

Supporting Information

Haushofer et al. 10.1073/pnas.1012115107

SI Text

Data. We obtained data on Israeli and Palestinian fatalities from the human rights organization B'Tselem (www.btselem.org/), which is widely respected on both sides of the conflict for providing accurate and reliable data. In addition, we obtained data on Qassam firings from the Israeli Defense Forces (IDF). In this paper we consider three variables. The first is the daily count of Palestinian deaths resulting from Israeli attacks. The remaining two are two different measures of Palestinian aggression against Israel: first, the daily count of Israeli deaths resulting from Palestinian attacks; second, the daily count of Qassam rockets fired from Palestinian into Israeli territory (regardless of whether anyone died as a result).

Our data cover the period from September 29, 2000, until October 29, 2008, for fatalities, and the period from January 1, 2001, to April 16, 2008, for Qassam firings. All findings reported here continue to hold when the fatality data are restricted to the time period available for Qassam firings.

We consider the data in two forms: the levels data contains the daily count of Israeli and Palestinian attacks; the incidence data are a dummy variable that takes the value 1 on days where at least one attack occurred, and zero otherwise.

Autoregressive Order Selection. To test whether Israeli aggression caused Palestinian retaliation and vice versa, we conducted a series of vector autoregressions (VAR). This technique regresses current Israeli and Palestinian fatalities on previous Israeli and Palestinian fatalities, up to a prespecified lag.

In a first step, we used an information criterion approach to choose the most appropriate autoregressive order for each VAR process. Lütkepohl (1) showed that Schwarz's Bayesian information criterion (SBIC) (2) performed better than Akaike's information criterion (AIC) (3–5) in choosing the correct autoregressive order; indeed, SBIC is a consistent estimate of the correct lag order (6). We therefore chose the lag structures based on SBIC.

Columns 1–3 in Table S1 report the SBIC values for the three variables of Israeli and Palestinian aggression. The SBIC values are minimized at lags 5, 4, and 22 for Palestinian fatalities, Israeli fatalities, and Qassam firings, respectively, suggesting that these lags may be the most appropriate ones.

However, note that the difference in information criteria values is small; under these conditions, a straightforward model choice is not possible (6, 7). Therefore we computed Schwarz weights, which have a more intuitive interpretation as the probability of the particular lag order being the optimal one (7). As can be seen in Table S1, columns 4–6, the Schwarz weights for best lags identified above were 0.87, 0.71, and 0.70 for Palestinian fatalities, Israeli fatalities, and Qassam firings, respectively; in addition, the ratios of the probabilities for these lags compared with the next-best lags within each variable were 11.84, 6.99, and 3.45, respectively. Together, these findings suggest that the lags identified using SBIC have a high probability of being the optimal ones.

Time-Series Order of Integration. VAR requires all variables to be of the same order of integration. We therefore tested for the presence of a unit root using the augmented Dickey–Fuller test

(8). The absence of a unit root implies stationarity of the time series and integration of order 0, and therefore justifies using VAR on the data.

The null hypothesis of the Dickey–Fuller test is the presence of a unit root; a large negative value rejects this hypothesis. We performed the test using the autoregressive orders determined with information criteria, both with and without lag and drift terms. The results are shown in Table S2. The null hypothesis was rejected in all cases, suggesting that the time series are stationary and a VAR approach is justified.

Model Selection. Next we considered two alternative VAR models—namely, OLS and negative binomial (NB) models. The former has been used in previous papers using this data (9–11); however, from a theoretical point of view, negative binomial models are more appropriate in this context because they take into account the count nature of the data. (Note also that negative binomial models are preferable to another group of count data models in this context—namely, Poisson models—because the data are overdispersed; Table 1).

To choose between these alternative models, a selection criterion approach is not feasible because the two models are too different from each other (6). We therefore used a cross-validation approach: for each of the level's regression models described in Results, we omitted a single day from the dataset and fit the model to the remainder of the data. We then generated a prediction for the number of Israeli and Palestinian attacks on the left-out day, and computed the mean squared prediction error. Results are shown in Table S3. For all variables, the prediction errors obtained with the OLS model were smaller than those obtained with the NB model. We therefore based our analyses on OLS. Note that this finding also suggests that the OLS approach used by Jaeger and Paserman (9, 10) and Jaeger et al. (11) was likely appropriate.

Magnitude Estimations. To estimate the magnitude of the VAR results, we proceeded as follows. First, the percentage increase in the expected number or probability of attacks on the day after a single attack from the other side was computed by comparing the excess number of attacks on a day after an attack from the other side to the average number of attacks on a given day. For instance, on the first day after a killing of Palestinians by Israelis, an extra 0.08 Qassam rockets are fired, which corresponds to a 6% increase over the 1.37 average daily rockets.

