The Impact of Persistent Terrorism on Political Tolerance: Israel, 1980 to 2011

Supplementary Online Appendix

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INTRODUCTION

This online appendix presents more detailed information about the surveys, survey items, expanded discussion of methodological and multilevel estimation issues, and robustness checks which include discussions of terrorism and other macro-level variables. The appendix is divided into several sections that are cross-referenced in the manuscript.

- SECTION 1: Survey Information, Survey Items & Missing Data Imputation (Tables A1 & A2)
- SECTION 2: Least-Liked Group Selection (Tables A3 & A4)
- SECTION 3: Threat Perception (Table A5)
- SECTION 4: Multilevel Estimation: Discussion, Diagnostics and Equations (Table A6)
- SECTION 5: Assessing Different Measures of Terrorism (Table A7)
- SECTION 6: Macro-level Variable Specification and Other Robustness Checks

SECTION 1: Survey Information and Survey Items

Table A1: Survey Date, Sample Size and Polling Firm

Date	Sample Size*	Polling Institute
1980 (Sept.)	913	Guttman
1984 (Dec.)	1,172	Dahaf
1985 (June)	1,171	Dahaf
1987 (July)	1,150	Modiin Ezrahi
1988 (Oct.)	873	Dahaf
1989 (Oct.)	988	Dahaf
1990 (Dec.)	1,245	Dahaf
1994 (Jan.)	1,239	Modiin Ezrahi
1996 (Feb.)	505	Modiin Ezrahi
1996 (Nov.)	607	Modiin Ezrahi
1997 (Dec.)	511	Modiin Ezrahi
2000 (Jan.)	536	B.I. & Lucille Cohen
2001 (Jan.)	419	B.I & Lucille Cohen
2001 (July)	514	Dahaf
2001 (Dec.)	532	Dahaf
2002 (June)	408	B.I & Lucille Cohen
2005 (July)	843	Mahshov
2011 (Feb.)	500	B.I. & Lucille Cohen

* N of Jewish respondents.

Table A2. Measurement Appendix for Individual-level Variables

1. *Political Tolerance* (Pearson's correlation = .75 across the surveys)
   a. Members of the (Least-liked Group) should be allowed to make a speech on T.V.[1]
   b. Members of the (Least-liked Group) should be allowed to demonstrate.

2. *Least-Liked Group Selection*: Here is a list of groups in politics. As I read the list, please tell me which of these groups do you like the least or if there is some group that you like even less than the groups listed here, please tell me the name of that group.

3. *Political Identification*
   a. With which political tendency do you identify—left (4), moderate left (3), center (2), moderate right (1) or right (0)? Surveys: 1988, 1990, 1994, 2/1996, 11/1996, 1997, 2000, 1/2001, 2002.
   b. People talk much about right wing and left wing in politics. Where would you place yourself on this 7-point scale that goes from extreme right (1) to extreme left (7), or haven't you thought much about this? (The scale was recoded so that 1 & 2=0, 3=1, 4=2, 5=3, 6 & 7=4.) Surveys: 1980, 1984, 1989, 7/2001, 11/2001, 2005
   c. Responses to the two items (a and b) are correlated at .79 in the 1988 survey.
   d. For the three surveys where left-right identification was not assessed, we followed Shamir and Sullivan (1983, 922), who used the ideology of the respondent's least-liked group as an indicator of left-right identification. In 12/1984, and 6/1985, selecting a left-wing or Arab group is coded as Right (0), selecting a right-wing group is coded as Left (4), and selecting a religious or center group is coded as Center (2). In 7/1987, where respondents were asked to select a least-liked and a second least-liked group, Right-wing identification (0) was indicated by selecting two left-wing groups, Moderate Right (1) by selecting one right-wing group and a group neutral on the left-right dimension (religious), Center (2) by selecting one left- and one right-wing group or two neutral groups, Moderate Left (3) by selecting one right-wing group, and Left (4) by selecting two right-wing groups.

4. *Religious Identification*
   a. Are you: ultra-orthodox (0), religious (1), traditional (2) or secular (3)? Surveys: 1984, 1985, 1987, 1988, 1989, 1990, 1994, 2/1996, 11/1996,1997, 2000.
   b. To what extent do you keep religious tradition [i.e., observe the strictures of orthodox Jewish law (*Halacha*)]? I observe it all (0), a lot (1), a little bit (3), or not at all (4)? Surveys: 1980, 1/2001, 7/2001, 12/2001, 2002.
   c. Responses to the two questions are correlated at .81 (2005 survey).

