



Movement versus Party: The Electoral Effects of Anti-Far Right Protests in Greece

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Replication Project

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Background of Research Question

① The way social protest affects electoral outcomes remains a lacuna. This article helps fill this gap by examining how social protest against far right actors affects their electoral standing.

② The article uses the findings to discuss the varying impact of protest across electoral cycles.

③ The research is divided into two phases. At the first stage of our statistical modeling, linear regression models were used to explain the electoral results of the GD per municipality, for each national election beginning May 2012. At the second stage of study, they investigated more refined models, to test the key protest dynamics of tango and timing, which we expect drive the electoral results of the GD.



First stage of study

RQ How do social protests against far right actors affect their electoral standing?

Hypothesis

H0: Social protests against far right actors do NOT affect "electoral results of the GD.

H1: Social protests against far right actors affect "electoral results of the GD.

Variable description

- Dependent variable: the main dependent variable (DV) is the electoral results of GD, measured as the percentage of votes received by the GD per municipality.
- Independent variable: **the main IV is the trichotomous variable of anti-far right protest described above.**



Replication

```
1 # Table I: Basic linear models explaining electoral results of the GD
  (Regions as random effects; DV is the electoral results)
2 lmer12oMay <- lmer(ekloges_PERCENTAGE_May_2012_GD ~ ekloges_
  PERCENTAGE_2009_GD + N_AntifaEvent_notzero2_Oc09_May12 + avg_age
  + log_population + prop_ksenoi + (1|code_perif), data=dta)
3 lmer12o <- lmer(ekloges_PERCENTAGE_Jun_2012_GD ~ ekloges_
  PERCENTAGE_2009_GD + N_AntifaEvent_notzero2_Oc09_Jul2 + avg_
  age + log_population + prop_ksenoi + (1|code_perif), data=dta)
4 lmer15o <- lmer(ekloges_PERCENTAGE_Jan_2015_GD ~ ekloges_PERCENTAGE_
  Jun_2012_GD + N_AntifaEvent_notzero2_Jul2_Ja15 + avg_age +
  log_population + prop_ksenoi + (1|code_perif), data=dta)
5 lmer_15So <- lmer(ekloges_PERCENTAGE_Sep_2015_GD ~ ekloges_
  PERCENTAGE_Jan_2015_GD + N_AntifaEvent_notzero2_Ja15_Sp15 + avg_
  age + log_population + prop_ksenoi + (1|code_perif), data=dta)
6 lmer19o <- lmer(ekloges_PERCENTAGE_Jul_2019_GD ~ ekloges_PERCENTAGE_
  Sep_2015_GD + N_AntifaEvent_notzero2_Sp15_Jul19 + avg_age +
  log_population + prop_ksenoi + (1|code_perif), data=dta)
7 tab_model(lmer12oMay, lmer12o, lmer15o, lmer_15So, lmer19o)
8 lmer12oMay <- NULL; lmer12o <- NULL; lmer15o <- NULL; lmer_15So <-
  NULL; lmer19o <- NULL # housekeeping
```

