Event Type, Sub-state Actor and Temporal Dimensions of the Dissent-Repression Relationship: Evidence from the Middle East*

Philip A. Schrodt and Ömür Yılmaz

Dept. of Political Science

University of Kansas

Lawrence, KS  66045

785.864.9024 (phone) - 785.864.5700 (fax)

Email: <schrodt@ku.edu>   <omury@ku.edu>

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Abstract

This article explores the temporal relationship between state repression and collective dissent in six Middle Eastern states—Egypt, Israel, Palestine, Jordan, Kuwait and Turkey—for the period May 1991 to April 2007. The method of analysis is cross-correlation at ±40 weeks of event data coded from Agence France Presse (AFP) newswire reports. We disaggregate to the weekly level, and in the Israel-Palestine case, distinguish between secular Palestinian groups and the Islamist opposition as dissident actors. Using the CAMEO event coding system, we also differentiate between violent and nonviolent protest and repression. AFP provided inadequate coverage to do meaningful analysis of Jordan and Kuwait. In the remaining cases—as well as in some of the Israel and Palestine sub-state actor cases—the cross-correlation strongly supports the hypothesis of repression following dissent. The only cases with clear evidence for protest correlating with prior repression are those involving Palestinian Islamist groups.
The dynamic relationship between state repression and mobilization of collective dissent is a major focus of the rationalist school of contentious politics (Carey 2006; Davenport, Johnston, and Mueller 2005; Francisco 1995, 2004; Lichbach 1987; Moore 1998). Yet while governments seem to respond to dissent with increased repression, the effects of repression on further mobilization are not clear-cut: “Deterrence works. And then again, deterrence doesn't work. Repression by regimes may escalate or deescalate dissent by opposition groups” (Lichbach 1987, 266). Quantitative studies have come to different conclusions—a contradiction which Lichbach (1987) has tried to resolve by showing that the (in)consistency of repression makes the difference: If government both represses and accommodates the same opposition tactic, dissent will increase; consistent government repression will reduce the form of rebellion that is repressed. This does not mean, however, that the overall level of dissent will fall in response to consistent repression; unless the opposition movement can be closed down entirely, if more effective forms of protest are being repressed, dissidents will turn to less effective tactics and the overall activity level will increase.

The literature on contentious politics has been shaped by two competing research programs. According to the structuralist approach, “the historically rooted political, social, and cultural institutions of a social order define systems of stratification and set the contexts for historically concrete struggles over power, wealth, and status” (Lichbach 1998, 407). In other words, grievances that result from perceptions of relative deprivation vis-a-vis other groups result in people coalescing with those similar to themselves (Gurr 1970), and in acts of collective dissent when such groups can either mobilize resources to compete for power (Tilly 1978) and/or find suitable political opportunity structures already in place (Tarrow 1994).

The core of the second approach challenges the premise that shared grievances automatically lead to collective dissent. The collective action problem (Olson 1965) assumes that the outcomes of
successful collective rebellions or protests are public goods available to everyone. Because participation in dissent is costly, rationalists conclude that potential dissidents would be motivated to free-ride (Lichbach 1995, 1998; Moore 1995). Thus, collective dissent is the exception and not the norm—which is something we lose sight of as we focus on cases where conflict has taken place—scholars explore what makes the small minority go out and dissent.

A major contribution of both approaches has been their emphasis on the temporal dynamics of dissent and repression: Collective dissent is not only “contingent” on the political, economic, and demographic context, which affects the capabilities of the state to repress and of rebels to mobilize, but is also “inherent” in prior levels of collective activity; lagged values of protest and repression are strong predictors of subsequent conflictual events (Lichbach, Davenport, and Armstrong 2004). Given the costs and the public nature of the spoils of victory, it is extremely difficult to mobilize dissidents, particularly to engage in violent conflict with the state. Once people are on the streets, however, remobilization should be easier and cheaper. Transaction costs are lower; saliency of beliefs in shared interests is enhanced; and rebel organizations and leadership emerge with vested interests in continuing the conflict. Repressive governments are reluctant to back down because of the political costs that would arise if they appeared to be compromising or capitulating. Some societies may actually find themselves in a “conflict trap” (Collier and Sambanis 2002).

2. Event Data Analysis in the Study of Repression and Dissent

The data for our study comes from reports of protest and repression found in the NEXIS database of Agence France Presse news wire stories. The shortcomings of international news stories as data sources have received considerable attention in recent years (Sommer and Scarritt 1999, Davenport and Ball 2002, Earl et al. 2004, Ortiz et al 2005 and Restrepo, Spagat, and Vargas 2006). There is a clear consensus—consistent with the underlying multi-method premises of our larger
research project that international coverage can be erratic, and substantially under-reports events in comparison to local sources. While coverage is more representative of what actually takes place on the ground for some regions and conflicts (such as Israel-Palestine) than others, we find that a bias towards over-reporting violent events and under-reporting non-violent events exists even in these cases.\textsuperscript{1} Differentiating across sub-state actors was problematic in all of the cases we studied; international news leads, the raw material from which event data are constructed, typically lack that level of specificity.