5. *Demographic Characteristics*.
   a. *Education* is assessed on a 4-point scale: What is your education? elementary school (0), some high school (1), completed high school (2), some college (3).
   b. *Age* is measured with a 6-point scale using the following categories: What is your age? 18-22 (0), 23-30 (1), 31-40 (2), 41-50 (3), 51-60 (4), and 61and older (5).
   c. *Female* is a dummy variable with male equal to 0.

[1] Because the speech item was not asked in the 1/1994 survey, we created a proxy measure based on agreement with another statement indicating political tolerance: "Members of the (GROUP) should be allowed to vote for the Knesset." In addition, in some years, the wording of the speech statement varied slightly from the above: 2/1996, 11/1996: "Members of the (GROUP) should be allowed to be interviewed in the media;" 7/2001, 6/2002: "Members of the (GROUP) should be allowed to make a speech in public rallies and on T.V."

d. *Income* is based on five categories using the following question: "The average expenditure of a family of four in April was [x] Shekels. Considering your expenses and the size of your family, do you spend: much below average (0), below average (1), average (2), above average (3), or much above average (4)?"

Imputation of Missing Data

To avoid the bias inherent in listwise deletion of missing data in our surveys, we used the Amelia II software package to impute missing data for our individual-level predictor variables (Honaker, King and Blackwell 2011). Amelia II uses a method of multiple imputations to compute values for each missing cell in the individual-level data matrix. While the observed values remain unchanged, Amelia generates several data sets in which the missing data take on different values mirroring the uncertainty associated with the missing values.

To impute missing individual-level data, we generated ten imputations for each survey and evaluated them using the battery of diagnostics suggested by Eddings and Marchenko (2012).[2] These diagnostics include comparisons of the summary statistics as well as the distributions and densities of the original data vs. the imputed data and the Kolmogorov-Smirnov test. The diagnostics revealed no problems with the imputations and are available upon request. All ten imputed datasets were used with the "mi estimate: mixed" command in Stata 13, which adjusts coefficients and standard errors for the variability between imputations according to the combination rules by Rubin (1987).

[2] There were two instances of missing data for individual-level demographic control variables in two surveys (12/1984 and 10/1988). In the interest of using these surveys in our study, we addressed this issue by conducting an initial procedure of generating five imputations for those two surveys only. We then evaluated these imputations using the same battery of diagnostics described above and found no problems with the imputations. Using these diagnostics, we selected the best imputation for those two surveys to include in the initial dataset from which we used Amelia II to generate the 10 final imputations for all of the surveys.

SECTION 2: Least-Liked Group Selection

The tendency for divisions across the Left-Right dimension to influence the selection of least-liked groups was first noted by Shamir and Sullivan (1983), and is also true for the 30 year period of our study, as can be seen in Table A3 below. Least-liked groups were coded as Arab, (Jewish) left-wing, right-wing, and religious in each of the surveys. Arab groups are defined as leftist in Israeli political discourse, and religious groups tend to be right-wing. Respondents who identify with the Right (collapsing Right and Moderate Right), were more likely to select Arab and left-wing groups while those on the Left were more likely to select right-wing and religious groups, whereas those in the Center chose more of a mix of groups on the left and right). In Table A4, we provide a list of least-liked group selections across all of the surveys used in our study.

Table A3: Percentage of Least-liked Group Selection by Political Identification

	Arab Groups	**Right-wing Groups**	**Left-wing Groups**	**Religious Groups**
Right	48.9%	6.2%	29.9%	10.6%
Center	36.8%	29.6%	12.5%	18.2%
Left	14.1%	60.4%	2.9%	21.1%

Note: Percentages based on 15 of the 18 surveys, since, as detailed above in Table A2, the least-liked group selection was used to construct a measure of Left, Right and Center for three of the surveys (2/1984, 6/1985 and 7/1987).

