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The effect of political violence on religiosity

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Abstract

In his paper “The effect of political violence on religiosity“ Asaf Zussman concentrates on Jews and Muslims living in Israel and how their self-identified grade of religiosity is affected by politically motivated violence. The paper focuses on violence associated with the Israel-Palestinian and the wider Arab-Israeli conflict.

Data from interviews from the Israeli-Social Survey and detailed data on Israeli fatalities from politically motivated violence related to the Israel-Palestinian and wider Arab-Israeli conflict are linked by date and location of the interviews.

Due to this analysis robust evidence is given, that violence influences religion in a way that Jews, as well as Muslims, identify themselves as more religious when there is an additional fatality within 30 days prior to their interview for the Social Survey within their sub-district.

1. Introduction

Israel is the only country in the world with a Jewish majority. Therefore 80% of the people living in Israel are Jews whereas Muslims are the largest religious minority with 12%.

For the Jewish majority, religion and ethnicity more or less overlap.

Israel also has a long history of conflicts. Most of these conflicts have a strong religious cause like the Israeli-Palestinian and the wider Arab-Israeli conflict do have.

Religion has furthermore a strong influence on society and on the daily life of people.

Especially in Israel religion also has a strong impact on the political system.

The specific violence *Zussmann (2013)* in concentrating on is associated with the Israeli-Palestinian and the wider Arab-Israeli conflict in the period between 2002-2010. Religion also plays an important role in the conflicts because of the religious motivated agendas of the fighting parties. There is the Hamas organization with an islamist agenda against Jewish

people, whereas hard-line views towards the Muslim Palestinians have their roots within the Jewish Israelis.

Both conflicts are characterized by either sporadic attacks against civilian and military targets or continuous missile threats as well as long term war struggles.

Zussman (2013) is using data about religion from the Israeli Social Surveys.

The two main questions in the survey, concerning religion, are which religion do you belong to and to which degree would you consider yourself as religious. Getting answers to these questions, it is possible to determine the survey participant's self-estimated degree of religiosity. Using these findings it is possible to show changes in this self-identified degree of religiosity due to politically motivated violence.

Two of the main points to look at are on the one hand if the politically motivated violence happened in the vicinity of the survey participant and on the other hand if it has happened within 30 days preceding the interview. If both points apply, the effect on the self estimated grade of religion is pretty strong.

There is robust evidence that a fatality covered by the facts mentioned above, lowers the likelihood for a Jewish interview participant to identify himself as secular by 0.7% and for a Muslim interview participant by 3.1%.

2. Data

Data from two different sources is used in this analysis.

First one is the Israeli Social Survey from the years 2002-2010. For this survey every year 7000 randomly selected persons are interviewed by employees of the Israeli Central Bureau of Statistics. All of the selected participants are 20 or older and change every year.

In this Social Survey broad data is collected concerning the participants socio-economic characteristics as well as their positions on various issues.

The main questions for the following analysis are the ones about their religion and whether they consider themselves as religious or secular.

The first question answered by the participants is about their own confession.

It is possible to choose between Muslim, Christian, Jewish, Druze or other. In the case of picking “other” the participants have to choose whether they consider themselves as “not religious” or if they would choose a not mentioned religion.

If choosing one of the stated religions, in this example Jewish or Muslim, the participants are asked to describe their degree of religiosity.

Jewish participants can choose between 5 options from (1) ultra-orthodox to (5) not religious/secular. Muslim participants have the possibility to choose between 4 options from (1) very religious to (4) not religious/secular.

Participants choosing the “not religious/secular” options are in the following defined as secular Jews/Muslims.

Second data used is a database on politically motivated violence, which is constructed by Zussman.

The main sources are the B'Tselem (the Israeli Information Center for Human Rights in the Occupied Territories), the Israeli Ministry of Defense and the Israeli National Insurance Institute to cover civilian and security forces fatalities.

Data from all fatalities of politically motivated violence, since January 1st 1997, is included in this database.

Both data sources need to be linked. Therefore Zussman uses restricted-use information, which is provided by the Central Bureau of Statistics.

This information contains the facts when and where the Survey interview was conducted. This way it is possible to identify the amount of violence around a particular location at a particular date.

The Occupied Territories are excluded from the analysis due to distortion effects caused by ongoing military activities and large amounts of violence.

3. General findings

As mentioned before, the Social survey provides some of the broad patterns concerning the effect of political motivated violence on religion.

Table 1
Distribution of religions.

