

Does Exposure to Information about Fossil Fuel Divestment Affect Public Opinion?

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Movement to Divest from Apartheid South Africa



Movement to Divest from Fossil Fuels

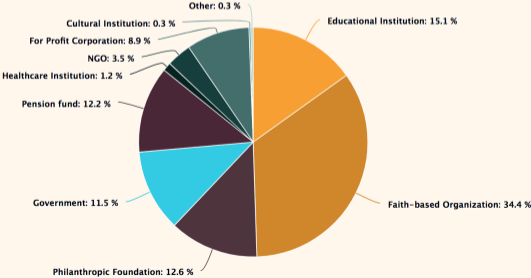
\$40.43 TRILLION

Approximate value of institutions divesting.

1508

Institutions Divesting

What kinds of institutions are divesting?



Movement to Divest from Fossil Fuels

Activists (e.g., Bill McKibben) and scholars (e.g., Ansar, Caldecott, and Tilbury 2013) argue divestment can impact public policy by moving public opinion

Main Puzzle: Does exposure to information about the fossil fuel divestment movement affect public opinion?

Empirical Test & Contributions

- **Empirics**

- Issue-Area: Climate Change
- Method: Survey Experiments in India, South Africa, and the United States
- Treatment: Exposure to Information about the Fossil Fuel Divestment Movement
- Outcomes: Climate Change Beliefs and Policy Preferences

- **Main Finding:** Null Effect

- **Contributions**

- Nonviolent Action and Social Movements Literature
- Signaling Literature
- Climate Change Literature

Correlates of Climate Beliefs and Attitudes

- **Gender** (McCright 2010)
- **Partisanship** (Dunlap and McCright 2008)
- **Personality Traits** (Rothermich et al. 2021)
- **Political Ideology** (DeNicola et al. 2014)
- **Race** (Benegal 2018)

The Effect of Natural Interventions on Climate Beliefs and Attitudes

- **Floods** (Osberghaus and Fugger, 2022)
- **Forest Fires** (Hazlett and Mildemberger, 2020)
- **Hurricanes** (Rudman et al., 2013)
- **Temperature Changes** (Deryugina 2013)

The Effect of Experimental Interventions on Climate Beliefs and Attitudes

- Rode et al. (2021) conduct a meta-analysis of 76 experimental interventions, finding that such interventions have a very small effect on climate change attitudes.
- However, they did find that beliefs were easier to move than policy preferences.

Does Divestment Work? How?

- Direct Economic Effects on Offending Firms/Countries? *Minimal*
 - Kaempfer, Lehman, and Lowenberg 1987; Posnikoff 1997; Wright and Ferris 1997; Meznar, Nigh, and Kwok 1998; Teoh, Welch, and Wazzan 1999; Kumar, Lamb, and Wokutch 2002

Does Divestment Work? How?

- **Mechanisms**
 - Stigmatization of fossil fuel companies (Bergman, 2018; Seidman, 2015)
 - Social norm (Gunningham 2017)
 - Absolute/ relative importance of climate change (Ansar et al., 2013)
- **Policy Preferences**
- **Pressure on Policy-Makers**

Theory

Main Effect of Divestment: Does It Work?

- Examples of Signaling in Other Contexts
 - American Politics: Protests (Gillion 2013; 2020)
 - International Relations: Military Mobilizations (Fearon 1997)

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 - Climate change is real
 - Climate change is a threat
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- Main Effect of Divestment: Increases public support for government policies to combat climate change

Mechanisms: What Explains Changes in Policy Preferences?

- Absolute Importance
- Relative Importance
- Stigmatization of Fossil Fuel Companies

Moderators: When Is Divestment Likely to Be More or Less Successful?