Second, to estimate what percentage of all attacks can be accounted for by retaliation, we computed the number of attacks that were due to retaliation by multiplying the total number of attacks from the respective other side with the excess attacks due to retaliation that resulted from these attacks. For instance, Israeli attacks caused 4,478 Palestinian fatalities, each of which led to the firing of an extra 0.08 Qassam rockets, or 358 rockets in total. This corresponds to 10% of the 3,645 rockets that were fired in total. (To obtain a conservative estimate and to avoid bias from different lag structures, we restricted ourselves to retaliation on the first day after an attack. In addition, we restricted the estimation period to that for which Qassam data are available.)

1. Lütkepohl H (1985) Comparison of criteria for estimating the order of a vector autoregressive process. *J Time Ser Anal* 6:35–52.
2. Schwarz GE (1978) Estimating the dimension of a model. *Ann Stat* 6:461–464.
3. Akaike H (1973) Information theory and an extension of the maximum likelihood principle. Proceedings of the Second International Symposium on Information Theory, eds Petrov BN, Caski F (Akademiai Kiado, Budapest), pp 267–281.

4. Akaike H (1974) A new look at the statistical model identification. *IEEE Trans Automat Contr* 19:716–723.
5. Akaike H (1978) On the likelihood of a time series model. *Statistician* 27: 217–235.
6. Burnham KP, Anderson DR (2002) *Model Selection and Multimodel Inference: A Practical Information-Theoretic Approach* (Springer, New York), 2nd Ed.

7. Wagenmakers EJ, Farrell S (2004) AIC model selection using Akaike weights. *Psychon Bull Rev* 11:192–196.
8. Elliott G, Rothenberg TJ, Stock JH (1996) Efficient tests for an autoregressive unit root. *Econometrica* 64:813–836.
9. Jaeger DA, Paserman MD (2006) Israel, the Palestinian factions, and the cycle of violence. *Am Econ Rev* 96:45–49.
10. Jaeger DA, Paserman MD (2008) The cycle of violence? An empirical analysis of fatalities in the Palestinian-Israeli conflict. *Am Econ Rev* 98:1591–1604.
11. Jaeger DA, Klor EF, Miaari S, Paserman MD (2009) The struggle for Palestinian hearts and minds: Violence and public opinion in the second intifada. Available at <http://ftp.iza.org/dp3439.pdf>.

Table S1. Lag-order selection statistics

Lag	SBIC			Schwarz weights		
	(1) Palestinian fatalities	(2) Israeli fatalities	(3) Qassam attacks	(4) Palestinian fatalities	(5) Israeli fatalities	(6) Qassam attacks
0	5.35252	3.85969	5.49496	0.0000	0.0000	0.0000
1	5.26646	3.85015	4.95958	0.0000	0.0561	0.0000
2	5.22253	3.85035	4.92645	0.0000	0.0419	0.0000
3	5.20365	3.84974	4.91772	0.0737	0.1022	0.0263
4	5.20465	3.84841*	4.91993	0.0171	0.7146	0.0014
5	5.20196*	3.84994	4.92232	0.8723	0.0763	0.0001
6	5.20419	3.85159	4.91918	0.0334	0.0068	0.0038
7	5.20575	3.85238	4.91861	0.0034	0.0022	0.0081
8	5.20847	3.85487	4.9216	0.0001	0.0001	0.0002
9	5.21045	3.85576	4.92452	0.0000	0.0000	0.0000
10	5.21315	3.85616	4.92483	0.0000	0.0000	0.0000
11	5.2141	3.85753	4.91769	0.0000	0.0000	0.0273
12	5.21671	3.85974	4.91811	0.0000	0.0000	0.0157
13	5.21819	3.85582	4.92079	0.0000	0.0000	0.0005
14	5.21898	3.85749	4.92189	0.0000	0.0000	0.0001
15	5.22135	3.86	4.92484	0.0000	0.0000	0.0000
16	5.22386	3.8627	4.92644	0.0000	0.0000	0.0000
17	5.22658	3.86542	4.9292	0.0000	0.0000	0.0000
18	5.2293	3.86579	4.93207	0.0000	0.0000	0.0000
19	5.2316	3.86837	4.92297	0.0000	0.0000	0.0000
20	5.22733	3.87038	4.92096	0.0000	0.0000	0.0004
21	5.22749	3.86948	4.91617	0.0000	0.0000	0.2023
22	5.23017	3.872	4.91523*	0.0000	0.0000	0.6980
23	5.22568	3.8747	4.91822	0.0000	0.0000	0.0136
24	5.2284	3.87548	4.9197	0.0000	0.0000	0.0019
25	5.22791	3.87171	4.9211	0.0000	0.0000	0.0003
26	5.23005	3.87397	4.92398	0.0000	0.0000	0.0000
27	5.23127	3.87614	4.92629	0.0000	0.0000	0.0000
28	5.23139	3.87709	4.92924	0.0000	0.0000	0.0000
<i>n</i>	2,925	2,925	2,635	2,925	2,925	2,635

Columns 1–3 report Schwarz’s Bayesian Information Criterion (SBIC) values for the three variables of Israeli and Palestinian violence. Columns 4–6 report Schwarz weights for the same variables. See *Materials and Methods* for the description and interpretation of these measures.

