Studies in Conflict & Terrorism

ISSN: 1057-610X (Print) 1521-0731 (Online) Journal homepage: http://www.tandfonline.com/loi/uter20

Do Targeted Assassinations Work? A Multivariate Analysis of Israel's Controversial Tactic during Al-Aqsa Uprising

Mohammed M. Hafez & Joseph M. Hatfield

To cite this article: Mohammed M. Hafez & Joseph M. Hatfield (2006) Do Targeted Assassinations Work? A Multivariate Analysis of Israel's Controversial Tactic during Al-Aqsa Uprising , Studies in Conflict & Terrorism, 29:4, 359-382, DOI: 10.1080/10576100600641972

To link to this article: http://dx.doi.org/10.1080/10576100600641972

Studies in Conflict & Terrorism, 29:359–382, 2006

ISSN: 1057-610X print / 1521-0731 online
DOI: 10.1080/10576100600641972

Routledge
Taylor & Francis Group

Do Targeted Assassinations Work? A Multivariate Analysis of Israel's Controversial Tactic during Al-Aqsa Uprising[1]

MOHAMMED M. HAFEZ
JOSEPH M. HATFIELD

Department of Political Science
University of Missouri—Kansas City
Kansas City, Missouri, USA

We assess the impact of Israel's targeted assassinations policy on rates of Palestinian violence from September 2000, the beginning of Al-Aqsa *uprising, through June 2004. Literature concerning the relationship between repression and rebellion suggests four plausible effects of targeted assassinations on insurgents: deterrence, backlash, disruption, and incapacitation. Using differenced and lagged time-series analysis, this article utilizes multiple and logistic regression to evaluate the effect of targeted assassinations on Palestinian violence. It is concluded that targeted assassinations have no significant impact on rates of Palestinian attacks. Targeted assassinations do not decrease rates of Palestinian violence, nor do they increase them, whether in the short or long run. Targeted assassinations may be useful as a political tool to signal a state's determination to punish terrorists and placate an angry public, but there is little evidence that they actually impact the course of an insurgency.*

On 22 March 2004, Israeli forces assassinated Sheikh Ahmed Yassin, the founder and spiritual leader of the Islamic Resistance Movement (Hamas), as he was returning home from his dawn prayers at a Gaza mosque. On the night following the assassination, the Israeli daily *Yedioth Ahronoth* conducted a public opinion poll of Israelis to inquire about their views surrounding the assassination. The poll shows that although 60 percent of Israelis support the decision to kill Sheikh Ahmed Yassin, 81 percent expected a surge in retaliatory terrorism following the attack.[2] This belief in the appropriateness of killing a radical leader despite the perceived likelihood of an increase in violent attacks is puzzling, but it may help explain why state leaders might pursue this controversial tactic. But what effect, if any, do targeted assassinations have on cycles of violence? Do targeted assassinations contain, deter, and ultimately lessen rates of violence, or do they intensify anger and increase

Received 15 August 2005; accepted 24 August 2005.
E-mail correspondence is preferred. Authors wish to express their appreciation to the United States Institute of Peace for its generous grant toward this research project.
Address correspondence to Mohammed M. Hafez, Department of Political Science, University of Missouri—Kansas City, 213 Haag Hall, 5100 Rockhill Road, Kansas City, MO 64110, USA. E-mail: hafezm@umkc.edu

motivations to attack with more deadly force? Are targeted assassinations effective in combating insurgents and terrorists?

Assessing the impact of targeted assassinations on insurgencies is as difficult as it is important. Theoretically, there is little agreement regarding the logical consequences of repressive measures in general on the strategies and tactical repertoires of insurgent groups. Some observers contend that repression increases the cost of collective action as to make it unlikely (Hibbs 1973; Oberschall 1973; Oliver 1980; Hardin 1982). Others maintain that repression generates additional grievances that motivate further mobilization to punish an "unjust" adversary (Gamson et al. 1982; Goldstein 1983; Olivier 1990, 1991). These two perspectives have largely been challenged on empirical grounds; there are many instances where repression both quells and provokes insurgency (Zimmermann 1980, 1983; Hoover and Kowalewski 1992; Lee et al. 2000; Davenport et al. 2005). Attempts to solve the repression–rebellion puzzle have led some scholars to investigate nonlinear relationships between repression and rebellion, arguing that varying levels of repression—high, medium, or low—are likely to induce mass dissent or hinder it (Gurr 1968, 1970; Feierabend and Feierabend 1972; Snyder and Tilly 1972; Lichbach and Gurr 1981; Muller 1985; Muller and Seligson 1987; Muller and Weede 1990). Others look to the timing of repression in the protest cycle (Snyder 1976; Tarrow 1989; Costain 1992; and Brockett 1995); its perceived illegitimacy in the context of preexisting networks that could generate micromobilization processes (White 1989; Opp and Roehl 1990; Rasler 1996); the political and institutional context under which it is applied (Gupta et al. 1993); its targets (Mason and Krane 1989) and the consistency of its application in relation to accommodative strategies (Lichbach 1987; Rasler 1996; Moore 1998, 2000; Ginkel and Smith 1999; Ferrara 2003); its impact on mobilization when combined with ethno-political grievances and group coherence (Gurr 1993; Gurr and Moore 1997); the ability of dissidents to adapt to it and unleash backlash mobilization (Francisco 1995, 1996, 2004, 2005); or a combination of these variables (Della Porta 1995; Hafez 2003).

With few exceptions (Gurr 1986; Khawaja 1993; Della Porta 1995; Koopmans 1997; Francisco 2005), much of this literature speaks of repression without specifying its different types (e.g., mass arrests versus massacres, or exile versus targeted assassinations). Nonetheless, this literature provides the theoretical foundations for studying specific tactics of repression to quell insurgency and terrorism. This article explores four plausible hypotheses about the effects of targeted assassinations on rates of Palestinian violence during the *Al-Aqsa* uprising that began in September 2000 and reached its peak in March 2002.

H_1 Targeted assassinations serve as selective disincentives that raise the cost of militancy and deter militant organizations from planning more attacks, thus decreasing rates of Palestinian violence.

H_2 Targeted assassinations enrage militants and produce a backlash effect, increasing levels of Palestinian violence.

H_3 Targeted assassinations deprive militant organizations of valued commanders and force the remaining members to concentrate more on their personal security and less on recruiting and organizing attacks; the disruption effect diminishes the number and success rate of attacks over time.

H_4 Targeted assassinations by themselves are insufficient predictors of increasing or diminishing Palestinian violence. However, when combined with major military incursions into rebellious towns, they jointly produce a diminishing capacity effect

and decrease rates of Palestinian violence, because they target both the resource endowments and personnel of militant groups.

The article investigates rates of Palestinian violence using a multivariate approach to evaluate the significance of targeted assassinations. It utilizes multiple regression for data whose response variable(s) is continuous and binary logistic regression for cases where the response variable is binary. The findings suggest that targeted assassinations have no significant impact on rates of Palestinian violence, even when time lags associated with possible reactive retaliations are taken into account. Contrary to some proponents of targeted assassinations, this analysis indicates that targeted assassinations do not decrease the rates of Palestinian violence, whether in the short or the long run. However, contrary to some critics of targeted assassinations, this analysis shows that targeted assassinations do not increase the rates of Palestinian violence either, whether in the short or the long run. This study does not address the political dimensions of targeted assassinations, especially their potential to signal one's determination to fight back, demonstrate strength to placate an angry public, or as a means for retributive justice. It may well be that the political utility of targeted assassinations is more effective than its military one.

Background

In September 2000, Palestinians embarked on an uprising, commonly referred to as *Al-Aqsa intifada*. This uprising, their second in a little over a decade, came on the heels of a failed peace summit between Palestinians and Israelis and was intended to force Israelis out of the West Bank and Gaza. Unlike the first *intifada*, this uprising quickly turned into a militarized struggle between armed Palestinian factions and Israeli forces. Initially, Palestinian violence was characterized by random shootings at Israeli positions and settlements in the West Bank and Gaza. Toward the end of the second month of the uprising, Palestinian violence became more organized as factions associated with Yasser Arafat's Fatah began to undertake guerrilla-like attacks on Israeli patrols and settlers, whereas the Islamist factions—Hamas and Islamic Jihad—began to organize suicide bombings inside Israel. As the cycle of violence deepened, secular Palestinian factions—Popular Front for the Liberation of Palestine (PFLP) and a new and somewhat shadowy group associated with Fatah, known as Al-Aqsa Martyrs Brigades (AMB)—began to carry out suicide bombings against Israeli civilians.

Many Israelis viewed Palestinian violence as another war against the Jewish state and, consequently, gave their support to the hard-line administration of Ariel Sharon. As suicide bombings persisted, Israel's defense establishment was hard pressed to take measures to reduce the violence. Initially, the Israel Defense Forces (IDF) engaged in a tit-for-tat retaliatory policy aimed at the Palestinian Authority. The latter was accused of inciting—or at least not preventing—violence despite its pledge to do so under the peace and security accords signed between 1993 and 1997. Israeli forces targeted Palestinian security agencies and police stations in pin-point attacks by air and sea. The Israelis also began to impose closures on the territories and restricted the movement of Palestinians from town to town. As violence worsened, Israel became more aggressive in its punishment of Palestinian militants. Targeted assassinations, mass arrests, home demolitions, and expulsions were often used to deter future attacks. In March 2002, following a suicide bombing campaign in which 79 people were killed, 555 were injured, the IDF mobilized its forces in a major takeover of Palestinian cities and towns in an offensive known as Operation Defensive

Shield. Since this operation, the Israelis undertook many other incursions in an attempt to capture suspected terrorists and crush the infrastructure of Palestinian militancy.

