Spoiling, Seasonality, & State Measures:

Drivers of Factional Palestinian Terrorism (1987-2004)

Michael Shkolnik, Norman Paterson School of International Affairs, Carleton University

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INTRODUCTION

The Israeli-Palestinian conflict continues to attract a significant amount of international attention and is among the most researched topics in terrorism studies. Many conflicts worldwide are far more deadly. But the particularly complex and intractable nature of the Israeli-Palestinian conflict make it an interesting case for assessing conflict management, militant violence, national movement effectiveness, and counterterrorism/insurgency. Both Israelis and Palestinians experience significant ebbs and flows, cycles of violence, sustained armed conflicts, and periods of relative calm. But what are the primary factors that fuel fluctuations in Palestinian terrorism, and to what extent? Scholars have attributed Palestinian terrorism to various causes, including long-standing grievances, organizational competitive dynamics, varying levels of territorial control and social ties, Israel’s ruling government ideology, responses to Israeli counter-militancy measures, and spoiling electoral or peace processes.¹ To better manage the conflict and work toward a resolution, Israel has engaged in peace negotiations with Palestinian officials and signed several agreements since 1991. However, after signing the first Oslo Accords in 1993, Palestinian terrorism reached new heights and escalated through the mid-2000s.² Observers attribute much of this violence to extremist factions Hamas and the Palestinian Islamic Jihad (PIJ) trying to derail the Peace Process and undercut the more moderate Palestinian Authority (PA). For example, a Hamas suicide bombing in February 1996, which killed 23 Israelis, helped the election of hawkish Likud Prime Minister Benjamin Netanyahu and disrupted the May 1996 round of peace negotiations in Taba.³ There appeared to be a strategic logic and specific timing to several high-profile suicide bombings in the post-Oslo period. Even as recent as March 2019, Israeli authorities foiled another Hamas

suicide bombing plot intended to disrupt Israel’s national elections that year. To what extent do extremist factions systematically ramp up attacks to impact potential “spoiler opportunities” such as Israeli elections or peace negotiations?

Major concessions, like signing peace agreements or military withdrawals, are just some of the measures Israel has undertaken over the past few decades. Israel’s government has employed a range of various measures, both repressive and conciliatory, to stifle or deter terrorist activity. But terrorist organizations motivated by various objectives and ideologies likely respond differently to conflict dynamics and key milestones. How do various types of Israeli government actions influence different perpetrators of Palestinian terrorism? How might other factors, like religious holidays and seasonality, play a role in fueling Palestinian violence?

This study is the first to empirically identify the main drivers of Palestinian terrorism by different categories of militant factions, from 1987 through 2004, when the second Intifada – a violent uprising against Israel – ended. It systematically assesses the level of Palestinian terrorist attacks according to three categories: attacks conducted by extremist factions (Hamas and the PIJ), moderate factions (Fatah and other Palestine Liberation Organization (PLO)-affiliated groups), and unaffiliated or unattributed terrorist attacks. In the process, I test for key theories of Palestinian terrorism: spoiling, Israeli government actions, and seasonality.

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7 Other PLO-affiliated organizations include the Popular Front for the Liberation of Palestine (PFLP), the Democratic Front for the Liberation of Palestine (DFLP), Abu Nidal organization (ANO), armed factions associated with Fatah, like the Tanzim and Force 17, and other groups.
Drivers of Palestinian Terrorism

Various perpetrators of Palestinian terrorism respond to diverse sets of factors. In line with research on militant spoiling and veto players, I find evidence that extremist groups attempt to derail key events associated with the Israeli-Palestinian peace process in several ways. First, my findings show that extremist factions ramp up violence in the three months leading up to peace negotiations or agreements. I also find support that Hamas and PIJ escalate attacks in the lead up to Israeli elections – but only when a left-wing Labor government is in power. Palestinian extremists appear to strategically wage attacks in an effort to disrupt peace negotiations, hardened the Israeli electorate, and help usher in right-wing governments that further stifle the peace process. On the other hand, moderate factions are more likely to welcome Israeli overtures and scale back violence to give peace efforts a chance to play out.

I find that a wide range of monthly Israeli government actions – whether conciliatory or repressive – have diverse impacts on various perpetrators of Palestinian terrorism. Months characterized by higher levels of indiscriminate repression lead to only a marginal increase in attacks across all categories of Palestinian terrorists. But discriminate concessions – conciliatory actions specifically targeting terrorists and their support network – have a far larger impact on fueling terrorism across the spectrum in the following month. Imposing collective punishments of Palestinian society and rewarding terrorist perpetrators do not appear to be effective short-run counterterrorism approaches. Major military offensives and targeted coercive measures produce mixed results. On the other hand, denial strategies, such as hardening targets or building barriers, can lead to a more long-term decline in Palestinian terrorism.

Israel’s construction of a security barrier in 2002, which largely separates the West Bank from Israel, is the only factor associated with a significant and consistent reduction in Palestinian attacks across all categories. But the current state of the separation barrier is unlikely to bode well for a sustainable resolution to the Israeli-Palestinian conflict.

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Other findings identify fluctuations in Palestinian terrorism as a function of seasonality (i.e. spring months with no major harvests) and key religious holidays, such as Passover and Ramadan. This article also explores potential strategic logics driving unattributed attacks, including the politics of credit claiming, substitution effects, and incentives to impose higher costs on Israeli governments that are perceived to offer more concessions.

The study proceeds as follows. The first section derives testable hypotheses based on findings from literatures on spoiler opportunities in terrorist campaigns and civil wars, with an emphasis on the Israeli-Palestinian conflict. Research on state responses and counter-militancy campaigns are explored as well, followed by a brief discussion about the role of seasonality and Ramadan on conflict dynamics. The next section introduces the study’s data and methods, followed by a discussion of the results. The final section concludes with implications for research on counterinsurgency, rebel fragmentation, and strategic logics of terrorism.

LITERATURE REVIEW & HYPOTHESES

Violence serves various purposes throughout a militant group’s campaign, including as a form of costly signalling that communicates credible resolve to differentiate themselves from internal competitors and coerce concessions from the target state.\(^9\) Terrorist groups often try to provoke a disproportionate state response that may drive passive civilians into the hands of militant groups.\(^10\) Provoking harsh Israeli retaliation to raise the number of innocent Palestinian casualties and subsequent recruitment is a recurring component of Palestinian terrorist strategies. Attrition is similarly an underlying aspect of Palestinian violence against Israeli targets throughout several armed campaigns, in an effort to degrade Israel’s military capabilities and signal group strength. Large-scale campaigns of violence, such as the Second Intifada, are perhaps the best examples of sustained Palestinian attacks intended to impose serious costs on Israel.

Militant groups sometimes escalate attacks against the target state in response to rival militant group activity in an effort to outbid one another. These types of competitive escalations may help groups remain relevant and signal their resolve among a common constituent base, such as the Palestinian national movement. Other scholars have challenged this view, pointing to social solidarity as a driver of violent escalations and evidence of cooperation between rival factions. However, terrorist attacks can be driven by overlapping strategic logics. A Palestinian terrorist group can conduct an attack to simultaneously demonstrate resolve to the Palestinian constituency, signal strength to Israel, and seek to provoke a severe Israeli response. Since outbidding and provocation are well-known and consistent strategies associated with Palestinian terrorism, this article focuses on empirically assessing arguments related to spoiling, seasonality, and government actions in the Israeli-Palestinian conflict, while taking sustained campaigns of attrition – like major Israeli military offensives and Palestinian Intifadas – into account.

