

The Double-Edged Sword of Deliberative Democracy: Topic Model Analysis of International Climate Change Speeches

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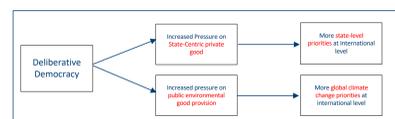


Introduction

Despite the quarter century of continuous effort, climate change negotiations have failed in reaching a comprehensive agreement. What explains the gap between routine negotiations and states' inability to reach effective agreements? Do states' levels of democracy influence reaching agreements through negotiations? To answer these questions, I apply a Structural Topic Model to UNFCCC Conference of the parties (COPs) speeches from the 16th-25th COPs. After extracting 25 topics from the speeches, I focus on the deliberative dimension of democracy to evaluate whether it influences countries to negotiate in unique manners. Results suggest that high levels of deliberative democracy lead to more state-centric bargaining priorities which indicates countries' willingness to participate in global climate change actions. However, deliberative democracy happens to compel states to prioritize aspects that are beneficial to their individual interests instead of the global climate change agenda.

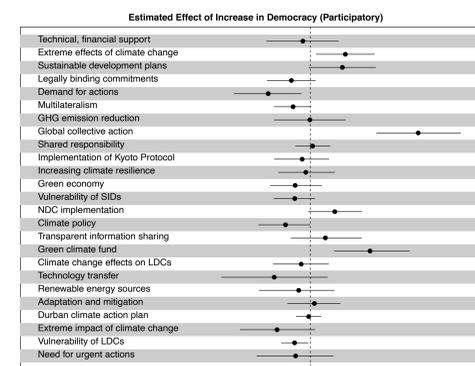
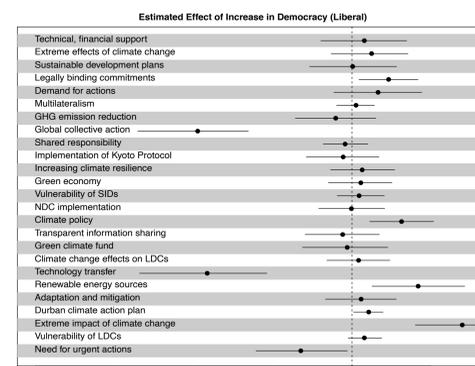
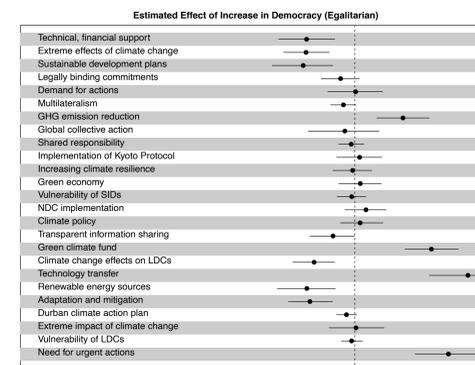
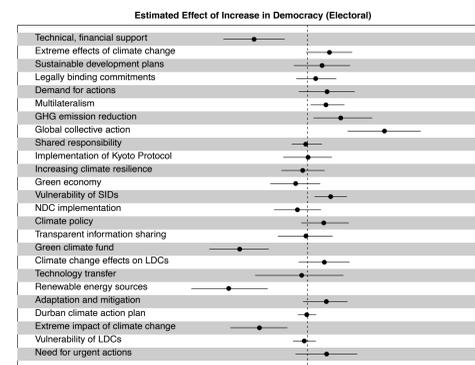
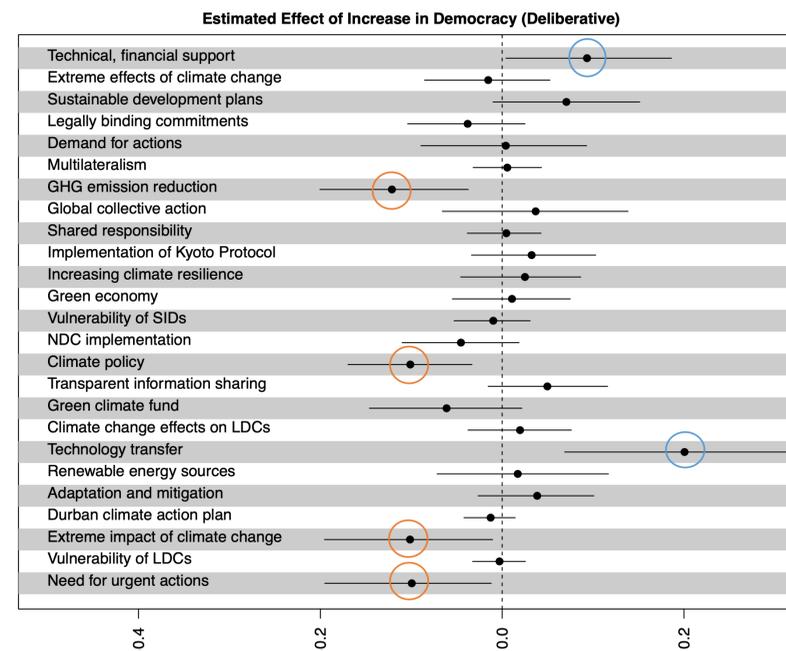
Hypotheses

- H_0 : Deliberative democracy does not have any effect on nation-states' priorities within global climate change actions.
- H_1 : Deliberative democracy has an effect on nation-states' priorities within global climate change actions.
 - H_{1A} : High deliberative democracy leads to more state-centric bargaining priorities.
 - H_{1B} : High deliberative democracy leads to more globally oriented bargaining priorities.

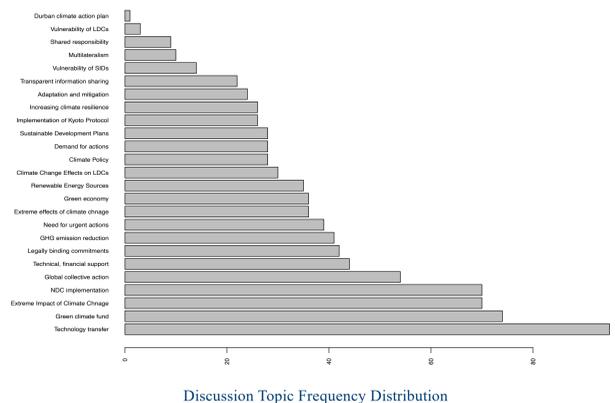


Data and Methods

- Data: 886 individual speeches (texts)
- Structural Topic Model (STM)
 - Evaluating variation in countries' global climate change priorities
 - The STM estimates a series of underlying themes of COP speeches
 - The STM estimates the relationship between the prevalence of each topic and seven external speech level covariates under a regression framework.



Results



- As the level of deliberative democracy increases, speeches on technology transfer and technical, financial support increase. At the same time, speeches on GHG emission reduction, climate policy, extreme impact of climate change, and need for urgent actions decrease.
- Deliberative democracy has an effect on nation states' priorities within global climate change actions (H_1).
- A high level of deliberative democracy specifically leads to more state-centric bargaining priorities (H_{1A}).

Conclusion

- Deliberative democracy influences nation states' bargaining positions in international climate change negotiations.
- Deliberative democracies, and hence citizens and related non-governmental actors, may tend to prioritize national-level welfare in climate change negotiations over global-level welfare.
- While high levels of deliberative democracy influences states' bargaining positions, deliberative democracy may impede or limit global progress in climate change as the outsized domestic influences in these cases lead negotiators to deemphasize topics that contribute to the global effort to reduce climate change.

Selected References

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