Do individuals’ perceptions of international climate policy affect their climate-friendly activities?

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Private provision of public goods

• Standard economic theory predicts that individuals have no incentive to contribute to public good (social dilemma)

• Empirical evidence on positive voluntary contributions to public goods (e.g. Andreoni 1988, Blanco et al. 2012, Kerr 2012)

• Rationale:
  o Social approval (e.g. Hollaender 1990) like prestige, respect and reputation (e.g. Olson 1965, Becker 1974, Banerjee and Shogren 2012)
  o Feelings of ‘warm glow’ (e.g. Andreoni 1990) and responsibility (e.g. Brouwer et al. 2008, Akter et al. 2009, Blasch and Farsi 2013)
Objective of our work

• General:
  Provide theoretical insight and empirical evidence that individual perceptions of the public good providing process may also affect private provision of public goods

• Specific:
  Analyze individual perspectives on justification, procedural trust, and procedural justice in the context of international climate policy and their impact on voluntary contributions to the public good climate protection
Perceptions of international climate policy

• Perceived justification
  o Public good character of climate protection
  o Importance of international agreements for combating climate change (e.g. Oberholzer-Gee 1997)

→ International climate policy is supposed to be more ‘efficient’ compared to individual climate protection activities of each country
Perceptions of international climate policy

• Procedural trust
  o Uncertainty about intentions and motives of domestic politicians and other countries
  o Uncertain whether commitments made at international climate conferences will be kept
    (e.g. Furlong 2005, Torgler and García-Valiñas 2007, Jagers et al. 2010, Pittel and Rübbelke 2013)

• Procedural justice
  o All countries have same opportunities in representing their interests at international climate conferences
    (e.g. Klinsky and Dowlatabadi 2009, Okereke 2010)
Hypotheses

The willingness of individuals to engage in domestic climate-friendly activities increases with

- higher level of perceived justification of international climate policy
- lower levels of procedural trust in international climate policy
- lower levels of perceived procedural justice of international climate policy
Data

- Representative surveys in China, Germany and the United States conducted by the German survey institute GfK (Gesellschaft für Konsumforschung) in June 2013
- Overall more than 3400 respondents (aged 18 and older)
- Questions on
  - attitudes and beliefs associated with climate change
  - attitudes and beliefs associated with international climate negotiations and agreements
  - individual engagement in climate-friendly activities
- Sponsor: German Federal Ministry of Education and Research
Binary dependent variables

- Stated willingness to take one of these 7 climate-friendly activities in the future:
  - Buying energy-efficient appliances
  - Saving energy at home
  - Buying a car with lower fuel consumption
  - Reducing consumption of meat / dairy products
  - Reducing car use
  - Reducing number of flights
  - Using energy from renewable sources
Descriptive statistics

- Buying energy efficient appliances: 74%
- Saving energy at home: 77%
- Buying a car with lower fuel consumption: 60%
- Reducing consumption of meat/dairy products: 39%
- Reducing car use: 45%
- Reducing number of flights: 17%
- Using energy from renewable sources: 44%
Explanatory variables

- Individual perceptions of international climate policy:
  - Perceived justification
  - Perceived procedural trust
  - Perceived procedural justice

- Further control variables:
  - Environmental concern
  - Perceived effectiveness of a certain climate-friendly activity in providing climate protection
  - Perceived financial advantages associated with a certain climate-friendly activity
  - Socio-economic and socio-demographic characteristics
Citizens’ perceptions: Justification

How important do you consider future international agreements for combating climate change?

- Don't know/no answer
- Very unimportant
- Rather unimportant
- Neither important nor unimportant
- Rather important
- Very important

How strongly do you agree with the following statement?
All countries can benefit from international climate agreements.

- Don't know/no answer
- Very weakly
- Rather weakly
- Neither weakly nor strongly
- Rather strongly
- Very strongly
Citizens’ perceptions: Procedural trust

How strongly do you agree with the following statements?

- Don’t know/no answer
- Very weakly
- Rather weakly
- Neither weakly nor strongly
- Rather strongly
- Very strongly

The richer (industrialized) countries use international climate negotiations to push through their own economic interests vis-à-vis other countries.

The poorer (developing) countries use international climate negotiations to push through their own economic interests vis-à-vis other countries.

Governments use international climate negotiations to pacify their citizens instead of reducing global greenhouse gas emissions.

Commitments made at international climate negotiations will not be kept anyhow.
Citizens’ perceptions: Procedural justice

How strongly do you agree with the following statement?

All countries have the same opportunities to represent their interests at international climate conferences.
## Estimation results: United States

<table>
<thead>
<tr>
<th></th>
<th>Buying energy-efficient appliances</th>
<th>Saving energy at home</th>
<th>Reducing meat or dairy products</th>
<th>Using energy from renewable sources</th>
<th>Reducing number of flights</th>
<th>Buying a car with lower fuel consumption</th>
<th>Reducing car use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justification</td>
<td>0.18**</td>
<td>0.36***</td>
<td>0.14*</td>
<td>0.24***</td>
<td>0.19**</td>
<td>0.06</td>
<td>0.13</td>
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<tr>
<td></td>
<td>(0.08)</td>
<td>(0.09)</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.09)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Procedural trust</td>
<td>-0.02</td>
<td>-0.09</td>
<td>-0.06</td>
<td>-0.06</td>
<td>0.00</td>
<td>-0.11*</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Procedural justice</td>
<td>-0.27**</td>
<td>-0.34**</td>
<td>-0.00</td>
<td>-0.13</td>
<td>-0.30**</td>
<td>0.01</td>
<td>-0.06</td>
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<tr>
<td></td>
<td>(0.13)</td>
<td>(0.14)</td>
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<td>(0.18)</td>
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<tr>
<td>Further control variables</td>
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<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

* (**, ***): * means that parameter is different from zero at the 10% (5%, 1%) significance level, estimated standard deviations in parentheses.
Summary

Perceptions of international climate policy matter for domestic climate protection efforts of individuals:

• Higher levels of perceived justification are associated with a higher stated willingness to engage in domestic climate protecting activities in the United States (results hold for all three countries)

• Broader interpretation: Propensity to contribute to a public good is the higher the more efficient the public good providing process

• Lack of procedural justice is compensated by higher stated willingness to engage in domestic climate protecting activities in the United States (not in China and Germany)
Summary

- Environmental concern, financial advantages and the perceived effectiveness in providing climate protection are the most important drivers of climate-friendly activities.
- Socio-economic and socio-demographic characteristics play a minor role in all three countries.
Thank you!

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