Table A4: List of Selected Least-Liked Groups across Surveys

Group Name	Total Surveys	Surveys
Arab		
Arab Democratic	3	10/1988, 10/1989, 12/1990
Balad	2	7/2005, 2/2011
Arab Parties like Daraushe, Rakah	2	2/1996, 11/1996
Groups supporting PLO	5	9/1980, 12/1984, 6/1985, 10/1988, 10/1989
Islamic Movement	7	1/2000, 1/2001, 7/2001, 12/2001, 6/2002, 7/2005, 2/2011
Progressive List for Peace	6	12/1984, 6/1985, 7/1987, 10/1988, 10/1989, 12/1990
Raam	2	7/2005, 2/2011
Rakah, Hadash	15	9/1980, 12/1984, 6/1985, 7/1987, 10/1988, 10/1989, 12/1990, 12/1997, 1/2000, 1/2001, 7/2001, 12/2001, 6/2002, 7/2005, 2/2011
Left		
Dor Shalom	1	12/1997
Gush Shalom	1	12/1997
Maarach, Avoda	4	7/1987, 12/1990, 2/1996, 11/1996
Mapam	2	10/1989, 12/1990
Mazpen	4	9/1980, 12/1984, 6/1985, 10/1988
Ratz, Meretz	13	7/1987, 10/1989, 12/1990, 2/1996, 11/1996, 12/1997, 1/2000, 1/2001, 7/2001, 12/2001, 6/2002, 7/2005, 2/2011
Shalom Achshav (Peace Now)	17	**All**
Shely	3	9/1980, 12/1984, 6/1985
Yesh Gvul	4	12/1984, 6/1985, 10/1988, 10/1989
Other Extremist Left Group	2	1/2000, 1/2001
Right		
Gush Emunim	9	9/1980, 12/1984, 6/1985, 7/1987, 10/1988, 10/1989, 12/1990, 2/1996, 11/1996
Hatchiya	7	9/1980, 12/1984, 6/1985, 7/1987, 10/1988, 10/1989, 12/1990
Ichud a Leumi (National Union)	2	7/2005, 2/2011
Israel Beitenu	2	7/2005, 2/2011
Kach	17	**All**
Likud	4	7/1987, 12/1990, 2/1996, 11/1996
Moezet Yesha (Yesha Council)	2	7/2005, 2/2011
Moledet	11	10/1988, 10/1989, 12/1990, 2/1996, 11/1996, 12/1997, 1/2000, 1/2001, 7/2001, 12/2001, 6/2002
Tzomet	5	10/1988, 10/1989, 12/1990, 2/1996, 11/1996
Zo Arzeynu	1	12/1997
Other Extremist Rightist Group	2	1/2000, 1/2001
Religious		
Agudat Israel, Pag'I	15	9/1980, 12/1984, 6/1985, 7/1987, 10/1988, 10/1989, 12/1990, 12/1997, 1/2000, 1/2001, 7/2001, 12/2001, 6/2002, 7/2005, 2/2011
Degel Hatora	1	10/1989
Haredim	2	2/1996, 11/1996
Mafdal	12	7/1987, 10/1989, 2/1996, 11/1996, 12/1997, 1/2000, 1/2001, 7/2001, 12/2001, 6/2002, 7/2005, 2/2011
Neturey Karta	5	9/1980, 12/1984, 6/1985, 10/1988, 10/1989
Sha's	11	7/1987, 10/1989, 12/1990, 12/1997, 1/2000, 1/2001, 7/2001, 12/2001, 6/2002, 7/2005, 2/2011
Other Extremist Religious/Orthodox Group	2	1/2000, 1/2001
Other		
Ale Yarok	1	2/2011
Black Panthers	1	9/1980
Mifleget-ha-Olim (Immigrants Party)	5	12/1997, 1/2000, 1/2001, 12/2001, 6/2002
Movement for Progressive Judaism	1	2/2011
Shinui (Change Party)	7	12/1990, 1/2000, 1/2001, 7/2001, 12/2001, 6/2002, 7/2005
Other	10	9/1980, 12/1984, 6/1985, 10/1989, 12/1990, 12/1997, 1/2000, 1/2001, 7/2001, 2/2011

Note: The January 1994 survey used an open question and had over 50 selected least-liked groups. For the sake of space and clarity, we do not list them in this table.

SECTION 3: Threat Perception

As we report in the article, our analysis does not include an individual-level measure of perceived threat because such measures are not available for several of our 18 surveys. Although perceived threat is an important predictor of tolerance in individual-level studies of the U.S. and Israel, its influence in studies of least-liked tolerance is invariably found to be exogenous in that it is uncorrelated with other individual-level predictors. Below, we show the same is true for the five Israeli surveys administered at different points in time throughout the time series using two different measures of perceived threat toward one's least-liked group.

In two of the surveys, 9/1980 (not reported in Table A5) and 7/2001 (Model A1 in Table A5), a summary index of 5 semantic differentials (Honest/dishonest, Trustworthy/untrustworthy, Safe/dangerous, Non-violent/violent, Good/bad), each rated on a scale ranging from 1 to 7, is used to measure perceived threat. The results of the 1980 survey are given in Shamir and Sullivan (1983, 925) who conclude, "Perceived threat is basically exogenous in both [Israel and the U.S.]." Using the same measure of perceived threat in the July, 2001 survey leads to the same conclusion (Table A5, Model A1).