Codes for
replication

	ekloges_PERCENTAGE_May_2012_GD			ekloges_PERCENTAGE_Jun_2012_GD			ekloges_PERCENTAGE_Jan_2015_GD			ekloges_PERCENTAGE_Sep_2015_GD			ekloges_PERCENTAGE_Jul_2019_GD		
Predictors	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p	Estimates	CI	p
(Intercept)	5.59	1.04 – 10.13	0.016	5.47	1.58 – 9.36	0.006	-3.45	-5.60 – -1.30	0.002	3.20	1.15 – 5.25	0.002	1.08	-0.14 – 2.29	0.082
ekloges PERCENTAGE 2009 GD	5.68	3.77 – 7.58	<0.001	5.38	3.75 – 7.02	<0.001									
N AntifaEvent notzero2 Oc09 May12 [1]	-0.75	-1.36 – -0.15	0.015												
N AntifaEvent notzero2 Oc09 May12 [2]	-1.09	-1.82 – -0.35	0.004												
avg age	-0.07	-0.14 – -0.00	0.044	-0.07	-0.13 – -0.01	0.022	0.03	-0.01 – 0.06	0.149	-0.03	-0.06 – 0.00	0.059	-0.02	-0.04 – 0.00	0.100
log population	0.24	0.01 – 0.47	0.037	0.27	0.08 – 0.47	0.005	0.33	0.22 – 0.44	<0.001	-0.05	-0.15 – 0.05	0.350	-0.01	-0.08 – 0.05	0.632
prop ksenoi	0.07	0.02 – 0.12	0.004	0.03	-0.01 – 0.07	0.182	0.01	-0.01 – 0.03	0.386	0.03	0.01 – 0.05	0.015	0.01	-0.01 – 0.02	0.325
N AntifaEvent notzero2 Oc09 Ju12 [1]				-0.64	-1.15 – -0.14	0.013									
N AntifaEvent notzero2 Oc09 Ju12 [2]				-0.81	-1.40 – -0.23	0.007									
ekloges PERCENTAGE Jun 2012 GD							0.76	0.71 – 0.82	<0.001						
N AntifaEvent notzero2 Ju12 Ja15 [1]							-0.00	-0.29 – 0.28	0.974						
N AntifaEvent notzero2 Ju12 Ja15 [2]							-0.36	-0.66 – -0.06	0.019						
ekloges PERCENTAGE Jan 2015 GD										0.90	0.84 – 0.96	<0.001			
N AntifaEvent notzero2 Ja15 Sp15 [1]										0.08	-0.29 – 0.45	0.668			
N AntifaEvent notzero2 Ja15 Sp15 [2]										0.01	-0.37 – 0.40	0.942			
ekloges PERCENTAGE Sep 2015 GD													0.38	0.34 – 0.41	<0.001
N AntifaEvent notzero2 Sp15 Ju19 [1]													-0.05	-0.19 – 0.09	0.503
N AntifaEvent notzero2 Sp15 Ju19 [2]													-0.03	-0.21 – 0.16	0.773
Random Effects															
σ ²	2.58			1.83			0.62			0.56			0.17		
τ ₀₀	2.34	code_perif		2.10	code_perif		0.36	code_perif		0.36	code_perif		0.24	code_perif	
ICC	0.48			0.53			0.37			0.39			0.58		
N	74	code_perif		74	code_perif		74	code_perif		74	code_perif		74	code_perif	
Observations	322			322			322			322			322		
Marginal R ² / Conditional R ²	0.207 / 0.584			0.211 / 0.633			0.787 / 0.865			0.806 / 0.881			0.635 / 0.846		

Results (Original Table 1) :

Model 1: A linear mixed-effects model was built for each of the national electionsfrom May 2012 onward. These results are not only statistically, but also practically, significant.

Model 2: The effect of anti-far right protest is similar to that of Model 1.

Our analysis shows a direct relationship between social movement mobilization and electoral outcomes: protests against the far right took a toll on its electoral result.

My extension

```
1 # Fit linear regression model instead of mixed effects models
2 lm12oMay <- lm(ekloges_PERCENTAGE_May_2012_GD ~ ekloges_PERCENTAGE_2009
  _GD + N_AntifaEvent_notzero2_Oc09_May12 + avg_age + log_population +
  prop_ksenoi, data=dta)

lm12o <- lm(ekloges_PERCENTAGE_Jun_2012_GD ~ ekloges_PERCENTAGE_2009
  _GD + N_AntifaEvent_notzero2_Oc09_Ju12 + avg_age + log_population
  + prop_ksenoi, data=dta)

lm15o <- lm(ekloges_PERCENTAGE_Jan_2015_GD ~ ekloges_PERCENTAGE_Jun_2012
  _GD + N_AntifaEvent_notzero2_Ju12_Ja15 + avg_age + log_population
  + prop_ksenoi, data=dta)

lm_15So <- lm(ekloges_PERCENTAGE_Sep_2015_GD ~ ekloges_PERCENTAGE_Jan_
  2015_GD + N_AntifaEvent_notzero2_Ja15_Sp15 + avg_age + log_population
  + prop_ksenoi, data=dta)

lm19o <- lm(ekloges_PERCENTAGE_Jul_2019_GD ~ ekloges_PERCENTAGE_Sep_2015
  _GD + N_AntifaEvent_notzero2_Sp15_Ju19 + avg_age + log_population
  + prop_ksenoi, data=dta)
```

Extension idea:

Fit linear regression model instead of mixed effects models.