	Jewish	Muslim	Christian	Druze	Other religions	Atheist	N
2002	0.83	0.10	0.03	0.02	0.00	0.02	6793
2003	0.84	0.09	0.03	0.02	0.00	0.02	7036
2004	0.84	0.10	0.03	0.01	0.00	0.01	7391
2005	0.81	0.12	0.04	0.02	0.00	0.02	7251
2006	0.81	0.12	0.03	0.02	0.00	0.02	7099
2007	0.80	0.12	0.04	0.02	0.00	0.02	7167
2008	0.80	0.13	0.03	0.01	0.00	0.02	7075
2009	0.81	0.13	0.03	0.01	0.00	0.02	7200
2010	0.79	0.13	0.03	0.02	0.00	0.02	7290
Total	0.82	0.12	0.03	0.02	0.00	0.02	64,302

Sources. Israeli Central Bureau of Statistics: Social Surveys, 2002–2010.

Notes: The table reports the distribution of self-identified religion among survey participants.

Table 1 gives us a general idea of the distribution of religion in Israel. Jews make up 82% in total of the Survey participants while the share of Muslims is 12% in total between 2002 and 2010. The distribution is quite stable, although there seems to be a slight decrease when it comes to the share of Jews and a slight increase concerning the share of Muslims.

Table 2A
Distribution of religiosity – Jews.

	Ultra-orthodox	Religious	Traditional/religious	Traditional/not particularly religious	Not religious/secular	N
2002	0.05	0.10	0.13	0.29	0.43	5591
2003	0.06	0.08	0.12	0.28	0.46	5909
2004	0.07	0.08	0.12	0.27	0.46	6160
2005	0.06	0.09	0.13	0.25	0.47	5879
2006	0.07	0.09	0.14	0.26	0.45	5730
2007	0.06	0.09	0.14	0.26	0.45	5749
2008	0.07	0.09	0.14	0.27	0.43	5656
2009	0.07	0.11	0.13	0.26	0.43	5801
2010	0.08	0.09	0.13	0.25	0.45	5774
Total	0.07	0.09	0.13	0.26	0.45	52,249

Sources. Israeli Central Bureau of Statistics: Social Surveys, 2002–2010.

Notes: The table reports the distribution of self-identified degree of religiosity among Jewish survey participants.

Table 2B
Distribution of religiosity – Muslims.

	Very religious	Religious	Not particularly religious	Not religious	N
2002	0.11	0.55	0.21	0.13	706
2003	0.13	0.56	0.21	0.09	622
2004	0.10	0.55	0.21	0.14	745
2005	0.10	0.56	0.22	0.12	833
2006	0.06	0.54	0.26	0.14	866
2007	0.05	0.52	0.33	0.09	859
2008	0.07	0.53	0.31	0.09	896
2009	0.10	0.51	0.28	0.11	908
2010	0.10	0.62	0.18	0.10	954
Total	0.09	0.55	0.25	0.11	7389

Sources. Israeli Central Bureau of Statistics: Social Surveys, 2002–2010.

Notes: The table reports the distribution of self-identified degree of religiosity among Muslim survey participants.

Taking a look at the tables 2A and 2B the distribution of the self reported degree of religiosity for Jews and Muslims is shown.

The most remarkable difference is the share of Jews reporting themselves as secular (45% in total) whereas only 11% of the Muslims consider themselves as secular.

Taking a look at all years shown (2002-2010), there seems to be a slight downward trend when it comes to the share of seculars for both religions.

If there are less people considering themselves as secular in reverse there are slightly more people considering themselves as religious.

One of the reasons could be the fact that strictly religious families tend to have more kids than less religious ones.

An important question is what differences can be found in the behavior of people self-identifying as religious compared to those identifying themselves as secular.

One possibility getting an answer to this question is to take a look at the Survey participant’s prayer practices and the differences between the different degrees of religiosity as well as the difference between religious and secular persons.

The data for Table 3 is collected by the 2009 Social Survey which focused on religion.

Table 3
Religiosity and prayer practices.

	Do you pray?				N
	Always	Once in a while	Infrequently	Never	
<i>Jews</i>					
Ultra-orthodox ^a	1.00	0.00	0.00	0.00	429
Religious ^a	1.00	0.00	0.00	0.00	619
Traditional/Religious	0.37	0.39	0.14	0.10	757
Traditional/Not particularly religious	0.11	0.27	0.30	0.32	1482
Not religious/Secular	0.02	0.08	0.15	0.75	2511
<i>Muslims</i>					
Very religious	0.94	0.02	0.00	0.03	90
Religious	0.77	0.13	0.03	0.07	471
Not particularly religious	0.48	0.14	0.16	0.21	263
Not religious	0.04	0.09	0.05	0.82	99

Sources. Israeli Central Bureau of Statistics, 2009 Social Survey.