Nonetheless we argue that in some situations, international news sources can be sufficient and even desirable. Local sources are not without flaws. Some may reflect actor-specific biases that translate into over-reporting of repression or dissent events depending on the source. Our study of dissent-repression in Israel-Palestine, Turkey, Jordan, Kuwait, and Egypt using Agence France Presse (AFP) news leads has provided us with substantial amount of event data for the first two cases—data that conform to our case-specific knowledge of contentious politics in the field. The data are significantly less useful for Jordan and Kuwait, a result of both the relative scarcity of overt events of dissent and repression and the limited nature of international coverage in these countries. This finding highlights the value of a multi-method approach.

\textsuperscript{1} We compensate in part for this over-reporting by applying a “one-a-day filter” to eliminate multiple reports of the same event; this is particularly important for the Israel-Palestine conflict, which is extensively covered by the international media.
3. Event Data Sets

Event data were generated from source texts available from the *Agence France Presse* files on the NEXIS data service for May 1991 to April 2007. Events are aggregated weekly, giving \( N = 832. \) Data were coded using version 0.6.B3 of TABARI, an open source automated coding program that we have developed. The data sets and the dictionaries used to code them are available at [http://web.ku.edu/keds/data.html](http://web.ku.edu/keds/data.html). Our analysis here uses weekly event counts aggregated according

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2 For reasons that are unclear, there are a small number of gaps in this time series, randomly dispersed throughout the first six years of the data, when no AFP stories are available in the NEXIS system. These occur in the months Feb-92, Mar-92, Aug-92, Sep-92, Nov-92, Oct-95, Jul-98 and Aug-98. There is no reason to expect that these missing data have significantly affected our primary results.

3 Events are coded using the Conflict and Mediation Event Observations (CAMEO) coding scheme, which is discussed in detail in Gerner et al. (2002, 2007, forthcoming); the full coding framework is available at [http://web.ku.edu/keds/data.dir/cameo.html](http://web.ku.edu/keds/data.dir/cameo.html). CAMEO was originally developed as part of a project designed to study mediation (Schrodt and Gerner 2004), but we have extended it in this project by differentiating across different types of dissent, in terms of both form and demands/grievances. For example we have significantly expanded our Protest (14) category. In addition to differentiating between demonstrations, hunger strikes, boycotts, physical obstructions, and riots, we further specify each of these forms of protest depending on whether the underlying demand deals with leadership, policy, rights, or institutions/regime. We also differentiate among hunger strikes conducted for leadership change (1421), policy change (1422), expansion of rights (1423), and institutional change (1424). A major caveat here is again the condition that the specific information be present in the news lead; when that information is not available, the default code for hunger strikes (142) is used.
to the event categories listed in Table 1; the actors are discussed in the analysis of individual cases in section 4. A complete list of the groups identified by the various codes can be found on the supplementary web site, and time series plots of the event count can be found on the supplementary web site.

**[TABLE 1 ABOUT HERE]**

Our analytical method is cross-correlation, which can determine if a behavior has a long-term effect when the likely timing of that effect is not specified by the theory. Cross-correlation is used to explore the temporal relationship between two variables—whether one variable tends to occur before or after the other—and consequently is appropriate to the issue we are considering here. The technique is not widely used in political science, but it is similar—although not identical—to

Event codes under the CAMEO categories of Assault (18), Fight (19), and Use Unconventional Mass Violence (20) cover most forms of violent dissent and repression. Coerce (17) includes codes that pertain directly to non-violent forms of repression. Administrative sanctions (172), for instance, can be further specified as restrictions on political freedoms (1721), bans on political parties or politicians (1722), curfews (1723), and states of emergency (1724). Arreasts (173), expulsions (174), and crowd control (175) are also coded separately. CAMEO's Appeal (02), Express Intent to Cooperate (03), Yield (08), Demand (10), Reject (12), and Threaten (13) categories also include event codes that deal with contentious politics such as Ease administrative sanctions (081), Express intent to ease dissent (0352), Reject request for political reform (123). Discussions of machine coding can be found in Gerner et al. (1994), Schrodt and Gerner (1994), and Bond et al. (1997) and King and Lowe 2003. The TABARI program can be downloaded from http://web.ku.edu/keds/software.html

