute's annual reports, country reports by area experts, and other country-specific historical documents, Van Belle codes a country's level of press freedom into five categories: nonexistent press, free press, imperfectly free press (due to corruption or unofficial influence), restricted press, and government-controlled press. Consistent with Van Belle, press freedom is coded 1 if a country's press is clearly free and zero otherwise. As an initial analysis, model 2 includes press freedom but excludes democratic participation, government constraints, and past incident that confound the impact of the temporally stable press freedom variable. Model 3 includes model 1 plus press freedom.

Model 2 shows that in the absence of confounding variables, press freedom has a statistically significant positive effect on the number of transnational terrorist incidents in a country. Once we add press freedom to the full model as in model 3, the effect of press freedom turns statistically insignificant, while the effects of key independent variables remain consistent with those in model 1. Democratic participation reduces terrorist incidents, while government constraints increase them. The impact sizes of these two variables also remain unchanged.

While press freedom and government constraints are highly correlated (0.69) in the estimation sample, their VIF scores are 2.86 and 2.66, respectively, and do not exceed the threshold of 10 for serious multicollinearity. More important, the significance of government constraints and the lack of significance of press freedom indicate that the former explains more variations in terrorist incidents than the latter.

In an additional analysis not reported for the sake of space, model 3 is reestimated, with *govt constraint* replaced by the unexplained residual from a Tobit regression of *govt constraint* on press freedom, for the purpose of obtaining a measure of the former independent of the latter.<sup>9</sup> This operationalization attributes to press freedom their shared covariance, which favors press freedom but biases against finding a significant effect of government constraints, presenting a tougher test of hypothesis 2. In this

8. I assess the influence of multicollinearity on the results in model 1 by estimating the variance inflation factor (VIF) diagnostics. With multicollinearity, regression coefficients remain unbiased, but their standard errors are large, causing insignificant coefficients. Multicollinearity is a concern when model average VIF is above 1 and the VIF for any variable is above 10 (Chatterjee, Hadi, and Price 2000). For model 1, individual VIF scores range from 1.07 to 6.72. The average VIF is 3.2, which is largely a function of the regional variables (almost all above 4), as well as the real gross domestic product (GDP) per capita and income inequality (both above 6). The VIF scores for the democracy variables are all below 2.55.

9. Because the government constraint variable is bounded between 1 and 7, I apply Tobit regression to restrict the predicted value to the range. Results using ordinary least squares (OLS) remain largely unchanged.

analysis, press freedom has a statistically significant positive effect on terrorist incidents. The effect of government constraints unexplained by press freedom remains statistically significant, positive, and the same in magnitude, as in model 1. The effect of democratic participation also remains the same.

These results confirm that the influence of press freedom on transnational terrorist incidents is encompassed and driven by the impact of government constraints. The effect of government constraints is demonstrably stronger.

#### EFFECT OF ALTERNATIVE DEMOCRATIC SYSTEMS

Model 4 includes the three electoral system variables but excludes democratic participation and government constraints to avoid the confounding effect of their high correlation with the former. Model 5 puts participation and government constraints back in to assess the robustness of model 1. The coefficients for *proportional*, *majority*, and *mixed* represent their respective effects relative to the nondemocratic system. To test hypothesis 3, equality tests between *proportional* and *majority* and between *proportional* and *mixed* are presented at the bottom of Table 1.

Model 4 shows that in terms of the number of terrorist incidents in countries, the proportional system is not statistically different from the nondemocratic system, while the majoritarian and mixed systems tend to experience more incidents. Turning to testing hypothesis 3, the coefficient of the proportional system is statistically smaller than those of the majoritarian and mixed systems. As expected, the proportional system experiences fewer terrorist incidents than either the majoritarian or the mixed system. In terms of the effect size, the majoritarian and mixed systems can expect to have about 22 percent and 37 percent more transnational terrorist incidents, respectively, than the proportional system. Relative to the nondemocratic system, the majoritarian and mixed systems can expect to have 31 percent and 47 percent more terrorist incidents, respectively.

In model 5, the inclusion of democratic participation and government constraints makes all the electoral system variables statistically insignificant, except for the difference between the proportional system and the mixed system. The effects of democratic participation and government constraints, however, remain statistically significant and in the expected directions, as in model 1. These two dimensions of the democratic polity are more powerful predictors of transnational terrorist incidents than variations in the electoral system.