1. Financial Costs of Divestment

- American Politics: “Commitment” to the cause (Tilly 2004; Gillion 2013)
- International Relations: “Costliness” of an action (Schelling 1966; Fearon 1997)

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2. Diversity of Divestors

- American Politics: Asylum seeker and BLM protests (Wouters 2019)
- International Relations: Acting according to or against “type” (Kreps, Saunders, and Schultz 2018; Mattes and Weeks 2019)

The Cost-Diversity Model of Divestment Effectiveness

		Financial Cost of Divestment	
		High	Low
Diversity of Divestors	High	Highest Effectiveness	Intermediate Effectiveness
	Low	Intermediate Effectiveness	Lowest Effectiveness

- H_1 : Policy Support Hypothesis
- H_2 : Mechanism Hypotheses
- H_3 : Costliness Hypothesis
- H_4 : Diversity Hypothesis

Experimental Design

Study 1 Overview

- Survey Platform: Lucid
 - Performs well replicating previous studies (Coppock and McClellan 2019; Peyton, Huber, and Coppock 2021)
 - Include a *pre-treatment* attention screener

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- 2 x 2 x 2 + 1 between-subjects experiment

Factor	Value 1	Value 2
Diversity of Potential Divestors	High	Low
Financial Costs of Divestment	High	Low
Divestment	Yes	No

Studies 2-4 Overview

- Study 2
 - Conducted on Indian citizens
 - India is the third largest GHG emitter globally
- Study 3
 - Conducted on citizens of South Africa
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- Study 4
 - Conducted on US citizens
 - Includes a video treatment from a real-world divestment org (350.org)
 - Video impacts can have a greater impact on public opinion than text treatments (Wittenberg et al. 2021)

Dependent Variable and Mechanism Questions

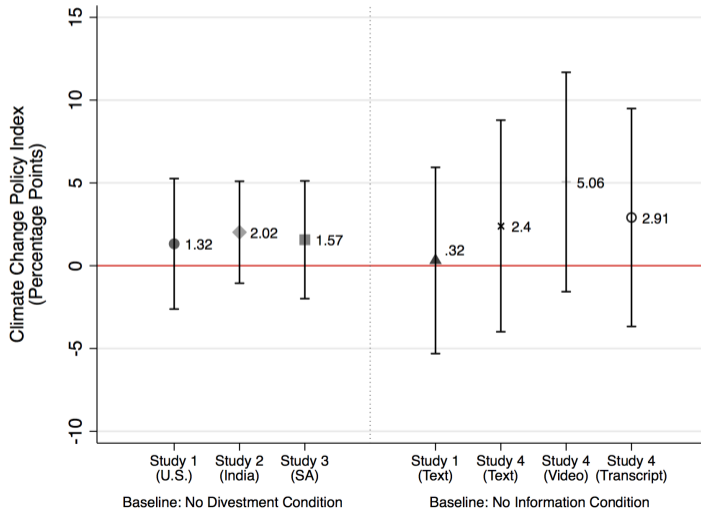
- Dependent Variable: Support for Climate Policy
 - Governments investments in clean energy
 - Tax breaks for clean energy
 - Regulations to reduce burning of fossil fuels
 - Carbon tax on firms
 - Paris Climate Agreement
 - Economic compensation to those negatively impacted; Public investments for adaptation; Law requiring public divestment

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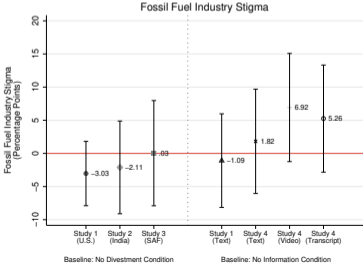
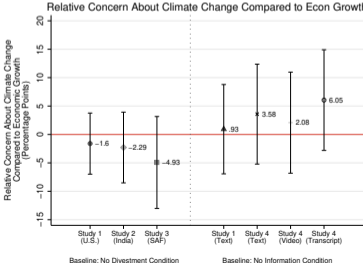
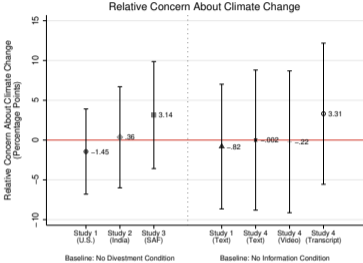
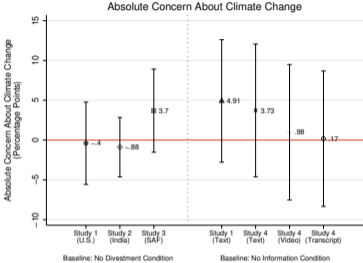
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- Mechanisms
 - How worried are you about climate change?
 - How high a priority should government action to combat CC be? Relative to economic growth?
 - How do you view fossil fuel companies?