One of the most controversial measures taken by Israeli forces has been the targeted assassination of Palestinian military commanders and political leaders. The use of assassinations is not unique to *Al-Aqsa* uprising; Israel has a history of using this method against enemies that have perpetrated violence against its citizenry. Israel waged a campaign of assassinations in retaliation for the Munich Olympic massacre in 1972 by Palestinian terrorists associated with the Black September group (Brophy-Baermann and Conybeare 1994). Some of the more notable episodes of targeted assassinations in recent years has been the fatal shooting of Islamic Jihad leader Fathi Shikaki in Malta in October 1995; the detonation of a booby-trapped mobile phone that killed Hamas's chief bombmaker Yahya Ayyash (the "Engineer") in Gaza in January 1996; and the aborted assassination of Khaled Meshal, one of Hamas's political leaders in Amman, in September 1997.

From November 2000 to June 2004, Israel conducted approximately 151 targeted assassinations. The first assassination was of Hussein Abayyat, a Fatah commander killed on 9 November 2000. Since his liquidation, Israel engaged in some high-profile killings that included Dr. Thabet Thabet, head of Fatah in Tulkarem; Mustafa Zibri (Abu Ali Mustafa), political head of the PFLP; Mahmoud Muhammad Ahmed Shouley (Abu Hnoud), Hamas planner of suicide bombings; Salah Shehadeh, chief commander of Hamas's military wing; Ismail Abu Shanab, one of Hamas's top leaders in its political wing; and Dr. Abdel Aziz al-Rantisi, the number one man in Hamas's political hierarchy following the assassination of Sheikh Ahmed Yassin. Most of the targeted assassinations were conducted by air through the use of Apache helicopters or unmanned drone planes firing laser-guided missiles. Some assassinations relied on the use of jet fighter planes with heavy-load bombs. Other assassinations involved booby-trapping cars or phone booths, or installing land mines along the routes of suspected terrorists. Israelis have also used undercover "Arabized" agents to carry out assassinations from close up. To conduct such sensitive attacks in the heart of Palestinian cities and refugee camps, the IDF relies on an extensive network of local spies and collaborators who can provide just-in-time information on a moving target.

The decision to undertake a targeted killing begins with the Israeli intelligence services. They identify an individual as a major threat to Israel and prepare a detailed report on his past activities. The information is reviewed by IDF commanders and military lawyers and they jointly make a determination if a targeted assassination is warranted. Major General Giora Eiland (IDF) identifies a four-prong criterion to determine when targeted assassinations should be carried out. First, arresting the individual is a near impossibility. Second, the militant must be a high-value target because of his ability to inflict harm on Israelis. Third, the assassination is not likely to involve high civilian casualties. Fourth, the individual is in the process of planning or carrying out an operation; he is a "ticking bomb."[3] When an assassination is deemed necessary, a recommendation is made to the chief of staff, who takes up the matter with the Israeli cabinet to approve or disapprove. Additional approvals may be required by the minister of defense and the Prime Minister if civilian casualties are likely (David 2003, 117).

The debate within Israel over targeted assassinations revolves around four core arguments: legality and legitimacy of assassinations; consequences of assassinations on innocent bystanders; alternative means to fighting terror; and effectiveness of these measures in actually reducing violence (David 2003; Stein 2003; Luft 2003). Many of the claims proffered by proponents of targeted assassinations and their detractors are normative ones that are outside of the scope of this research.[4] However, the debate on the effectiveness of targeted assassinations is an empirical one that can be evaluated through the use of

statistical methods. The following sections attempt to determine if targeted assassinations are an effective means to combat violent insurgency.

Hypotheses

The literature on repression and rebellion suggest at least four plausible hypotheses concerning the effects of targeted assassinations on Palestinian violence: deterrence, backlash, disruption, and incapacitation. Each is explored in turn.

H_1 Targeted Assassinations are Selective Disincentives that Produce a Deterrent Effect

A number of studies point out that repression by authorities increases the contenders cost of collective action and serves as a selective disincentive to engage in high-risk activism (Oberschall 1973; Tilly 1978; Oliver 1980; Hardin 1982). Rational actors subject to a set of constraints will calculate costs and benefits of different courses of action and choose the means that are likely to maximize their expected utility, whether individual gains or public goods (Sandler et al. 1983; Mason 1984; Muller and Opp 1986). Cost-benefit calculations are shaped by the importance of the utility being maximized, the probability of group success, and the perceived importance of personal participation to achieving the overall goals of the group (Finkel et al. 1989; Muller et al. 1991). To the extent repression decreases the likelihood of group success or diminishes the ability of individuals to truly make a difference, it will deter others from participating in high-risk activism. As Muller and Weede (1990, 646) explain, "Under a highly repressive regime it is likely that opportunities for collective action of any kind will be low, that the probability of success will be negligible, and that costs will be high. Rational actors who wish to contest policies of a government are likely to think better of it."

Lichbach (1987) gives nuance to this rationalist perspective by focusing on the consistency of repression in relation to accommodative strategies. He maintains that if repression against violent strategies is applied consistently and nonviolent strategies are accommodated, militant groups will substitute violence for nonviolent tactics to avoid the prohibitive costs of violent tactics and seek more efficient and effective means to achieve their aims. Put simply, a consistent repression policy that does not cede concessions to violent strategies only incurs costs to the dissident groups and fails to deliver any meaningful gains to their movement. As a result, violence will diminish over time as groups adapt to a more fruitful strategy. Adaptation may not be immediate due to a learning curve, but violence should decrease in due course.

In addition to consistency, Mason and Krane (1989) argue that the targets of repression matter. Targeting refers to the range of "subversives" encompassed under repressive measures. Do the repressing authorities target only leaders and core activists of the dissident movement, or do they also target supporters, sympathizers, and anyone suspected of involvement with rebellious groups? States that selectively target known militants for suppression and avoid indiscriminate application of repression are likely to reduce mobilization because ordinary people are not drawn into the conflict unwillingly and rank-and-file activists begin to question the ability of their leaders to deliver collective benefits. Selective repression against core militants signals to potential recruits that only "troublemakers" will be punished and, therefore, those who keep their distance will not become victims of repression. Indiscriminate repression, on the other hand, intensifies anger among the public and does not provide guarantees that nonviolent activism will not be repressed. Under these circumstances, supporters and sympathizers may be inclined

toward greater risk to mitigate their losses, seek security in militant groups, or inflict revenge.

In the Palestinian–Israeli conflict, the aforementioned literature would hypothesize that a consistent policy of targeted assassinations against known commanders of terrorist cells that recruit, organize, and dispatch attackers against Israeli targets raise the costs of violence and force potential militants to abandon the struggle or, at a minimum, substitute tactics. The expansion of the assassination policy to the political leadership of terrorist groups sends a message that Israel will not accommodate or negotiate with radical groups, thus confirming the futility of violent strategies. Refusal to cede to the major demands of the militant groups—end to the occupation, relinquishing east Jerusalem, halt in settlement construction, and refugees' right of return—while violence persists signals a commitment to not give in to terror. Finally, selectively targeting leaders and commanders of the groups responsible for anti-Israeli violence reduces the likelihood of drawing the broader public into the fray and impresses on potential militants the futility of continuing with violent strategies.

H_2 Targeted Assassinations Produce Backlash, Increasing Violence

Studies by Francisco (1995, 1996) posit the backlash hypothesis: preexisting and mobilized organizations facing extreme coercion will fight back with greater levels of violence. Backlash is defined as massive, swift, and expanding mobilization in response to harsh repression (Francisco 2005). Francisco (2004) argues that acts of severe repression can serve as focal points for backlash mobilization if (a) publicity transmits information of the repressive actions to the wider public; (b) there is continuity in leadership or new leadership arises; and (c) dissidents can offer adaptive strategies that reduce the risk of similar repression in the future. Under these circumstances, repression produces backlash, which is the opposite of what is intended.

In the Palestinian–Israeli conflict, the backlash hypothesis predicts that targeted assassinations will produce an escalation in violence. Targeted assassinations receive immediate and widespread publicity in local and international media, and often spark immediate condemnations and protests from the public. Following an attack, an enraged public gathers at the site of the assassination and within a day, thousands come out for a mass funeral that is covered by the media. Moreover, targeted assassinations rarely remove the entire leadership of militant groups in one fell swoop, thus satisfying Francisco's condition of continuity in leadership. This leadership can take more personal precautions to minimize the risk of targeted assassinations in the future, thus enabling them to mobilize further attacks in retaliation for previous ones. Furthermore, preexisting and mobilized militant organizations facing targeted assassinations are likely to frame targeted assassinations as treacherous and illegitimate acts that demand a commensurate retaliatory response. Tight-knit groups will seek to maintain the internal cohesion of their militant organizations by satisfying their cadres' need to exhibit defiance in the face of oppression. As a result, targeted assassinations are likely to produce a surge in violence and foster conditions that permit for the future recruitment of terrorists.