In three additional surveys--(7/1987, 12/2001 and 2/2011), perceived threat is measured by asking respondents the extent to which "their least-liked group is a threat to the regime" on a 5-point scale ranging from "extremely likely" (5) to "not at all" (1). The results in Table A5, Models 2A-4A show the same pattern as before. In fact, none of the coefficients are significant at the .05 level. Consequently, the adjusted R^2 for all four equations in Table A5 ranges from .00 to .03. Thus, the results clearly show that perceptions of threat, assessed with two different measures, are basically exogenous with respect to the other individual-level predictors across the five surveys administered at different points in time. We therefore conclude that omitting perceived threat should not bias our estimates of the impact of individual-level characteristics like political identity on political tolerance.

Table A5: Threat Perception Models

	Model A1	**Model A2**	**Model A3**	**Model A4**
Dependent Variable	LLG Semantics	LLG Regime Threat	LLG Regime Threat	LLG Regime Threat
Survey(s)	7/2001	7/1987	12/2001	2/2011
Individual-Level:				
Political Identity	-.12	-.00	-.11	-.12
	(.08)	(.03)	(.08)	(.10)
Religiosity	.03	-.04	-.12	.07
	(.08)	(.04)	(.09)	(.09)
Education	.01	-.02	-.06	-.08
	(.09)	(.05)	(.10)	(.10)
Income	.05	.03	-.09	-.07
	(.05)	(.03)	(.06)	(.07)
Age	-.01	.03	-.06	-.01
	(.04)	(.03)	(.04)	(.05)
Gender (0=male)	.16	.10	.04	.21
	(.12)	(.09)	(.13)	(.15)
Constant	4.38*	2.51*	3.35*	2.64*
	(.29)	(.18)	(.33)	(.34)
F stat	0.93	0.54	1.33	1.46
Adj. R2	-.00	-.00	.00	.03
Root MSE	1.27	1.32	1.34	1.30
N	437	955	444	313

* = Coefficient is significant the 0.05 level. All other coefficients in the table have $p > 0.05$.

Note: Entries are estimated for the multilevel model using Stata 13, with standard errors in parentheses.

Higher values on the following variables indicate: greater political tolerance, political identity with the left, orthodox religiosity, more educated, affluent, older, and female.

SECTION 4: Multilevel Estimation: Discussion, Diagnostics and Equations

Discussion

Our data are clearly multilevel: individuals are nested within surveys conducted at different points in time. More traditional statistical techniques that cannot account for the multilevel nature of the data introduce different types of bias to the parameter estimates (Steenbergen and Jones 2002). For example, simply disaggregating macro-level data into a pooled individual-level model would likely result in a significant underestimation of the standard errors for the macro-level variables and increase the likelihood of Type II errors. Conversely, if we aggregated the individual-level data into a macro-level model, we risk rather severe ecological inference problems (Luke 2004). Furthermore, as Arceneaux and Nickerson (2009) show, when the number of clusters in multilevel data is less than 20, or when one is interested in estimating cross-level interactions, multilevel modeling is often preferred to clustered standard error approaches. Finally, having only 18 macro-level units is not a cause for concern in light of Stegmueller's (2013) demonstration through Monte Carlo simulations that the standard errors generated in multilevel analyses with over 15 macro-level units do not suffer from a significant amount of bias. Nevertheless, we are mindful of limited degrees of freedom at the macro-level and include only the most important contextual conditions commonly hypothesized to influence individual tolerance over time.

Diagnostics

To determine if multilevel modeling techniques are required to estimate our models, we first estimate a one-way Analysis of Variance (ANOVA) with survey year random effects to assess the degree to which variation in political tolerance is due to variation across individuals *within* surveys versus variation *between* surveys. Table A7 shows that the intraclass correlation (ρ) indicates that 5.4% of the variation in political tolerance is due to variation across surveys, which is to be expected, since we have hundreds of individuals within just 18 surveys. Since our intraclass correlation is not 0, the use of multilevel modeling is appropriate for this study. We also calculate two additional intraclass correlations to show how much variability between surveys is accounted for with the introduction of our individual-level predictors and a full macro-micro-level model. Although we see a noticeable improvement in our goodness of fit with introduction of the individual-level predictors, our largest improvement comes in full macro-micro-level model after we fully account for our contextual predictors.

Next we determine which type of model specification is appropriate for this type of data. In general, researchers can choose whether to specify a random intercept model, which allows the intercept between groups (in this case, surveys) to vary, or a random coefficient model, which allows the intercept and certain slopes to vary between groups (see Raudenbush and Byrk 2002). Here we compare the relative goodness of fit between the best random intercept model (Full) and a random coefficient model that allows the slopes of political identity, which we argue is most likely to shift over time, and education to vary. Comparing the two intraclass correlations reveals that using a random coefficient model has a better goodness of fit for our data than a random intercept model. Thus, in the models reported in our study, we use a random coefficient specification that allows the slopes of both political identity and education to vary across the surveys.

