

EU integration through a Greener lens

Building consensus around European integration

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Overview

- ▶ In the context of increased contestation, can support for the EU be rebuilt?
- ▶ Increasing salience of “green” issues and popular satisfaction with EU environmental protection

Research Questions

- ▶ Do politicians use environmental issues as a means for increasing support and legitimacy of the EU and European integration?
- ▶ Can green issues bolster support the EU among political elites and the public?
- ▶ We make use of the MEP candidates' Twitter communication in the 2019 EP elections, and use a mix of manual and machine label content in 10 (9) countries

Framing environmental issues as EU success

- ▶ The EU has a history of taking the lead on environmental issues and seeks to promote itself as an environmental leader
 - ▶ Citizens are concerned about the environment, they view it as an international issue, they think that the EU should handle environmental issues, and this motivates their voting behavior in EP elections
 - ▶ We expect that Green/environmental issues increase the appeal that the EU and EU integration has for (at least some) political actors, hence:
- H1** When politicians co-mention the EU with green issues, they express higher support for the EU in comparison to any other mentions of the EU.

Framing EU issues in a green light: Dominant parties

- ▶ Salience of the EU driven by challenger Eurosceptic parties who contest both EU polity and more recently the EU policy scope (i.e. hard vs. soft Euroscepticism)
- ▶ Dominant pro-EU parties traditionally refrained from engaging in debates around the EU, though starting from 2014 they are more engaged in debates around EU polity and Brexit could provide them with further incentives to engage with debates around the EU
- ▶ They also have a history to emphasize different issues in response to challenger parties when it was electorally advantageous for them and the association between environmental and EU issues can bring such advantages, hence:

H1.1 Dominant party politicians are more likely to be pro-EU when they talk about green issues and the EU together, than when they are talking about EU in any other way.

Framing EU issues in a green light: Other parties

- ▶ Affinity between the ideology of Green Parties and EU integration, together with the central role of the environmental issues at the time of the 2019 EP elections fueled their electoral success

H1.2 Green party politicians are more likely to be pro-EU when they talk about green issues and the EU together, than when they are talking about EU in any other way.

- ▶ Far-right parties are not always averse to environmental issues (green patriotism) and they want to avoid ostracism that climate denialism can bring, but they reject the cosmopolitan values, international cooperation, and the (perceived) cosmopolitan/scientific “elite” guiding the climate agenda

RQ1.1 Do far-right parties harden or soften their opposition to the EU when they mention green issues?

- ▶ Far-left parties are strong supporters of environmental issues, but they are generally critical of the EU

RQ1.2 Do far-left parties harden or soften their opposition to the EU when they mention green issues?

Reaction of the (Twitter) public

- ▶ Twitter added a new dimension that offers politicians distinct advantages given its ability to shape interactions around politics
- ▶ Politicians can use social media platforms strategically, to attract attention to issues and events that benefit these political actors
- ▶ Previously they used it to manipulate the politicization of EU issues by limiting the diffusion of such issues. If parties behave in line with our expectations we also expect that:

H2 The tweets of political actors that associate support for the EU with environmental issues, will get a higher level of endorsement than the other EU-related communication.

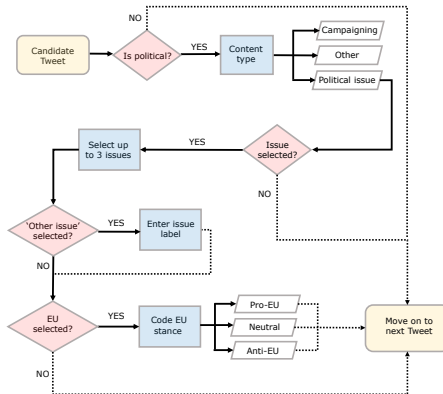
Data

- ▶ EP 2019 Political campaigning on twitter dataset
 - ▶ All tweets by MEP candidates, as well as public replies, mentions, and retweets
 - ▶ 16 million tweets
 - ▶ 28 countries, 31 languages
 - ▶ 500,000 MEP candidate tweets
 - ▶ 23 April - 30 May 2019

Manual Coding

- ▶ 17 research assistants hired to code tweets across 11 languages
- ▶ 9,000 tweets per coder
- ▶ tweets split by candidate/public, then by country (for candidates), and language
- ▶ random sample taken for each language
 - ▶ weighted so that 75% candidate tweets, 25% public
- ▶ for languages with more than one coder, 2,000 of the tweets were coded by both for inter-coder reliability checks

Coding Process



Sampling

Table: Tweet language distribution and sampling

Country	Language	All Candidate Tweets	Sampled Candidate Tweets
UK	English	131,332	13,500
France	French	62,403	13,500
Spain	Spanish	52,824	13,500
Poland	Polish	43,770	13,500
Italy	Italian	17,826	7,500
Ireland*	English	14,697	14,697
Netherlands	Dutch	13,793	7,500
Germany*	German	13,156	13,156
Greece*	Greek	4,349	4,349
Hungary*	Hungarian	326	326