H_3 Targeted Assassinations Produce a Disruption Effect and Diminish Violence Over Time

Khawaja's (1993) study of repression and Palestinian collective action in the West Bank and Gaza from 1976 to 1985 shows how certain types of repression have a direct impact

on the ability of organizations to mobilize collective action. Curfews and home-to-home searches, he argues, disrupt coordination and communication networks, thus making it difficult for the militants to mobilize following rounds of repression. He further argues that medium levels of arrests increased the rate of collective action while mass arrests decreased the rate substantially. The latter is directly linked to disruption of organizational coordination. Khawaja (1993, 67) concludes that "In the absence of organizational mobilization and support, potential activists are more likely to keep their anger and grievance to themselves, fearing retributions by authorities." Khawaja's claims are anchored in the resource mobilization theory, which maintains that grievances alone are insufficient to produce rebellious collective action; groups require a modicum of material resources and organizational capabilities to organize and mobilize aggrieved people (Tilly et al. 1975; McCarthy and Zald 1973, 1977). To the extent repression removes valuable movement resources or makes them difficult to acquire, it disrupts the ability of dissidents to mobilize collective action.

In the case of the Palestinian–Israeli conflict, the resource mobilization perspective implies that targeted assassinations may diminish the number and success rate of attacks in the long run as militant groups suffer the loss of experienced cadres and commanders, and allocate precious resources to secure the remaining leadership. Thus, rather than spend their money, time, and effort on recruiting people, training them, and transporting them to carry out operations, terrorists spend their valued resources on securing safe houses for hiding, alternating vehicles, and communication methods to avoid detection, and restructuring the cells that have been disrupted by assassinations. Moreover, taking out commanders that bear the cognitive load for organizing attacks reduces the quality of future terrorist operations. Bombmaking, recruiting, and intelligence gathering skills are not acquired over night; liquidating persons central to the preparation and planning of operations is a real loss for terror groups and they take a long time to recover. The cumulative effect over time is to reduce levels of violence or, at a minimum, lower the quality and success rate of violent operations against Israeli targets.

H_4 Targeted Assassinations by Themselves Do Not Diminish Levels of Violence Because of the Substitution Effect. However, When Targeted Assassinations are Combined with Military Incursions, They Jointly Produce a Diminishing Capacity Effect and Lessen Violence Over Time

Sandler et al. (1983) and Enders and Sandler (1993, 2004) argue that governments that increase the costs of terrorism through repression, but fail to decrease the flow of resources available to terrorists, will ultimately not succeed in fighting terrorism because of the substitution effect. The latter occurs when terrorists shift from one terror activity (e.g., suicide bombings) to another (e.g., roadside bombs) because counterterrorism policies have made the first activity more difficult to carry out (or increased its relative cost in relation to other terror activities). If the second activity (roadside bombs) can satisfy the same desired goals as the first activity (suicide bombings), and if counterterrorism policies have not sought to increase the relative costs of carrying out the second activity, terrorists will substitute the second, less costly activity for the first, more costly tactic. As long as counterterrorism policies do not address the *resource endowments* of terror groups, terrorists will adapt to repression policies by substituting tactics to relatively less costly methods. This analysis supplements the resource mobilization theory presented in the third hypothesis by emphasizing the need to deny militant groups the ability to organize collective violence by depriving them of the prerequisite resources and organizational infrastructure for violence.

A reduction in one violent tactic does not necessarily mean that the overall rate of violence has diminished.

In the case of the Palestinian–Israeli conflict, the substitution effect suggests that targeted assassinations that remove valuable commanders and cadres without impacting the overall resource endowment of terror groups will result in adaptation, whereby terrorists will alter their tactics to carry out more attacks in the long run. However, targeted assassinations combined with major military incursions that destroy Palestinian bombmaking factories, arrest suspected militants, and destroy weapon-smuggling tunnels not only deprive terror groups of their valuable personnel, they also deprive them of the ability to reconstitute terror cells and diminish their capacity to attack in the future.

Methodology

Data were compiled on violent events between Palestinians and Israelis from 29 September 2000 to 16 June 2004. The data were culled from the quarterly chronologies published in *The Middle East Journal*, which draws from several news sources, including the *Associated Press*, *BBC*, *New York Times*, *Washington Post*, and many other reliable news services. In addition, data were collected from the International Policy Institute for Counter-Terrorism (ICT) in Herzlia, Israel, which keeps detailed records of violent events in the current Palestinian uprising. Data were also collected from Lexus-Nexus searches using as the main sources *Ha'aretz* and *Jerusalem Post*, two daily Israeli papers that are published in English. Ancillary sources such as *CNN* or *New York Times* chronologies of suicide bombings in Israel, or Israel's Ministry of Foreign Affairs chronologies of Palestinian attacks were used to provide more information on specific events, not as independent sources of data. The following were gathered for the analysis:

- Palestinian violent attacks that materialized (successful attacks), including attack type and group(s) responsible for carrying it out. Violent Palestinian attacks were defined as suicide bombings, non-suicide bombings, sporadic shootings, organized armed infiltrations, rocket attacks, and other forms of lethal violence.
- Palestinian attacks that were in progress but failed to materialize because Israeli forces prevented them (foiled attacks).
- Number of Israelis killed and injured in Palestinian attacks.
- Israeli targeted assassinations that began in November 2000.
- Israeli military incursions that began in October 2000.
- Palestinians killed and injured in Israeli counterterrorism operations.

Three challenges were encountered while collecting this data. First, the authors occasionally found discrepancies in news reports as to the actual date or number of persons killed/injured in an attack. In those instances, they relied on the most conservative estimate or the one that offered the most details about the attack. Undoubtedly, this will not do justice to those excluded from the data, but the authors are not aware of any technique that could avoid this problem. Second, some events were difficult to categorize because of conflicting Palestinian and Israeli claims about what actually happened. For instance, some episodes deemed to be targeted assassinations by Palestinians are contested by Israelis as "workshop accidents"—that is, militants blew themselves up while preparing an attack. When in doubt, these events were excluded from the database. As a result, the aggregate numbers are substantially lower than what Palestinian sources report. These exclusions imply a bias against Palestinian claims. This limitation is recognized, but it is necessary to ensure the reliability of the data. Finally, the data is based on reported events both with regard

to Palestinian violence and Israeli liquidations. In such a study unreported attacks are of major importance because they can supply a more comprehensive picture and lead to more accurate (and perhaps different) conclusions. Therefore, the reader is encouraged to view the findings as tentative or pending additional research; the aim is to encourage further study of this topic with a more complete data set in order to confirm, modify, or reject the findings herein.

For all four hypotheses a multivariate approach was used as targeted assassinations constitute one piece of Israel's overall repression strategy. This means that interactions between predictive factors as well as their possible isolated affects were taken into account. Following Box et al. (1978, 496–497) the authors began by using multi-interval differencing of both factor and response variables in order to better stationarize the time-series for regression analysis. Along with differencing techniques, for every model type a weekly response variable lag was tested. The differencing and lag intervals ranged from weekly Lag_0 for real-time models to Lag_4 for the possibility of a four-week lag period between Israeli repression and Palestinian reaction. The authors then looked for interactions and/or collinearity between the predictors. When an interaction was detected the authors included the interaction in the model as a factor in its own right. This inclusion, however, did not take the place of an independent testing of the variables. When factors were found to be collinear, one was removed from the model. When *linear* regression failed to produce a model with significant predictive power, polynomial models (including quadratic and cubic models) were used to attempt a better fit. Statistical significance was tested on a factor basis using the *p*-value for the factor with an alpha level at 0.05 and on a model basis using the model R^2 value. As will be shown later, many factors/models that were found to be statistically significant were determined to have no *practical* explanatory significance. Practical significance for statistically significant factors was determined by a calculation of the ratio of the sequential sum of squares over the total sum of squares. This ratio calculates the percentage of variation in the response variable explained by the factor. Only the models with the highest practical significance are shown at each time lag.

Throughout the investigation the authors found it necessary to include attacks foiled by Israel in the counts for Palestinian violence. Because the study is assessing the ability of targeted assassinations to deter or provoke Palestinian violence, rates of foiled attacks are important to include because a failed attack due to Israeli interception speaks to the ability of Israel to foil, not deter, Palestinian violence. An increase in foiled attacks might substantiate the backlash theory, despite the appearance of calm.

Testing Hypothesis 1

H_1 assumes that repression against violent strategies is applied consistently. Figure 1 illustrates the consistency of repression by Israel over the time-period covered in this study.

Out of the 191 weeks shown earlier, only in 15 weeks did Israel not retaliate against Palestinian attacks, which is less than 8 percent of the time. At each weekly lag period a similarly high percentage of retaliations occurred (see Table 1).

It is concluded that Israel's retaliation policy was consistent throughout the uprising, especially in light of the fact that no major concessions were granted to the Palestinians during this time period.

