



Who is concerned about climate change when forests are burning?

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- Human-induced climate change (CC) exacerbates extreme weather.
e.g., temperature extremes, floods, droughts, forest fires.
(Dietz and Stern, 2008; IPCC, 2022)
- Such events raise awareness about CC?
e.g., Green party support increased by 37%, May-Aug 2018.
e.g., Environmental concerns increased by 68%, 2017-2018.
(Pollofpolls.se, 2020; Myers et al., 2013)
- Is this relationship causal?
(Hazlett and Mildenberger, 2020; Gagliarducci, et al., 2019)
- CC beliefs are essential in generating public support
(Millner and Ollivier, 2016; Egan and Mullin, 2017)

Research question:

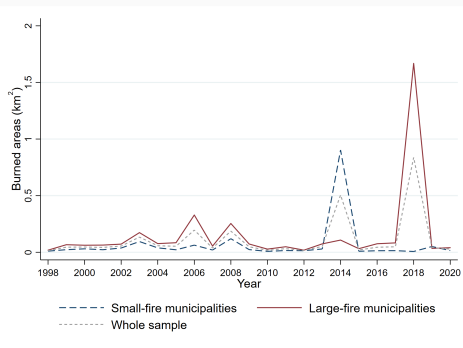
- How do people update their environmental attitudes in response to extreme climate events?
- **Does climate extremes exacerbate or reduce political polarization in attitudes?**

Research design

- Salience and motivated reasoning
(Bordalo et al., 2022; Bénabou and Tirole, 2016)
- The forest fire effects can vary depending on:
 - Fire exposure - Geographical location (Salience)
(Shayo and Zussman, 2011; Djourelouva, 2023)
 - Prior beliefs - Political orientation (Motivated reasoning)
(McCright and Dunlap, 2011; Egan and Mullin, 2017)
- Use **Difference-in-differences** approach
 - Fire intensity across **municipalities**
 - Level of prior beliefs across **party affiliations**
- Data: Swedish opinion surveys data and municipal panel of forest damage

Graphical evidence - Fire exposure

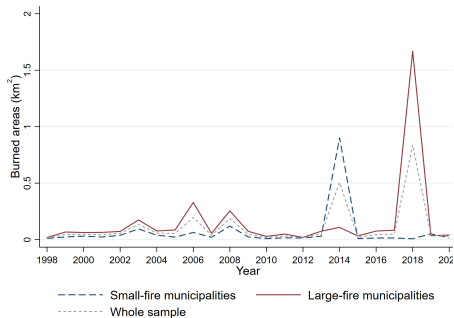
Panel A - Fire intensity by groups



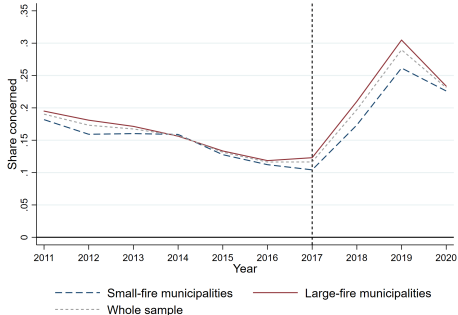
- A drastic gap in fires between large- and small-fire municipalities

Graphical evidence - Fire exposure

Panel A - Fire intensity by groups



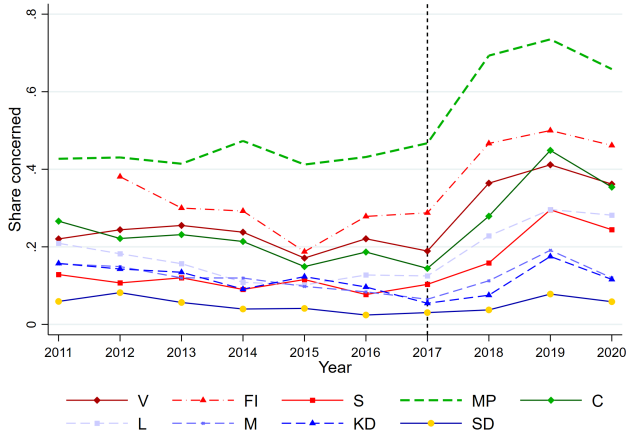
Panel B - Environmental concerns



- A drastic gap in fires between large- and small-fire municipalities
- 68% increase in concerns 2017-2018 in the whole sample (0.194 - 0.115)
- The difference in concerns is the largest in 2018

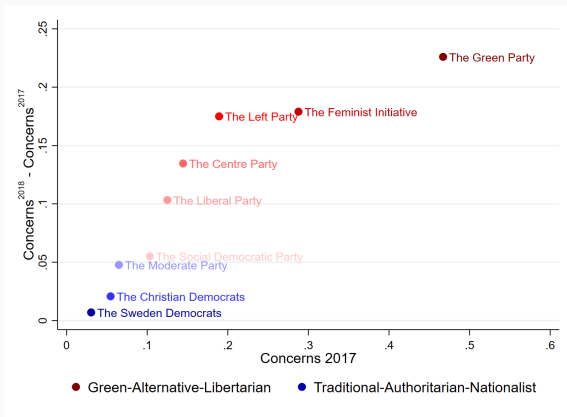
Graphical evidence - Political orientation

The Green Party (MP)
The Feminist Initiative (FI)
The Left Party (V)
The Social Democratic Party (S)
The Centre Party (C)
The Liberal Party (L)
The Moderate Party (M)
The Christian Democrats (KD)
The Sweden Democrats (SD)



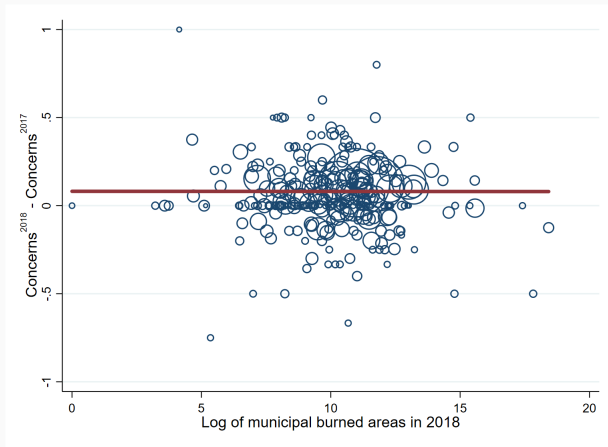
- Rising environmental concerns following 2018 fires
- Concerns increased differently by parties

Graphical evidence - Effects by prior concerns



- The response is strongly influenced by individuals' prior beliefs
- Fires exacerbate **political polarization**
- Motivated reasoning shapes beliefs in response to fires

Graphical evidence - Effects by fire intensity



- No evidence of fire effects by the intensity of local fires
- Salience did not matter

- Fires increase concerns and exacerbate **political polarization**
- No effects by prior on carbon tax support ([Douenne and Fabre, 2022](#))
- No effects by fire intensity across all outcomes
- Media exposure is unlikely the channel
- **Motivated reasoning shapes beliefs and salience did not matter**
- Policy implication