**Spoiling**

The conflict resolution literature points to the role of veto players or “spoilers” in derailing peace processes and national elections. Kydd and Walter (2002) show that extremist militants undermine peace processes by increasing attacks in the lead up to politicized peace negotiations or agreements. According to this perspective, extremists are more likely to derail potential peace settlements when mistrust is high and when the moderates within the terrorist movement appear capable of preventing terrorist violence but fail to do so. Building on Kydd and Walter’s (2002) work, Bueno de Mesquita (2005) illustrates that when governments offer

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concessions, moderates within a terrorist organization are most likely to accept them, allowing extremists to take over the terrorist campaign and increase violence if joint counterterrorism efforts fail.\textsuperscript{16} The scholarly literature identifies different strategic logics related to terrorist spoiling, including a desire among sidelined factions to increase recruitment and remain relevant in the eyes of a wider constituency.\textsuperscript{17}

Another form of spoiling reflects terrorist groups’ desire to impact enemy electoral processes. Using event study methods and likelihood ratio tests, Berrebi and Klor (2006) find that the level of fatal terrorist attacks targeting Israelis from 1990-2003 is higher during left-wing government than right-wing governments.\textsuperscript{18} Higher levels of terrorism are also shown to produce more Israeli public support for right-wing political parties which are perceived to be more effective in clamping down on terrorist activity.\textsuperscript{19} Some Palestinian factions may increase terrorism during leftist governments to coerce more concessions from Israel, while extremists may seek to derail peace processes by targeting elections when leftist parties are in power.

Previous works largely relied on formal modeling, basic quantitative tests, and qualitative case studies to identify spoiler logics in the Israeli-Palestinian conflict. Using a large-n regression analysis, Braithwaite et. al (2010) found that Palestinian attacks tended to increase around Israeli general elections and peace negotiations.\textsuperscript{20} However, that study did not differentiate between extremist and moderate factions. For a more nuanced assessment, this study tests the impact of various spoiler opportunities on different categories of Palestinian terrorists.

\textbf{H1a:} Extremist factions are more likely to increase violence in anticipation of spoiler opportunities (peace negotiations and agreements) compared to other time periods.

\begin{itemize}
\item \textsuperscript{16} Bueno de Mesquita, “Conciliation, Counterterrorism, and Patterns of Terrorist Violence.”
\item \textsuperscript{20} Alex Braithwaite, Dennis M. Foster, and David A. Sobek, “Ballots, Bargains, and Bombs: Terrorist Targeting of Spoiler Opportunities,” \textit{International Interactions} 36, no. 3 (2010): 294–305.
\end{itemize}
H1b: Extremist factions are more likely to increase violence in the lead up to Israeli elections if the incumbent political party is left-wing.

H1c: Spoiler opportunities should have no systematic impact on terrorism perpetrated by moderate factions and unaffiliated terrorists.

**Government responses and counterterrorism measures**

Government responses influence militant campaigns and vice versa. Historical and scholarly literature on counterinsurgency tends to differentiate between two broad approaches: population-centric (winning “hearts and minds”) or enemy-centric counterinsurgency (targeting militants and militant infrastructure). 21 Many scholarly studies suggest that states that primarily rely on brute force are largely unsuccessful and often drive neutral members of the population into insurgents’ ranks. 22 Other scholars, on the other hand, have shown that indiscriminate state response and violent state building processes can be effective and lead to a reduction in militant violence. 23 Empirical research on government actions in counterinsurgency campaigns remains scarce. A recent large-n study focuses on a global sample of insurgent groups to assess how government measures influence insurgent targeting of civilians or use of terrorism. 24 Overall, the authors find that states relying on coercive tactics pressure insurgent groups to increase civilian targeting while conciliatory measures reduce this phenomenon. That study examines diverse militant group-state relations annually and distinguish broadly between coercive and conciliatory tactics, without

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disaggregating among their discriminate and indiscriminate variants. In reality, states rarely choose between either enemy-centric or population-centric counterinsurgency strategies and often rely on a combination of the two. States usually target militants and potential supporters with both violent and political actions of various degrees.25

Looking at the Israeli-Palestinian conflict, prominent Israeli defensive measures (i.e. building a security barrier) and offensive operations have been shown to stifle enemy capabilities and drastically reduce Palestinian terrorism from its peak in 2002.26 However, Israeli counterterror measures can also produce backlash effects.27 Studies examining the effectiveness of targeted killings on combating Palestinian terrorism, for example, produced mixed results.28 Other research focuses on more collective forms of punishment. Benmelech et. al (2015) find that home demolitions targeting Palestinian suicide bombers’ families is an effective deterrent which led to fewer subsequent suicide terrorist attacks during the Second Intifada.29 However, indiscriminate state actions, such as curfews or preventive home demolitions, led to an increase in suicide attacks. Other indiscriminate measures, including military checkpoints and widespread restrictions on Palestinian employment in Israel, have also been shown to increase the level of Palestinian violence.30 The distinction between selective and indiscriminate actions is important for research on other conflicts as well. One study finds that U.S.-led coalition strikes in Iraq (2004-2009) that produce collateral damage and civilian

deaths are associated with an increased level of subsequent terrorism, whereas targeted operations against militants lead to periods of reduced violence.\textsuperscript{31} Organized terrorism is generally a function of a motivation to conduct political violence and capabilities to execute attacks. Beyond coercive or repressive measures, conciliatory measures can help reduce terrorism by eroding terrorist groups’ legitimacy or raising incentives for moderate factions to abandon violence.\textsuperscript{32} Government concessions are largely aimed at manipulating motivations and incentives in an effort to de-escalate militant campaigns. But under some conditions, insurgents may become emboldened to escalate attacks when the target government signals weaker resolve and is perceived to be vulnerable.\textsuperscript{33} More importantly, terrorist groups guided by different ideologies and objectives also react to government efforts in different ways. Palestinian moderate factions are more likely to accept government concessions which leave extremist groups like Hamas and the PIJ to escalate violence following additional conciliatory actions.\textsuperscript{34}

With respect to the Israeli-Palestinian conflict, Jaeger and Pressman (2005)’s quantitative analysis finds that Palestinian violence is hard to predict based on previous Israeli measures.\textsuperscript{35} The authors argue that this finding may be a function of Israel’s superior capabilities, which thwart systematic Palestinian retaliations and force Palestinians to strategically randomize the timing of their responses. More recent analyses suggest Israel can effectively incentivize Palestinians to reduce attacks. Dugan and Chenoweth (2012) show that conciliatory actions are related to overall reductions in terrorism in the following month, but only during the Second Intifada period (2000-2004).\textsuperscript{36} Like most other studies, neither Jaeger and Pressman (2005) nor Dugan and Chenoweth (2012) differentiate among specific Palestinian

\textsuperscript{34} Bueno de Mesquita, “Conciliation, Counterterrorism, and Patterns of Terrorist Violence.”
factions, which inhibits an analysis of how certain types of Israeli interventions impact different categories of Palestinian terrorists.\textsuperscript{37} More extreme religious organizations with maximalist objectives (such as Hamas or the Palestinian Islamic Jihad) should be more resistant to any type of counterterrorism effort than groups with limited objectives like Fatah and other PLO-affiliated organizations.\textsuperscript{38} The following hypotheses related to government actions are derived based on previous findings and rationalist perspectives of fragmented conflict dynamics:

**H2a:** Indiscriminate repressive actions should lead to an increase in terrorism among all categories of Palestinian terrorists.

**H2b:** Conciliatory actions – whether targeted or indiscriminate – should lead to a reduction in terrorism among moderate factions and unaffiliated terrorists.

**H2c:** Conciliatory actions – whether targeted or indiscriminate – should lead to an increase in terrorism among extremist factions.

### Seasonality and religious holidays

Seasonality has been identified as a key factor influencing conflict dynamics in diverse contexts.\textsuperscript{39} Previous research on interstate conflicts suggest that violence escalates during the spring and summer months and declines during the fall and winter.\textsuperscript{40} Spring has long been considered the Afghan Taliban’s “fighting season,” largely because of better weather conditions and the end of the opium poppy harvest.\textsuperscript{41} During this study’s time period, the Palestinian agricultural sector was one of the main driving forces of the local economy and employment.