H_1 predicts that the attack success rate (given as the total number of successful attacks/the total number of attacks) for insurgent groups and the type of target affected by the Israeli repression will strongly predict levels of Palestinian violence. Our models for H_1 include the attack success rate and two repression variables intended to measure differing

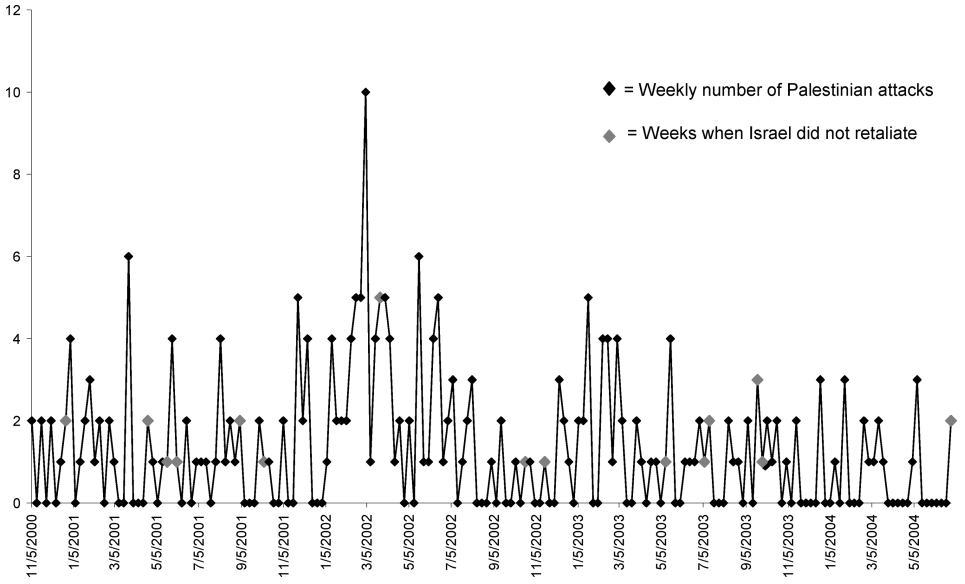


Figure 1. Consistency of repression by Israel, 2000–2004.

target types. The first repression variable is targeted assassinations, which are more heavily aimed at commanders whereas the second repression variable of major military incursions are less discriminate and more broadly affect insurgent organizations. Table 2 provides the most successfully predictive approach found by this study.[5]

The predictive power of this model is relatively low because it explains at best only 21% of the variation in Palestinian violence. Targeted assassinations were not found to be statistically significant. The variable having the highest practical significance is the attack success rate. However modeling it by itself and with other variables did not increase its predictive power beyond 16 percent at a 2-week lag. Interestingly, the attack success rate coefficient is negative, which is the opposite relationship predicted by H_1. The latter predicts that as the attack success rate diminishes so does the level of Palestinian violence. The analysis has found that as the attack success rate diminishes the rate of Palestinian violence actually increases and vice versa. The analysis has not provided any justification for the relationships asserted by H_1.

Testing Hypothesis 2

H_2 asserts that to the extent that repressive action by Israel is viewed as extreme coercion by Palestinian groups, it will initiate immediate backlash. Two methods were use to separate

Table 1
Israel's retaliation rate following Palestinian attacks

# Weeks lagged	% Weekly response rate by Israel
1	91
2	93
3	91
4	88

Table 2
Regression models for Hypothesis 1

Weekly lag	Factors	Regression coefficient	ANOVA SeqSS/TotSS	*p*-value	Model R^2
0	TAs	−0.0596	*	0.752	21.4%
	Mil incursions	0.6629	5.5%	0.000	
	Attack success rate	−2.6424	15.9%	0.000	
	Constant	3.9866	*	0.000	
1	TAs	−0.2517	*	0.234	2.2%
	Mil incursions	0.1432	*	0.472	
	Attack success rate	−0.7487	*	0.122	
	Constant	3.0122	*	0.000	
2	TAs	−0.1111	*	0.571	17.0%
	Mil incursions	0.3357	*	0.070	
	Attack success rate	−2.6957	16.26%	0.000	
	Constant	4.2336	*	0.000	
3	TAs	0.1896	*	0.330	18.2%
	Mil incursions	0.405	2.3%	0.028	
	Attack success rate	−2.6024	15.40%	0.000	
	Constant	3.9495	*	0.000	
4	TAs	0.0104	*	0.958	16.1%
	Mil incursions	0.2533	*	0.173	
	Attack success rate	−2.5955	15.30%	0.000	
	Constant	4.1402	*	0.000	

$\alpha = 0.05$, *where value is not applicable.

severe repression, which is more likely to give rise to calls for immediate retaliation, from mild or "normal" repression, which is less likely to produce demands for immediate retaliation. The first is by *aggregate numerical severity*. A repressive act by Israel is determined to be severe if an Israeli repressive act is performed when no Palestinian attack corresponds to it and/or if the ratio of Israeli measures to Palestinian attacks is >3:1. Otherwise repression is considered "mild." The 3:1 ratio rule has been determined by looking at the distribution of the ratio of Israeli measures to Palestinian attacks during the 191 weeks and finding the point in the histogram presented in Figure 2 where normalcy gives way to severity.

The second method is by *victim numerical severity*. Even when a repressive act is not considered numerically severe in the sense calculated earlier, if an attack results in a high loss of life, the act is likely to be seen as extreme. This victim numerical severity also depends on the number of Palestinian attacks over the same time period. If the number of victims suffered by a Palestinian group is very high, but the number of successful attacks carried out by the Palestinian group over this same time period is also very high then it is likely that repression will be seen as less severe than if fewer Palestinian attacks were occurring. Therefore, the numerical severity calculations were normalized by the number of Palestinian attacks over the same time period. A repressive act is thus considered to have caused a severe number of victims when the number of Palestinian victims killed or injured per one successful Palestinian attack over the same time period is >40. This ratio rule has

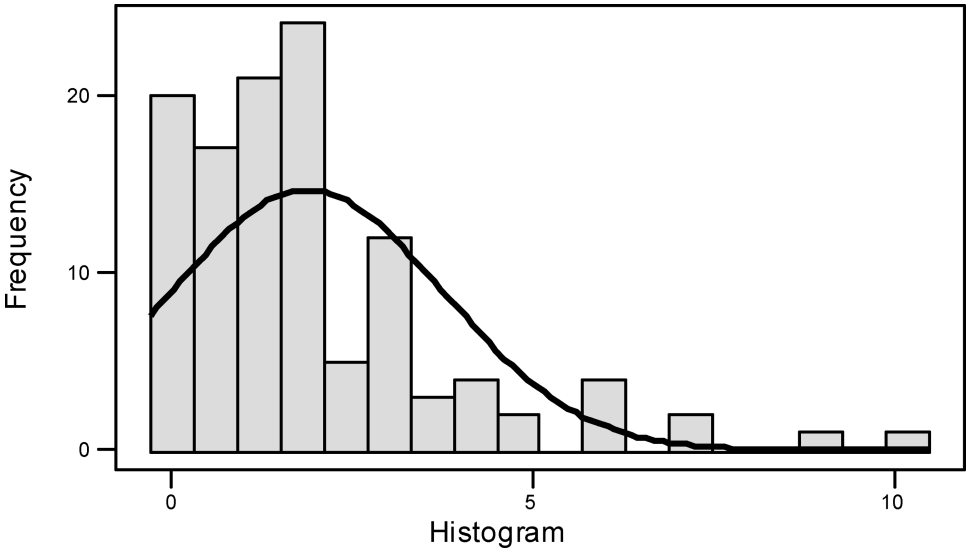


Figure 2. Israeli measures/Palestinian violence.

been determined through an examination of Figure 3, which shows the distribution of the ratio over the 191 weeks of the study.

Severe versus mild conditions for the response variable of Palestinian attacks are calculated for clear conclusions about the relationship between factor severity and response severity. Because backlash includes failed attempts as well as actual successful retaliations, attacks foiled by Israel are included in the response variable. Palestinian violence levels are considered severe when the ratio of Palestinian attacks to Israeli measures over the same

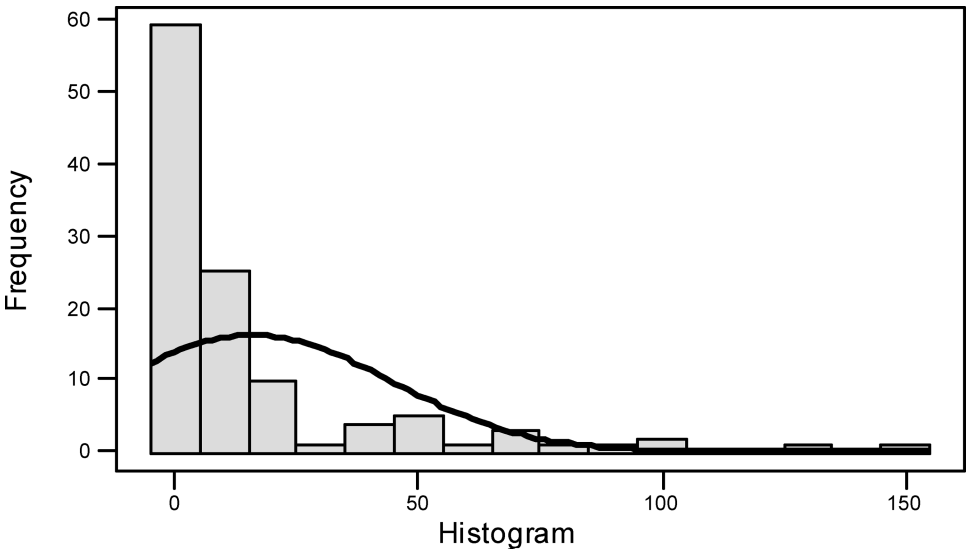


Figure 3. Palestinian victims/Palestinian violence.