Notes: The table reports, for Jews and Muslims separately, the distribution of prayer practices by self-identified degree of religiosity.

^a "Ultra-orthodox" and "religious" Jewish survey participants were not asked about their prayer practices.

It is noteworthy that there seems to be a tight link between praying and being religious. The most striking difference is the one between the share of participants considering themselves as not particular religious and the ones considering themselves as secular. This difference is even larger for Muslims than it is for Jews.

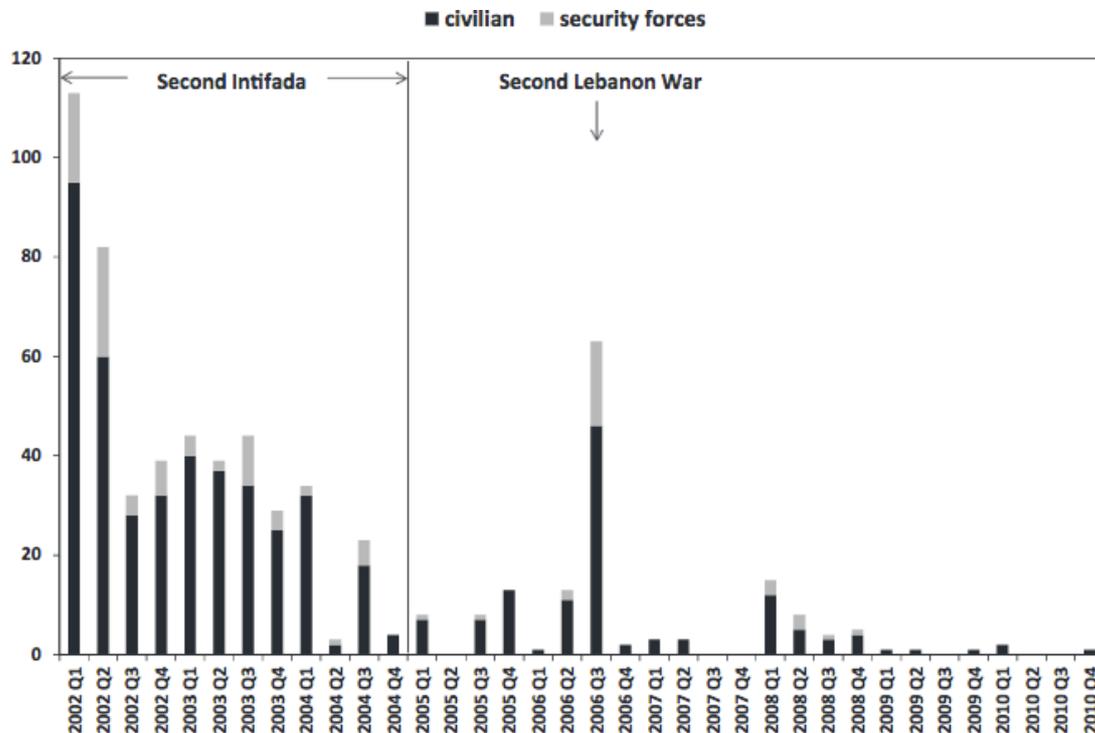
Table 3 shows that there actually is a difference in the behavior of religious and non-religious people.

This is especially interesting concerning the fact that later on the effect of violence on religiosity is shown. What is shown in Table 3 would imply that the influence of violence on religiosity also could possibly have an influence on the behavior of people and not just on their self-considered degree of religiosity.

Concerning the completeness of the broad patterns it is also important to take a look at Figure 1. In Figure 1 all Israeli fatalities from political violence between 2002 and 2010 are shown.

Both, civilian and military victims are included in this figure.

Figure 1



The first important observation is the high temporal variation in the numbers of fatalities.

The numbers of fatalities were especially high during the second intifada, which started in the fall of 2000, and during the Second Lebanon War in July and August 2006.

During the time spectrum shown in Figure 1, there were 638 Israeli fatalities, which equals roughly 1.0 fatality per 100.000 Israeli inhabitants per year.

It's also noteworthy, that most of the fatalities, around 83%, were civilians.

Other than the temporal variation shown here, there is also a large geographical variation concerning the number of fatalities. This variation can be seen as shown in Table 4.