4 Throughout the discussion, “*” indicates a wildcard, so for example “171*” refers to all event codes beginning with “171”; “ISRGOV*” refers to all actor codes beginning with “ISRGOV.” A list of the actual phrases used to code the various actors in the analysis can be found on the supplementary web site; we have also posted some time-series plots of the event counts on that site.
computing the Pearson product moment $r$ between $x_t$ and $y_{t+k}$ for various values of $k$. Both statistics have the form

$$r = \frac{Cov(x, y)}{\text{Var}(x)\text{Var}(y)}$$

In a cross-correlation, $\text{Var}(x)$ and $\text{Var}(y)$ are estimated from the entire sample, whereas in a Pearson product moment, variances are computed only for cases used to compute the covariance. The “cross-correlograms” that are generated by the technique—Figures 1 through 13—are not a time series giving the effect of a protest on subsequent repressive behavior (examples of these are provided on the supplemental web site); they are a correlation of the protest activity with prior and future behavior for the entire time period. These will be described in more detail in the discussion of the individual cases.⁵

Under the assumption that the two series have neither trend nor autocorrelation (see Chatfield 1989: 137-140), the approximate critical value of the cross-correlation coefficient at the 5 percent two-tailed significance level is $\pm 2/\sqrt{N}$, or about 0.069 for the 832 points in our time series. It is true that the series we are studying do not have significant trend, but they are highly autocorrelated. As a result, the standard approximation will underestimate the true critical values.⁶

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⁵ For additional information on cross-correlation, see Kendall (1973: 129), Chatfield (1989: 136), and Gottman 1981: 318.

⁶ To correct for this, we established the critical values for a 95 percent confidence interval numerically using Monte Carlo simulation for two series that were uncorrelated but had approximately the same autocorrelation structure as observed in the data as estimated using OLS regression on the AR[3] model

$$X_t = b_1X_{t-1} + b_2X_{t-2} + b_3X_{t-3} + c + \varepsilon$$  \hspace{1cm} (1)
In the cross-correlation diagrams presented below, the values to the left of zero (the center of the graph) represent correlations between protest activity and repression prior to the protest and could be evidence of protest in response to repressive activity. The values to the right of zero are correlations between protest activity and repression following the protest. Correlation is not causality, of course, and mere existence of a significant correlation is not sufficient evidence to conclude that there is a causal link; if causal relations did exist, however, we would expect to see significant correlations. Specifically, if repression does lead to protest, we would expect to see a significant positive correlation between protest events at time $t$ and repression at time $t-k$. Conversely, if protest leads to repression, we would expect to see a significant positive correlation between protest events at time $t$ and repression at time $t+k$. The dotted lines in the graph trace the 95 percent confidence intervals based on the Monte Carlo estimation described in Note 6.

4. Results: Primary Actors

To analyze the data, we first generated weekly event counts using a custom Java utility program called KEDS_Count to tabulate events in the categories described in Table 1: violent protest, nonviolent protest, violent repression and nonviolent repression on the various actor/target combinations described in sections 4.1 through 5.3.

These series were generated by choosing $X_0$, $X_{-1}$, and $X_{-2}$ from a $\text{Normal}(0,1)$ distribution, and using an $\varepsilon \sim \text{Normal}(0,1 - R^2)$ where $R^2$ comes from equation 2. All of these estimates result in stationary behavior. This is almost always the case in event data for a sufficiently long time period because the number of news stories is bounded, so the number of reported events is bounded, and so the series is stationary. This does not precisely duplicate the behavior of equation 2—the average $R^2$ of the simulated data is typically about 5 percent below that of the actual data—but is reasonably close.
For each actor/target combination, we ran cross-correlations on four combinations of behavior:

- violent protest × violent repression
- nonviolent protest × nonviolent repression
- violent protest × nonviolent repression
- nonviolent protest × violent repression

The correlograms reproduced here are representative of the various patterns of correlation that we found in the data.

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7 This was done in the following steps:

1. Estimate the regression coefficients and $R^2$ of the AR[3] models (Eq. 1) for each time series

2. Estimate the 95% confidence bounds using Monte Carlo estimation

3. Run the cross-correlation using the Stata 8.0 command `xcorr pec rec, tab lags(40)` where `pec` is the protest event count and `rec` is the repression event count.


This is a customized display that includes our confidence bounds, not Stata’s default xcorr correlogram. The code used to generate the displays can be found on the supplementary website.