\textsuperscript{37} Sharvit et. al (2013) explore the impact of specific Israeli government interventions on different Palestinian group behaviour based on the Institute for Counter-Terrorism (ICT) database on terrorist attacks during the Second Intifada. The study focused on major offensive measures (i.e. targeted assassinations of senior leaders, large-scale military operations), defensive measures (i.e. building the separation barrier between Israel and the West Bank), and conciliatory actions (i.e. peace summits and ceasefire agreements).


opportunities, despite declining considerably as a share of GDP after 2000.\textsuperscript{42} Beyond economic considerations, agriculture plays a unique role in Palestinian identity as a people making claims to land through cultivation.\textsuperscript{43} In the Palestinian territories, most fruit harvesting – including key crops like grapes, dates, and citrus – usually occurs between August and November, while vegetables are harvested fairly evenly throughout the year.\textsuperscript{44} Around June, there is a sharp increase in field crop harvesting. Almost half of total agricultural land in the West Bank is used solely for cultivating olive trees and harvesting occurs almost entirely during the fall months of October and November.\textsuperscript{45} If there is a seasonality component to Palestinian terrorism, attacks should increase during the months March-May when no major harvests take place. The spring period has ideal weather conditions for executing attacks, which follows a period of peak rain fall and precedes the hot summer months.

A study on the distribution of Palestinian suicide bombings shows that the months of March-May tend to witness an uptick in those types of sophisticated and highly lethal attacks.\textsuperscript{46} This period in Israel also hosts three major Jewish holidays (Purim, Passover, and Shavuot) and two important civilian commemorations (Memorial Day and Israel’s Independence Day). Israeli authorities are generally on much higher alert around major Jewish holidays, especially Passover. Israel’s Independence Day celebrations also coincide with the Palestinian \textit{al-Nakba} commemoration, when Palestinian society mourns the establishment of Israel in 1948 and the accompanying flow of an estimated 700,000 Palestinian refugees to neighbouring countries.\textsuperscript{47} Based on major Palestinian agricultural harvests and concentration of Jewish holidays, Israelis should experience more terrorism in the spring season.

\begin{quote}
\end{quote}
H3a: Palestinian attacks, of any variant, are more likely to increase during the months of March-May.

Recent research points to differing relationships between Ramadan and terrorist attacks worldwide. One recent study identified a systematic rise in jihadist terrorist attacks, in predominately Muslim countries during the Islamic holy month of Ramadan from 1984-2016.48 Other analyses point to a rise in Islamic State-affiliated terrorist attacks during Ramadan compared to non-Ramadan months.49 Looking beyond radical jihadist organizations, Hodler et. al (2019) finds that sub-national districts in Muslim-majority countries with stronger levels of Ramadan fasting adherence experienced fewer terrorist incidents during the holy month.50

A sizable majority of Muslims around the world, with varying degrees of religiosity, adhere to at least some of the core stipulations and traditions associated with Ramadan, notably the month-long fast. According to a PEW research, an overwhelming majority of Palestinians surveyed (94%) said that they fast during the entire month of Ramadan.51 Beyond fasting, religious Muslims engage in more prayers and charitable activities, while meeting for daily pre- and post-fast family or community meals. Ramadan fasting can cause considerable short-term physiological and psychological setbacks, such as weight loss and lack of sleep, which may in turn impact a person or group’s ability to mobilize resources to execute attacks.52 Hodler et. al (2019) demonstrate that Ramadan fasting leads to lower public support for terrorist activity, which hinders terrorist group capabilities, during the holy month. Following this insight, I expect that moderate Palestinian factions and unattributed terrorists reduce attacks during Ramadan.

**H3b:** Moderation factions and unaffiliated terrorists are more likely to reduce attacks during Ramadan months.

**DATA & METHODOLOGY**

I test the hypotheses above using newly constructed data on Palestinian terrorism which I divided into four clusters reflecting attacks perpetrated by all Palestinian terrorists, extremist factions, moderate factions, and unattributed attackers from June 1987 to December 2004. Palestinian terrorist attacks are aggregated according to monthly counts (n=211). I omitted all the months from 1993 (211 – 12 = 199) because GTD data from that year are missing.53 While the GTD includes attacks from 1970, this study’s time period starts in 1987 since Hamas was officially founded then and the PIJ began terrorist operations in that same year – during the First Intifada. This study’s temporal range ends at the end of 2004 because Israeli-Palestinian conflict dynamics changed fundamentally following the death of PLO leader Yasser Arafat and the end of the Second Intifada.54 After the uprising ended, Israel’s government started a unilateral political process that led to the September 2005 evacuation of its military and civilian population from the Gaza Strip, ushering a new era of violent confrontations with Hamas and other Gaza-based militants.55 Israel faced a new and more dangerous type of Hamas organization that gradually started to consolidate territorial control and administer governance in Gaza.56

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53 Boxes containing 1993 data were lost during an effort to transfer GTD data to the University of Maryland.
54 The formal end of the Second Intifada is a source of debate. I use the December 2004 cut-off based on the availability of data concerning Israeli government actions.
Dependent Variables

The dependent variables, Palestinian terrorist attacks, are collected from the Global Terrorism Database (GTD). I separate attacks into four distinct categories of Palestinian terrorism: total monthly attacks by all Palestinian factions, the moderate camp including the PLO’s associated organizations (i.e. Fatah, Tanzim, al-Aqsa Brigades, PFLP, etc.), the extremist camp (Hamas and the PIJ)), and attacks with no claim of responsibility that are coded generally in the GTD data set as ‘Palestinians’, ‘Unknown’, or ‘Individual’. Following previous research cited above, I code Hamas and the PIJ as extremist factions based on their extreme Islamist religious ideology compared to the more secular-nationalist orientation of PLO-affiliated groups. Hamas and the PIJ also unequivocally call for the destruction of Israel, whereas the PLO recognized Israel’s right to exist and engaged in formal peace negotiations in 1993. Since the majority of GTD attacks provide some information regarding the perpetrator, and because the majority of attacks are conducted by Palestinians, unknown perpetrators will be coded in a separate dependent variable category and assumed to have been committed by Palestinians. This approach is in line with Dugan and Chenoweth’s (2012) coding of total monthly terrorist attacks. The authors acknowledge that while non-Palestinians conducted some “unknown” attacks they doubt that any error is systematic.

This study focuses on Palestinian terrorism against Israelis. However, including only attacks that explicitly code the target as Israeli in the GTD can be misleading. Some targets that are labelled under other nationalities in the GTD would otherwise have been discarded for this study. For example, a bus bombing targeting Israelis killed one Dutch national and the attack was subsequently (and perhaps incorrectly) coded ‘Netherlands’ as the nationality target in the GTD. In light of these discrepancies, I examined each specific terrorist incident in the dataset to observe the nature of each attack according to the GTD’s brief, yet descriptive, account. Any Palestinian attack with a foreign national target coded in the GTD was corroborated by another

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58 I could have similarly labelled the two main organizational clusters as “Islamists” versus “Nationalists” but decided to remain consistent with language used in literature on militant spoiling. Aaron D. Pina, “Palestinian Factions,” *Congressional Research Service*, June 8, 2005. [https://fas.org/sgp/crs/mideast/RS21235.pdf](https://fas.org/sgp/crs/mideast/RS21235.pdf)
source to confirm whether Israelis were the primary targets. The dependent variables are constructed after carefully omitting accounts that are not relevant to the study.

Only attacks carried out by Palestinians on Israeli targets in Israel and the Palestinian territories (West Bank and Gaza) are analyzed. Some scholars consider militant attacks against military targets as forms of guerilla warfare, not terrorism that specifically targets civilians. Most non-state perpetrators of political violence target both civilians and military targets throughout their lifespan. This study does not explicitly differentiate between target selection and includes all attacks against Israelis of any type.

**Independent Variables**

**Spoiler Opportunities**

**Peace Negotiations & Agreements**

This study focuses on spoiler opportunities related to the Israeli-Palestinian conflict, specifically Israeli elections and peace negotiations or anticipated agreements. One of this study’s central independent variables is a dummy based on the spoiler opportunities referenced in previous studies (Kydd and Walter (2002); Bueno de Mesquita (2005)).