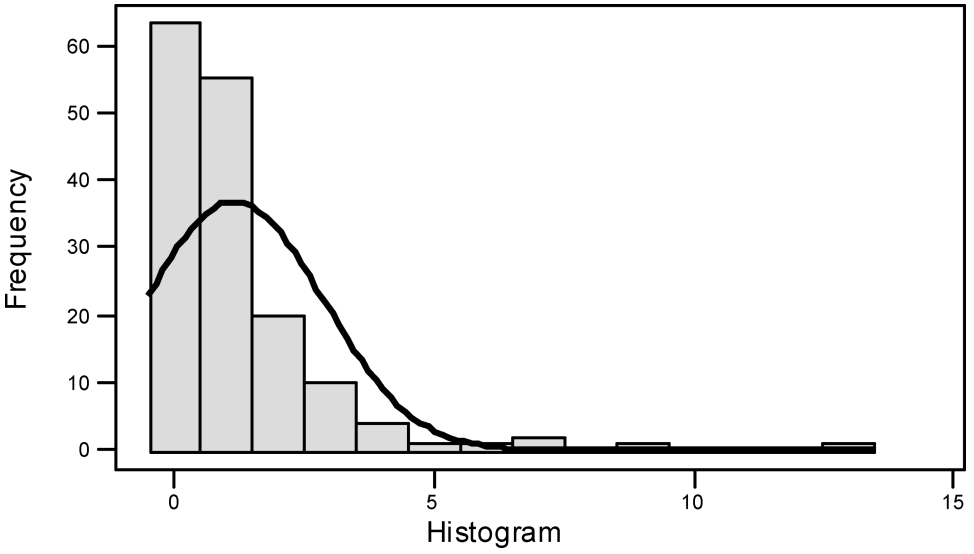


Figure 4. Binary response for H_2.

time period is ≥3:1. Again, see the 191 week distribution of this ratio shown in Figure 4 for the dividing point.

A binary logistic regression model is used to assess the predictive power of aggregate numerical severity and victim numerical severity on the severity of Palestinian violence. Table 3 provides the most successfully predictive approach.[6]

The goodness-of-fit tests (Pearson, Deviance, and Hosmer-Lemeshow) have an alpha of 0.5 with the null hypothesis being an adequate fit. Thus, there is insufficient evidence for claiming that the models in Table 3 do not fit the data adequately. The models lack significant predictive ability as the highest coefficient is just 0.45. Furthermore, *p*-values for regression factors show that movements in the severity of Palestinian violence cannot be predicted by movements in either aggregate numerical severity or victim numerical severity. In particular, targeted assassinations show no promise for either increasing or decreasing the levels of Palestinian violence. No "backlash" is verified by these findings.

Testing Hypothesis 3

H_3 states that repressive measures that disrupt the workings of militant groups will decrease the long-run number and success rate of attacks. Repressive techniques that have a direct impact on the ability of insurgent groups to mobilize collective action will achieve long-term success against violence. Attacks become less frequent because militant groups must concern themselves more and more with internal security and less with training and organizing attacks. Attacks become less successful because repressive measures cause the "bench strength" of the militant organization to decrease as militants spend less time training, gathering intelligence, and organizing attacks and more time protecting themselves.

Certain types of repression are in their nature disruptive. Targeted assassinations dramatically affect the human resources of an insurgent group and create an overall

Table 3
Binary logistic regression models for Hypothesis 2

Weekly lag	Severity factors	Regression coefficient	*p*-value	Goodness-of-fit tests	
0	Numerical	−0.9989	0.094	Pearson	0.339
	Victim	0.3073	0.703	Deviance	0.232
	Constant	−2.0697	0.000	Hosmer-Lemeshow	0.511

Pairs (%s)			Model predictive ability		
Concordant	Discordant	Ties	Somers' D	Goodman-Kruskal Gamma	Kendall's Tau-a
41.60%	17.30%	41.10%	0.24	0.41	0.04

Weekly lag	Severity factors	Regression coefficient	*p*-value	Goodness-of-fit tests	
1	Numerical	0.4977	0.347	Pearson	1.00
	Victim	−20.0000	0.998	Deviance	1.00
	Constant	−2.5200	0.000	Hosmer-Lemeshow	1.00

Pairs (%s)			Model predictive ability		
Concordant	Discordant	Ties	Somers' D	Goodman-Kruskal Gamma	Kendall's Tau-a
39.00%	17.10%	43.90%	0.22	0.39	0.03

Weekly lag	Severity factors	Regression coefficient	*p*-value	Goodness-of-fit tests	
2	Numerical	0.2010	0.701	Pearson	0.268
	Victim	−0.5600	0.599	Deviance	0.204
	Constant	−2.4305	0.000	Hosmer-Lemeshow	0.778

Pairs (%s)			Model predictive ability		
Concordant	Discordant	Ties	Somers' D	Goodman-Kruskal Gamma	Kendall's Tau-a
34.60%	23.40%	42.00%	0.11	0.19	0.02

Weekly lag	Severity factors	Regression coefficient	*p*-value	Goodness-of-fit tests	
3	Numerical	1.0754	0.055	Pearson	0.095
	Victim	−0.5960	0.577	Deviance	0.095
	Constant	−2.9300	0.000	Hosmer-Lemeshow	*

(*Continued*)

Table 3
Binary logistic regression models for Hypothesis 2 *(Continued)*

Pairs (%s)			Model predictive ability			
Concordant	Discordant	Ties	Somers' D	Goodman-Kruskal Gamma	Kendall's Tau-a	
44.10%	16.70%	39.20%	0.27	0.45	0.04	
Weekly lag		Severity factors	Regression coefficient	*p*-value	Goodness-of-fit tests	
4		Numerical	0.2035	0.697	Pearson	0.267
		Victim	−0.5730	0.590	Deviance	0.204
		Constant	−2.4187	0.000	Hosmer-Lemeshow	0.778

Pairs (%s)			Model predictive ability		
Concordant	Discordant	Ties	Somers' D	Goodman-Kruskal Gamma	Kendall's Tau-a
34.70%	23.30%	42.00%	0.11	0.20	0.02

$\alpha = 0.05$ for *p*-value and Goodness-of-Fit tests. *where value is not applicable.

disruptive vacuum that takes time and effort on the part of the affected groups to fill. Military incursions also disrupt violent groups but in a more general way by immersing groups in a repressive environment. The authors include both targeted assassinations and military incursions in the model for the test of H_3.

Another way to determine whether repression is disruptive is by repression severity. As attack levels increase, less long-term planning can be performed, more time is spent on defensive maneuvers, and the overall number and quality of attacks may also decrease. Thus, a factor was included in the models measuring the severity of Palestinian attack frequencies. A frequency is considered severe when the number of targeted assassinations + military incursions $\geq$3 and mild otherwise. This number has been derived by looking at a histogram of this sum over the 191 weeks and finding the point in the histogram presented in Figure 5 where normalcy gives way to severity.

A descriptive look at the attack success rate over time during the time period under consideration may lead one to believe that repressive techniques by the Israelis are causing a long-run disruption of Palestinian groups and their ability to successfully attack Israel. Indeed, Israel's ability to foil attacks has increased substantially. Figure 6 indicates that although variance is high, the success rate of Palestinian attacks has declined substantially over time. Is this decline related to targeted assassinations?

Table 4 provides the most successfully predictive approach found for hypothesis 3.[7]

The predictive power of this model is low because it explains at best only 7 percent of the variation in Palestinian violence. Although targeted assassinations are found to be statistically significant they have little practical significance. Except in the very mild case of the Lag_2 model, the factor variables are never significant for the prediction of the attack success

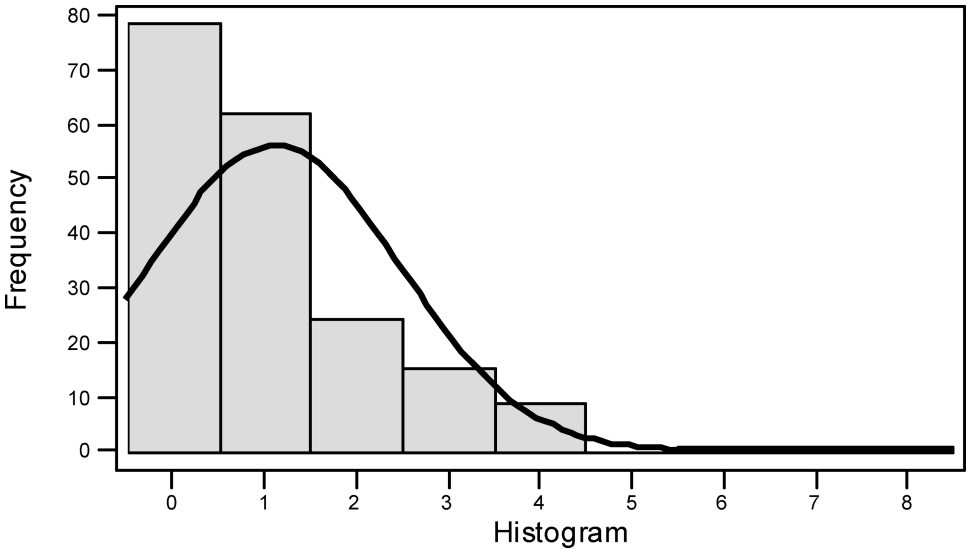


Figure 5. Assassinations and military incursions.

rate, thus the decrease in successful attacks due to a disruption by these factors finds no evidence here. The use of targeted assassinations to predict either rates of Palestinian violence or attack success rates also receives little support from these results. The authors suggest that looking at purely defensive measures such as intelligence collection, barrier building, and increased security measures may shed more light on the decrease in the attack success rate. This suggestion also relates to the results for H_4 and will be elaborated on presently.