#### FURTHER ROBUSTNESS TESTS

Models 6 to 8 evaluate the robustness of the results in model 1 under three different statistical estimators. Model 6 controls for time-specific unit effects by including year dummies because some years witness large numbers of terrorist incidents while others are relatively tranquil. Results show that government constraints and democratic participation both have statistically significant effects in the expected directions, as in model 1.

Model 7 presents results from the country fixed-effects negative binomial regression. The effect of government constraints remains positive and significant. But the effect of democratic participation becomes statistically insignificant, which is not surprising. It is well known that the cross-sectional dummies in the fixed-effects estimator absorb excessively between-country variations attributable to substantive variables, especially those that are temporally stable (see, e.g., Beck and Katz 2001). In addition, unless the number of time periods approaches infinity, the estimated effects are inconsistent for the country fixed-effects estimator (Greene 1997, 632). As the voter turnout figure remains the same between elections and we have only twenty-seven years in the sample, the large number of country dummies makes it difficult for the participation variable to remain significant.

Model 8 employs the population-averaged negative binomial estimator that allows for an AR(1) correlation structure. Estimation of the AR(1) correlation structure leads to a smaller sample. As in model 1, the effect of democratic participation is negative and significant, while the effect of government constraints is positive and significant.

Models 9 to 10 assess whether the results of model 1 are sensitive to the inclusion of additional control variables. The effect of trade openness on transnational terrorism is debated in the literature on how globalization affects terrorism, which is studied in detail by Li and Schaub (2004). Model 9 adds trade openness to examine whether the effect of democracy on terrorism is confounded by globalization. Model 9 shows that the effect of trade openness is statistically insignificant, consistent with the finding of Li and Schaub. The results for democratic participation and government constraints remain the same as those in model 1.

Blomberg, Hess, and Weerapana (2004) model the interactions between terrorism and national economic conditions as a bivariate Markov process, estimating the transitional probabilities among four regimes that are defined by the combinations of terrorism or peace and contraction or expansion in a country. They find that periods of economic weakness increase the likelihood of terrorist activities. To assess whether my results in model 1 are sensitive to economic contraction or expansion, I construct the same contraction variable as they do. *Contraction* is coded 1, referring to recession if a country has negative growth of real GDP per capita in a year, and zero otherwise. Model 10 shows that the effects of government constraints and democratic participation remain robust as those in model 1. The effect of economic contraction, however, is not statistically significant. In an additional analysis not reported, I use annual GDP growth rate to measure short-run economic conditions instead of the contraction dummy. Results for participation and government constraints remain robust as in model 1. Growth is statistically significant and negative, consistent with the finding of Blomberg, Hess, and Weerapana.

In addition to the above analyses, I also conduct several more tests that are not reported due to space. One may plausibly argue that the dependent variable, the number of terrorist incidents, has measurement error in event count. To assess whether the results in model 1 are sensitive to this possibility, the dependent variable is recoded as dichotomous, equal to 1 if a country experiences any incident in a year and zero other-

wise. Within the estimation sample, the recoding produces a dependent variable with 1,085 country years of zero incidents and 1,147 country years of at least one incident. Probit with robust standard errors clustered over country is applied. Government constraints remain positive and significant. Democratic participation becomes statistically insignificant. This is not surprising because the advantage of the democratic participation variable is its ability to explain the count of terrorist attacks, not whether a country has any incident.

In another test, I evaluate whether the results of model 1 are sensitive to the inclusion of a measure of civil liberties. The measure is from Freedom House (2000), ranging from 1 to 7 and inverted so that higher values indicate the lack of civil rights. It is argued, however, that the Freedom House data are not appropriate for temporal analysis because the scale for the Freedom House data changes over time, and some cases rose and fell in scale even though they had no institutional change (see, e.g., Neumayer, Gates, and Gleditsch 2003). Despite the measurement error, democratic participation and government constraints remain highly robust in terms of the directions and statistical significance of their effects. The effect of civil liberties is positive but statistically insignificant, consistent with my expectation that the effect of civil liberties is epiphenomenal of the institutional constraints on government.

Finally, I also assess the effect of applying the zero-inflated negative binomial model. In the ITERATE database, a few countries never experience any terrorist incident. It is plausible that the complete absence of any terrorist attack in a country over time is explained by causal mechanisms that are different from those that account for the number of incidents in countries with at least some incident. In this study, I deal with the heterogeneity in the data generation process by excluding those states that never experience any terrorist incident in the sample period. An alternative is to apply the zero-inflated negative binomial estimator, modeling the complete absence of terrorist attack in a country over time with probit and the count of terrorist attacks with negative binomial. But this estimator requires the modeler to have two separate, a priori theories for the two different processes. Applying the same set of variables implies that the data generation process is one and the same, apparently inconsistent with the rationale for using the zero-inflated estimator. Lacking strong theoretical priors, I choose not to use this estimator for the main analysis in the article. Nonetheless, I estimate the zero-inflated negative binomial for robustness check, with the same set of independent variables for both stages. Among the democracy-related variables, only democratic participation is significant in the negative binomial model and has a negative sign as expected. Government constraints fail to explain the number of terrorist incidents.<sup>10</sup> Neither variable explains the complete absence of transnational terrorist incidents in some countries.