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TABLE 1: Key Spoiler Opportunities: Peace Negotiations/Agreements & Israeli Elections

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
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<tbody>
<tr>
<td>November 1988</td>
<td>Israeli elections</td>
</tr>
<tr>
<td>June 1992</td>
<td>Israeli elections</td>
</tr>
<tr>
<td>September 1993</td>
<td>Oslo Peace Accords</td>
</tr>
<tr>
<td>May 1994</td>
<td>Cairo Agreement</td>
</tr>
<tr>
<td>October 1994</td>
<td>Jordan-Israel Peace Accord</td>
</tr>
<tr>
<td>November 1995</td>
<td>Oslo II</td>
</tr>
<tr>
<td>May 1996</td>
<td>Taba Negotiations and Israeli elections</td>
</tr>
<tr>
<td>January 1997</td>
<td>Hebron Agreement</td>
</tr>
<tr>
<td>October 1998</td>
<td>Wye River Peace Accord</td>
</tr>
<tr>
<td>May 1999</td>
<td>Israeli elections</td>
</tr>
<tr>
<td>September 1999</td>
<td>Sharm el-Sheikh Memorandum</td>
</tr>
<tr>
<td>July 2000</td>
<td>Camp David Summit</td>
</tr>
<tr>
<td>January 2001</td>
<td>Taba meetings</td>
</tr>
<tr>
<td>February 2001</td>
<td>Israeli elections</td>
</tr>
<tr>
<td>January 2003</td>
<td>Israeli elections</td>
</tr>
<tr>
<td>June 2003</td>
<td>Road Map/ Red Sea Summit</td>
</tr>
</tbody>
</table>

Following previous research, I present models that focus on the relationship between Palestinian terrorism and three-month windows leading up to any type of spoiler opportunity and its disaggregated variants: peace negotiations/agreements and Israeli elections. To test whether terrorists specifically target incumbent left-wing governments prior to elections, I include an interactive term: Left-wing government x Pre-Israeli election.

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61 The first Oslo Peace Accords (September 1993) is included in the chart but is omitted from the regression analyses due to the GTD’s missing 1993 data. There are still plenty of spoiler opportunities to assess any systematic relationships.

62 Berrebi and Klor (2008) identify an uptick in Palestinian terrorism leading up to an Israeli election. I include a variable reflecting a three-month window prior to an election, following Braithwaite et al. (2010).

63 Elections are relatively rare events, occurring only 5 months out of 199 test months. As a result, I also include Election Cycle - a count variable of the number of months that have passed since the previous national election. Braithwaite et. al find some evidence to suggest that Palestinian fatal attacks increase as the upcoming election approaches but not differentiate among various factions. However, the Election Cycle variable was unrelated to any model specifications in this study and is omitted from the presented models.


**Government responses and counterterrorism measures**

To test for the impact of state measures, I use data from Chenoweth and Dugan’s (2012) GATE-Israel Database which includes monthly counts of Israeli government actions targeting Palestinian terrorists or civilians. The Database was constructed using computed textual analysis of over 240,000 relevant Reuters articles from June 1987 to December 2004. In the end, over 6,000 government actions related to the Israeli-Palestinian conflict were coded based on whether they were conciliatory or repressive. Both of these broader types of government actions were further disaggregated according to whether they were indiscriminate (targeting individuals that are not suspected of direct involvement in terrorism) or discriminate (targeting specific guilty or suspected actors as opposed to uninvolved actors).

The authors’ data includes monthly counts of repressive and conciliatory actions that vary considerably in severity and scope. For example, a targeted killing and targeted detention would equally count as a discriminatory repressive action. As a result, the data limits researchers’ ability to assess the effectiveness of particular government actions. More importantly, the GATE-Israel database does not differentiate whether discriminate actions of any sort target specific Palestinian factions. As a result, interpreting results associated with discriminate actions is more difficult than indiscriminate actions. Nevertheless, the authors’ data is the most comprehensive publicly available data on monthly Israeli government actions which align with my study’s time period and dependent variables (monthly counts of terrorist attacks). I use first-order lags of diverse Israeli government actions to identify potential predictors of Palestinian terrorism in the subsequent month.

**Seasonality and religious holidays**

I include dummy variables for all months that feature major Islamic and Jewish holidays. Both of these religions rely on the lunar calendar and holidays often occur in different months in the Gregorian calendar year-to-year, allowing to test the relationship between religious

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64 Kaplan et al., “What Happened to Suicide Bombings in Israel?”
holidays and terrorism while controlling for other seasonal factors. My models also feature dummy variable for the spring months March, April, and May (March-May) – a period typically lacking major Palestinian agricultural harvests. These months also host several major Jewish holidays and Israeli national commemorations mentioned above.65

Control variables

Intifadas

I include dummy variable controls reflecting the two Palestinian Intifadas. The First Intifada (December 1987-August 1993) has been characterized as a largely popular uprising with minimal organizational direction, including violent riots and protests.66 Like other popular uprisings, the most powerful organization – in this era Fatah – eventually highjacked the campaign for their own political objectives.67 This period saw the emergence and growth of more extremist factions Hamas and the Palestinian Islamic Jihad which began organizing for violent confrontations with Israel.

The First Intifada period concluded with the signing of the Oslo Accords between Israel and Palestinian representatives, ushering a new period of relations between the conflict’s belligerents (September 1993-August 2000). The agreement established the Palestinian Authority (PA) as a governing body, which alongside Israel, maintained different levels of security and administrative oversight in different regions of the Palestinian territories.68 These varying levels of territorial control have been shown to influence patterns of selective and indiscriminate violence in the conflict.69 During the Oslo Accords period, the Palestinian government encompassing moderate factions were unable (and perhaps unwilling) to reign in

65 To further test for seasonality, I include dummies for every month of the year, quarterly periods, and different seasons corresponding to Israel’s annual weather patterns.
on extremist groups Hamas and the PIJ seeking to derail the peace process.\textsuperscript{70} Prioritizing overtures and political solutions, Israel responded to these attacks with significant restraint – until the outbreak of the Second Intifada (September 2000-November 2004).

In September 2000, mounting tensions descended into violence after Israel’s then defense minister Ariel Sharon visited the contested Temple Mount compound, the holiest site in Judaism, which includes the al-Aqsa Mosque – the third holiest site in Islam and a key symbol of Palestinian nationalism. Tensions had been rising prior to Sharon’s visit, following the breakdown of negotiations at the 2000 Camp David Accords.\textsuperscript{71} The Second Intifada was a far more organized and violent military conflict than previous uprisings, involving sophisticated suicide bombings and high-casualty attacks largely perpetrated by extremist factions Hamas and the PIJ, and to a lesser extent more moderate factions affiliated with the PLO. Israel responded to violence with a wide range of discriminate and indiscriminate measures, including targeted killings and restrictions on Palestinians’ freedom of movement. Israel also launched several major military offensives aimed at degrading terrorist capabilities and authorized defensive measures to prevent terrorist infiltrations.

**Major Military Offensive**

I include a dummy variable for five major Israeli military operations during the Second Intifada. The operations include Operation Defensive Shield, Israel’s siege of Arafat’s compound, the re-conquering of Hebron and Bethlehem, Operation Rainbow, and Operation Days of Penitence. Unlike Sharvit et. al (2013), this study is not focused on testing which military operations were more effective than others. My intention is to only control for any potential spikes or drops in violence that likely occur in the month featuring a major military offensive and a short-term period after its conclusion. As a result, I include an additional control reflecting the first three months following the operations listed above. Beyond offensive


measures, Israel also relied on the construction of a large-scale security barrier, consisting of concrete walls and barbed-wire fencing, to stifle terrorist operations.