Table A6: Measuring Fit across Different Multilevel Model Specifications

Model	ρ
Oneway ANOVA	0.054
Random intercept model - Individual	0.046
Random intercept model - Full	0.020
Random coefficient model - Political Identity & Education	0.017

Multilevel Model Equations

To offer more insight into our multilevel model specification, we present our mixed form equation for Model 3 which is our full additive random coefficient model in this study.

$$\text{Tolerance}_{ij} = \gamma_{00} + \gamma_{01}\textbf{*}\boldsymbol{Continuous\ Democracy^2_j} + \gamma_{02}\textbf{*}\boldsymbol{GDP\ Growth_j} + \gamma_{03}\textbf{*}\boldsymbol{Inflation_j} + \gamma_{04}\textbf{*}\boldsymbol{Terrorism_j} + \gamma_{10}*Political\ Identity_{ij} + \gamma_{20}*Education_{ij} + \gamma_{30}*Religiosity_{ij} + \gamma_{40}*Income_{ij} + \gamma_{50}*Age_{ij} + \gamma_{60}*Gender_{ij} + (u_{0j} + u_{1j}*Political\ Identity + u_{2j}*Education + \in_{ij})$$

Tolerance_{ij} is our level-1 dependent variable for an individual i $(=1, \ldots, N_j)$ nested in our level-2 unit, time $j(=1, \ldots, J)$. Our individual-level predictors are denoted as X_{ij} indicating that it varies across both individuals and time while $\in_{ij}$ is the level-1 error term. Our macro-level predictors are denoted as $\boldsymbol{Z_j}$ indicating that it varies across time. u_{0j} is the residual level-2 variation in the individual-level intercept after accounting for our macro-level predictors. In the mixed-form equation above, γ_{00} is the intercept while the notation γ_{X0} is used to represent the effects of our individual-level predictors and γ_{0X} is used for the effects of our macro-level predictors. Since this is a random coefficient model, we also include u_{1j} and u_{2j}, which represent the residual level-2 variation in slopes for political identity and education, respectively, after accounting for our macro-level predictors, in addition to the random parameters u_{0j} and $\in_{ij}$.

Listed below are the equations for each of the models estimated in Table 1 of the article.

Model 1

$$\text{Tolerance}_{ij} = \gamma_{00} + \gamma_{10}*Political\ Identity_{ij} + \gamma_{20}*Education_{ij} + \gamma_{30}*Religiosity_{ij} + \gamma_{40}*Income_{ij} + \gamma_{50}*Age_{ij} + \gamma_{60}*Gender_{ij} + (u_{0j} + u_{1j}*Political\ Identity + u_{2j}*Education + \in_{ij})$$

Model 2

$$\text{Tolerance}_{ij} = \gamma_{00} + \gamma_{01}\textbf{*}\boldsymbol{Terrorism_j} + \gamma_{10}*Political\ Identity_{ij} + \gamma_{20}*Education_{ij} + \gamma_{30}*Religiosity_{ij} + \gamma_{40}*Income_{ij} + \gamma_{50}*Age_{ij} + \gamma_{60}*Gender_{ij} + (u_{0j} + u_{1j}*Political\ Identity + u_{2j}*Education + \in_{ij})$$

Model 3

$$\text{Tolerance}_{ij} = \gamma_{00} + \gamma_{01}\textbf{*}\boldsymbol{Continuous\ Democracy^2_j} + \gamma_{02}\textbf{*}\boldsymbol{GDP\ Growth_j} + \gamma_{03}\textbf{*}\boldsymbol{Inflation_j} + \gamma_{04}\textbf{*}\boldsymbol{Terrorism_j} + \gamma_{10}*Political\ Identity_{ij} + \gamma_{20}*Education_{ij} + \gamma_{30}*Religiosity_{ij} + \gamma_{40}*Income_{ij} + \gamma_{50}*Age_{ij} + \gamma_{60}*Gender_{ij} + (u_{0j} + u_{1j}*Political\ Identity + u_{2j}*Education + \in_{ij})$$

Model 4

$$\text{Tolerance}_{ij} = \gamma_{00} + \gamma_{01}\textbf{*}\boldsymbol{Continuous\ Democracy^2_j} + \gamma_{02}\textbf{*}\boldsymbol{GDP\ Growth_j} + \gamma_{03}\textbf{*}\boldsymbol{Inflation_j} + \gamma_{04}\textbf{*}\boldsymbol{Terrorism_j} + \gamma_{10}*Political\ Identity_{ij} + \gamma_{20}*Education_{ij} + \gamma_{30}*Religiosity_{ij} + \gamma_{40}*Income_{ij} + \gamma_{50}*Age_{ij} + \gamma_{60}*Gender_{ij} + \gamma_{14}\textbf{*}\boldsymbol{Terrorism_j}*Political\ Identity_{ij}\ (u_{0j} + u_{1j}*Political\ Identity + u_{2j}*Education + \in_{ij})$$