8 A supplementary website—http://129.237.62.38:16080/nkss/isqcp/—has all the remaining correlograms showing some consistent pattern of cross-correlations that are significant at the 5 percent level. We have not included cases where none of the correlations are significantly different from zero, or where the non-significant correlations are confined to isolated spikes. Note that the vertical scale changes depending on the chart, so for example while Figure 1 and 5 look somewhat similar in shape, the maximum correlation on Figure 1 is around 0.8, whereas it is only about 0.3 for Figure 5.
4.1 Israel: all targets

In this section we consider Israel's behavior against all Israeli and Palestinian targets. The sources of repression are agents of the Israeli state: ISRGOV*, ISRMIL, ISRCOP (police), ISRJUD (judiciary). The sources of protest are all Palestinian and non-state Israeli actors. While most events involve Palestinians, events involving Israeli protesters occurred, mostly during the period of the evacuation of Israeli settlements from Gaza in the summer of 2005. Some also took place as political protests against the Occupation and the war in Lebanon, and as religious protests by ultra-Orthodox groups.

Events in Israel, the West Bank and Gaza are by far the most completely reported by the international media of any of the countries we are studying. They are quite possibly the most closely monitored in the world. A high number of protest and repression events occur there, sometimes daily. Consequently, this is our densest data set, and consistently generates high correlations. Figures 1 through 4 show the cross-correlograms for the four categories of events we are considering. Two different patterns are apparent.

The strongest correlations are reported in Figure 1, between violent protest and violent repression. The overall pattern is of significant correlations at all leads and lags, and a generally symmetric pattern with a distinct spike around zero. The spike at zero implies a nearly contemporaneous response—within month or so at most—and no clear differentiation with respect to

9 As noted earlier, in order to eliminate duplicate reports of events, we applied a “one-a-day filter” to the data, which eliminates multiple occurrences of any source-target-event combination in a single day. This removes multiple reports of the same story—for example a developing story dealing with a suicide bombing, a common pattern in AFP—but occasionally will also eliminate reports of multiple distinct events.
whether repression leads or lags protest (although the correlations of repression following protest are slightly higher).

This pattern reflects the intense, violent, and virtually immediate nature of tit-for-tat responses during the second *intifada* (2000-2004). For military clashes—which were common—actions by the two sides were literally simultaneous; for other actions there are tit-for-tat patterns representing, for example, a Palestinian suicide bombing, followed by an Israeli “targeted killing” in response to the suicide bombing, followed by another suicide bombing in revenge for the targeted killing, followed by a military raid into Gaza or Nablus, and so forth. The cycle of provocation and retaliation is so tight that “who started it?” is impossible to discern, a statistical finding consistent with the overall characterizations of the conflict via qualitative methods.

The remaining three figures show an asymmetric pattern consistent with protest leading to repression, but not vice versa. However, the strength of this relationship differs across the three pairs of behaviors. The strongest relationship is found in Figure 3, between violent protest and nonviolent repression. Here all the correlations, including for repression occurring prior to protest, are significant. Unlike Figure 1, however, the pattern is highly asymmetrical. The correlations representing repression following protest are uniformly higher than those representing repression prior to protest. The high significance levels may reflect the protracted level of conflict, and the pattern corresponds to Israeli arrests in response to the increased level of Palestinian (or Israeli settler) violence.

Figures 2 and 4 provide even stronger evidence for the “repression follows protest” hypothesis: in both, correlations for repression prior to protest are either not significant at all (Figure 2) or barely outside the 95 percent confidence interval around zero (Figure 4). Both patterns feature the same contemporaneous spike as in Figure 1, and a lower one representing repression a few weeks prior to
protest. The width of the contemporaneous spike is presumably due to the fact that protest and repression activities, whether violent or nonviolent, generally tend to cluster in time: periods of high activity by both sides lasting for a few weeks would lead to the cross-correlation pattern seen here.

4.2. Palestine

We now turn to the issue of government/opposition relations among the Palestinians themselves. Here we coded Palestinian state actors—the PLO, Fatah and the Palestinian National Authority (PNA)—as the repressor and Palestinian opposition—both Islamist (Hamas, Islamic Jihad) and secular (al-Aqsa Martyrs Brigade, Popular Front for the Liberation of Palestine)—as dissenters. A complete list of the proper noun phrases involved in this coding—about 150 distinct items—can be found on the supplementary web site. While there is some activity by secular groups, the preponderance of the events involve Islamist groups, so we have interpreted the correlations with respect to the policies of those groups; at some later point we may analyze the Islamist and secular opposition separately. Nominally, of course, Hamas became the “government” following its victory in the January 2006 election. The PNA under President Mahmoud Abbas and other Fatah operatives, such as Gaza security chief Mohammed Dahlan, continued to treat Hamas as though it were the opposition, however, so for this analysis we continued to code it as such even after the election.