**Security Barrier**

Following growing public pressure, Israeli government initiated a large-scale project in 2002, to construct a security barrier largely separating Israel from the West Bank to prevent the infiltrations of Palestinian terrorists. The security barrier is widely credited for helping reduce Palestinian terrorism and bringing the Second Intifada to a close.\textsuperscript{72} Defensive measures, like target fortification or border security, usually have no impact on terrorist motivations. But hardening targets can produce substitution effects, displacing violence to other targets, or may reduce overall terrorism.\textsuperscript{73} I include a dummy variable for all months following the completion of the security barrier’s first phase in July 2002.

**Economic growth**

A large body of research is devoted to uncovering relationships between economic indicators and violence in the Israeli-Palestinian conflict.\textsuperscript{74} This study controls for national economic performance by incorporating data on Israel’s quarterly GDP per capita growth rates from the World Bank.\textsuperscript{75} Palestinian economic data are not reported as far back as this study’s time period. Since the Israeli and Palestinian economies are inextricably linked and interdependent, using Israeli quarterly GDP per capita growth rate is an appropriate measure to broadly control for national Palestinian economic conditions. Including GDP per capita also controls for terrorism’s potential impact on Israel’s economy.


\textsuperscript{75} Monthly GDP growth rates are unavailable. Using quarterly data is more precise than annual data since the unit of analysis is monthly.
**Government Ideology**

During this study’s time period, Israeli government oscillated between right wing to left wing governing parties and back. From 1986, Yitzhak Shamir led a right-wing government until Yitzhak Rabin’s left-wing Labor government came to power in 1992. Benjamin Netanyahu’s Likud first replaced that government in 1996, which in turn lost to Ehud Barak’s Labor Party in 1999. In 2001, Likud’s Ariel Sharon rose to power through the remainder of this study’s focus. Previous research identifies varying relationships between the ideology or political orientation of the Israel government and the level of Palestinian terrorism. To control for government ideology, I include a binary variable *Government Ideology* which is classified “1” if either the Labor party is in power and “0” otherwise. A positive coefficient, for example, would suggest that periods led by left-leaning governments experience more Palestinian attacks.

First-order autocorrelation has been identified in previous time-series studies of terrorism attacks. As a result, quantitative analyses of Palestinian terrorism usually include at least a one-month lag of the dependent variables as additional controls. Including lagged attacks is a common attempt to control for any potential effects that the previous month’s attacks have on government actions and current attacks. However, since my analysis centers on entire categories of Palestinian terrorists (not total monthly attacks or individual groups), lags of the dependent variables are difficult to interpret and would likely skew the results. For example, higher extremist faction attacks in the previous month could be a product of organizational outbidding between the PIJ and Hamas. Providing more nuance to the outbidding hypothesis, Jaeger et al. (2015) find that successful attacks carried out by the two most powerful factions Fatah and Hamas do not change the level of public support for either rival at the expense of the other. Rather, successful attacks by either leading group lead to

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reductions in public support for rivals within their respective ideological camps (i.e. secular moderate factions with respect to Fatah, Islamist extremist factions with respect to Hamas). Competitive dynamics are an overarching feature of the Israeli-Palestinian conflict and difficult to model in this study given the structure of the data. The following section justifies the statistical estimation technique in light of these concerns.

ANALYSIS

This study tests relationships between the main explanatory variables and the dependent variables using a negative binomial regression (NBR). NBR is the ideal estimating technique in this case since the dependent variables are count data in the form of number of monthly attacks and the variance is over-dispersed. The negative binomial regression is more appropriate for the analysis than the Poisson model, which assumes that any given incident does not influence the likelihood of additional incidents. Even though there appeared to be no issues concerning multicollinearity or stationarity, multiple tests confirmed the presence of autocorrelation as expected. As a result, I use the general linear model (GLM) estimating technique for a negative binomial regression, while simultaneously correcting for autocorrelation.

Since this research introduces a new dataset, I begin the analysis by providing descriptive statistics for the main dependent and independent variables for the entire time period of the study’s focus. The table outlines the means, standard deviations, and proportions of zeros (the percentage of months with zero attacks or government actions) for each monthly count variable of interest. The statistics show that, on average, there are roughly six attacks per month during this study’s time period, including just over one extremist faction attack, less than one moderate faction attack, and approximately four unattributed attacks per month.

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81 I conducted the Durbin-Watson test, Breusch-Godfrey test, and plotted the residuals, observing autocorrelation among all three tests. I relied on the Estat VIF command test and found no significant multicollinearity.
82 I omit all months in 1993 because of the GTD’s missing data that year. See Chenoweth and Dugan (2012) for a more detailed description of their data on Israeli government actions, divided according to both Intifadas and the post-Oslo Accords era.
83 The difference between total attacks and attacks perpetrated by the three categories under study can be attributed to “other” lesser-known terrorist groups that do not fit in either the extremist or moderate camp.
About half of all test months included at least one extremist faction attack, whereas only one-third of the months under study featured at least one moderate faction attack. Unknown attacks account for the majority (66.5%) of coded Palestinian attacks, occurring at least once in 82% of months. It is important to note that organized terrorist attacks, especially sophisticated plots like suicide bombings, are far more likely to be foiled by government authorities than individual initiatives, like stabbings or vehicular ramming attacks. The dependent variables reflect executed attacks, not foiled plots, which may underestimate the overall threat from prominent terrorist organizations. Monthly unknown attacks targeting Israelis inflict an average of two fatalities per month – less fatal than extremist faction attacks (four Israeli fatalities per month) but slightly more lethal than moderate faction attacks which caused an average of 1.5 fatalities per month.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Proportion of Zeros [P(0)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Attacks</td>
<td>6.497</td>
<td>6.796</td>
<td>.11</td>
</tr>
<tr>
<td>Extremist Faction Attacks</td>
<td>1.312</td>
<td>2.061</td>
<td>.52</td>
</tr>
<tr>
<td>Moderate Faction Attacks</td>
<td>.754</td>
<td>1.644</td>
<td>.67</td>
</tr>
<tr>
<td>Unattributed Attacks</td>
<td>4.322</td>
<td>5.187</td>
<td>.18</td>
</tr>
<tr>
<td>Indiscriminate Repression</td>
<td>13.829</td>
<td>9.545</td>
<td>.01</td>
</tr>
<tr>
<td>Discriminate Repression</td>
<td>4.166</td>
<td>4.115</td>
<td>.08</td>
</tr>
<tr>
<td>Indiscriminate Concessions</td>
<td>6.146</td>
<td>5.361</td>
<td>.09</td>
</tr>
<tr>
<td>Discriminate Concessions</td>
<td>1.543</td>
<td>1.598</td>
<td>.31</td>
</tr>
</tbody>
</table>

According to the data, Israel carries out over twice as many repressive actions, on average, versus conciliatory actions. Indiscriminate repression, including various forms of collective punishment, are the most frequent type of Israeli government action – occurring at least once in every month with a sole exception (P(0)=.01). Interestingly, Israel offers a higher
number of indiscriminate concessions to the wider Palestinian population per month than the number of coercive or repressive actions targeting suspected Palestinian terrorists. Israel’s government relied on discriminate concessions, those that reward guilty or suspected terrorists, the least compared to other actions (only 1.5 times per month on average). About one-third of the test months, Israel did not offer a single discriminate concession (P(0)=.31). But in 91% of months, Israel offered at least one indiscriminate concession. Wide variation among different types of government actions and various perpetrators of Palestinian terrorism, alongside numerous spoiler opportunities and measures of seasonality, allow for quantitative tests presented in the following series of regression models.