Table 4
Fatalities from political violence by district and year.

Year	Jerusalem	North	Haifa	Center	Tel Aviv	South	Total
2002	88 (0.95)	22 (0.82)	75 (0.56)	57 (0.96)	17 (0.94)	7 (0.00)	266 (0.81)
2003	61 (0.97)	8 (0.75)	39 (0.95)	14 (0.36)	32 (0.88)	2 (0.50)	156 (0.87)
2004	22 (0.86)	4 (0.00)	0 (-)	1 (1.00)	4 (0.75)	33 (1.00)	64 (0.88)
2005	2 (1.00)	1 (0.00)	8 (1.00)	10 (0.90)	5 (1.00)	3 (1.00)	29 (0.93)
2006	1 (1.00)	45 (0.62)	17 (1.00)	1 (1.00)	11 (1.00)	4 (0.50)	79 (0.76)
2007	0 (-)	0 (-)	0 (-)	0 (-)	0 (-)	6 (1.00)	6 (1.00)
2008	14 (0.86)	0 (-)	0 (-)	0 (-)	0 (-)	18 (0.67)	32 (0.75)
2009	1 (1.00)	1 (1.00)	0 (-)	1 (1.00)	0 (-)	0 (-)	3 (1.00)
2010	2 (1.00)	0 (-)	0 (-)	0 (-)	0 (-)	1 (1.00)	3 (1.00)
Total	191 (0.94)	81 (0.65)	139 (0.75)	84 (0.86)	69 (0.91)	74 (0.78)	638 (0.83)

Sources. See text for details.

Notes: The table reports total (civilian and security forces) Israeli fatalities from politically motivated violence by district and year (share of civilian fatalities in total is in parentheses).

4. Analysis

After showing the broad patterns, the effect of the politically motivated violence on religiosity has to be analyzed.

Therefore Zussman estimated the following model separately for Jews and Muslims.

$$Secular_i = \alpha + \beta Fatalities_{it} + \gamma_l + \delta_t + \Gamma'X_i + \varepsilon_i,$$

$Secular_i$ is an indicator variable. The survey participant (i) has the possibility to self identify as secular. In this case $Secular_i$ takes the value of 1, otherwise it takes the value of 0.

$Fatalities_{it}$ is defined in three different ways.

As a default it's defined as "the number of civilian Israeli fatalities from politically motivated violence in the sub-district surrounding the survey participant's locality in the 30 days preceding the survey interview date (for ease the exposition the number of fatalities was divided by 100). In the second definition the absolute number of fatalities is further divided by sub-district population in the relevant year (in thousands). In the third alternative it is defined as an indicator variable taking the value of 1 if the absolute number of fatalities is positive and the value of 0 otherwise.

γ_1 is a fixed effect for the sub district surrounding the survey participants locality, δ_t includes a linear time trend and sets of indicators for the month and day of week of the survey interview.

X_i is a vector of participant characteristics including sets of indicators for gender, age group, marital status, number of children, highest educational degree etc..

ε_i is a well behaved error term. The focus is on the coefficient β which measures the marginal effect of an additional fatality on the likelihood, that the survey participant will self-identify as secular.” This model was developed by *Zussman (2013)*.

Table 5
The effect of political violence on secularity.

	Dependent variable: <i>secular</i>					
	Jews			Muslims		
	Absolute number (1)	Number adjusted for sub-district population (2)	Indicator for a positive number (3)	Absolute number (4)	Number adjusted for sub-district population (5)	Indicator for a positive number (6)
Fatalities	-0.334*** (0.077)	-0.193*** (0.049)	-0.018** (0.007)	-0.340** (0.132)	-0.206*** (0.062)	-0.010 (0.012)
Sub-district fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Time controls	Yes	Yes	Yes	Yes	Yes	Yes
Participant characteristics	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.218	0.218	0.217	0.141	0.141	0.141
Observations	52,249	52,249	52,249	7389	7389	7389

Sources. Israeli Central Bureau of Statistics: Social Surveys, 2002–2010; information on fatalities from politically motivated violence was collected by the author as described in the text.
Notes: “Secular” is an indicator variable that takes the value of 1 if the survey participant self-identified as secular and the value of 0 otherwise. In columns 1 and 4 “fatalities” is the number of civilian Israeli fatalities from politically motivated violence in the sub-district surrounding the survey participant’s locality in the 30 days preceding the survey interview date. Fatalities figures were divided by 100 for ease of exposition. In columns 2 and 5 the number of fatalities was further divided by sub-district population (in thousands). In columns 3 and 6 “fatalities” is an indicator for a positive number of fatalities in the sub-district surrounding the survey participant’s locality in the 30 days preceding the survey interview date. “Time controls” include a linear time trend and sets of indicators for the month and day of week of the survey interview date. “Participant characteristics” include sets of indicators for gender, age group, marital status, number of children, highest educational degree, continent of birth, father’s continent of birth, health status, income, and employment status.
Estimated by OLS. Robust standard errors, clustered by sub-district, in parentheses.
* Represent statistical significance at the 10 percent level.
** Represent statistical significance at the 5 percent level.
*** Represent statistical significance at the 1 percent level.