As expected, the correlations for Palestine, which has very weak and poorly coordinated “state” repressive institutions, are substantially lower than those for Israel. In addition, the sample size is smaller since the Palestinian “government” had little repressive capacity prior to 1996. Many correlations are barely significant at the 5 percent level.10

10 We report these on the supplementary web site because frequently there are a number of correlations just below that level.
Figure 5 shows violent repression clearly following violent protest, with almost no significant repression prior to protest, a pattern similar to Figures 2 and 4 except at substantially lower levels of correlation. There is a distinct spike at a lead time of about 30 weeks; this may correspond to some major outbreaks of violence separated by roughly that period, since the interval seems too long to postulate a causal connection between distinct events. The 5-week spike, on the other hand, might reflect the generally slow response of the PA, particularly in comparison to the nearly immediate responses characteristic of Israel.

For nonviolent protest and nonviolent repression (the correlogram is on the supplementary web site)—shows evidence of protest following repression, a situation that we explore in section 5.3. In this case, the pattern is fairly weak and shows only three spikes that are significant at the 5 percent level. Nonetheless, these are closely spaced. Our qualitative reading of the situation indicates that protests by Islamic groups against PNA arrests are in fact a fairly common tactic, so it is likely that this finding is real.

There were no significant correlations between violent protest and nonviolent repression. The correlations between nonviolent protest and violent repression (on the supplementary web site) are difficult to interpret. There is a cluster of significant correlations of repression following protest. These occur at about 25 weeks, but it seems likely that this reflects a coincidental spacing of some major periods of activity rather than causal linkages.

4.3 Egypt

The results for Egypt resemble the previous figures: significant but generally low correlations and, with a few exceptions, repression follows rather than precedes dissent. Repression events are attributed to actors coded EGYGOV*, EGYMIL, EGYPOL, and EGYJUD; protest events are
attributed to EGYOPP and EGYREB; a list of the noun phrases assigned to these codes is found on the supplementary web site.

The violent protest, violent repression case, best interpreted as a case of no significant correlations, is reported on the supplementary website. While there are about ten spikes at or above the 95 percent confidence interval boundary, these do not cluster but rather are distributed uniformly across the leads and lags. In all likelihood these reflect random convergences in the timing of violent incidents during the on-going conflict between the Egyptian government and various Islamic groups, notably the Muslim Brotherhood.

For nonviolent protest × violent repression and violent protest × nonviolent repression (also on the supplementary web site) results are generally similar to the patterns seen earlier that show repression following protest. The results for nonviolent repression following violent protest may also reveal a tendency by the Egyptian government to respond to outbreaks of violence by Islamist militants with general arrests of government opponents, Islamist and otherwise.

Figure 6 shows another instance where protests appear to occur in response to earlier repression. As for Palestine, this occurs when both dissent and repression are nonviolent. Unlike Palestine, Egypt also shows considerable repression following protests, sometimes extending for a number of weeks. We would expect these results given qualitative assessments of the policies of the Egyptian government. The correlations of protest to prior repression might be artifacts due to the relatively scarcity of Egyptian events (see time series plots on the supplementary web site) but the general upward trend in the correlations and the lag time of about eight weeks between the repression and protests could reflect the general difficulty of organizing nonviolent, anti-government activity in Egypt.
4.4. Turkey

Our final case providing clear results is Turkey. We start by noting that, like Israel-Palestine, Turkey is a case where sub-state actor analysis should be the research norm. We will pursue this in the future. Also, protest and repression in Turkey cluster around two generally distinct issue themes: Kurdish autonomy, and the role of Islam in the state. While we have only begun to work on our Turkey data set, our general sense is that it should be possible to analyze these themes separately, although we do not do so in this article.

The Turkish case—reported in Figure 7 (with the remaining correlograms on the supplementary web site) primarily shows contemporaneous correlation. In the case of violent repression in response to violent protest, this is quite high, almost as high as in Israel. The Turkish state reacts immediately to protest. Unlike the Israeli case, however, the significant correlations do not spread far beyond the contemporaneous correlations, although Figure 7 shows significant correlations over a range of about ±4 weeks.

In addition to the contemporaneous correlation, Turkey shows evidence of nonviolent repression following nonviolent protest by as long as 20 weeks, although the pattern is not so strong as in some other cases, such as Figures 2 and 6. In the two asymmetric cases—nonviolent protest × violent repression and violent protest × nonviolent repression—there is little significant correlation beyond the contemporaneous case. For nonviolent protest × violent repression, even the contemporaneous correlation is quite weak.

4.5 Jordan and Kuwait

We generated and analyzed data for Jordan and Kuwait, but the number of reported events of interest was so low that little meaningful statistical analysis was possible (see time series plots on the supplementary web site). Figure 8 shows one of the stronger results obtained for Jordan, and is
typical of what “significant” correlations look like for these countries, isolated individual spikes likely to be statistical artifacts. Granted, all these spikes show repression following protest, which is the pattern we have found to be most common, but in Figure 8 nonviolent repression follows violent protest, which does not seem plausible.