*All candidate tweets were manually coded for these countries

Machine Learning Classifier

- ▶ For countries/languages where not all tweets are manually coded, we rely on a series of joint classifiers, capitalizing on all coded data:
 - ▶ Binary classification models for political, political issue (general), EU issue, Green issue, and EU position(s)
 - ▶ For the specific issues, using only political issue tweets, i.e., 0 is issue content other than EU issues, for example
 - ▶ Baseline comparison: within-country classifiers (no data from other contexts)
- ▶ Two different classifiers (regularized logistics regression and xgBoost) and five different input scenarios:
 1. English tf-idf (bi-grams)
 2. Multilingual document embeddings
 3. English document embeddings
 4. English tf-idf and Multilingual document embeddings
 5. English tf-idf and English document embeddings
- ▶ Scenarios and models have the same training-test split and we decide based on F1-scores

Best Overall Performances

Table: Classifier performance: test set performance

		Accuracy	Precision	Recall	F1	Mixture
Political	Full sample	0.912	0.928	0.977	0.952	Ridge
Political issue	Full sample	0.792	0.801	0.767	0.784	Ridge
Green	Full sample	0.921	0.862	0.762	0.809	Lasso
EU	Full sample	0.897	0.726	0.563	0.634	Lasso
	UK	0.866	0.876	0.884	0.880	Lasso
Pro-EU	Full sample	0.778	0.770	0.693	0.730	Ridge
	UK	0.715	0.696	0.680	0.688	Elastic Net
EU neutral	Full sample	0.706	0.662	0.596	0.628	Elastic Net
	UK	0.667	0.604	0.587	0.595	Ridge
Anti-EU	Full sample	0.842	0.479	0.486	0.483	Lasso
	UK	0.810	0.274	0.349	0.307	Lasso

Sample Comparisons

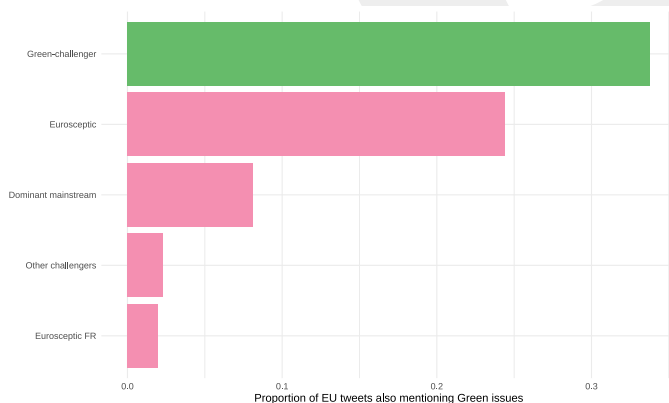
Table: F1-score comparison across setups: Political issue

	en-tfidf	en_emb	orig_emb	tfidf+orig_emb	tfidf+en_emb	xgBoost
Full sample	0.769	0.760	0.760	0.786	0.784	0.768
France	0.841	0.841	0.841	0.862	0.855	0.853
Ireland	0.796	0.800	0.800	0.819	0.820	0.794
Italy	0.784	0.790	0.790	0.811	0.797	0.772
Netherlands	0.754	0.737	0.737	0.766	0.774	0.755
Poland	0.769	0.751	0.751	0.775	0.784	0.762
Spain	0.642	0.622	0.622	0.663	0.654	0.636
UK	0.750	0.725	0.725	0.755	0.759	0.742

Descriptive Look: Issue tweet distribution across countries

	Issue tweets	Politicians	EU	Green	Both	Both EU	Both Green
France	32,399	318	3,717	14,210	888	0.24	0.06
Germany	5,514	178	2,143	1,450	197	0.09	0.14
Greece	1,587	50	423	64	22	0.05	0.34
Ireland	6,274	39	724	1,458	89	0.12	0.06
Italy	7,561	212	667	663	26	0.04	0.04
Netherlands	5,464	165	1,129	1,344	118	0.10	0.09
Poland	16,158	270	1,962	2,114	87	0.04	0.04
Spain	20,971	235	1,776	1,181	70	0.04	0.06
UK	53,729	354	28,552	7,776	1,963	0.07	0.25

Descriptive Look: Issue salience for EU-green tweets among party groups



Regression analysis: Modeling Strategy

- ▶ Outcome variable: Pro-EU 1 vs. 0
- ▶ Predictors: Green issues (1 vs. 0), party categories (party dummies and nominal variable), and country fixed effects
- ▶ Focus on multiplicative interaction effect between green issues and party categories
- ▶ **Main model:** OLS for all data combined
- ▶ Alternatives and robustness checks:
 - ▶ Logistics regression, hierarchical models with tweets nested in politicians
 - ▶ Human coded data only
 - ▶ Alternative, CHES based, party categorization
 - ▶ Split focus on EU neutral and anti-EU content categories on human coded data

Predicted pro-EU stance across party categories, nominal predictor

	without Green	w Green
Dominant mainstream	0.407	0.486
Eurosceptic FR	0.130	0.065
Eurosceptic	0.058	0.006
Other challengers	0.317	0.469
Green-challenger	0.405	0.807

Country fixed to Germany.