Model 5

$$\text{Tolerance}_{ij} = \gamma_{00} + \gamma_{01}\textbf{*}\boldsymbol{Continuous\ Democracy^2_j} + \gamma_{02}\textbf{*}\boldsymbol{GDP\ Growth_j} + \gamma_{03}\textbf{*}\boldsymbol{Inflation_j} + \gamma_{04}\textbf{*}\boldsymbol{Terrorism_j} + \gamma_{05}\textbf{*}\boldsymbol{Oslo_j} + \gamma_{06}\textbf{*}\boldsymbol{Post\text{-}Oslo_j} + \gamma_{07}\textbf{*}\boldsymbol{Terrorism_j}*\mathbf{Oslo}_j + \gamma_{08}\textbf{*}\boldsymbol{Terrorism_j}*\boldsymbol{post\text{-}Oslo_j} + \gamma_{10}*Political\ Identity_{ij} + \gamma_{20}*Education_{ij} + \gamma_{30}*Religiosity_{ij} + \gamma_{40}*Income_{ij} + \gamma_{50}*Age_{ij} + \gamma_{60}*Gender_{ij} + \gamma_{11}\textbf{*}\boldsymbol{Terrorism_j}*Political\ Identity_{ij} + \gamma_{12}\textbf{*}\boldsymbol{Oslo_j}*Political\ Identity_{ij} + \gamma_{13}\textbf{*}\boldsymbol{post\text{-}Oslo_j}*Political\ Identity_{ij} + \gamma_{14}\textbf{*}\boldsymbol{Terrorism_j}\textbf{*}\boldsymbol{Oslo_j}*Political\ Identity_{ij} + \gamma_{15}\textbf{*}\boldsymbol{Terrorism_j}\textbf{*}\boldsymbol{post\text{-}Oslo_j}*Political\ Identity_{ij}\ (u_{0j} + u_{1j}*Political\ Identity + u_{2j}*Education + \in_{ij})$$

SECTION 5: Assessing Different Measures of Terrorism

Prior studies of the impact of terrorism on political attitudes and behavior use a range of different measures of terrorism (e.g., terrorist attacks, suicide terrorism, and fatalities), lags (e.g., from one month to one year) and model specifications (e.g., additive, interactive). In Table A7, we compare the effects of terrorism across indicators, lags and models to provide evidence for our claim that Terrorist Attacks assessed with a 3 month lag is the most appropriate measure for this study.

The pattern of findings in Table A7 can be summarized as follows. First, across all three measures of terrorism, on average, the impact of terrorism is greatest for the three month lag and least (but still statistically significant) for the one year lag. This result is consistent with other studies of the political effects of terrorism in Israel (e.g., Berrebi and Klor 2008) that also find attacks within three months have the greatest impact and decay over time. Using our preferred measure of Terrorist Attacks, for example, the impact of a single attack declines by about 60% from three months (b = -.036) to one year (b = -.016).

Second, with just one exception (Fatalities with a one year lag), for models based on all 18 surveys, the coefficients for all three types of terrorism are statistically significant, regardless of the lag. Third, in almost every case, the coefficient for Fatalities is smaller than the effects of Terrorist Attacks and Fatal Attacks. Fourth, only the effects of Terrorist Attacks—the measure employed in our analysis—are robust in the face of dropping surveys with exceptionally large spikes in fatalities—12/2001 and 6/2002. Those two surveys account for over 50% of the terrorist occurrences in Fatal Attacks and Fatalities for measures with either a 3 month or a 6 month lag. When dropping these two surveys, the coefficients for Fatal Attacks and Fatalities are much less likely to achieve statistical significance, whereas the effects of Terrorist Attacks are largely unaffected.[3]

In conclusion, these results support the theoretical argument in favor of using a measure of Terrorist Attacks. Over the sweep of 30 years in Israel, when the form of terrorism changes dramatically, when fatalities and suicide bombings become the preferred terrorist strategy in later periods, mirroring a global trend (e.g., Sandler 2014), the use of Terrorist Attacks with a 3 month lag in our study makes both theoretical and empirical sense. We do not claim that our measure is "best" for all conditions; other measures may be more appropriate, depending on the purpose and the time period of the study.

[3] We also examined the functional form of the impact of Fatal Attacks and Fatalities by adding a quadratic term or taking the natural log, but neither terms were statistically significant for any of the models reported here.