Table 1: Extension for Linear Regression Models

	<i>Dependent variable:</i>				
	May_2012 (1)	Jun_2012 (2)	Jan_2015 (3)	Sep_2015 (4)	Jul_2019 (5)
ekloges_PERCENTAGE_2009_GD	7.746*** (0.986)	7.017*** (0.879)			
N_AntifaEvent_notzero2_Oc09_May121	-0.989** (0.382)				
N_AntifaEvent_notzero2_Oc09_May122	-1.315*** (0.458)				
N_AntifaEvent_notzero2_Oc09_Ju121		-0.670** (0.338)			
N_AntifaEvent_notzero2_Oc09_Ju122		-1.208*** (0.387)			
ekloges_PERCENTAGE_Jun_2012_GD			0.758*** (0.025)		
N_AntifaEvent_notzero2_Ju12_Ja151			-0.017 (0.168)		
N_AntifaEvent_notzero2_Ju12_Ja152			-0.501*** (0.168)		
ekloges_PERCENTAGE_Jan_2015_GD				0.950*** (0.028)	
N_AntifaEvent_notzero2_Ja15_Sp151				0.051 (0.219)	
N_AntifaEvent_notzero2_Ja15_Sp152				0.237 (0.218)	
ekloges_PERCENTAGE_Sep_2015_GD					0.377*** (0.017)
N_AntifaEvent_notzero2_Sp15_Ju191					-0.044 (0.094)
N_AntifaEvent_notzero2_Sp15_Ju192					-0.009 (0.116)
avg_age	-0.010 (0.038)	-0.015 (0.034)	0.030* (0.017)	-0.032** (0.016)	-0.051*** (0.011)
log_population	0.415*** (0.120)	0.449*** (0.107)	0.385*** (0.057)	-0.213*** (0.053)	-0.046 (0.035)
prop_ksenoi	0.109*** (0.026)	0.069*** (0.023)	-0.006 (0.012)	0.032*** (0.011)	-0.005 (0.008)
Constant	0.480 (2.384)	0.824 (2.122)	-4.009*** (1.052)	4.413*** (1.025)	2.991*** (0.669)
Observations	322	322	322	322	322
R ²	0.308	0.311	0.794	0.817	0.667
Adjusted R ²	0.295	0.298	0.790	0.813	0.660
Residual Std. Error (df = 315)	2.192	1.958	0.976	0.952	0.619
F Statistic (df = 6; 315)	23.407***	23.673***	201.749***	233.657***	104.944***

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors in parentheses.

Results:

It can be seen from the regression results that the coefficients of Model 1 and Model 2 are **statistically significant**, but the R square is small, indicating that the **model fitting effect is not good**.

Second stage of study - Tango

Branching RQ

How do Tango events affect “electoral results of the GD?”

Hypothesis

H0: Tango events do NOT affect “electoral results of the GD.

H1: Tango events affect “electoral results of the GD.

Variable description

- Dependent variable: the main dependent variable (DV) is the electoral results of GD, measured as the percentage of votes received by the GD per municipality.
- Independent variable: **The main IV is a binary variable—Tango events (Yes 1 or No 0); Tango events: events especially against for GD events**



Replication

```
lmer12MT01 <- lmer(ekloges_PERCENTAGE_May_2012_GD ~ ekloges _  
  PERCENTAGE_2009_GD + N_AntifaEvent_Oc09_May12_Tango01 + avg_age +  
  log_population + prop_ksenoi + (1|code_perif), data=dta)  
lmer15T01 <- lmer(ekloges_PERCENTAGE_Jan_2015_GD ~ ekloges _  
  PERCENTAGE_Jun_2012_GD + N_AntifaEvent_Ju12_Ja15_Tango01 + avg  
  _age + log_population + prop_ksenoi + (1|code_perif), data=dta)  
lmer19T01 <- lmer(ekloges_PERCENTAGE_Jul_2019_GD ~ ekloges _  
  PERCENTAGE_Sep_2015_GD + N_AntifaEvent_Sp15_Ju19_Tango01 + avg_  
  age + log_population + prop_ksenoi + (1|code_perif), data=dta)  
tab_model(lmer12MT01, lmer15T01, lmer19T01)  
lmer12MT01 <- NULL; lmer15T01 <- NULL; lmer19T01 <- NULL #  
housekeeping
```