RESULTS & DISCUSSION

The following table presents dependent variables according to different categories of Palestinian terrorism as eight distinct models. Model 1 reflects total monthly attacks, models 2-5 pertain to extremist faction attacks, and models 6-7 explore the factors driving moderate faction attacks. Model 8 is reserved for unattributed or unaffiliated terrorist attacks. Marginal effects and percent changes, not presented here, are discussed throughout this section.
### TABLE 3: Drivers of Palestinian Terrorism Against Israel, June 1987-December 2004

Generalized Linear Model [Negative Binomial Regression]

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Attacks</td>
<td>Extremist Faction Attacks</td>
<td>Total Attacks</td>
<td>Extremist Faction Attacks</td>
<td>Total Attacks</td>
<td>Extremist Faction Attacks</td>
<td>Total Attacks</td>
<td>Extremist Faction Attacks</td>
</tr>
<tr>
<td><strong>Spoiler Opportunities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Spoiler Opportunity</td>
<td></td>
<td>.450*** (.0835)</td>
<td></td>
<td></td>
<td>.420 (.2520)</td>
<td></td>
<td>.0045 (.1017)</td>
<td></td>
</tr>
<tr>
<td>Pre-Peace Effort</td>
<td>.199*** (.0525)</td>
<td>.579*** (.0845)</td>
<td></td>
<td></td>
<td>.473 (.3637)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                          |      |                |      |      |      |      |      |      |
|                          |      |                |      |      |      |      |      |      |
| Pre-Israeli Election     |      | .230 (.2462)   |      |      |      |      |      |      |

|                          |      |                |      |      |      |      |      |      |
|                          |      |                |      |      |      |      |      |      |
| Left-wing Government x Pre-Israeli Election |      | .798** (.2608) |      |      | .546** (.2081) |      |      |      |

|                          |      |                |      |      |      |      |      |      |
|                          |      |                |      |      |      |      |      |      |
| **Government Actions**   |      |                |      |      |      |      |      |      |

|                          |      |                |      |      |      |      |      |      |
|                          |      |                |      |      |      |      |      |      |
| Indiscriminate Repression | .029*** (.0064) | .019* (.0081) | .018* (.0072) | .0154 (.0085) | .006 (.0149) | .018*** (.0047) | .017*** (.0047) | .0421*** (.0103) |
| Discriminate Repression  | .002 (.0192) | -.007 (.0179) | -.006 (.0185) | .030 (.0129) | .013 (.0078) | .003 (.0158) | .003 (.0171) | -.004 (.0180) |
| Indiscriminate Concessions | .017 (.0094) | .028** (.0086) | .029*** (.0087) | .030* (.0130) | .029** (.0094) | -.001 (.0222) | .001 (.0201) | .017 (.0111) |
| Discriminate Concessions  | .111*** (.0137) | .127*** (.0165) | .122*** (.0169) | .130*** (.0160) | .147*** (.0205) | .152** (.0567) | .146** (.0567) | .103*** (.0153) |

|                          |      |                |      |      |      |      |      |      |
|                          |      |                |      |      |      |      |      |      |
| **Seasonality**          |      |                |      |      |      |      |      |      |

|                          |      |                |      |      |      |      |      |      |
| March-May                | .009 (.0388) | .505*** (.0860) | .465*** (.0918) | .552*** (.0676) | .596*** (.0744) | -.250 (.2637) | -.290 (.2742) | -.048 (.0499) |
| Passover                 | .062 (.1369) | -.488* (.1934) | -.474* (.1955) | -.491** (.1647) | -.501** (.1670) | .611* (.2723) | .650* (.2656) | -.060 (.2913) |
In line with research on terrorist spoiling, I find evidence that extremist groups escalate violence in an effort to derail the broader Israeli-Palestinian peace process. Unlike moderate factions, my findings show that Hamas and PIJ generally ramp up violence in the three months leading up any type of spoiler opportunity: peace agreements/negotiations and Israeli elections. Extremist factions escalate their average level of violence by 47% during this period. However, more nuance emerges when I disaggregate spoiler opportunities into their

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84 Total number of observations for this study’s time period is 199 test-months. However, one observation is lost during the regression analysis due to first-order lags of the government measures variables.
constituent parts. Model 3 shows that Pre-Peace Efforts has a positive statistical association with the level of extremist faction terrorist attacks – which increases by 61% prior to peace process-related events.

At first glance, spoiling does not appear to be a systematic phenomenon when it comes to Israeli elections given Pre-Israeli Election’s lack of statistical significance in model 4. However, when the interaction term (Left-wing Government x Pre- Israeli Election) is introduced, a more nuanced story emerges. The positive and statistically significant coefficient of this interactive term (model 5) suggests extremist factions tend to escalate attacks by 84% in the lead up to Israeli elections, but only if a left-wing government is in power. This finding reinforces previous research that suggests extremists strategically ramp up attacks in an effort to harden the Israeli electorate and help facilitate the election of right-wing governments that are perceived to enact harsher measures against Palestinians which could facilitate terrorist recruitment. The results point to two distinct, yet related, strategic logics of extremist spoiling: increasing attacks to disrupt peace negotiations in advance of key events and to usher in hawkish governments that further undermine the broader peace process.

As expected, the level of moderate and unaffiliated attacks is statistically unrelated to spoiler opportunities concerning the peace process (models 6 and 8). Notable PLO-affiliated groups strongly opposed any engagement with Israel but largely avoided participating in spoiler violence led by Hamas and the PIJ. PLO-affiliated organizations appear to even reduce attacks by 44% in the lead up to Israeli elections – only if a left-wing government is the incumbent. The interactive term (model 7) is negatively associated with moderate faction attacks. This finding suggests that moderate factions prefer left-wing Israeli governments, perhaps as more credible negotiating partners who may offer more concessions than their right-wing counterparts. Overall, the results offer support for the first set of hypotheses related to Palestinian terrorist spoiling. PLO-affiliated groups are more likely to give the peace process a chance to play out, as Hamas and PIJ seek to destroy reconciliation efforts.
Government actions

Results across most model specifications show that both indiscriminate repression and discriminate concessions are positively associated with each variant of Palestinian terrorist attacks the following month. Models for PLO-affiliated and unattributed attacks show a consistent and strong statistical significance between indiscriminate repression and subsequent terrorism. But the marginal effect is small. Unattributed attacks increase by 4% for every additional indiscriminate repressive act, whereas moderate faction attacks increase by only 2%. Minimal marginal impacts may be a product of the fact that Palestinians face indiscriminate repression most frequently and consistently compared to other types of Israeli government actions. Extremist factions are the least likely to be impacted by indiscriminate repression, indicated by relatively weaker statistical significance (and small marginal effect) in models 2 and 3 or lack thereof in models 4 and 5. The results offer general support for hypothesis H2a, but the relationship between indiscriminate repression and extremist faction attacks are less conclusive.

The results also reject hypothesis H2b, which argues that concessions should help reduce violence. Discriminate concessions are offered rarely. For every additional targeted concession, the average level of extremist faction attacks increases by 13%, while average PLO-affiliated and unattributed attacks increase by 15% and 11% respectively. Extremist factions also tend to escalate attacks by 3% in the month following higher levels of indiscriminate Israeli concessions. While the marginal impact is small, the finding reinforces the notion that extremist factions generally seek to spoil Israeli concessions and good will, whether in the form of peace negotiations or other forms of indiscriminate compromises. After moderate factions accept Israeli concessions, Hamas and the PIJ are left to hijack the Palestinian terrorism campaign.

Throughout the entire time period under study, indiscriminate conciliatory actions do not appear to influence the level of PLO-affiliated and unattributed attacks. However, indiscriminate conciliatory actions should not be ruled out altogether. More nuance emerges when exploring the impact of government actions during the Second Intifada. Throughout this armed conflict, findings (not reported here) suggest that higher levels of indiscriminate
concessions help reduce both PLO-affiliated and unattributed attacks, though discriminate concessions continue to encourage more attacks the following month.\textsuperscript{85} Even though indiscriminate concessions embolden extremists to ramp up attacks, these types of conciliatory actions can encourage moderate factions to reign in on their terrorist activities and incentivize unaffiliated attackers to reduce violence. This finding supports Chenoweth and Dugan’s (2012) finding that indiscriminate conciliatory actions have a negative association with overall Palestinian terrorism, but only during the Second Intifada. Disaggregating Palestinian terrorism into different categories paints a more accurate picture of the government’s role in fueling or containing violence.