Table A7: Results across Different Specifications for Terrorism Indicators, Lags, and Samples

	Additive Models						Interactive Models					
	All Surveys			Without Surveys 12/2001 & 6/2002			All Surveys			Without Surveys 12/2001 & 6/2002		
A. Terrorist Attacks												
3 month lag	-.036			-.030			-.040			-.035		
	(.001)			(.013)			(.001)			(.004)		
6 month lag		-.020			-.020			-.022			-.021	
		(.001)			(.001)			(.001)			(.001)	
1 year lag			-.016			-.014			-.016			-.015
			(.001)			(.001)			(.001)			(.001)
Political Identity							-.006	-.007	-.021	.012	.010	.000
							(.884)	(.867)	(.648)	(.766)	(.808)	(.993)
Political ID x Terrorism							.014	.007	.005	.012	.006	.004
							(.001)	(.001)	(.001)	(.001)	(.001)	(.001)
B. Fatal Attacks												
3 month lag	-.042			-.040			-.056			-.068		
	(.003)			(.291)			(.001)			(.082)		
6 month lag		-.043			-.055			-.046			-.056	
		(.001)			(.007)			(.001)			(.006)	
1 year lag			-.022			-.021			-.029			-.031
			(.002)			(.244)			(.001)			(.096)
Political Identity							.066	.044	.029	.055	.046	.029
							(.084)	(.266)	(.508)	(.181)	(.283)	(.601)
Political ID x Terrorism							.020	.015	.010	.031	.017	.011
							(.001)	(.001)	(.001)	(.001)	(.001)	(.001)
C. Fatalities												
3 month lag	-.007			-.024			-.011			-.030		
	(.018)			(.021)			(.001)			(.006)		
6 month lag		-.007			-.021			-.010			-.024	
		(.002)			(.002)			(.001)			(.001)	
1 year lag			-.002			.002			-.005			.002
			(.194)			(.749)			(.018)			(.817)
Political Identity							.101	.083	.078	.081	.063	.118
							(.006)	(.030)	(.089)	(.049)	(.162)	(.061)
Political ID x Terrorism							.004	.003	.002	.009	.006	.000
							(.001)	(.001)	(.001)	(.034)	(.027)	(.923)
N	14257	14257	14257	13318	13318	13318	14257	14257	14257	13318	13318	13318

Note: This table provides a series of robustness checks for the model estimated in Table 1 by substituting different indicators of terrorism, lags, additive and interactive specifications, and sensitivity to dropping surveys with large spikes of civilian fatalities from terrorist attacks in the second Intifada. Coefficients are maximum likelihood estimates from a multilevel model, with p values in parentheses. The additive model corresponds to Model 3 in Table 1 and the interactive model corresponds to Model 4. Recall that Terrorist Attacks are the total number of terrorist attacks occurring in the period before the survey and Fatal Attacks are coded in the same manner except only attacks that resulted in a least one fatality are recorded. Fatalities are the number of civilian fatalities. All terrorism data taken from the GTD database (National Consortium for the Study of Terrorism and Responses to Terrorism 2014).

SECTION 6: Alternative Macro-level Variables and Other Robustness Checks

To further evaluate whether our reported results are robust to changes in variable specification or suffer from potential omitted variable bias, we explore alternative country-level predictors in different specifications of our macro-level model. While our examination of different country-level predictors is by no means exhaustive, it is intended to assess major types of contextual factors that could influence individual political tolerance. It should be noted that many of the standard controls used in cross-national studies on political tolerance (e.g., ethnic and religious fractionalization, geographic characteristics, and political institutional configurations) are largely unnecessary in a longitudinal study of a single country because they tend to be relatively static over a 30 year period. Our study focuses on important dynamic macro-level variables—economic performance, terrorism and continuous democracy--that can be expected to vary over time.

We did use different indicators of economic performance, such as unemployment and per capita income (each lagged to the year of the survey and taken from the World Development Indicators database (World Bank 2014) but find no trace of a statistically significant relationship with political tolerance, and the estimates of our key independent variables remain substantively unaffected.

To account for any effect of international militarized threats on individual tolerance (see Hutchison and Gibler 2007), we also included event counts of militarized interstate disputes (MIDs) in our main models as an additional control. This measure is derived from the Correlates of War militarized interstate dispute (MID) dataset (Palmer et al. 2015), which identifies events involving the threat, show, or use of force between two or more states from 1816 to 2010. Our general MID indicator is the total militarized interstate disputes that occurred within a year prior to the survey on individual political tolerance. We also examine the effect of different *types* of international militarized threats on tolerance. Unlike Hutchison and Gibler (2007), our specifications do not include territorial disputes because Israel did not experience any during the examined time period. Instead we use different specifications intended to capture *salient* external threats to Israel during this time, such as targeted disputes and disputes with international strategic rivals (see Thompson 2001).[4] As Table A8 reveals, we find virtually no effect from these external threat variables on political tolerance in Israel over this time period as none of the variables have a significant impact on tolerance nor substantially affect the influence of terrorist attacks. Although militarized interstate disputes play an important role in contributing to a country's overall threat environment, in this case they simply do not influence tolerance the way terrorism does, and this result does not change with different specifications of our MID variable. It is likely that the salience of these non-territorial external threats (see Hutchison and Gibler 2007) pales in comparison to the very present everyday threat of terrorism affecting Israeli citizens over this same period of time.[5]