Table S2. Dickey–Fuller test

Test specification	Test statistic	(1) Palestinian fatalities	(2) Israeli fatalities	(3) Qassam attacks
Basic	Z	–15.1096	–20.4431	–5.1241
	P	0.0000	0.0000	0.0000
With trend	Z	–15.2863	–21.6778	–6.5658
	P	0.0000	0.0000	0.0000
With drift	Z	–15.1096	–20.4431	–5.1241
	P	0.0000	0.0000	0.0000

Results of the augmented Dickey–Fuller test for the three time-series of interest. The trend specification includes a trend term in the associated regression, and assumes that the process under the null hypothesis is a random walk (possibly with drift). The drift specification assumes that the process under the null hypothesis is a random walk with nonzero drift. Significantly negative test statistics are evidence for stationarity.

Table S3. Model selection through cross-validation

Model specification	Measure of Palestinian violence	
	Israeli fatalities	Qassam attacks
OLS		
MSE for prediction of attacks on Israel	2.7132	8.3462
MSE for prediction of attacks on Palestinians	10.6977	12.0430
Negative binomial		
MSE for prediction of attacks on Israel	3.9297	135,700,000
MSE for prediction of attacks on Palestinians	3,329.1307	5,045.0877

Mean-squared prediction errors (MSE) obtained from cross-validation. For each of the level's regression models described in *Results*, we omitted a single day from the dataset and fit the model to the remainder of the data. We then generated a prediction for the number of Israeli and Palestinian attacks on the left-out day, and computed the MSE. Smaller mean prediction errors are taken as evidence for superiority of the associated model specification.

Table S4. Full regression table for basic specification

Measure of Palestinian aggression	Levels				Measure of Palestinian aggression	Incidence			
	DV: Attacks on Israel		DV: Attacks on Palestinians			DV: Attacks on Israel		DV: Attacks on Palestinians	
	Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities		Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities
L1is	0.446 [0.000]***	0.092 [0.005]***	0.027 [0.549]	0.156 [0.056]*	L1is	0.172 [0.000]***	0.082 [0.000]***	0.018 [0.494]	0.099 [0.000]***
L2is	0.134 [0.044]**	0.032 [0.160]	0.057 [0.463]	0.08 [0.113]	L2is	0.113 [0.000]***	0.068 [0.003]***	0.005 [0.842]	0.044 [0.108]
L3is	0.121 [0.069]*	0.041 [0.054]*	0.098 [0.327]	0.106 [0.025]**	L3is	0.111 [0.000]***	0.062 [0.006]***	-0.024 [0.370]	0.051 [0.065]*
L4is	-0.059 [0.276]	0.054 [0.232]	-0.119 [0.137]	0.077 [0.396]	L4is	0.051 [0.032]**	0.048 [0.027]**	0.017 [0.524]	0.083 [0.002]***
L5is	-0.021 [0.586]		-0.041 [0.239]		L5is	0.069 [0.004]***		-0.009 [0.739]	
L6is	0.051 [0.211]		-0.021 [0.518]		L6is	0.04 [0.091]*		-0.011 [0.676]	
L7is	0.047 [0.228]		0.008 [0.788]		L7is	0.075 [0.002]***		0.048 [0.075]*	
L8is	-0.03 [0.490]		-0.007 [0.815]		L8is	0.014 [0.550]		-0.056 [0.036]**	
L9is	-0.04 [0.305]		-0.026 [0.330]		L9is	0.006 [0.800]		0.026 [0.342]	
L10is	-0.007 [0.834]		0.028 [0.261]		L10is	0.044 [0.061]*		0.013 [0.633]	
L11is	0.063 [0.130]		-0.016 [0.525]		L11is	0.035 [0.141]		0.022 [0.421]	
L12is	0.035 [0.532]		0.027 [0.356]		L12is	0.028 [0.226]		-0.008 [0.767]	
L13is	-0.002 [0.974]		-0.041 [0.084]*		L13is	0.011 [0.648]		0 [0.990]	
L14is	0.05 [0.323]		0.097 [0.008]***		L14is	0.055 [0.022]**		-0.023 [0.389]	
L15is	0.005 [0.914]		-0.073 [0.102]		L15is	-0.012 [0.603]		0.047 [0.081]*	
L16is	-0.052 [0.197]		0.018 [0.521]		L16is	0.035 [0.123]		-0.061 [0.024]**	
L17is	-0.005 [0.902]		-0.051 [0.021]**		L17is	-0.016 [0.468]		-0.043 [0.111]	
L18is	-0.057 [0.092]*		-0.009 [0.676]		L18is	0.012 [0.603]		-0.023 [0.379]	
L19is	0.057 [0.410]		0.03 [0.382]		L19is	0.026 [0.252]		0.039 [0.142]	
L20is	0.017 [0.750]		0.04 [0.333]		L20is	0.019 [0.413]		-0.012 [0.642]	
L21is	0.054 [0.207]		-0.036 [0.345]		L21is	0.008 [0.727]		-0.009 [0.727]	
L22is	0.067 [0.215]		0.053 [0.425]		L22is	0.021 [0.341]		0.025 [0.339]	
L1pa	0.08 [0.001]***	0.011 [0.332]	0.183 [0.000]***	0.172 [0.000]***	L1pa	0.038 [0.010]***	0.012 [0.343]	0.129 [0.000]***	0.124 [0.000]***
L2pa	0.013 [0.595]	0.01 [0.483]	0.146 [0.000]***	0.153 [0.001]***	L2pa	0.01 [0.516]	0.028 [0.020]**	0.107 [0.000]***	0.103 [0.000]***
L3pa	-0.041 [0.048]**	0.005 [0.612]	0.109 [0.247]	0.115 [0.151]	L3pa	0.005 [0.739]	0.027 [0.026]**	0.045 [0.025]**	0.039 [0.041]**
L4pa	-0.02 [0.353]	-0.004 [0.634]	0.038 [0.254]	0.025 [0.436]	L4pa	-0.01 [0.494]	0.003 [0.799]	0.103 [0.000]***	0.088 [0.000]***
L5pa	-0.007 [0.666]	0.043 [0.086]*	0.091 [0.003]***	0.069 [0.019]**	L5pa	-0.03 [0.037]**	0.051 [0.000]***	0.096 [0.000]***	0.099 [0.000]***
Constant	0.136 [0.055]*	0.173 [0.000]***	0.679 [0.000]***	0.611 [0.000]***	Constant	0.025 [0.101]	0.026 [0.005]***	0.27 [0.000]***	0.239 [0.000]***
Observations	2641	2948	2641	2948	Observations	2641	2948	2641	2948
R ²	0.481	0.033	0.175	0.164	R ²	0.434	0.048	0.088	0.102