In column 1 of Table 5 the effect of “one additional civilian fatality from politically motivated violence in the sub-district surrounding the survey participant’s locality in the 30 days preceding the interview date” is shown by *Zussman (2013)*. Taking a closer look, this table shows when the described additional fatality happened, it is less likely for a Jewish survey participant to identify as secular by 0.33 percentage points, which equals 0.7%. The effect on Muslims is shown in column (4). Therefore the likelihood of Muslim participants to identify themselves as secular is lowered by 0.34 percentage points, which equals 3,1%.

In column (2) for Jews and column (5) for Muslims the effect of an additional fatality per 1000 population in the sub district is shown. This additional fatality lowers the likelihood to

self-identify as secular by 0.19 percentage points for Jews and 0.21 percentage points for Muslims.

Taking a look at column (3) respectively (6), it is indicated that a fatal incident in the sub-district lowers the likelihood to self-identify as secular again as well for Jews as for Muslims. The likelihood to self-identify as secular declines by 1.8 percentage points (4%) for Jews and 1.0 percentage points (9%) for Muslims.

Now taking a look at the results, the impact of one single additional fatality seems to be very high. Considering the fact that there are regions with a high fatality rate the results even for one single incident show already a large effect on religiosity for both, Jews and Muslims.

Taking that into account we have to face the possible change towards religion in a society effected by a high amount of fatalities within a short time period.

Table 6A
Additional specifications – Jews.

	Dependent variable: <i>secular</i>					
	Baseline (1)	Sub-district specific time trends (2)	Total fatalities (3)	Including WB and GS (4)	Excluding 2nd quarter of 2002 (5)	Excluding Second Lebanon War period (6)
Fatalities	-0.334*** (0.077)	-0.331*** (0.081)	-0.295*** (0.074)	-0.297*** (0.081)	-0.281*** (0.081)	-0.324*** (0.079)
Sub-district fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Time controls	Yes	Yes	Yes	Yes	Yes	Yes
Participant characteristics	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.218	0.218	0.218	0.221	0.217	0.217
Observations	52,249	52,249	52,249	54,059	50,746	51,295

Sources. Israeli Central Bureau of Statistics: Social Surveys, 2002–2010; information on fatalities from politically motivated violence was collected by the author as described in the text.
Notes: "Secular" is an indicator variable that takes the value of 1 if the survey participant self-identified as secular and the value of 0 otherwise. "Fatalities" is the number of Israeli fatalities from politically motivated violence in the sub-district surrounding the survey participant's locality in the 30 days preceding the survey interview date; in columns 1–2 and 4–6 the figure refers to civilians only while in column 3 it refers to civilians and members of the security forces. Fatalities figures were divided by 100 for ease of exposition. "Time controls" include a linear time trend (in column 2 – a set of sub-district-specific linear time-trends) and sets of indicators for the month and day of week of the survey interview date. "Participant characteristics" include sets of indicators for gender, age group, marital status, number of children, highest educational degree, continent of birth, father's continent of birth, health status, income, and employment status. In column 4 the analysis includes survey participants residing in the West Bank and the Gaza Strip. In column 5 the analysis excludes the second quarter of 2002. In column 6 the analysis excludes the period of the Second Lebanon War (July 12, 2006–August 14, 2006).
Estimated by OLS. Standard errors, clustered by sub-district, in parentheses.
* Represent statistical significance at the 10 percent level.
** Represent statistical significance at the 5 percent level.
*** Represent statistical significance at the 1 percent level.

Table 6B
Additional specifications – Muslims.