Our project collaborators Jillian Schwedler and Mary Ann Têtreault have done qualitative field work in these countries (Schwedler 2002, 2003, 2005; Têtreault 1990, 1992, 1994, 1996, 2001, 2003, 2004, 2005, 2006, 2007) and provide insights into why event data analysis is problematic. In both countries there is some public protest activity, but it is rarely covered by international media, even when it occurs in conspicuous venues such as street demonstrations in Amman or demonstrations outside the parliament building or the palace in Kuwait City.

In addition, some of the protest activity is muted. Schwedler notes

For example, lawyers frequently have hour-long work stoppages to protest the arrest of a fellow lawyer but unless you are in the Supreme Court building at the time, you wouldn't know about it. Low level protest is very common, but Jordan has relatively few large-scale protests (compared to, say, Egypt), and very few that draw strong state repressive responses. (email, 9 September 2007)

Schwedler has observed that visible protests in Amman attract lenient responses by police if they are held where they are not likely to attract the attention of the international media. This tacit strategy appears to have been successful in keeping most such activities off of the international newswires.

In Kuwait dissent takes many conventional forms, such as public demonstrations, but is more often expressed in petitions and direct conversations with high government officials, including the Amir. Such dissent is frequently voiced in diwaniyyas, salons that meet regularly in homes. The
diwaniyyas of high-status Kuwaitis are prime venues for registering protest directly or via Kuwait’s active rumor mill (Tétreault 2000).

5. Results: Sub-state Actors

In this section we look in more detail at sub-state actors. Our focus is on Israel-Palestine, since this is where we have the greatest amount of data, and relevant sub-state actors are relatively distinct and stable over time. Specifically, we look at Israel's response to Palestinian dissent, omitting the Israeli political opposition and settler activity included in the analysis in Section 4.1. Thus, our target groups are secular Palestinian institutions, Palestinian Islamic groups and, finally, Israeli domestic opposition, mostly Israeli settlers, the only Israeli opposition group that engages in violent protests against Israel.

5.1. Israel-Palestine

Here we look at protest and dissent by all Palestinian actors directed against any Israeli target, and repressive actions by the Israeli government (ISRGOV* ISRMIL ISRCOP ISRJUD) against any Palestinian target. Many news reports refer to the target only as “Palestinians” without differentiating with respect to their affiliation. There are no Israeli targets in this analysis.

These results are reported in figures on the supplementary web site. They resemble Figures 1 through 4 reported here except for the following. First, the correlations on nonviolent protest × nonviolent repression are consistently higher to the left of the zero bar (repression preceding protest) in the Palestinian-only case, suggesting that when only Palestinian activity is considered, protesters may be responding to earlier repression. A similar but weaker difference is with respect to nonviolent protest and violent repression. Some of this may reflect responses by Islamic militant groups to
Israeli assassinations of their leaders. For both, the overall pattern suggests that protests in response to repression are mostly nonviolent, although if we distinguish among Islamic groups, this changes.

5.2. Israel-Palestinian Government

The “Palestinian government” categories are similar to those used for the Israeli government—PSEGOV* PSEMIL PSEMIL PSECOP PSEJUD\(^{11}\)—plus the Palestine Liberation Organization “PALPLO” to cover the pre-Oslo period. As noted earlier, even after January 2006, we continued to code Hamas as PSEOPP.

Including only official Palestinian entities, the correlations between violent protest and violent repression change substantially, as one can see from a comparison of Figure 1 and Figure 9. The overall correlation drops, from a peak around 0.8 at the contemporaneous correlation to a peak of around 0.27. The shape of the curve resembles the repression-follows-protest pattern, albeit with a wide (about ±6 week) contemporaneous peak and correlations that are significant on the left of zero, but still lower than the correlations on the right.

The correlogram of violent protest and nonviolent repression also shows the repression-follows-protest pattern, though at lower levels. These low correlations generally follow the same upward slope from left to right seen in Figure 3, but more erratically. The distinctive aspect of this display is the narrower confidence intervals to the right of zero: this appears to be an artifact of the small number of nonviolent repression events in the series. The remaining two correlograms did not produce significant results.