All regressions are OLS models and are estimated using heteroskedasticity-consistent SEs. Robust P values are shown in brackets. The dependent variables (DV) are attacks by Palestinians on Israel (columns 1 and 2) and attacks by Israel on Palestinians (columns 3 and 4). The right-side variables are the number or

incidence of Israeli and Palestinian attacks at lags ranging from 4 to 22 (see *Materials and Methods* for choice of lag structure). Lagged variables are expressed as L#is and L#pa, respectively, where # is the lag order. For both the dependent and independent variables, columns 1 and 3 use Qassam firings as a measure of Palestinian aggression, and columns 2 and 4 use Israeli fatalities as a measure of Palestinian aggression.
 *P = 10%; **P = 5%; and ***P = 1%.

Table S5. Full regression table, controlling for same-day events

Measure of Palestinian aggression	Levels				Measure of Palestinian aggression	Incidence			
	DV: Attacks on Israel		DV: Attacks on Palestinians			DV: Attacks on Israel		DV: Attacks on Palestinians	
	Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities		Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities
pa	0.168 [0.002]***	0.032 [0.001]***	0.25 [0.004]***	0.122 [0.006]***	pa	0.031 [0.040]**	0.068 [0.000]***	0.054 [0.040]**	0.153 [0.000]***
L1is	0.442 [0.000]***	0.087 [0.008]***	-0.084 [0.185]	0.145 [0.077]*	L1is	0.171 [0.000]***	0.075 [0.001]***	0.009 [0.747]	0.087 [0.001]***
L2is	0.124 [0.030]**	0.03 [0.179]	0.023 [0.689]	0.076 [0.121]	L2is	0.112 [0.000]***	0.065 [0.004]***	-0.001 [0.974]	0.034 [0.215]
L3is	0.104 [0.040]**	0.038 [0.072]*	0.068 [0.390]	0.101 [0.033]**	L3is	0.111 [0.000]***	0.059 [0.008]***	-0.03 [0.264]	0.041 [0.132]
L4is	-0.039 [0.351]	0.051 [0.251]	-0.104 [0.116]	0.071 [0.431]	L4is	0.05 [0.033]**	0.043 [0.050]**	0.014 [0.594]	0.076 [0.005]***
L5is	-0.014 [0.699]		-0.036 [0.254]		L5is	0.069 [0.004]***		-0.013 [0.637]	
L6is	0.055 [0.162]		-0.034 [0.248]		L6is	0.04 [0.088]*		-0.013 [0.618]	
L7is	0.045 [0.229]		-0.004 [0.892]		L7is	0.074 [0.002]***		0.044 [0.104]	
L8is	-0.028 [0.498]		0 [0.998]		L8is	0.016 [0.502]		-0.057 [0.033]**	
L9is	-0.035 [0.348]		-0.016 [0.511]		L9is	0.005 [0.826]		0.025 [0.348]	
L10is	-0.012 [0.714]		0.03 [0.197]		L10is	0.044 [0.063]*		0.01 [0.700]	
L11is	0.066 [0.108]		-0.032 [0.229]		L11is	0.035 [0.149]		0.02 [0.464]	
L12is	0.031 [0.581]		0.018 [0.523]		L12is	0.028 [0.222]		-0.009 [0.725]	
L13is	0.005 [0.924]		-0.04 [0.096]*		L13is	0.011 [0.648]		-0.001 [0.972]	
L14is	0.033 [0.489]		0.085 [0.009]***		L14is	0.055 [0.020]**		-0.026 [0.330]	