	Dependent variable: <i>secular</i>					
	Baseline (1)	Sub-district specific time trends (2)	Total fatalities (3)	Including WB and GS (4)	Excluding 2nd quarter of 2002 (5)	Excluding Second Lebanon War period (6)
Fatalities	-0.340** (0.132)	-0.321** (0.123)	-0.353*** (0.068)	-0.349** (0.133)	-0.332** (0.127)	-0.488** (0.200)
Sub-district fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Time controls	Yes	Yes	Yes	Yes	Yes	Yes
Participant characteristics	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.141	0.145	0.141	0.142	0.139	0.141
Observations	7389	7389	7389	7392	7368	7239

Sources. Israeli Central Bureau of Statistics: Social Surveys, 2002–2010; information on fatalities from politically motivated violence was collected by the author as described in the text.
Notes: "Secular" is an indicator variable that takes the value of 1 if the survey participant self-identified as secular and the value of 0 otherwise. "Fatalities" is the number of Israeli fatalities from politically motivated violence in the sub-district surrounding the survey participant's locality in the 30 days preceding the survey interview date; in columns 1–2 and 4–6 the figure refers to civilians only while in column 3 it refers to civilians and members of the security forces. Fatalities figures were divided by 100 for ease of exposition. "Time controls" include a linear time trend (in column 2 – a set of sub-district-specific linear time-trends) and sets of indicators for the month and day of week of the survey interview date. "Participant characteristics" include sets of indicators for gender, age group, marital status, number of children, highest educational degree, continent of birth, father's continent of birth, health status, income, and employment status. In column 4 the analysis includes survey participants residing in the West Bank and the Gaza Strip. In column 5 the analysis excludes the second quarter of 2002. In column 6 the analysis excludes the period of the Second Lebanon War (July 12, 2006–August 14, 2006).
Estimated by OLS. Standard errors, clustered by sub-district, in parentheses.
* Represent statistical significance at the 10 percent level.
** Represent statistical significance at the 5 percent level.
*** Represent statistical significance at the 1 percent level.

In Table 6A and 6B column (2) a more flexible approach is shown by replacing the linear time trend to account for possible effects of demographic factors and religiosity by a set of sub district specific linear time trends. The effect is, as well as the effects for columns (3) where civilian and security forces fatalities are included and columns (4) where the Gaza Strip and the West Bank are included, just modest.

More interesting are the results in Columns (5) and (6) where the peak periods (Figure 1) are excluded. The effect for Jews is quite small for both excluded periods but taking a look at Table 6B column (6) the coefficient of interest becomes much larger. Israeli Muslims, who are part of the Palestinian people, seem to be more influenced by violence and conflicts concerning the own group and therefore are more influenced by Israeli-Palestinian conflicts.

Therefore it has to be asked how big the influence of the location of the fatal incident is.

Equation (1) is therefore augmented with two additional variables.

“The first is the number of fatalities inside the district but outside the sub-district surrounding the survey participant’s locality. The second is the number of fatalities within Israel proper but outside the districts surrounding the survey participant’s locality.” *Zussman (2013)*.

Table 7
The effect of violence decays with distance.

	Dependent variable: <i>secular</i>			
	Jews		Muslims	
	(1)	(2)	(3)	(4)
Fatalities in sub-district	-0.334*** (0.077)	-0.351*** (0.070)	-0.340** (0.132)	-0.336** (0.133)
Fatalities in rest of district		-0.171 (0.164)		0.165 (0.187)
Fatalities in rest of country		-0.070** (0.030)		0.109 (0.064)
Sub-district fixed effects	Yes	Yes	Yes	Yes
Time controls	Yes	Yes	Yes	Yes
Participant characteristics	Yes	Yes	Yes	Yes
R ²	0.218	0.218	0.141	0.142
Observations	52,249	52,249	7389	7389

Sources. Israeli Central Bureau of Statistics: Social Surveys, 2002–2010; information on fatalities from politically motivated violence was collected by the author as described in the text.

Notes: "Secular" is an indicator variable that takes the value of 1 if the survey participant self-identified as secular and the value of 0 otherwise. "Fatalities" is the number of civilian Israeli fatalities from politically motivated violence in the 30 days preceding the survey interview date in three distinct areas: (1) inside the sub-district surrounding the survey participant's locality; (2) inside the district but outside the sub-district surrounding the survey participant's locality; (3) inside Israel proper (i.e. excluding the West Bank and the Gaza Strip) but outside the district surrounding the survey participant's locality. Fatalities figures were divided by 100 for ease of exposition. "Time controls" include a linear time trend and sets of indicators for the month and day of week of the survey interview date. "Participant characteristics" include sets of indicators for gender, age group, marital status, number of children, highest educational degree, continent of birth, father's continent of birth, health status, income, and employment status.

Estimated by OLS. Standard errors, clustered by sub-district, in parentheses.