Codes for
replication

<i>Predictors</i>	ekloges_PERCENTAGE_May_2012_GD			ekloges_PERCENTAGE_Jan_2015_GD			ekloges_PERCENTAGE_Jul_2019_GD		
	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	5.97	1.42 – 10.53	0.010	-3.54	-5.72 – -1.37	0.001	1.00	-0.21 – 2.22	0.104
ekloges PERCENTAGE 2009 GD	5.75	3.84 – 7.67	<0.001						
N AntifaEvent Oc09 May12 Tango01	-0.91	-1.64 – -0.18	0.015						
avg age	-0.07	-0.14 – 0.00	0.054	0.03	0.00 – 0.07	0.047	-0.02	-0.03 – 0.00	0.110
log population	0.17	-0.04 – 0.39	0.117	0.28	0.18 – 0.39	<0.001	-0.01	-0.07 – 0.05	0.684
prop ksenoi	0.07	0.02 – 0.12	0.004	0.01	-0.01 – 0.04	0.231	0.01	-0.01 – 0.02	0.281
ekloges PERCENTAGE Jun 2012 GD				0.77	0.71 – 0.82	<0.001			
N AntifaEvent Ju12 Ja15 Tango01				-0.09	-0.34 – 0.16	0.486			
ekloges PERCENTAGE Sep 2015 GD							0.37	0.34 – 0.41	<0.001
N AntifaEvent Sp15 Ju19 Tango01							-0.05	-0.22 – 0.12	0.533
Random Effects									
σ^2	2.63			0.63			0.17		
τ_{00}	2.31	code_perif		0.38	code_perif		0.24	code_perif	
ICC	0.47			0.38			0.58		
N	74	code_perif		74	code_perif		74	code_perif	
Observations	322			322			322		
Marginal R ² / Conditional R ²	0.209 / 0.579			0.783 / 0.865			0.637 / 0.847		

The results (Original Table 2) :

suggest that: for the elections of May 2012, municipalities with at least one tango event had much lower electoral outcomes for the GD compared to municipalities with no tango events.

My extension

```
# Fit linear regression model instead of mixed effects models
lm12MT01 <- lm(ekloges_PERCENTAGE_May_2012_GD ~ ekloges_PERCENTAGE_2009
  _GD + N_AntifaEvent_Oc09_May12_Tango01 + avg_age + log_population +
  prop_ksenoi, data=dta)
lm15T01 <- lm(ekloges_PERCENTAGE_Jan_2015_GD ~ ekloges_PERCENTAGE_Jun_
  2012_GD + N_AntifaEvent_Jul2_Ja15_Tango01 + avg_age + log_
  population + prop_ksenoi, data=dta)
lm19T01 <- lm(ekloges_PERCENTAGE_Jul_2019_GD ~ ekloges_PERCENTAGE_Sep_
  2015_GD + N_AntifaEvent_Sp15_Ju19_Tango01 + avg_age + log_population
  + prop_ksenoi, data=dta)
```

Extension idea:

Fit linear
regression model
instead of mixed
effects models.