L15is	0.018 [0.704]		-0.075 [0.080]*		L15is	-0.013 [0.561]		0.048 [0.078]*	
L16is	-0.054 [0.170]		0.031 [0.314]		L16is	0.037 [0.105]		-0.063 [0.020]**	
L17is	0.004 [0.928]		-0.05 [0.027]**		L17is	-0.015 [0.505]		-0.042 [0.118]	
L18is	-0.055 [0.088]*		0.005 [0.827]		L18is	0.013 [0.581]		-0.024 [0.365]	
L19is	0.052 [0.438]		0.016 [0.627]		L19is	0.025 [0.275]		0.038 [0.157]	
L20is	0.01 [0.835]		0.036 [0.306]		L20is	0.02 [0.404]		-0.013 [0.614]	
L21is	0.06 [0.140]		-0.049 [0.188]		L21is	0.008 [0.718]		-0.01 [0.715]	
L22is	0.058 [0.202]		0.036 [0.488]		L22is	0.02 [0.358]		0.024 [0.361]	
L1pa	0.049 [0.073]*	0.005 [0.638]	0.163 [0.000]***	0.17 [0.000]***	L1pa	0.034 [0.021]**	0.003 [0.792]	0.127 [0.000]***	0.122 [0.000]***
L2pa	-0.012 [0.565]	0.005 [0.720]	0.143 [0.000]***	0.152 [0.001]***	L2pa	0.006 [0.674]	0.021 [0.081]*	0.107 [0.000]***	0.098 [0.000]***
L3pa	-0.06 [0.013]**	0.001 [0.877]	0.119 [0.199]	0.115 [0.150]	L3pa	0.004 [0.811]	0.025 [0.043]**	0.044 [0.026]**	0.035 [0.067]*

Table S5. Cont.

Measure of Palestinian aggression	Levels				Measure of Palestinian aggression	Incidence			
	DV: Attacks on Israel		DV: Attacks on Palestinians			DV: Attacks on Israel		DV: Attacks on Palestinians	
	Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities		Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities
L4pa	-0.026 [0.220]	-0.005 [0.578]	0.042 [0.181]	0.025 [0.428]	L4pa	-0.013 [0.371]	-0.003 [0.823]	0.104 [0.000]***	0.088 [0.000]***
L5pa	-0.022 [0.175]	0.041 [0.108]	0.093 [0.002]***	0.064 [0.037]**	L5pa	-0.033 [0.024]**	0.045 [0.000]***	0.098 [0.000]***	0.091 [0.000]***
Constant	0.021 [0.803]	0.154 [0.000]***	0.645 [0.000]***	0.589 [0.000]***	Constant	0.016 [0.283]	0.01 [0.268]	0.269 [0.000]***	0.235 [0.000]***
Observations	2641	2948	2641	2948	Observations	2641	2948	2641	2948
R ²	0.503	0.037	0.21	0.167	R ²	0.435	0.058	0.089	0.112

All regressions are OLS models and are estimated using heteroskedasticity-consistent SEs. Robust P values are shown in brackets. The dependent variables (DV) are attacks by Palestinians on Israel (columns 1 and 2) and attacks by Israel on Palestinians (columns 3 and 4). The right-side variables are the number or incidence of Israeli and Palestinian attacks at lags ranging from 4 to 22 (see *Materials and Methods* for choice of lag structure). Lagged variables are expressed as L#is and L#pa, respectively, where # is the lag order. For both the dependent and independent variables, columns 1 and 3 use Qassam firings as a measure of Palestinian aggression, and columns 2 and 4 use Israeli fatalities as a measure of Palestinian aggression.