Since Chenoweth & Dugan’s data on Israeli government actions was collected to assess the impact of government actions on total Palestinian attacks, it is impossible at this stage to differentiate which specific Palestinian militant group or faction was the subject of a targeted Israeli government measures. As a result, findings associated with any type of discriminate actions should be interpreted with caution. For example, it is difficult to assess at this stage which discriminate concessions rewarded which type of terrorists. But the consistent positive association between targeted conciliatory actions and Palestinian terrorism across the societal spectrum likely point to two overlapping logics. First, targeted concessions aimed at one group or category of perpetrators may embolden rival groups to pursue more attacks expecting eventual rewards later. Second, discriminate concessions, such as release from Israeli prisons as goodwill gestures, reward Palestinian terrorists that often end up returning to terrorist activity.\textsuperscript{86} Results associated with indiscriminate government actions, on the other hand, offer clearer insights since indiscriminate actions inherently target the broader Palestinian constituency, beyond any particular militant group or category. Overall, findings suggest that instituting collective punishments and rewarding terrorist perpetrators are counterproductive counterterrorism measures across the societal spectrum.

\textsuperscript{85} Results not reported here. Findings are based on regression results of a short time period (September 2000-November 2004) and smaller sample of attacks (n=52), which is less conducive for large-n analysis.

Seasonality and religious holidays

Palestinian terrorism appears to fluctuate according to seasonality and religious holidays. Results show that the months March-May generally witness an uptick in extremist group attacks by 62%, lending partial support to hypothesis 4a that expected all variants of Palestinian terrorism to increase. These months coincide with the spring season in Israel, when harvesting of key crops is either low or non-existent and rainfall is at its lowest. Like other prominent insurgent organizations, many of Hamas and PIJ’s operatives likely rely on cultivating agricultural crops as an additional livelihood. It may be the case that extremist factions strategically ramp up attacks when the weather is more conducive to planning and preparing terrorist attacks. This period also features a high concentration of major Jewish holidays and Israeli commemorations, which extremist factions are more likely to ruin. Quantitative analysis at this stage would not be able to definitively address the exact mechanisms behind this study’s seasonal finding. More research is needed to unpack whether seasonality in extremist Palestinian terrorism is primarily driven by annual weather patterns, agricultural cultivations, or holidays.

Surprisingly, Hamas and PIJ attacks appear to reduce attacks by 52% during months that host the Passover holiday which typically falls in March or April. Previous research identifies a rise in Palestinian suicide bombings between March-May, primarily orchestrated by Hamas or PIJ. It could be the case that the particularly sophisticated and lethal tactic of suicide attacks increase during Passover months, which contribute to a decline in other types of attacks captured in this study. Alternatively, Hamas may reduce attacks during Passover months because of heightened Israeli security and decide to escalate attacks during the months before and after the holiday.

Unlike extremist factions, PLO-affiliated attacks are unrelated to the March-May period. However, I find that PLO-affiliated factions are more likely to increase attacks during Passover holiday months by 64% compared to other months of the year (in either the Gregorian or Lunar calendars). PLO-affiliated groups, who refrained from spoiling peace processes, may want to
remain relevant among the Palestinian constituency in other ways by increasing attacks against Israelis during months that host one of the holiest and most prominent Jewish holidays.

**Ramadan**

As opposed to other categories of Palestinian terrorists, moderate factions tend to decrease attacks during the month of Ramadan by 75% – when religious Muslims fast and adhere to other religious obligations from sunrise to sunset. PLO-affiliated groups are nationalist organizations with a relatively secular political platform compared to their extremist counterparts. But political ideologies say little about the individual-level religiosity of terrorist group members or operatives. Palestinian society is one the most religiously devout in the Middle East and North Africa, particularly with respect to mosque attendance and Quranic study. In line with previous research, Ramadan may cause politically moderate Palestinian constituents to pressure PLO-affiliated groups to reduce attacks during the holy month.

Ramadan appears to be weakly positively related (models 2 and 5) or unrelated (models 3 and 4) to Hamas and PIJ attacks. These mixed findings suggest the relationship between Ramadan and extremist faction attacks remains inconclusive. Throughout the world, Salafi-jihadists are more likely to increase attacks during Ramadan. But neither Hamas nor PIJ are Salafi-jihadist organizations. Hamas traces its ideological roots to the Sunni Islamist Muslim Brotherhood and remains primarily focused on more pragmatic nationalist-oriented goals related to Palestine. Future research should examine the impact of Ramadan in other conflicts with Muslim participants according to more moderate or secular factions, Salafi-jihadists, and nationalist-Islamist groups like Hamas.

As expected, I find general support for the fourth set of hypotheses albeit with a few caveats. Neither seasonality nor religious holidays (Muslim and Jewish) have a statistically significant impact on unattributed attacks, suggesting other factors are at play. Like other categories of Palestinian terrorism, unattributed attacks are largely a function of indiscriminate

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87 PEW Research Center, “The World’s Muslims: Unity and Diversity.”
government repression and discriminate concessions. However, unaffiliated terrorists often conduct attacks for idiosyncratic and personal reasons that are difficult to model.

A note on ‘Unknown’ attacks

The majority of the GTD’s coded terrorist attacks worldwide – including Palestinian perpetrators – are unattributed to any particular organization.\(^8^8\) It is impossible to discern which unknown attacks were carried out by unaffiliated terrorists or individuals affiliated with terrorist organizations that do not claim responsibility for some attacks. Terrorist groups may avoid taking credit for attacks to maintain plausible deniability and avoid retribution.\(^8^9\) One study shows that religious groups that attack Israel, like Hamas and PIJ, are more likely to claim credit for an attack than secular-oriented groups.\(^9^0\) Attacks are also more likely to be claimed when they signal greater organizational capability and strength.\(^9^1\) Well-planned, higher casualty attacks – like suicide bombings – are far more likely to be attributed to terrorist organizations, whereas more rudimentary attacks that take few or no lives often go unclaimed. In this study, extremist factions inflict a higher monthly attack:fatality ratio than moderate factions and unknown attackers, suggesting Hamas and PIJ are less likely to conduct attacks that go unclaimed. Other arguments, including organizational and strategic logics for credit claiming, suggest the bulk of unattributed attackers – that maintain organizational affiliations – are associated with groups under the PLO umbrella.

Religious groups are in a stronger position to effectively screen recruits and ensure compliance among field operatives through stronger social networks than their secular counterparts.\(^9^2\) This is one reason why Hamas managed its foot soldiers and deterred undesirable operations more effectively than Fatah. But ideological affiliation and


\(^{8^9}\) At other times, multiple groups claim credit for the same attack. I rely on the GTD’s primary coding assessments of particular perpetrators or organizations.


organizational management are not sufficient for determining why some attacks are claimed and others are not. Credit claiming appears to follow a strategic logic: terrorist groups claim responsibility for their operatives’ attacks if the anticipated political benefits outweigh the expected costs.\(^93\) For example, PLO-affiliated factions had an incentive to reduce violence or disavow some of their operatives’ attacks during the post-Oslo period to demonstrate to Israel and the international community that it is a willing partner in the peace process. It may also be the case that some PLO-affiliated groups facilitated some attacks during the post-Oslo Accords period without claiming responsibility or encouraged unaffiliated terrorists to increase costs on Israeli governments.