\(^{11}\) “PSE” is the ISO-3166-alpha-3 code for the West Bank and Gaza; the CAMEO actor coding scheme uses this for post-Oslo Palestinian political institutions while using “PAL” for the Palestinians as an ethnic group.
5.3. Israel-Palestinian Opposition

In this section we consider only Israel's repression of the Islamic opposition. The dissent which we take into account has PSEREB*, PSEOPP*, PALREB* and PALOPP* as source and any Israeli actor as target.¹²

As noted above, the lead sentences coded by TABARI do not always identify the political affiliation of individuals engaged in activities. In the midst of a gun battle between Palestinian masked militants and the Israel defense forces, journalists are not likely to ask who those masked men are. In many AFP reports, individuals are identified only as “Palestinian”; the events coded here are confined to those where the lead sentence of the news story reports a more specific political identity.¹³ Such identifications grew more common as Hamas and other Islamist groups consolidated their political base in Gaza and openly asserted a distinct political identity in confrontations with both Israel and the PNA.

These results, shown in Figures 11 and 12, are surprising because they provide fairly consistent support for the protest-follows-repression hypothesis. While the correlations between violent protest and violent repression in Figure 11 are generally similar to those in Figure 1, the correlations to the left of the zero bar—indicating protest follows repression—are distinctly higher than those to the right, a pattern we have not seen before. For nonviolent protest and violent repression, reported in

¹² In the CAMEO actor coding scheme, “OPP” refers to a group that is in political opposition, “REB” to a group that uses military force. These identifiers are assigned to groups and individuals based on their overall behavior so, for example, when Hamas stages a nonviolent demonstration, it is still PALREB rather than PALOPP.

¹³ In some instances the identity of the participants may have been asserted further down in the story. At the present time we are coding only lead sentences and would miss this; in the future we may start using the full story to code additional information such as location and group identity.
Figure 12, the curve is essentially flat, if erratic, across the entire 40 weeks of leads and lags, another pattern not seen previously. The results for violent protest × nonviolent repression, posted on the supplementary web site, show the same upward-sloping left-to-right pattern as Figure 3.

Our sense is that these distinctions are real, most likely due to the activities of Hamas (and the other Islamist groups) and more extensive reporting of these activities. Starting with the assassination in Malta of Fathi Shaqaqi, the head of Palestinian Islamic Jihad on 26 October 1995, and of Hamas bomb expert Yahya Ayyash in Gaza on 6 January 1996, Israel has engaged in a number of extra-judicial executions of leaders of Palestinian Islamic movements. These are usually public, typically carried out using air-to-ground missiles, and often result in collateral civilian casualties. Consequently they almost always invoke conspicuous public protests and, particularly in the period 2001-2004, retaliatory attacks, often in the form of suicide bombings against Israeli civilians. Both the targets of these attacks and the response are explicitly linked by both Israeli and Palestinian sources to Islamic organizations (most commonly Hamas and Islamic Jihad). AFP is picking this up.

5.4. Israel-Israeli Opposition

Finally, we consider the Israeli government's interactions with the Israeli opposition. Unlike the PNA and Hamas, the distinction between “government” and “opposition” changes regularly in the Israeli system, and our automated coding dictionaries track which parties are in and out of government. The most conspicuous dissident activity directed against Israel involves the Israeli settler movement, however, which periodically engages in intense confrontations with security and military forces.

The cross-correlation pattern in Figure 13 is similar, though at a much lower level, to that in Figure 1: significant positive correlations centered on the contemporaneous correlation. However, as with the PNA’s interactions with the Islamist opposition, there is a distinct and significant pattern of
correlations to the left of zero, indicating that protest occurs in response to prior repression. The Israeli settler movement, like Hamas, is well organized and has responded to numerous attempts to clear settlements by bringing in protesters as reinforcements, laying the ground for further confrontations.

The remaining relationships, posted on the supplementary web site, are weaker. Nonviolent protest × nonviolent repression shows a very weak contemporaneous pattern. Violent protest × nonviolent repression shows the familiar repression-follows-dissent pattern, and nonviolent protest × violent repression shows no significant correlations at all. It appears that Israeli government responds to violent protests both violently and nonviolently, but rarely responds to nonviolent protests.

The event data probably reflect only the most visible aspect of a hugely complicated situation (see Arian 2001, Shafir and Peled 2002). Although the settler movement is antagonistic toward the Israeli government it depends on that government for massive security expenditures in flash-point areas such as Hebron and Gaza, and for the subsidies that maintain and expand authorized settlements. Likud governments seek, sometimes openly, sometimes tacitly, political support from this movement. All of the qualitative and anecdotal evidence indicates that a complex interplay of conflicting interests is continually negotiated between these parties. This occurs outside the purview of the international media except in cases of large-scale confrontations such as those occurring in the summer of 2005 when settlements in Gaza were dismantled.