*P = 10%; **P = 5%; and ***P = 1%.

Table S6. Full regression table, omitting mutual events at t-1

Measure of Palestinian aggression	Levels				Measure of Palestinian aggression	Incidence			
	DV: Attacks on Israel		DV: Attacks on Palestinians			DV: Attacks on Israel		DV: Attacks on Palestinians	
	Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities		Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities
L1is	0.162 [0.003]***	0.013 [0.407]	0.048 [0.127]	0.087 [0.097]*	L1is	0.147 [0.000]***	0.066 [0.079]*	0.039 [0.263]	0.154 [0.002]***
L2is	0.123 [0.009]***	0.014 [0.385]	0.005 [0.877]	0.014 [0.698]	L2is	0.113 [0.000]***	0.061 [0.012]**	0.008 [0.784]	0.03 [0.339]
L3is	0.072 [0.031]**	0.045 [0.056]*	-0.026 [0.535]	0.082 [0.064]*	L3is	0.13 [0.000]***	0.041 [0.077]*	-0.041 [0.170]	0.04 [0.189]
L4is	0.025 [0.434]	-0.004 [0.687]	0.008 [0.767]	-0.047 [0.081]*	L4is	0.045 [0.087]*	0.031 [0.165]	0.002 [0.938]	0.082 [0.006]***
L5is	-0.008 [0.786]		-0.058 [0.038]**		L5is	0.07 [0.008]***		-0.005 [0.880]	
L6is	0.099 [0.076]*		0.016 [0.600]		L6is	0.006 [0.811]		-0.039 [0.202]	
L7is	-0.031 [0.374]		0 [0.993]		L7is	0.088 [0.001]***		0.052 [0.094]*	
L8is	0.055 [0.283]		-0.03 [0.226]		L8is	0.03 [0.255]		-0.063 [0.038]**	
L9is	-0.012 [0.770]		-0.023 [0.337]		L9is	0.023 [0.395]		0.04 [0.186]	
L10is	-0.044 [0.225]		0.025 [0.274]		L10is	0.043 [0.096]*		0.024 [0.427]	
L11is	0.046 [0.169]		0.025 [0.164]		L11is	0.048 [0.077]*		0.029 [0.342]	
L12is	0.045 [0.426]		-0.011 [0.596]		L12is	0.008 [0.759]		0 [0.997]	
L13is	-0.011 [0.863]		-0.027 [0.206]		L13is	0.031 [0.243]		-0.01 [0.754]	
L14is	0.033 [0.518]		0.025 [0.275]		L14is	0.056 [0.034]**		-0.023 [0.448]	
L15is	0.108 [0.065]*		0.001 [0.965]		L15is	-0.021 [0.408]		0.039 [0.204]	
L16is	-0.074 [0.138]		0.008 [0.798]		L16is	0.022 [0.368]		-0.056 [0.066]*	
L17is	0.012 [0.672]		-0.001 [0.958]		L17is	-0.015 [0.562]		-0.049 [0.105]	

Table S6. Cont.

Measure of Palestinian aggression	Levels				Measure of Palestinian aggression	Incidence			
	DV: Attacks on Israel		DV: Attacks on Palestinians			DV: Attacks on Israel		DV: Attacks on Palestinians	
	Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities		Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities
L18is	0.003 [0.906]		-0.021 [0.355]		L18is	0.007 [0.797]		-0.024 [0.424]	
L19is	-0.016 [0.525]		-0.007 [0.760]		L19is	0.043 [0.103]		0.044 [0.149]	
L20is	0.036 [0.429]		0.04 [0.214]		L20is	0.028 [0.283]		-0.018 [0.544]	
L21is	0.047 [0.160]		0.035 [0.395]		L21is	-0.001 [0.951]		-0.02 [0.507]	
L22is	0.002 [0.950]		-0.047 [0.052]*		L22is	0.023 [0.363]		0.03 [0.313]	
L1pa	0.007 [0.470]	0.002 [0.874]	0.198 [0.000]***	0.167 [0.000]***	L1pa	0.033 [0.048]**	0.012 [0.320]	0.128 [0.000]***	0.134 [0.000]***
L2pa	0.017 [0.126]	0 [0.980]	0.114 [0.000]***	0.168 [0.006]***	L2pa	0.014 [0.358]	0.025 [0.040]**	0.114 [0.000]***	0.095 [0.000]***
L3pa	-0.013 [0.291]	0.005 [0.556]	0.187 [0.171]	0.028 [0.368]	L3pa	0.004 [0.784]	0.024 [0.057]*	0.035 [0.116]	0.039 [0.048]**
L4pa	-0.01 [0.507]	0.004 [0.593]	0.036 [0.414]	0.049 [0.108]	L4pa	-0.008 [0.591]	0.004 [0.752]	0.097 [0.000]***	0.082 [0.000]***
L5pa	-0.01 [0.518]	0.027 [0.236]	0.073 [0.017]**	0.104 [0.003]***	L5pa	-0.042 [0.006]***	0.05 [0.000]***	0.104 [0.000]***	0.102 [0.000]***
Constant	0.235 [0.000]***	0.228 [0.000]***	0.678 [0.000]***	0.683 [0.000]***	Constant	0.025 [0.131]	0.034 [0.000]***	0.279 [0.000]***	0.242 [0.000]***
Observations	2157	2702	2157	2702	Observations	2157	2702	2157	2702
R ²	0.283	0.007	0.169	0.121	R ²	0.391	0.028	0.088	0.085