* Represent statistical significance at the 10 percent level.

** Represent statistical significance at the 5 percent level.

*** Represent statistical significance at the 1 percent level.

Taking a look at column (2) it is shown that the effect on the survey participants is way higher when the fatalities are in the sub-district than if they are in the rest of the country. The influence decreases with distance from 0.35 percentage points to 0.07 percentage points.

A similar effect is shown in Table 8 concerning the effect of time.

Table 8
The effect of violence decays with time.

	Dependent variable: <i>secular</i>			
	Jews		Muslims	
	(1)	(2)	(3)	(4)
Fatalities in days t_{-1} to t_{-30}	-0.334*** (0.077)	-0.329*** (0.074)	-0.340** (0.132)	-0.335** (0.134)
Fatalities in days t_{-31} to t_{-180}		0.013 (0.045)		-0.021 (0.046)
Fatalities in days t_{-181} to t_{-360}		-0.086* (0.042)		-0.034 (0.031)
Sub-district fixed effects	Yes	Yes	Yes	Yes
Time controls	Yes	Yes	Yes	Yes
Participant characteristics	Yes	Yes	Yes	Yes
R ²	0.218	0.218	0.141	0.141
Observations	52,249	52,249	7389	7389

Sources. Israeli Central Bureau of Statistics: Social Surveys, 2002–2010; information on fatalities from politically motivated violence was collected by the author as described in the text.

Notes: "Secular" is an indicator variable that takes the value of 1 if the survey participant self-identified as secular and the value of 0 otherwise. "Fatalities" is the number civilian Israeli fatalities from politically motivated violence in the sub-district surrounding the survey participant's locality in three distinct periods: (1) days 1–30 prior to the survey interview date; (2) days 31–180 prior to the survey interview date; (3) days 181–360 prior to the survey interview date. Fatalities figures were divided by 100 for ease of exposition. "Time controls" include a linear time trend and sets of indicators for the month and day of week of the survey interview date. "Participant characteristics" include sets of indicators for gender, age group, marital status, number of children, highest educational degree, continent of birth, father's continent of birth, health status, income, and employment status.

Estimated by OLS. Standard errors, clustered by sub-district, in parentheses.

* Represent statistical significance at the 10 percent level.

** Represent statistical significance at the 5 percent level.

*** Represent statistical significance at the 1 percent level.

Unlike the short term fluctuations examined before now also a longer timeframe of 360 and 180 days preceding the interview is shown.

The effect of violence on religiosity is getting weaker during time. The likelihood for a survey participant to identify as secular because of an additional fatality declines for example for Muslims from 0.34 to 0.03 percentage points.

5. Interpretation

Are the main findings of the paper causal, and therefore not associated with pre existing patterns of religiosity? To answer this questions *Zussman(2013)* re-estimates Equation 1 using instead of the fatalities in the last 30 days the ones in the 30 days following the participants interview. The result of this placebo test is that there is no association between future fatalities and secularity.

Another analysis shows that replacing $Secular_i$ with Atheism re-estimating Eq.1 there is also no effect from violence to atheism.

But how are religiosity and violence linked to exposure?

Being part of group or ethnicity which is attacked it is more likely to self-identify more with this group than before the attack. Especially in Israel, religion and ethnicity are closely linked. If a member of a group is attacked and you are part of the same ethnic group and most people who are part of this specific group also share the same religion, it is possible for this group to become closer because of these threats. Therefore it is possible that people who are part of the group, but not part of the group's religion, are likely to adapt the religion, to identify even more with the group.

Another theory reviewed by *Neimeyer et al. (2004)* is concerning religion as a result of fear of death. This paper is showing evidence towards the effect of politically motivated violence on religiosity. This violence would therefore need to spark fear.

Would a person's behavior change because of this fear and would this person start to act more religious or become more religious because of this fear.

Zussman's (2013) findings in this paper show an even stronger effect of fear for Muslims than for Jews which is inconsistent because the attacks are mostly targeted at Jews.

Taking the Social Survey Question "do you feel safe walking alone at night in your neighborhood?" as a proxy for fear of death, *Zussman (2013)* constructs a safety variable ranging from (1) not safe at all to (4) very safe.

The results of replacing *Secular_i* with this safety variable are shown in Table 1 in the annex.

There is a noticeable decline in the feeling of being safe for Jews but not for Muslims.

Taking the fact that most of the violence is directed at Jews, this makes perfect sense.

6. Conclusion

This paper is concentrating on the analysis of short term effects in the political environment on religiosity.