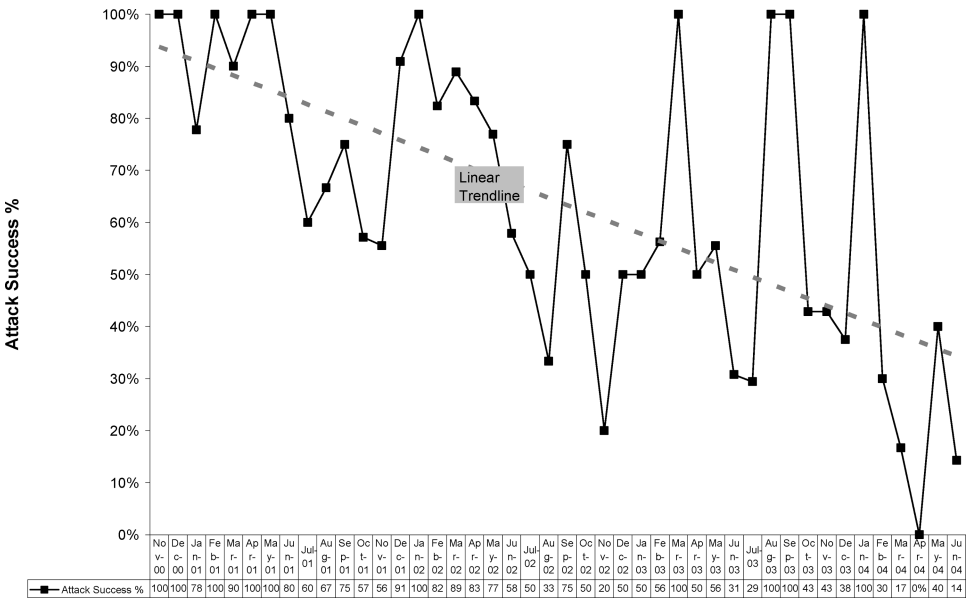
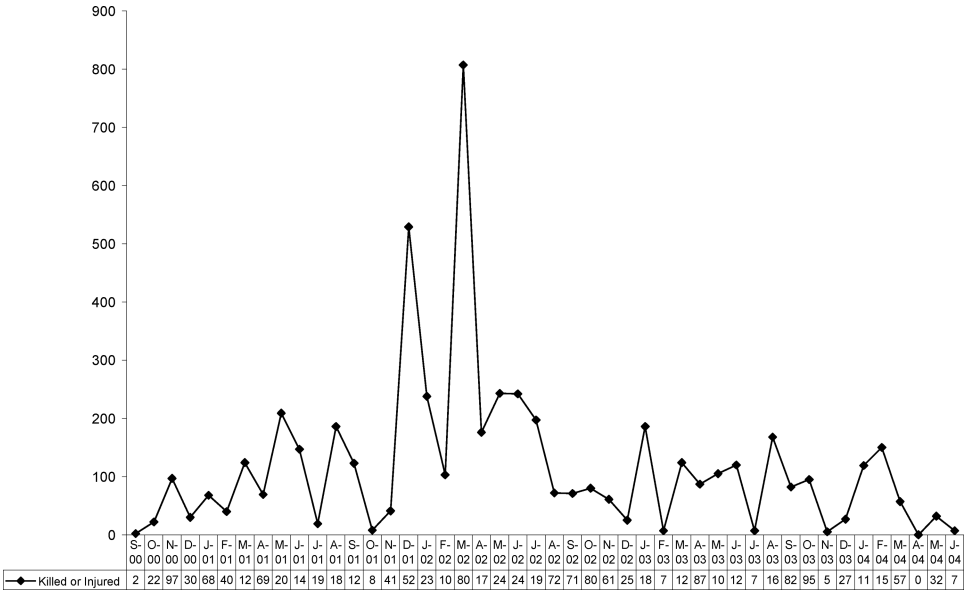


Figure 6. Attack success rate, November 2000–June 2004.

Table 4
Regression models for Hypothesis 3

Weekly lag	Response	Factors	Regression coefficient	ANOVA SeqSS/TotSS	*p*-value	Model R^2
0	Palestinian violence	TAs	0.14448	*	0.607	6.2%
		Mil incursions	0.8288	5.5%	0.001	
		Severe/Mild frequency	−1.0209	*	0.243	
		Constant	2.0145	*	0.000	
	Attack success rate	TAs	0.00005	*	0.999	0.1%
		Mil incursions	0.0013	*	0.973	
		Severe/Mild frequency	0.0344	*	0.800	
		Constant	0.71538	*	0.000	
1	Palestinian violence	TAs	−0.3104	*	0.286	1.0%
		Mil incursions	0.0937	*	0.717	
		Severe/Mild frequency	0.2457	*	0.785	
		Constant	2.4979	*	0.000	
	Attack success rate	TAs	−0.01711	*	0.694	2.3%
		Mil incursions	0.06658	*	0.087	
		Severe/Mild frequency	−0.0956	*	0.478	
		Constant	0.707	*	0.000	
2	Palestinian violence	TAs	0.1823	*	0.531	1.1%
		Mil incursions	0.3723	*	0.152	
		Severe/Mild frequency	−0.8002	*	0.374	
		Constant	2.2167	*	0.000	
	Attack success rate	TAs	−0.09193	0.8%	0.035	3.2%
		Mil incursions	0.00041	*	0.992	
		Severe/Mild frequency	0.2202	*	0.102	
		Constant	0.74131	*	0.000	
3	Palestinian violence	TAs	0.7126	0.5%	0.013	7.0%
		Mil incursions	0.8769	2.4%	0.001	
		Severe/Mild frequency	−2.5011	4.1%	0.005	
		Constant	1.8689	*	0.000	
	Attack success rate	TAs	0.00496	*	0.911	0.1%
		Mil incursions	−0.01088	*	0.782	
		Severe/Mild frequency	0.029	*	0.832	
		Constant	0.71524	*	0.000	
4	Palestinian violence	TAs	0.0149	*	0.959	0.8%
		Mil incursions	0.2043	*	0.434	
		Severe/Mild frequency	0.1523	*	0.866	
		Constant	2.2874	*	0.000	
	Attack success rate	TAs	−0.02842	*	0.522	0.3%
		Mil incursions	−0.00318	*	0.936	
		Severe/Mild frequency	0.0618	*	0.651	
		Constant	0.72481	*	0.000	

$\alpha = 0.05$, *where value is not applicable.



	S-00	O-00	N-00	D-00	J-01	F-01	M-01	A-01	M-01	J-01	J-01	A-01	S-01	O-01	N-01	D-01	J-02	F-02	M-02	A-02	M-02	J-02	J-02	A-02	S-02	O-02	N-02	D-02	J-03	F-03	M-03	A-03	M-03	J-03	J-03	A-03	S-03	O-03	N-03	D-03	J-04	F-04	M-04	A-04	M-04	J-04
Killed or Injured	2	22	97	30	68	40	12	69	20	14	19	18	12	8	41	52	23	10	80	17	24	24	19	72	71	80	61	25	18	7	12	87	10	12	7	16	82	95	5	27	11	15	57	0	32	7

Figure 7. Israelis killed of injured, November 2000–June 2004.

Testing Hypothesis 4

H_4 asserts that only repression that decreases the material and human resources of militant groups will successfully diminish violence over time. Thus targeted assassinations by themselves cannot predict increasing or diminishing Palestinian violence. However, H_4 asserts that when combined with major military incursions into rebellious zones, targeted assassinations and incursions together decrease levels of Palestinian violence, because they diminish the capacity of militant groups by targeting both their resources and personnel. In March 2002, the sudden spike in the number of Israelis killed and injured by Palestinian attacks caused the Israelis to change counterinsurgency methods. The chart in Figure 7 illustrates this dramatic increase in the number of Israelis killed or injured during March 2002.

From late March 2002 onward, Israeli forces began coupling targeted assassinations with major military incursions into rebellious Palestinian towns with the intent of striking at the resources, infrastructure, and personnel of militant groups. Although military incursions were used several times prior to March 2002, they were often ad hoc responses to Palestinian violence. In March 2002, the tactic of military incursions became more systematic.

H_4 predicts that the level of Palestinian violence decreases under a policy of combined targeted assassinations and military incursions. Table 5 provides the most successfully predictive approaches[8] containing the variables targeted assassinations (TAs), military incursions (MI), or their interaction (TA$*$MI).

Table 5 illustrates that neither targeted assassinations, military incursions, nor their interaction is a significant predictor of the movements in Palestinian violence. Although targeted assassinations, with their effect on human resources, and military incursions, with their effect on material resources, jointly satisfy the conditions for H_4, the claim that such factors would strongly predict Palestinian violence finds no support from this analysis. The factors are seldom statistically significant and when they are significant the amount of the movement in Palestinian violence explained by the factors is minimal. Furthermore, regression coefficients for statistically significant factors have the opposite

Table 5
Regression models for Hypothesis 4

Weekly lag	Factors	Regression coefficient	ANOVA SeqSS/TotSS	*p*-value	Model R^2
0	TAs∗MI	0.3005	2.1%	0.046	2.1%
	Constant	2.2815	*	0.000	
	TAs	−0.0798	*	0.699	5.5%
	MI	0.6429	5.4%	0.001	
	Constant	2.1043	*	0.000	
	MI	0.6357	5.4%	0.001	5.4%
	Constant	2.0617	*	0.000	
1	TAs∗MI	−0.2047	*	0.177	1.0%
	Constant	2.4797	*	0.000	
	TAs	−0.2562	*	0.228	1.0%
	MI	0.1385	*	0.488	
	Constant	2.4761	*	0.000	
2	TAs∗MI	−0.0087	*	0.954	0.0%
	Constant	2.4161	*	0.000	
	TAs	0.0058	*	0.978	0.7%
	MI	0.2262	*	0.259	
	Constant	2.2884	*	0.000	
3	TAs∗MI	0.2623	*	0.084	1.6%
	Constant	2.3116	*	0.000	
	TAs	0.16	*	0.449	2.8%
	MI	0.4196	2.4%	0.036	
	Constant	2.095	*	0.000	
	MI	0.4332	2.5%	0.029	2.5%
	Constant	2.1822	*	0.000	
4	TAs∗MI	0.3624	3.1%	0.017	3.1%
	Constant	2.2844	*	0.000	
	TAs	0.0486	*	0.820	0.8%
	MI	0.2322	*	0.249	
	Constant	2.2735	*	0.000	
	TA	0.0705	*	0.741	0.1%
	Constant	2.386	*	0.000	
	MI	0.2362	*	0.238	0.8%
	Constant	2.3002	*	0.000	

$\alpha = 0.05$, *where value is not applicable.

sign as that predicted by H_4. H_4 asserts, for instance, that as the input factor TA*MI increases Palestinian violence decreases but this analysis shows that as TAs∗MI increases so do Palestinian violence. The analysis, therefore, offers no support for the relationships asserted in H_4.