All regressions are OLS models and are estimated using heteroskedasticity-consistent SEs. Robust *P* values are shown in brackets. The dependent variables (DV) are attacks by Palestinians on Israel (columns 1 and 2) and attacks by Israel on Palestinians (columns 3 and 4). The right-side variables are the number or incidence of Israeli and Palestinian attacks at lags ranging from 4 to 22 (see *Materials and Methods* for choice of lag structure). Lagged variables are expressed as L#is and L#pa, respectively, where # is the lag order. For both the dependent and independent variables, columns 1 and 3 use Qassam firings as a measure of Palestinian aggression, and columns 2 and 4 use Israeli fatalities as a measure of Palestinian aggression.

P* = 10%; *P* = 5%; and ****P* = 1%.

Table S7. Full regression table, including year dummies

Measure of Palestinian aggression	Levels				Measure of Palestinian aggression	Incidence			
	DV: attacks on Israel		DV: attacks on Palestinians			DV: attacks on Israel		DV: attacks on Palestinians	
	Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities		Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities
L1is	0.427 [0.000]***	0.064 [0.051]*	0.034 [0.453]	0.152 [0.066]*	L1is	0.148 [0.000]***	0.04 [0.080]*	0.042 [0.112]	0.078 [0.005]***
L2is	0.121 [0.072]*	0.006 [0.810]	0.061 [0.433]	0.077 [0.126]	L2is	0.092 [0.000]***	0.028 [0.221]	0.027 [0.302]	0.026 [0.358]
L3is	0.109 [0.106]	0.015 [0.460]	0.104 [0.304]	0.103 [0.030]**	L3is	0.092 [0.000]***	0.022 [0.322]	-0.004 [0.865]	0.031 [0.265]
L4is	-0.07 [0.200]	0.026 [0.571]	-0.113 [0.151]	0.075 [0.412]	L4is	0.035 [0.136]	0.008 [0.717]	0.034 [0.204]	0.064 [0.019]**
L5is	-0.03 [0.439]		-0.037 [0.293]		L5is	0.055 [0.021]**		0.005 [0.857]	
L6is	0.043 [0.283]		-0.02 [0.544]		L6is	0.028 [0.227]		-0.001 [0.977]	
L7is	0.039 [0.318]		0.009 [0.763]		L7is	0.064 [0.007]***		0.057 [0.032]**	
L8is	-0.036 [0.387]		-0.007 [0.833]		L8is	0.005 [0.839]		-0.048 [0.068]*	
L9is	-0.046 [0.238]		-0.027 [0.308]		L9is	-0.004 [0.881]		0.034 [0.206]	
L10is	-0.014 [0.670]		0.028 [0.272]		L10is	0.034 [0.143]		0.021 [0.423]	
L11is	0.055 [0.180]		-0.016 [0.532]		L11is	0.026 [0.278]		0.031 [0.245]	
L12is	0.026 [0.649]		0.027 [0.361]		L12is	0.017 [0.442]		0.003 [0.924]	
L13is	-0.01 [0.856]		-0.04 [0.086]*		L13is	0.001 [0.963]		0.009 [0.738]	
L14is	0.042 [0.404]		0.097 [0.009]***		L14is	0.044 [0.063]*		-0.012 [0.649]	
L15is	-0.001 [0.982]		-0.072 [0.105]		L15is	-0.021 [0.358]		0.057 [0.032]**	
L16is	-0.058 [0.143]		0.017 [0.524]		L16is	0.024 [0.288]		-0.049 [0.068]*	
L17is	-0.014 [0.731]		-0.051 [0.021]**		L17is	-0.027 [0.231]		-0.034 [0.194]	
L18is	-0.064 [0.059]*		-0.009 [0.682]		L18is	0 [0.994]		-0.014 [0.587]	
L19is	0.05 [0.465]		0.031 [0.373]		L19is	0.015 [0.517]		0.047 [0.072]*	
L20is	0.007 [0.898]		0.04 [0.331]		L20is	0.006 [0.802]		0 [0.986]	
L21is	0.041 [0.319]		-0.034 [0.344]		L21is	-0.006 [0.783]		0.002 [0.937]	
L22is	0.05 [0.359]		0.054 [0.425]		L22is	0.004 [0.863]		0.04 [0.126]	
L1pa	0.086 [0.001]***	0.01 [0.362]	0.169 [0.000]***	0.165 [0.000]***	L1pa	0.05 [0.001]***	0.003 [0.831]	0.09 [0.000]***	0.1 [0.000]***
L2pa	0.02 [0.392]	0.009 [0.534]	0.134 [0.000]***	0.147 [0.002]***	L2pa	0.023 [0.120]	0.019 [0.118]	0.068 [0.001]***	0.08 [0.000]***
L3pa	-0.034 [0.102]	0.003 [0.731]	0.097 [0.307]	0.109 [0.175]	L3pa	0.018 [0.208]	0.019 [0.121]	0.007 [0.713]	0.017 [0.358]
L4pa	-0.012 [0.567]	-0.007 [0.409]	0.026 [0.442]	0.018 [0.553]	L4pa	0.004 [0.766]	-0.007 [0.595]	0.064 [0.001]***	0.065 [0.001]***
L5pa	0 [0.985]	0.039 [0.127]	0.078 [0.011]**	0.061 [0.034]**	L5pa	-0.015 [0.296]	0.039 [0.002]***	0.056 [0.005]***	0.074 [0.000]***
Year==2002	-0.066 [0.164]	0.659 [0.000]***	0.729 [0.001]***	-0.145 [0.675]	Year==2002	0.005 [0.726]	0.048 [0.350]	0.12 [0.001]***	-0.015 [0.764]
Year==2003	0.184 [0.096]*	0.154 [0.324]	0.083 [0.638]	-0.496 [0.120]	Year==2003	0.071 [0.001]***	-0.075 [0.127]	-0.032 [0.403]	-0.097 [0.069]*