Results

The Impact of Exposure to Information about Fossil Fuel Divestment on Climate Change Policy Preferences



Mechanisms: Absolute Concern, Relative Concern, and Stigma

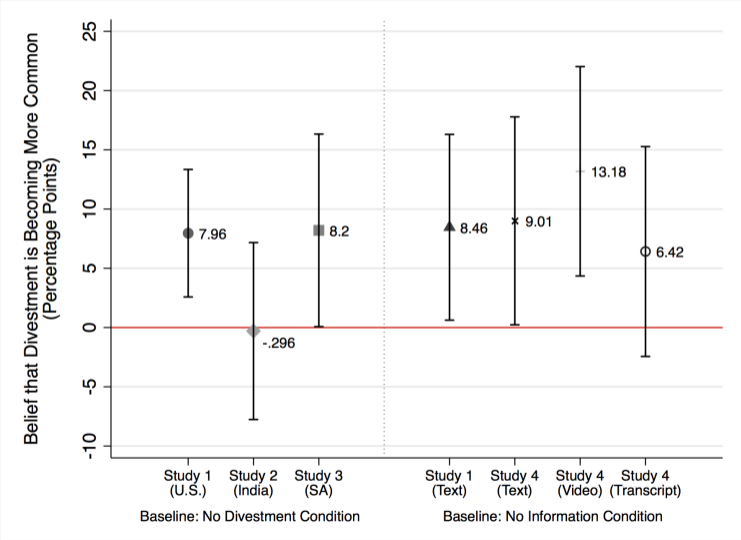


Moderators: Diversity and Cost

	<i>Climate Change Policy Index</i>					
	Study 1 (1)	Study 1 (2)	Study 2 (3)	Study 2 (4)	Study 3 (5)	Study 3 (6)
Divestment Treatment × High Cost Treatment	0.0581 (0.0404)		0.0185 (0.0314)		0.0472 (0.0362)	
Divestment Treatment × High Diversity Treatment		0.0287 (0.0404)		-0.0020 (0.0314)		0.0386 (0.0362)
Divestment Treatment	-0.0167 (0.0287)	-0.0020 (0.0291)	0.110 (0.0225)	0.0213 (0.0220)	-0.0079 (0.0258)	-0.0036 (0.0251)
High Cost Treatment	-0.0215 (0.0283)		0.0053 (0.0231)		-0.0088 (0.0262)	
High Diversity Treatment		-0.0042 (0.0283)		0.0053 (0.0220)		-0.0267 (0.0262)
Constant	0.5828*** (0.0190)	0.5748*** (0.0194)	0.8251*** (0.0165)	0.8250*** (0.0158)	0.8002*** (0.0183)	0.8090*** (0.0176)
Observations	1344	1344	700	700	570	570

Notes: Standard errors in parentheses. *p<0.10; **p< 0.05; ***p<0.01.

Beliefs About the Prevalence of Divestment



Conclusion

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- Implication: Perhaps climate activists should devote their resources to other campaigns and methods
- Our results do *not* imply that divestment movements can never impact public opinion
 - May have a bigger impact in other issue-areas
 - May work through other mechanisms: financial; inspiring individuals to undertake higher-impact activities (e.g., protesting)
 - Limitations of survey experiments

Questions for Audience

- Do you buy that this is a reasonable test of divestment? Any suggestions on how to strengthen the empirical test of our theory?
- Should we frame the question about the prevalence of divestment as more of a manipulation check or a social norm mechanism assessment?
- Are there other qualifications we should make when discussing our results?
- Does the framing making sense?