Discussion

The preceding analysis does not substantiate the claim that Israeli targeted assassinations have an effect on the rate of Palestinian attacks. Targeted assassinations do not quell

violence, but they do not increase violence either. As a counterinsurgency tactic, their utility is questioned by the findings. Targeted assassinations do not fare much better when combined with military incursions that seek to destroy the resources, personnel, and organizational infrastructure of militant groups.

Expectations of deterrence (H_1) in response to targeted assassinations have been rejected outright by this analysis. Despite the targeted nature of Israeli assassinations and the consistency of their application to punish Palestinian militants without ceding any of their demands, violence did not decrease in a statistically significant way. Escalating costs of repression, it appears, have not served as selective disincentives for individual militants. Militants did not substitute violent tactics with nonviolent ones following a consistent repression policy that did not reward militancy with concessions. Despite Israel's persistent use of targeted assassinations and other measures to quell the violence, and despite Israel's determined refusal to concede any of the demands of the Palestinians while violence is taking place, attacks continued virtually unabated. One is hard pressed to find a more consistent repression policy than the one applied by Israel toward militant Palestinian factions. The findings also pose a challenge to the predication that targeted repression deters while indiscriminate repression provokes violence. Public support for suicide bombings against Israelis continued to increase as the insurgency developed. Three years into the insurgency, an October 2003 poll conducted by the Palestinian Center for Policy and Survey Research found that 74.5 percent of Palestinians support suicide bombings. In the period covered by this analysis, September 2000–June 2004, support for suicide bombings never went below 58.6 percent, which was in June 2004.

Expectations of backlash (H_2), which posit harsh repression will result in a massive, swift, and expanding mobilization, are also rejected in the case of targeted assassinations. All three of Francisco's (2004) conditions necessary for backlash—information transmission, continuity in leadership, and adaptive strategies by dissidents—were present. Although Palestinians continued to send attackers against Israeli targets, the rate of attacks did not vary significantly with the application of targeted assassinations to suggest a massive, swift, or expanding campaign of violence. In other words, targeted assassinations did not increase Palestinian terrorism beyond its "natural rate." This finding is consistent with the earlier study by Brophy-Baermann and Conybeare (1994) that found that retaliation against Palestinian terrorism has no long-term deterrent or escalation effect.

Expectations of disruption (H_3) due to the elimination of organizational experience and valued cadres receive little support in this analysis. Targeted assassinations did indeed remove some of the most capable commanders available for planning and carrying out terrorist attacks, but by themselves they did not impact the number of attacks or the rate of successful attacks as the analysis indicates.

Expectations of diminishing capacity (H_4) implied in Sandler et al. (1983) and Enders and Sandler (1993, 2004) discussion of the need to target the resource endowments of terrorist groups (as opposed to simply increasing the costs of their tactics) is not confirmed, in that none of the predictors asserted in H_4 bear practical predictive significance to Palestinian violence levels.

What, then, explains the decline in the Palestinian attack success rate? Perhaps instead of the focus on offensive repressive strategies, an alternative explanation for this drop may be found in purely defensive measures such as target hardening through placement of security check points in the heart of Palestinian towns; the spread of police and military personnel in crowded public places vulnerable to attack; the building of the security barrier (wall of separation) that began in June 2002; closures of Palestinian towns; better human intelligence on terrorist cells; and growing public precautions against terrorist attacks. All

these measures suggest a *diminishing opportunity effect*, whereby terrorists find it difficult to penetrate targets that were previously vulnerable to attack because of purely defensive measures. Targeted assassinations can do little to influence opportunities for violence, unless they target actual "ticking bombs" on their way to conduct an attack.

As was admitted earlier, the ongoing conflict between Israelis and Palestinians does not permit for the exploration of all the available (and yet to be gathered) data on the Palestinian–Israeli cycle of violence. Different coding methods and inclusion of unreported attacks may well alter the findings of this study. Moreover, it is premature to generalize the findings on targeted assassinations without further analysis of the factors that contributed to the decline in the success rate of Palestinian attacks. It would equally be premature to offer policy recommendations to countries currently fighting insurgencies or a war on terrorism with only one case study of targeted assassinations.

Nonetheless, this analysis, taken at face value, raises doubts about the effectiveness of targeted assassinations as a tactic in the arsenal of counterterrorism measures. Targeted assassinations may signal a determination to fight back the terrorists and exhibit commitment not to succumb to their demands. They may also placate an angry public demanding tough measures to stop the terrorists. Politically, it may not be feasible for governments to fight terrorism by purely defensive measures. Targeted assassinations, however, should not be presented as a proven solution to patterns of political violence and rebellion. While targeted assassinations do not necessarily cause an increase in rates of political violence, it may be more valuable to allocate resources toward investments in defensive technologies to detect and intercept terrorists, harden potential targets that could attract terrorists, expansion of police and security forces in major cities that could be targeted by terrorists in the future, and acquiring human intelligence on known and potential terrorists. Given the controversial nature of targeted assassinations, it may well be that political leaders can jettison this tactic without hindering their overall ability to fight terrorism.

Notes

1. The datasets utilized by the authors in this article can be made available to any interested party through a written request to: Mohammed M. Hafez, University of Missouri in Kansas City, Department of Political Science, 213 Haag Hall, 5100 Rockhill Road, Kansas City, MO 64110.

2. Molly Moore, "Fear of reprisals casts a pall on Jerusalem: Israelis desert restaurants and buses," *Washington Post*, 24 March 2004.

3. Interview with Frontline (PBS) for a documentary program entitled "Battle for the Holy Land." 4 April 2002.

4. For the full range of moral, ethical, and strategic dilemmas debated by Israelis, see Larry Derfner, "A strategic dilemma," *Jerusalem Post*, 26 October 2001; David B. Rivkin, Jr., Lee A. Casey, and Darin R. Bartram, "Suicide attacks are war crimes, targeted killings aren't," *Jerusalem Post*, 8 November 2002; David Rudge, "Targeted killing-–effective anti-terror or counterproductive?" *Jerusalem Post*, 7 January 2003; Yosef Goell, "Targeted killings and the Left," *Jerusalem Post*, 5 May 2003; Aryeh Dayan, "One day in five, the IDF attempts assassination," *Ha'aretz*, 21 May 2003; Gil Hoffman, "Targeted killings help put pressure on Hamas," *Jerusalem Post*, 17 June 2003; and Tuvia Blumenthal, "Targeted killings can save lives," *Ha'aretz*, 16 March 2004.

5. Pal Violence $= \beta_0 + \beta_1$Targeted Assassinations $+\beta_2$ Military Incursions $+\beta_3$ Attack Success Rate + e

6. G (Severe Pal Violence) $= \beta_0 + \beta_1$ Aggregate Numerical Severity $+\beta_2$Victim Numerical Severity where G = Logit link function mapping the interval (0,1) into the whole real line guaranteeing that the model will produce a predicted probability between 0 and 1.

7. Pal Violence = $\beta_0 + \beta_1$ Targeted Assassinations $+\beta_2$ Military Incursions $+\beta_3$ Frequency Severity + e AND Attack Success Rate = $\beta_0 + \beta_1$ Targeted Assassinations $+\beta_2$ Military Incursions $+\beta_3$ Frequency Severity+ e

8. Pal Violence = $\beta_0 + \beta_1$Targeted Assassinations*Military Incursions + e AND Pal Violence = $\beta_0 + \beta_1$ Targeted Assassinations $+\beta_2$ Military Incursions + e AND Pal Violence = $\beta_0 + \beta_1$ Military Incursions + e

References

Box, G., W. Hunter, and J. Hunter. 1978. *Statistics for Experimenters*, New York: John Wiley & Sons, Inc.

Brockett, Charles D. 1995. "A protest-cycle resolution of the repression/Popular-protest paradox." In *Repertoires and Cycles of Collective Action*, ed. Mark Traugott. New Haven, CT: Duke University Press, pp. 117–144.

Brophy-Baermann, B., and J. A. C. Conybeare. 1994. "Retaliating against terrorism: Rational expectations and the optimality of rules versus discretion." *American Journal of Political Science* 38(1), pp. 196–210.

Costain, Anne N. 1992. *Inviting Women's Rebellion: A Political Process Interpretation of the Women's Movement*, Baltimore: Johns Hopkins University Press.

Davenport, Christian, Carol Mueller, and Hank Johnston. eds. 2005. *Repression and Mobilization*. Minneapolis: Minnesota University Press, pp. 58–84.

David, Steven R. 2003. "Israel's policy of targeted killing." *Ethics and International Affairs* 17(Spring), pp. 111–126.