The other problem that may affect data on nonviolent protest is lack of interest by the media. A small but persistent left-wing opposition exists in Israel. One example is “Women in Black” (http://coalitionofwomen.org/home), a group that has been holding regular protests since 1988, but, as for most protest activity in Jordan and Kuwait, such activities are rarely covered in the international press. The tendency to underreport non-violent protest in Israel is exacerbated by the
amount of violent dissent, whether by Palestinians or Israeli settlers, which may have raised the bar for what is considered “newsworthy.”

This is an extremely significant conclusion. It supports the idea of media bias toward violent events—which has long been known in the event data literature dealing with international interactions—and predicts to a bias in research results that favors the dominant hypothesis because simulations that do not evoke repression (by definition nonviolent dissent—any violent dissent is going to get the state to respond with force) are selected against. The Israel-Palestine case is particularly important in this regard since, unlike Jordan and Kuwait, we have very extensive reporting of the conflict generally, but still appear to be missing reports of persistent nonviolent protest.

6. Conclusion

Three conclusions follow from this analysis. First, the general framework for analyzing the relationship between dissent and repression using event data at a very fine temporal grain seems to work in those cases where international coverage is extensive. In the cases of Israel, Palestine, Egypt and Turkey, we are getting results that are substantiated by research using other methods by using temporal differentiation at the level of a week. This is substantially more detailed than most previous work, and dramatically so in comparison with results obtained using data sets such as Banks (2005) which provide only annual aggregations.

Second, with a small number of exceptions, most of our analysis supports the repression-follows-protest hypothesis. In many instances that support is quite strong, with significant correlations almost exclusively in that direction. This overall finding is summarized in Table 2. The three exceptions are the protracted Israel-Palestine conflict, where patterns are more or less symmetrical, Israel's interactions with its own domestic opposition, and Israeli interactions with
Palestinian Islamist militant groups. For the last set of cases, we see fairly strong evidence of protest in response to violent repression, due perhaps to responses following Israeli assassinations of prominent militant leaders. To the extent that there are correlations between protest and prior repression in other cases, it is between nonviolent protest and violent repression.

Finally, for Israel-Palestine we are getting fairly good results differentiating between the sub-state actors. Even so, the Israeli-Palestinian case is not a good basis for generalizing to protest-repression relationships in general, both because it has a greater international component and, after 2000, because it became strongly militarized on both sides. Even during the first intifada, 1988-1991, Israel appeared more willing to deploy military force as a repressive tool against Palestinians than is the case for most other cases of internal protest activities; Sambanis (2004) argues that both intifadas are better considered as civil wars. Egypt and Turkey are therefore more typical. Although we do not differentiate across opposition groups in Turkey in this paper, our previous studies using event data to analyze repression and dissent in the context of political Islam in Turkey and the Kurdish movement in Turkey yielded promising and credible results (Yilmaz 2006, 2007).
Bibliography


Table 1: Event Category Aggregations

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<th>Category</th>
<th>CAMEO Events</th>
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<td>145* 1712</td>
</tr>
<tr>
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<tr>
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<td>1712</td>
</tr>
<tr>
<td>Violent repression (VR)</td>
<td>1712 18* 19* 20*</td>
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Table 2. Summary of findings

**Pattern: symmetric leads and lags**

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<tr>
<td>Egypt</td>
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<tr>
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<td>VR</td>
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**Pattern: repression follows protest**

<table>
<thead>
<tr>
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</thead>
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</tr>
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</tr>
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<td>VP</td>
<td>NVR</td>
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</tr>
<tr>
<td>Israel.PSEGOV</td>
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**Pattern: protest follows repression**

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**Pattern: contemporaneous only**

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**Pattern: none discernible**

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</table>

VP: violent protest  NVP: nonviolent protest  VR: violent repression  NVR: nonviolent repression
Figure 1: Israel: violent protest, violent repression
Figure 2. Israel: nonviolent protest, nonviolent repression
Figure 3: Israel: violent protest, nonviolent repression
Figure 4. Israel: nonviolent protest, violent repression

![Graph showing the cross-correlation between nonviolent protest and violent repression in Israel. The x-axis represents the lag in weeks, ranging from -40 to 40. The y-axis represents the cross-correlation, ranging from -1 to 1. The graph shows that repression tends to precede protest and follow protest, with peaks at various lags.](image-url)
Figure 5. Palestine: violent protest, violent repression
Figure 6. Egypt: nonviolent protest, nonviolent repression
Figure 7. Turkey: violent protest, violent repression
Figure 8. Jordan: violent protest, nonviolent repression
Figure 9. Israel-Palestinian Government: violent protest, violent repression
Figure 10. Israel-Palestinian Government: violent protest, nonviolent repression
Figure 11. Israel-Palestinian Opposition: violent protest, violent repression
Figure 12. Israel-Palestinian Opposition: nonviolent protest, violent repression
Figure 13. Israel-Israeli Opposition: violent protest, violent repression