Level of support (RT count) for EU tweets-preliminary

	OLS	OLS	OLS-log(RT)	OLS-log(RT)	Poisson	Poisson
Intercept	118.035*** (15.327)	143.707*** (15.715)	2.672*** (0.067)	2.692*** (0.067)	4.506*** (0.003)	4.514*** (0.003)
Green issue	-57.779*** (10.125)	-61.387*** (14.996)	-0.137** (0.044)	-0.341*** (0.064)	-0.614*** (0.003)	-0.743*** (0.004)
Pro EU	-8.353*** (1.477)	-8.862*** (1.478)	-0.120*** (0.006)	-0.120*** (0.006)	-0.075*** (0.000)	-0.075*** (0.000)
log(Followers)		-47.379*** (6.504)	0.076** (0.026)	0.036 (0.028)	-0.433*** (0.001)	-0.448*** (0.001)
Green × Pro EU		27.125 (20.341)		0.379*** (0.087)		0.250*** (0.005)
R ²	0.012	0.013	0.048	0.048		
Adj. R ²	0.011	0.013	0.047	0.048		
N	41141	41141	41141	41141	41141	41141

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Concluding remarks

- ▶ Potential of environmental issues to build consensus around EU integration and increase its legitimacy, however:
 - ▶ Environmental appeals harden the eurosceptic stances of far-right and far-left parties
- ▶ (Twitter) public is more(?) likely to endorse pro-EU messages when they are associated with environmental issues (preliminary)
- ▶ Overall: *the climate crisis can increase support for European as both elites and the populace seek more transnational solutions **but**, policy failure with regard to climate change mitigation and adaptation may in the future decrease support for the EU*
- ▶ Plenty of future steps: (1) party level tests using the Euromanifesto data and the official party accounts; (2) EES 2019 voter survey for testing if supporters of parties that associate environmental messages with Pro-EU appeals are more supportive of the EU

Predicted pro-EU stance across party categories, Logistic HLM

	1	2	3	4	5
Intercept	-0.108 (0.078)	-0.693*** (0.087)	-0.152 (0.079)	0.187* (0.073)	0.092 (0.079)
Green issue	0.536*** (0.075)	0.935*** (0.113)	0.325*** (0.082)	0.556*** (0.076)	0.661*** (0.077)
Sitting MEP	0.004 (0.101)	-0.206* (0.095)	-0.019 (0.101)	-0.088 (0.091)	-0.011 (0.098)
Dominant		0.909*** (0.068)			
Dominant x Green issue		-0.617*** (0.140)			
Green party			0.255* (0.114)		
Green party x Green issue			0.873*** (0.150)		
Far-right				-1.578*** (0.097)	
Far-right x Green issue				-1.556*** (0.421)	
Far-left					-1.294*** (0.166)
Far-left x Green issue					-0.956** (0.293)
N Tweets	41141	40329	40329	40329	40329
N Candidates	1524	1481	1481	1481	1481
Var (Intercept)	0.856	0.700	0.847	0.623	0.786
Var (Tweet)	0.966	0.725	0.735	1.052	0.941

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Level of support (RT count) for EU tweets-ML linear

	ML linear log(RT)	ML linear for log(RT)
Intercept	2.312*** (0.137)	2.324*** (0.136)
Green issue	-0.043 (0.049)	-0.206** (0.065)
Pro EU	0.073** (0.026)	0.040 (0.027)
log(Followers)	-0.081*** (0.015)	-0.081*** (0.015)
Green X Pro_EU		0.316*** (0.083)
AIC	183869.534	183860.320
N Tweets	41141	41141
N candidates	1524	1524
Var Intercept (tweet)	0.817	0.817
Var Intercept (candidate)	0.148	0.136
Residual	4.901	4.900

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Tweet examples

	Tweet
Stand-alone	<p>Today (9th May) is Europe Day. It is appropriate to reflect on the peace and prosperity achieved in Europe over seven decades. We cannot take this for granted #TakingEuropeSeriously</p> <p>Happy #EuropeDay A day to commemorate the European Project and its achievements! The EU is far from perfect. It is up to us to continue shaping a stronger Europe. We cannot take this Union for granted! #StrongerTogether</p>
with Green	<p>If elected to #Ep2019, I'll work & campaign for a sustainable Europe that prioritises environmental protection & climate action. I want a Bottle Return Deposit Scheme to encourage consumers to recycle plastic. Here's how a similar scheme works in London #Dom4Europe #ClimateAction</p> <p>Great to have such support from leading European Green MEP @ph.lamberts. Belgium is experiencing the #GreenWave and I'm hopeful about joining Philippe and his new colleagues in the Greens group in the EUropean Parliament after Friday! #EP2019</p>
with other issue	<p>The protection of citizens' rights irrespective of gender, sexual orientation, religion, ethnicity or disability has been one of the EU's greatest achievements. More must be done, and Fianna Fail will work towards creating a Europe of Equals. #MakingEuropeWork</p> <p>"... ministers have refused to recognise the vital contribution made by international students, particularly from the EU, in our universities." - @AngelaRayner shadow education secretary via @alexwickham</p>