Della Porta, Donatella. 1995. *Social Movements, Political Violence, and the State: A Comparative Analysis of Italy and Germany*, New York: Cambridge University Press.

Enders, Walter, and Todd Sandler. 1993. "The effectiveness of anti-terrorism policies: A vector-Autoregression-intervention analysis." *American Political Science Review* 87(4), pp. 829–844.

Enders, Walter, and Todd Sandler. 2004 "What do we know about the substitution effect in transnational terrorism?," In *Research on Terrorism: Trends, Achievements and Failures*. ed. Andrew Silke. London: Frank Cass, pp. 119–137

Feierabend, Ivo K., and Rosalind L. Feierabend. 1972 "Systemic conditions of political aggression: An application of frustration-aggression theory." In *Anger, Violence, and Politics: Theories and Research*, ed. Ivo K. Feierabend et al., Englewood Cliffs, NJ: Prentice-Hall, pp. 136–183.

Ferrara, Federico. 2003. "Why regimes create disorder: Hobbes's dilemma during a Rangoon summer." *Journal of Conflict Resolution* 47, pp. 302–325.

Finkel, Steven E., Edward N. Muller, and Karl-Dieter Opp. 1989. "Personal influence, collective rationality, and mass political action: Evaluating alternative aodels with panel data." *American Political Science Review* 83(March), pp. 885–903.

Francisco, Ronald A. 1995. "The relationship between coercion and protest: An empirical evaluation in three coercive states." *Journal of Conflict Resolution* 39(June), pp. 263–282.

Francisco, Ronald A. 1996. "Coercion and protest: An empirical test in two democratic states." *American Journal of Political Science* 40(November), pp. 1179–1204.

Francisco, Ronald A. 2004. "After the massacre: Mobilization in the wake of harsh repression," *Mobilization: An International Journal*, 9(2) (June), pp. 107–126.

Francisco, Ronald A. 2005. "The dictator's, dilemma." In *Repression and Mobilization*,eds. Christian Davenport, Carol Mueller, and Hank Johnston. Minneapolis: Minnesota University Press, 58–84.

Gamson, William, Bruce Fireman, and Steven Rytina. 1982. *Encounters with Unjust Authority*, Chicago, IL: Dorsey.

Ginkel, John, and Alastair Smith. 1999. "So you say you want a revolution: A game theoretic explanation of revolution in repressive regimes." *Journal of Conflict Resolution* 43(June), pp. 291–316.

Goldstein, Robert J. 1983. *Political Repression in Nineteenth Century Europe*, London: Croom Helm.
Gupta, Dipak K., Harinder Singh, and Tom Sprague. 1993. "Government coercion of dissidents: Deterrence or provocation?"*Journal of Conflict Resolution* 37(June), pp. 301–339.
Gurr, Ted Robert. 1968. "A causal model of civil strife: A comparative analysis using new indices." *American Political Science Review* 62(December), pp. 1104–1124.
Gurr, Ted Robert. 1970. *Why Men Rebel*, Princeton, NJ: Princeton University Press.
Gurr, Ted Robert. 1986 "Persisting patterns of repression and rebellion: Foundations for a general theory of political coercion." In *Persistent Patterns and Emergent Structures in a Waning Century*. ed. Margaret P. Karns Westport, CT: Praeger, pp. 149–168.
Gurr, Ted Robert. 1993. "Why minorities rebel: A global analysis of communal mobilization and conflict since 1945." *International Political Science Review* 14, pp. 161–201.
Gurr, Ted Robert, and Will H. Moore. 1997. "Ethnopolitical rebellion: A cross-sectional analysis of the 1980s with risk assessments for the 1990s." *American Journal of Political Science* 41(October), pp. 1079–1103.
Hafez, Mohammed M. 2003. *Why Muslims Rebel: Repression and Resistance in the Islamic World*, Boulder, CO: Lynne Rienner Publishers.
Hardin, Russell. 1982. *Collective Action*, Baltimore, MD: Johns Hopkins University Press.
Hibbs, Douglas A., Jr. 1973. *Mass Political Violence: A Cross-National Causal Analysis*, New York: John Wiley & Sons.
Hoover, Dean, and David Kowalewski. 1992. "Dynamic models of dissent and repression." *Journal of Conflict Resolution* 36, pp. 150–182.
Khawaja, Marwan. 1993. "Repression and popular collective action: Evidence from the West Bank." *Sociological Forum* 8(March), pp. 47–71.
Koopmans, Ruud. 1997. "Dynamics of repression and mobilization: The German extreme right in the 1990s." *Mobilization* 2(September), pp. 149–164.
Lee, Chris, Sandra Maline, and Will H. Moore. 2000 "Coercion and protest: An empirical test revisited." In *Paths to State Repression: Human Rights Violations and Contentious Politics*, ed. Christian Davenport. Boulder, CO: Rowman and Littlefield, pp. 127–147.
Lichbach, Mark I. 1987. "Deterrence or escalation? The puzzle of aggregate studies of repression and dissent." *Journal of Conflict Resolution* 31(June), pp. 266–297.
Lichbach, Mark I., and Ted Robert. Gurr. 1981. "The conflict process: A formal model." *Journal of Conflict Resolution* 25, pp. 3–29.
Luft, Gal. 2003. "The logic of Israel's targeted killing." *Middle East Quarterly* 10(1) (Winter), pp. 1–9.
Mason, David T. 1984. "Individual participation in collective racial violence: A rational choice synthesis." *American Political Science Review* 78(4), pp. 1040–1056.
Mason, David T., and Dale A. Krane. 1989. "The political economy of death squads: Towards a theory of the impact of state-sanctioned terror." *International Studies Quarterly* 33, pp. 175–198.
McCarthy, John D., and Mayer Zald. 1973. *The Trend of Social Movements in America: Professionalization and Resource Mobilization*, Morristown, NJ: General Learning.
McCarthy, John D., and Mayer Zald. 1977. "Resource mobilization and social movements: A partial theory." *American Journal of Sociology* 82, pp. 1212–1241.
Moore, Will H. 1998. "Repression and dissent: Substitution, context, and timing." *American Journal of Political Science* 42(July), pp. 851–73.
Moore, Will H. 2000. "The repression of dissent: A substitution model of government coercion." *Journal of Conflict Resolution* 44(February), pp. 107–127.
Muller, Edward N. 1985. "Income inequality, regime repressiveness, and political violence." *American Sociological Review* 50, pp. 47–61.
Muller, Edward N., and Karl-Dieter Opp. 1986. "Rational choice and rebellious collective action." *American Political Science Review* 80(June), pp. 471–487.
Muller, Edward N., and Mitchell A. Seligson. 1987. "Inequality and insurgency." *American Political Science Review* 81, pp. 425–449.
Muller, Edward N., and Erich Weede. 1990. "Cross-national variation in political violence." *Journal of Conflict Resolution* 34(December), pp. 624–651.

Muller, Edward N., Henry A. Dietz, and Steven E. Finkel. 1991. "Discontent and the expected utility of rebellion: The case of Peru." *American Political Science Review* 85(December), pp. 1261–1282.

Oberschall, Anthony R. 1973. *Social Conflict and Social Movements*, Englewood Cliffs, NJ: Prentice-Hall.

Oliver, Pamela. 1980. "Rewards and punishments as selective incentives for collective action." *American Journal of Sociology* 85, pp. 1356–1375.

Olivier, Johan L. 1990. "Causes of ethnic collective action in the Pretoria-Witwatersrand Triangle, 1970 to 1984." *South African Sociological Review* 2, pp. 89–108.

Olivier, Johan L. 1991. "State repression and collective action in South Africa, 1970–1984." *South African Journal of Sociology* 22, pp. 109–117.

Opp, Karl-Dieter, and Wolfgang Roehl. 1990. "Repression, micromobilization and political protest." *Social Forces* 69, pp. 521–547.

Rasler, Karen 1996. "Concessions, repression, and political protest in the Iranian revolution." *American Sociological Review* 61(February), pp. 132–152.

Sandler, Todd, John T. Tschirhart, and Jon Cauley. 1983. "A theoretical analysis of transnational terrorism." *American Political Science Review* 77, pp. 36–54.

Snyder, David. 1976. "Theoretical and methodological problems in the analysis of government coercion and collective violence." *Journal of Political and Military Sociology* 4, pp. 277–293.

Snyder, David, and Charles Tilly. 1972. "Hardship and collective violence in France, 1830–1960." *American Sociological Review* 37, pp. 520–532.

Stein, Yael. 2003. "Response to Israel's policy of targeted killing: By any name illegal and immoral." *Ethics and International Affairs* 17(1), pp. 127–137.

Tarrow, Sidney. 1989. *Democracy and Disorder: Protest and Politics in Italy, 1965–1975*, Oxford: Oxford University Press.

Tilly, Charles 1978. *From Mobilization to Revolution*, Boston, MA: Addison-Wesley.

Tilly, Charles, Louise Tilly, and Richard Tilly. 1975. *The Rebellious Century: 1830–1930*, Cambridge, MA: Harvard University Press.

White, Robert 1989. "From peaceful protest to guerrilla war: Micromobilization of the Provisional Irish Republican Army." *American Journal of Sociology* 94(May), pp. 1277–1302.

Zimmerman, Ekkart 1980 "Macro-comparative a research on political protest." In *Handbook of Political Conflict: Theory and Research*, ed. Ted R. Gurr. New York: Free Press, pp. 167–237.

Zimmermann, Ekkart 1983. *Political Violence, Crises and Revolutions*, Rochester, VT: Schenkman Publishing.