Table 2: Extension for Linear Regression Models

	<i>Dependent variable:</i>		
	<i>May_2012</i> (1)	<i>Jan_2015</i> (2)	<i>Jul_2019</i> (3)
ekloges_PERCENTAGE_2009_GD	7.518*** (0.993)		
N_AntifaEvent_Oc09_May12_Tango01	-1.307*** (0.451)		
ekloges_PERCENTAGE_Jun_2012_GD		0.759*** (0.026)	
N_AntifaEvent_Ju12_Ja15_Tango01		-0.160 (0.146)	
ekloges_PERCENTAGE_Sep_2015_GD			0.376*** (0.017)
N_AntifaEvent_Sp15_Ju19_Tango01			-0.031 (0.118)
avg_age	-0.007 (0.038)	0.040** (0.017)	-0.051*** (0.010)
log_population	0.340*** (0.114)	0.328*** (0.054)	-0.045 (0.033)
prop_ksenoi	0.110*** (0.026)	-0.002 (0.012)	-0.004 (0.007)
Constant	0.970 (2.378)	-4.044*** (1.075)	2.949*** (0.666)
Observations	322	322	322
R ²	0.301	0.787	0.666
Adjusted R ²	0.290	0.784	0.661
Residual Std. Error (df = 316)	2.200	0.990	0.618
F Statistic (df = 5; 316)	27.246***	233.736***	126.228***

Note: *p<0.1; **p<0.05; ***p<0.01

Results:

It can be seen from the regression results that the **coefficients of Model 1 are statistically significant**, but the R square is small, indicating that the **model fitting effect is not good**.

Second stage of study - Timing

Branching RQ

How does Timing of protest events affect electoral results of the GD?

Hypothesis

H0: Timing of protest events does NOT affect electoral results of the GD.

H1: Timing of protest events affects electoral results of the GD.

Variable description

- Dependent variable: the main dependent variable (DV) is the electoral results of GD, measured as the percentage of votes received by the GD per municipality.
- Independent variable: **The main IV is a categorical variable describing the temporal proximity to the parliamentary election.**



Replication

Codes for replication

```
1 lmer12M <- lmer(ekloges_PERCENTAGE_May_2012_GD ~ ekloges_
  PERCENTAGE_2009_GD + N_AntifaEvent_Oc09_May12_AB + avg_age + log_
  population + prop_ksenoi+ (1|code_perif), data=dta)
2 lmer15 <- lmer(ekloges_PERCENTAGE_Jan_2015_GD ~ ekloges_
  PERCENTAGE_Jun_2012_GD + N_AntifaEvent_Ju12_Ja15_AB + avg_age
  + log_population+ prop_ksenoi+ (1|code_perif), data=dta)
3 lmer19 <- lmer(ekloges_PERCENTAGE_Jul_2019_GD ~ ekloges_
  PERCENTAGE_Sep_2015_GD + N_AntifaEvent_Sp15_Ju19_AB + avg_age
  + log_population + prop_ksenoi + (1|code_perif), data=dta)

tab_model(lmer12M , lmer15 , lmer19 )
lmer12M <- NULL; lmer15 <- NULL; lmer19 <- NULL #
housekeeping
```

<i>Predictors</i>	ekloges_PERCENTAGE_May_2012_GD			ekloges_PERCENTAGE_Jan_2015_GD			ekloges_PERCENTAGE_Jul_2019_GD		
	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	5.71	1.16 – 10.27	0.014	-3.40	-5.56 – -1.24	0.002	1.09	-0.13 – 2.31	0.080
ekloges PERCENTAGE 2009 GD	5.59	3.67 – 7.50	<0.001						
N_AntifaEvent_Oc09_May12_AB0-1	-0.64	-1.36 – 0.08	0.083						
N_AntifaEvent_Oc09_May12_AB1-0	-1.08	-2.03 – -0.12	0.027						
N_AntifaEvent_Oc09_May12_AB1-1	-1.01	-1.74 – -0.29	0.006						
avg age	-0.07	-0.14 – -0.00	0.042	0.03	-0.01 – 0.06	0.146	-0.02	-0.04 – 0.00	0.101
log population	0.23	0.01 – 0.46	0.044	0.32	0.21 – 0.43	<0.001	-0.02	-0.08 – 0.04	0.585
prop ksenoi	0.07	0.02 – 0.12	0.004	0.01	-0.01 – 0.03	0.339	0.01	-0.01 – 0.02	0.340
ekloges PERCENTAGE Jun 2012 GD				0.76	0.71 – 0.82	<0.001			
N_AntifaEvent_Ju12_Ja15_AB0-1				-0.10	-0.36 – 0.16	0.452			
N_AntifaEvent_Ju12_Ja15_AB1-0				-0.42	-2.07 – 1.23	0.615			
N_AntifaEvent_Ju12_Ja15_AB1-1				-0.40	-0.74 – -0.05	0.025			
ekloges PERCENTAGE Sep 2015 GD							0.38	0.34 – 0.41	<0.001
N_AntifaEvent_Sp15_Ju19_AB0-1							-0.07	-0.22 – 0.07	0.332
N_AntifaEvent_Sp15_Ju19_AB1-0							0.08	-0.23 – 0.39	0.615
N_AntifaEvent_Sp15_Ju19_AB1-1							-0.01	-0.19 – 0.17	0.931
Random Effects									
σ^2	2.59			0.62			0.17		
τ_{00}	2.33	code_perif		0.37	code_perif		0.23	code_perif	
ICC	0.47			0.37			0.58		
N	74	code_perif		74	code_perif		74	code_perif	
Observations	322			322			322		
Marginal R ² / Conditional R ²	0.206 / 0.582			0.786 / 0.865			0.637 / 0.847		