Israel is the only country with a Jewish majority. Taking a look at this majority and the Muslim minority *Zussman (2013)* is analyzing the effects of one single additional fatality on religion.

Therefore he uses data from the Social Survey concerning religion and linking this to detailed data about fatalities from politically motivated violence associated with the Israeli-Palestinian and Arab-Israeli conflicts.

Using this data there is robust evidence that politically motivated violence has a strong impact on religion for Jews as well as for Muslims.

In both religious groups less people identify themselves as secular after attacks of violence in their near timely and spacial surroundings.

“One additional fatality from politically motivated violence in the vicinity of the survey participant’s locality within 30 days preceding the interview date lowers the likelihood that a Jewish survey participant will self-identify as secular by 0.7%; the corresponding figure for Muslims is 3.1%.” *Zussman (2013)*

Taking in the fact that there are Regions with a high rate of politically motivated violence and therefore fatalities, these findings seem to be important concerning the situation of the state in general.

Most conflicts are religion related. If more people consider themselves religious, and less people consider themselves as secular does this development lead to even more violence in the future? This paper shows that religiosity can be influenced by violence and is not exogenously given.

I think the research in this paper is really important. Not just for Israel but also for other states and currently also for Europe.

It is probably not possible to compare Israel and Germany because religion seems to be more important in Israel than it is in Germany.

Due to the refugee crisis a lot of Muslims have been coming to Germany in the past year and because of attacks by the IS around Europe there is, at least in parts of the population, a fear concerning the religion of others.

And People are being prejudices just because of their religion and people show the tendency to feel the need to stay together and to get closer as a group.

In my opinion this is a dangerous development and the research done in the paper can get even more important for the current situation.

It would be interesting to see if the terror attacks in France or Belgium have had a noticeable even short term influence on religiosity.

References

Neimeyer, R.A., Wittkowski, J., Moser, R.P., 2004. Psychological Research on death attitudes: An overview and evaluation. *Death studies* 28 (4). 309-340.

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Annex

Table 1

The effect of political violence on perceptions of safety.

	Dependent variable: <i>safety</i>					
	Jews			Muslims		
	Absolute number (1)	Number adjusted for sub-district population (2)	Indicator for a positive number (3)	Absolute number (4)	Number adjusted for sub-district population (5)	Indicator for a positive number (6)
Fatalities	-0.821 ^{***} (0.408)	-0.386 (0.237)	-0.065 ^{**} (0.032)	0.041 (0.816)	0.194 (0.289)	0.049 (0.037)
Sub-district fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Time controls	Yes	Yes	Yes	Yes	Yes	Yes
Participant characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R ²	0.088	0.088	0.088	0.048	0.048	0.048
Observations	50,837	50,837	50,837	7316	7316	7316

Sources. Israeli Central Bureau of Statistics; Social Surveys, 2002–2010; information on fatalities from politically motivated violence was collected by the author as described in the text.

Notes: "Safety" captures the survey participant's response to the question "do you feel safe walking alone at night in your neighborhood?"; the variable can take four values ranging from 1 = "not safe at all" to 4 = "very safe". In columns 1 and 4 "fatalities" is the number of civilian Israeli fatalities from politically motivated violence in the sub-district surrounding the survey participant's locality in the 30 days preceding the survey interview date. Fatalities figures were divided by 100 for ease of exposition. In columns 2 and 5 the number of fatalities was further divided by sub-district population (in thousands). In columns 3 and 6 "fatalities" is an indicator for a positive number of fatalities in the sub-district surrounding the survey participant's locality in the 30 days preceding the survey interview date. "Time controls" include a linear time trend and sets of indicators for the month and day of week of the survey interview date. "Participant characteristics" include sets of indicators for gender, age group, marital status, number of children, highest educational degree, continent of birth, father's continent of birth, health status, income, and employment status.

Estimated by Ordered Probit. Robust standard errors, clustered by sub-district, in parentheses.

* Represent statistical significance at the 10 percent level.

** Represent statistical significance at the 5 percent level.

*** Represent statistical significance at the 1 percent level.

Plagiarism Statement

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The seminar paper on the topic: “The effect of political violence on religiosity” for the Seminar “Economics of Terrorism” in the WS 16/17 was written by me and in my own words, except for quotations from published and unpublished sources which are clearly indicated and acknowledged as such.

I am conscious that the incorporation of material from other works or a paraphrase of such material without acknowledgement will be treated as plagiarism, according to the regulations of the university of Goettingen.

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Evelyn Hornauer