

Economic factors moderate perception of climate change among the Europeans

Piotr Matczak, Piotr Cichocki, Piotr Jabkowski

Faculty of Sociology

Adam Mickiewicz University, Poznan, Poland

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Motivation for research

- The European Green Deal
 - 50% reductions of the EU's greenhouse gas emission by 2030
 - shifts in energy production and distribution
 - implications for economic policies
 - patterns of consumption
- Societal divisions and tensions
- Public support

CC policy and inequalities

“There is a fundamental problem in contemporary discussion of climate policy: it rarely acknowledges inequality. Poorer households, which are low CO2 emitters, rightly anticipate that climate policies will limit their purchasing power. In return, policymakers fear a political backlash should they demand faster climate action.”

(Chancel 2021)

Green Deal – CC perception - inequalities

- Effective implementation of the European Green Deal depends on perception of CC
- What CC perception depends on?

Differences in Europeans' climate change perception (Poortinga et al. 2019)

- Human values, political orientation gender, age, and education - predictors of climate change beliefs and concern
- Significant differences among the regional groups of European countries: Western, Central and Eastern, Southern, and Northern Europe

The study's viewpoint

- Poortinga et al.'s explain perception of CC by reference to human values and political orientation:
 - We incorporate economic factors
- Poortinga et al. show that regions of Europe modify the impact of the political orientation of the Europeans on perception of CC
 - This study incorporates the economic factors at the respondent and the country level and the effect of interaction between both covariates

Research aim

- Which factors influence cross-country differences in Europeans' climate change (CC) perception?
- The impact of economic factors on perception of CC

Data

- Eighth round of the European Social Survey (2016)
- A module on “public attitudes to climate change”
- 23 European countries - major regions of Europe, i.e., Central and Eastern Europe, Southern Europe, Northern Europe, and Western Europe.

Method

- Three measures of perception of CC:
 - Trend skepticism (not changing vs. changing)
 - Perceived impact of CC (negative impact vs. positive impact)
 - Concern about CC (worry about CC)
- Multi-Level Regression models with following independent variables:
 - Basic Human Values and the political left-right scale
 - Household Income distribution (at the individual level)
 - GDP per capita (at country level)
 - The interaction between household income and GDP per capita
 - Control variables: gender, age, and education level

Results

Table 5. Summary of the regression results - models with the interaction terms

Code

<i>Predictors</i>	Trend scepticism		Perceived impacts of climate change		Concern about climate change	
	<i>Log-Odds</i>	<i>std. Error</i>	<i>Estimates</i>	<i>std. Error</i>	<i>Estimates</i>	<i>std. Error</i>
Self-transcendence (vs. self-enhancement)	-0.198 ***	0.030	-0.251 ***	0.014	0.108 ***	0.006
Conservation (vs. openness-to-change)	-0.014	0.029	-0.034 *	0.014	-0.026 ***	0.006
Political orientation: right (vs. left)	0.141 ***	0.027	0.213 ***	0.022	-0.073 ***	0.005
Gender: male (vs female)	0.308 ***	0.051	-0.114 ***	0.025	-0.090 ***	0.010
Age	0.005 ***	0.002	0.011 ***	0.001	-0.003 ***	0.000
Level of education	-0.049 **	0.016	-0.110 ***	0.007	0.037 ***	0.003
HH income	-0.164 ***	0.041	-0.033	0.019	0.010	0.009
GDP per capita	-0.242 *	0.096	0.107	0.089	-0.049	0.034
Political orientation * GDP per capita	0.054 *	0.027	0.053 *	0.023	-0.030 ***	0.005
HH income * GDP per capita	-0.063	0.040	-0.058 **	0.019	0.021 *	0.009
N	22 cntry		22 cntry		22 cntry	
Observations	30267		29231		29733	
AIC	12244.020		128599.923		79163.411	
log-Likelihood	-6105.010		-64281.962		-39563.705	

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$p < 0.05$ ** $p < 0.01$ *** $p < 0.001$ 10

Results

- Replication of Poortinga et al.:
 - Values and political orientation have significant impact on perception of CC
 - For younger, better educated, left oriented CC issue is salient
- GDP per capita explains cross-country differences in perception of CC:
 - Higher GDP – lower trend skepticism
 - Poortinga et al.'s regional differences are artifacts of differences in the GDP
- Within country income distribution impact respondents perception of CC:
 - Higher household income – lower trend skepticism
- GDP per capita moderates the impact of political orientation on perception of CC:
 - The higher the GDP the stronger the effect of political orientation

Conclusions

- The Poortinga et al.'s effects of the European regions is an artifact and can be explained via GDP
- The economic situation of respondents and the characteristics of countries are significant predictors of CC trend skepticism
- The results are in line with the Inglehart's values shift and with the environmental Kuznets' curve thesis
- CC policy should be sensitive for the economic factors on the individual level and on the country level
- There are differences in terms of energy mix across countries. Do these matter?

Thank you

Matczak@amu.edu.pl



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