Overall, these findings, in conjunction with the different terrorism variable specifications reported in Table A6, leave us confident that our findings are robust to different model and variable specifications. In most instances, we find that alternative macro-level variables have little to no impact on political tolerance while our key independent variables remain substantively unaffected.

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[4] We also use longer event counts for the general, targeted, and rivalry MIDs and look at the total number of disputes in the two year period prior to the survey. As Hutchison and Gibler (2007: 135) note, using a longer event count for MIDs can better account for disputes that slowly escalate, thereby, increasing the amount of time "between the manifestation of threat and its diffusion to the domestic level." As in the case of the shorter one year event counts, we observe that none of these variables have a significant effect on individual political tolerance nor substantially affect the influence of terrorist attacks.

[5] Hutchison (2014) notes in a footnote that a robustness check reveals that, cross-nationally, both territorial MIDs and terrorist attacks significantly lower individual tolerance.

Table A8: Additional International Threat Models

	Model A5	Model A6	Model A7	Model A8	Model A9	Model A10
Individual-Level						
Religiosity	-.11	-.11	-.11	-.11	-.11	-.11
	(.02)	(.02)	(.02)	(.02)	(.02)	(.02)
Education	.27	.27	.26	.26	.27	.27
	(.05)	(.05)	(.05)	(.05)	(.05)	(.05)
Income	.10	.10	.10	.10	.10	.10
	(.02)	(.02)	(.02)	(.02)	(.02)	(.02)
Age	-.06	-.06	-.06	-.06	-.06	-.06
	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
Gender (Male = 0)	-.21	-.20	-.20	-.20	-.21	-.21
	(.04)	(.04)	(.04)	(.04)	(.04)	(.04)
Political Identity (Right to Left)	.15	-.001†	.15	.001†	.15	-.001†
	(.04)	(.04)	(.04)	(.04)	(.04)	(.04)
Country-Level						
Terrorist Attacks (3 months)	-.034	-.039	-.037	-.041	-.034	-.041
	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
Political Identity x Terrorist Attacks		.014		.014		.014
		(.003)		(.003)		(.003)
Continuous Democracy	.121	.121	.110	.107	.114	.112
	(.03)	(.03)	(.04)	(.04)	(.03)	(.04)
Continuous Democracy^2	-.003	-.003	-.003	-.003	-.003	-.003
	(.00)	(.00)	(.00)	(.00)	(.00)	(.00)
GDP Growth	-.02†	-.02†	-.002†	-.004†	-.01†	-.01†
	(.03)	(.03)	(.03)	(.03)	(.04)	(.03)
Inflation	-.001†	-.001†	-.001†	-.001†	-.001†	-.001†
	(.001)	(.001)	(.001)	(.001)	(.001)	(.001)
Militarized Interstate Disputes	.23†	.24†				
	(.13)	(.13)				
Targeted Militarized Interstate Disputes			.07†	.09†		
			(.18)	(.19)		
Rivalry Militarized Interstate Disputes					.17†	.19†
					(.13)	(.13)
Constant	2.97	3.04	3.32	3.39	3.13	3.21
	(.46)	(.46)	(.43)	(.44)	(.44)	(.44)
Random Effects Parameter						
Survey	.09	.11	.09	.09	.10	.10
	(.07)	(.07)	(.07)	(.07)	(.07)	(.06)
Residual	5.03	5.03	5.03	5.03	5.03	5.03
	(.06)	(.06)	(.06)	(.06)	(.06)	(.06)
Observations						
Surveys	18	18	18	18	18	18
Individuals	14211	14211	14211	14211	14211	14211

† = Coefficient is not significant at the 0.05 level. All other coefficients in the table have $p < 0.05$.

Note: Entries are maximum likelihood coefficients estimated using Stata 13, with standard errors in parentheses. Higher values on the following variables indicate: greater political tolerance, orthodox religiosity, education and income levels, age, female, left political ID, number of terrorist attacks in 3 months prior to the survey, continuous years of democracy, higher GDP growth and inflation, and number of militarized interstate disputes in the year prior to the survey.

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