The results (see Original Table 3) :

for May 2012 suggest that organizing at least one proximate protest event against the far right, compared to organizing no events at all, corresponds to a smaller electoral outcome for the GD.

The evidence presented shows that the synchronization of protest and electoral cycles makes protest more effective: **protests against the far right taking place right before the next election are much more effective than those temporally more distant.**

My extension

```
lm12M <- lm(ekloges_PERCENTAGE_May_2012_GD ~ ekloges_PERCENTAGE_2009_GD + N_AntifaEvent_Oc09_May12_AB + avg_age + log_population + prop_ksenoi, data=dta)
lm15 <- lm(ekloges_PERCENTAGE_Jan_2015_GD ~ ekloges_PERCENTAGE_Jun_2012_GD + N_AntifaEvent_Ju12_Ja15_AB + avg_age + log_population + prop_ksenoi, data=dta)
lm19 <- lm(ekloges_PERCENTAGE_Jul_2019_GD ~ ekloges_PERCENTAGE_Sep_2015_GD + N_AntifaEvent_Sp15_Ju19_AB + avg_age + log_population + prop_ksenoi, data=dta)
```

Extension idea:

Fit linear regression model instead of mixed effects models.

Table 3: Extension for Linear Regression Models

	Dependent variable:		
	May_2012	Jan_2015	Jul_2019
	(1)	(2)	(3)
ekloges_PERCENTAGE_2009_GD	7.645*** (0.992)		
N_AntifaEvent_Oc09_May12_AB0-1	-0.677 (0.464)		
N_AntifaEvent_Oc09_May12_AB1-0	-1.591*** (0.577)		
N_AntifaEvent_Oc09_May12_AB1-1	-1.244*** (0.454)		
ekloges_PERCENTAGE_Jun_2012_GD		0.754*** (0.026)	
N_AntifaEvent_Ju12_Ja15_AB0-1		-0.168 (0.152)	
N_AntifaEvent_Ju12_Ja15_AB1-0		-0.731 (0.988)	
N_AntifaEvent_Ju12_Ja15_AB1-1		-0.503** (0.197)	
ekloges_PERCENTAGE_Sep_2015_GD			0.379*** (0.017)
N_AntifaEvent_Sp15_Ju19_AB0-1			-0.072 (0.096)
N_AntifaEvent_Sp15_Ju19_AB1-0			0.019 (0.219)
N_AntifaEvent_Sp15_Ju19_AB1-1			0.043 (0.119)
avg_age	-0.009 (0.038)	0.032* (0.017)	-0.051*** (0.011)
log_population	0.409*** (0.120)	0.375*** (0.058)	-0.052 (0.035)
prop_ksenoi	0.110*** (0.026)	-0.005 (0.012)	-0.005 (0.008)
Constant	0.545 (2.379)	-3.992*** (1.061)	2.997*** (0.670)
Observations	322	322	322
R ²	0.312	0.791	0.668
Adjusted R ²	0.296	0.786	0.660
Residual Std. Error (df = 314)	2.191	0.984	0.619
F Statistic (df = 7; 314)	20.322***	169.783***	90.067***

Note:

* p<0.1; ** p<0.05; *** p<0.01

Results:

It can be seen from the regression results that the all of the coefficients of Models are not statistically significant.