Of course, many unattributed attacks are carried out by terrorists without organizational ties seeking retribution following increased levels of Israeli repression – among other personal and collective-oriented motivations. Recent research highlights a wide variety of motivations behind individual Palestinian terrorist initiatives, including avenging family honor or seeking economic compensation for their families from the Palestinian Authority.\(^94\) Official Palestinian incitement, from across the political spectrum, enflames long-standing grievances against Israel by promoting terrorism as a virtuous outlet.\(^95\) Other unaffiliated terrorists, facing immense distress in their personal lives, seek a heroic way to end their lives by carrying out terrorist attacks and invite lethal force by Israeli forces.\(^96\) Further research is needed to discern between various personal and strategic logics fueling unaffiliated or unclaimed attacks in the Israeli-Palestinian conflict. Israeli settlement activity, extremist Jewish terrorist attacks or acts of threatening vandalism (“price-tag” incidents), and violent incitement are some additional


drivers of Palestinian terrorism – and major hurdles to broader conflict resolution – largely absent from current empirical assessments.\(^9^7\)

**Controls**

*Intifadas*

Overall, unaffiliated attacks are the only category of Palestinian terrorism that is positively associated with both Intifadas. Both moderate and extremist factional violence are systematically unrelated to the first Intifada. This finding reflects the fact that the first popular uprising, primarily characterized by riots and violent protests, was largely unorganized. On the other hand, both moderate and extremist factional violence have a statistically significant and positive association with the *Second Intifada* – which was a far more deadly and organized terrorist campaign that involved PLO-affiliated groups fighting alongside their more extreme counterparts.\(^9^8\)

*Major military operation*

Israel’s counter-militancy strategy, known as ‘Mowing the Grass’, is largely enemy-centric and aims to degrade and destroy terrorist infrastructure in an effort to bolster deterrence among Palestinian militant organizations and restore temporary periods of relative calm.\(^9^9\) But Israel’s major military operations during the Second Intifada had different effects on different Palestinian factions. In this study, each of the models show statistically significant and negative coefficients during months when Israel launches a major military operation. This finding suggests that, on average, all types of terrorists decrease attacks during and/or shortly around large-scale military offensives. Palestinian terrorists of any variant are likely on


heightened alert in anticipation of major military incursions and many go underground to evade being killed or captured. It is also likely that attacks related to a sustained military conflict between Israel’s military and Palestinian terrorists are not fully captured as distinct terrorist incidents in the Global Terrorism Database. Major Israeli operations have a tendency to achieve limited objectives, such as reducing the level of Palestinian terrorism – but only temporarily.

Various perpetrators of Palestinian terrorism generally respond differently in the immediate aftermath following major Israeli military incursions. Results show mixed results for extremist faction attacks in the three months following a military offensive, whereas moderate faction attacks remain unrelated to the immediate post-operation period. While Israel primarily targets organized terrorist infrastructure during major offensives, these operations have widespread ramifications by compelling unaffiliated attackers to significantly scale back violence. The decline in unattributed attacks suggest that unaffiliated would-be terrorists focus on rebuilding their communities and let their more organized counterparts prepare for subsequent confrontations. As military offensives produced mixed results, Israel simultaneously relied on the construction of a large-scale security barrier to obstruct terrorist operations.

**Security barrier**

The completion of the first phase of Israeli’s security barrier in 2002 is the only factor that is strongly associated with a reduction of attacks across all categories of Palestinian terrorism. Security Barrier has one of the largest (negative) coefficients in each of this study’s models. This finding supports previous research showing the barrier’s outsized impact on reducing overall Palestinian terrorism and helping bring the Second Intifada to an end. Sharvit et. al also find that the construction of the security fence is the only Israeli measure that achieved a long-term decline “in the overall hazard of terror acts by Palestinians.” Another study of Russian coercive counterinsurgency in the North Caucasus from 2000 to 2008 similarly finds that denial strategies, which mitigate the expansion of militant operations, are the most

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effective method of containment compared to punishment strategies.\textsuperscript{101} While many terrorism experts acknowledge the effectiveness of Israel’s security barrier, its current state – which in some areas separates Palestinian villages within the West Bank – hinders long-term prospects for any meaningful resolution of the conflict.

\textit{National economic performance}

The GDP/capita coefficient estimate across models 2-6 is statistically null, suggesting that a key measure of national economic performance is unrelated to any organized category of Palestinian terrorism. However, models 1 and 8 present a positive and statistically significant GDP/capita coefficient. This finding indicates that total monthly attacks and unattributed or unaffiliated attacks tend to increase during periods of stronger economic growth. This result may seem counterintuitive. But a strong economy may afford committed terrorists the time and added resources to plan and execute more attacks. It also may be the case that terrorist organizations are less prone to taking credit for their operatives’ attacks during periods of stronger economic growth, to avoid Israeli retaliations that can hurt the Palestinian economy.\textsuperscript{102}

\textit{Government ideology}

Government ideology is statistically unrelated to any organizational category of terrorism: neither extremist nor moderate factions appear to change their level of violence depending on which Israeli party is in power. But findings from models 1 and 8 suggest that periods featuring leftist-oriented Israeli governments are associated with higher levels of unaffiliated and overall Palestinian terrorist attacks. This finding supports research that suggests right-wing Israeli governments are more effective at deterring Palestinian terrorist

attacks between 1979-2003. While unknown attacks are unrelated to spoiling peace processes or elections, terrorists lacking organization affiliation may still seek to coerce further government concessions from dovish left-wing governments.

CONCLUSION

This study’s findings encourage scholars of political violence and practitioners to continue developing and applying analytic frameworks that differentiate among various perpetrators of terrorism within a wider national or militant movement. Scholars are increasingly developing conflict models from the national movement or group-level of analysis, shifting their analytic focus from country-specific attributes that are limited in explaining variation among groups within a particular environment. Yet large-n analyses of government actions and key dynamics in fragmented armed conflicts remain noticeably absent in the literature on insurgency and civil war. By addressing this gap, this study contributes to several sub-fields of research on political violence.

First, this study is a natural extension to previous work on the Israeli-Palestinian conflict, by offering the most comprehensive quantitative model of Palestinian terrorism that differentiates among major categories of perpetrators. The findings speak to the importance of incorporating measures of seasonality and religious holidays in models concerning nationalist and religious conflicts. For example, the holy month of Ramadan may have a moderating effect on moderate Muslim factional violence yet be unrelated or even positively associated with Islamist-nationalist attack profiles. A central purpose of this study, however, is to empirically assess several strategic logics of terrorism among groups with different ideologies and objectives.

Overall, this study’s findings support previous research suggesting indiscriminate state repression rarely works to stifle terrorist attacks and only risks fueling violent campaigns. Indiscriminate Israeli repression enfames grievances among Palestinians which encourages

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moderate terrorist groups to marginally ramp up violence in defence of their constituencies and unaffiliated attackers to seek revenge. Discriminate concessions, which reward suspected and guilty perpetrators of terrorist activity, considerably raise the level of terrorism among all types of perpetrators in the subsequent month. Under some conditions, indiscriminate concessions can encourage moderate factions to reduce attacks – or at least not increase their level of violence. The same cannot be said for extremist factions that are primarily motivated to derail peace processes and spoil conciliatory actions that benefit the wider constituency. In the post-Oslo era, moderate factions appear to give peace a chance while extremists while Hamas and the PIJ strategically ramp up attacks to harden the Israeli electorate and further undermine ongoing peace efforts. This dynamic is fundamentally rooted in competitive dynamics, whereby extremists escalate attacks to avoid being sidelined by moderates seeking leadership of a common national movement.

It is difficult to extrapolate insights from the Israeli-Palestinian case to other conflicts worldwide, given the unique and intractable nature of the conflict. It would be foolish to rely on this case to inform broader policy prescriptions and suggest, for example, that indiscriminate concessions are a poor counterterrorism or counterinsurgency tactic because they may lead to increases in violence. But it is important to better understand the conditions that may render certain types of conciliatory actions counterproductive. It may be the case that states should expect to reap the benefits from major concessions when facing a hegemonic militant movement dominated by a single faction that can deter counterproductive violence – like spoiling and infighting – from within.\footnote{Krause, Rebel Power.} This study only seeks to measure the immediate impact of specific government actions and key conflict milestones. A comprehensive resolution to the Israeli-Palestinian conflict, unlikely in the near future, fundamentally requires a political solution that addresses underlying grievances and mutual recognitions among the conflict’s main participants.

At a minimum, the insights in this study inform a more nuanced policy approach to managing conflict with a fragmented militant movement. But it is often the case that short-
term counterterrorism successes and tactical military victories, on their own, fail to translate into long-term strategic success. This is especially true of Israel's protracted conflicts with an array of terrorist and insurgent actors.