10. Applying the zero-inflated estimator without appropriate substantive theories is problematic. Since the errors of the two equations (probit and negative binomial) are correlated, correct model specification is critical. In this case, the zero-inflated model is not necessarily superior.

## CONCLUSION

Two main arguments in the democracy-terrorism literature expect contradictory effects of democracy on transnational terrorism. Previous empirical work, however, has relied on using some aggregate indicator of regime type, failing to separate the positive and negative effects of democracy.

In this article, I investigate the various mechanisms by which democracy affects transnational terrorism. New theoretical mechanisms are advanced that either complement or encompass existing arguments. First, democratic participation reduces transnational terrorism in ways in addition to those conceived in the literature. It increases satisfaction and political efficacy of citizens, reduces their grievances, thwarts terrorist recruitment, and raises public tolerance of counterterrorist policies. Second, the institutional constraints over government play a fundamental role in shaping the positive relationship between democracy and transnational terrorism. Institutional checks and balances create political deadlock, increase the frustration of marginal groups, impose on the democratic government the tough task of protecting the general citizenry against terrorist attacks, and weaken the government's ability to fight terrorism. The effect of civil liberties on terrorism popularized in the literature is more complex than commonly recognized. Finally, heterogeneous democratic systems have different implications for transnational terrorist activities.

Effects of different aspects of democracy on transnational terrorism are assessed in a multivariate analysis for a sample of about 119 countries from 1975 to 1997. Results show that democratic participation reduces transnational terrorist incidents in a country. Government constraints, subsuming the effect of press freedom, increase the number of terrorist incidents in a country. The proportional representation system experiences fewer transnational terrorist incidents than either the majoritarian or the mixed system. Overall, democracy is demonstrated to encourage and reduce transnational terrorist incidents, albeit via different causal mechanisms.

The findings suggest several important policy implications for the war on terrorism. Democracy does not have a singularly positive effect on terrorism as is often claimed and found. By improving citizen satisfaction, electoral participation, and political efficacy, democratic governments can reduce the number of terrorist incidents within their borders.

Limiting civil liberties does not lead to the expected decline in terrorist attacks, as is sometimes argued. Restricting the freedom of press, movement, and association does not decrease the number of transnational terrorist incidents. Strategic terrorists simply select alternative modes to engage in violence, as argued by Enders and Sandler (2002).

We may just have to acknowledge and accept the fact that aspects of democratic polity are associated with more terrorist incidents. Institutional constraints over the government and the majoritarian system tend to bring with them more terrorist incidents, but these institutional features are undesirable, difficult to change, or both. Citizens under these institutional configurations need to be aware of those inherent risks, particularly in a world of growing uncertainty.

**APPENDIX**  
**List of Control Variables**

<i>Control Variable</i>	<i>Sign</i>	<i>Definition</i>	<i>Source</i>
GDP per capita	–	Real gross domestic product (GDP) per capita, adjusted for purchasing power parity (PPP), logged	Heston, Summers, and Aten (2002)
Income inequality	+	Gini ranging from 0 to 100 (missing values are filled following Feng and Zak 1999; Li and Reuveny 2003)	Deininger and Squire (1996)
Regime durability	–	The number of years since the most recent regime change, logged	Marshall and Jaggers (2000)
Size		Total population, logged	World Bank (2002)
Govt capability	–	Logged annual composite percentage index of a state's share of the world's total population, GDP per capita, GDP per unit of energy, military manpower, and military expenditures	Li and Schaub (2004)
Past incident	+	Average annual number of terrorist incidents that have occurred in a country since 1968	Computed using ITERATE (International Terrorism: Attributes of Terrorist Events)
Conflict	+	Coded 1 if a state is engaged in interstate military conflict or war and zero otherwise	Gleditsch et al (2002)
Region dummies		Europe, Africa, Asia, and America (relative to the Middle East)	
Post-cold war	–	Coded 1 since 1991 and zero otherwise	Enders and Sandler (1999)

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