Table S7. Cont.

Measure of Palestinian aggression	Levels				Measure of Palestinian aggression	Incidence			
	DV: attacks on Israel		DV: attacks on Palestinians			DV: attacks on Israel		DV: attacks on Palestinians	
	Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities		Qassam attacks	Israeli fatalities	Qassam attacks	Israeli fatalities
Year==2004	0.201 [0.017]**	-0.068 [0.562]	0.419 [0.057]*	-0.065 [0.847]	Year==2004	0.124 [0.000]***	-0.114 [0.017]**	-0.018 [0.671]	-0.042 [0.426]
Year==2005	0.204 [0.071]*	-0.116 [0.304]	-0.461 [0.004]***	-0.898 [0.008]***	Year==2005	0.086 [0.000]***	-0.124 [0.011]**	-0.234 [0.000]***	-0.264 [0.000]***
Year==2006	0.923 [0.000]***	-0.251 [0.012]**	0.023 [0.938]	-0.21 [0.555]	Year==2006	0.263 [0.000]***	-0.165 [0.000]***	-0.189 [0.000]***	-0.11 [0.044]**
Year==2007	0.971 [0.000]***	-0.231 [0.026]**	-0.354 [0.249]	-0.586 [0.079]*	Year==2007	0.283 [0.000]***	-0.159 [0.001]***	-0.296 [0.000]***	-0.199 [0.000]***
Year==2008	2.599 [0.006]***	-0.197 [0.067]*	0.283 [0.662]	-0.416 [0.328]	Year==2008	0.311 [0.000]***	-0.143 [0.003]***	-0.208 [0.005]***	-0.204 [0.000]***
Constant	-0.077 [0.060]*	0.208 [0.071]*	0.666 [0.000]***	1.092 [0.002]***	Constant	-0.04 [0.011]**	0.159 [0.001]***	0.375 [0.000]***	0.433 [0.000]***
Observations	2641	2948	2641	2948	Observations	2641	2948	2641	2948
R ²	0.49	0.059	0.185	0.169	R ²	0.447	0.086	0.12	0.122

Notes: All regressions are OLS models and are estimated using heteroskedasticity-consistent SEs. Robust *P* values are shown in brackets. The dependent variable are attacks by Palestinians on Israel (columns 1 and 2), and attacks by Israel on Palestinians (columns 3 and 4). The right side variables are the number or incidence of Israeli and Palestinian attacks at lags ranging from 4 to 22 (see *Materials and Methods* for choice of lag structure). Lagged variables are expressed as L#is and L#pa, respectively, where # is the lag order. For both the dependent and independent variables, columns 1 and 3 use Qassam firings as a measure of Palestinian aggression, while columns 2 and 4 use Israeli fatalities as a measure of Palestinian aggression.

P* = 10%; *P* = 5%; and ****P* = 1%.