University of Colorado Boulder

Angry Storms:

The Effect of Anthropomorphizing Natural Disasters on Climate Change Action

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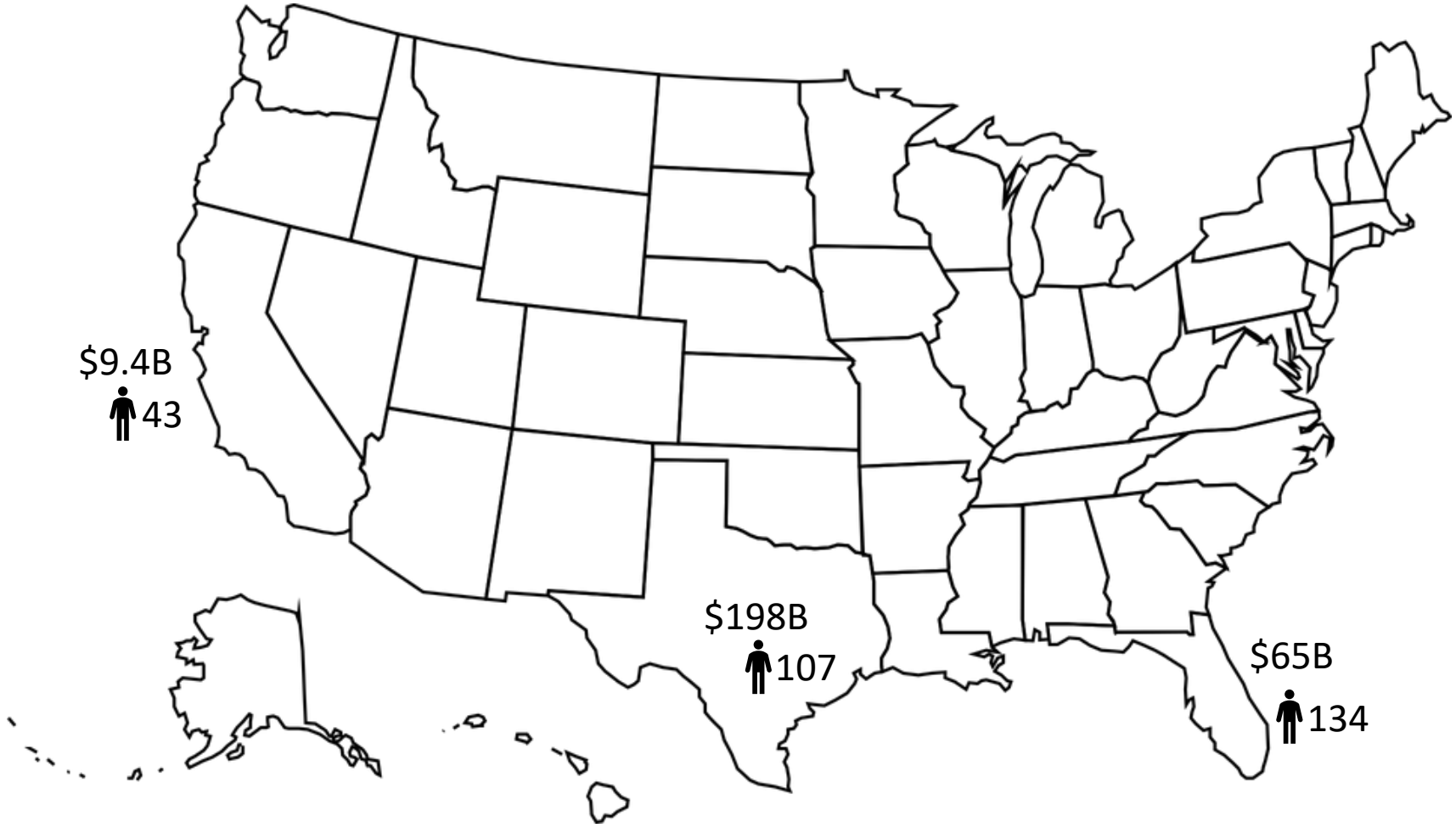
Natural Disasters in 2017



- $306B in damage
- Worsened by climate change (Irfan & Resnick, 2018)

Media Anthropomorphizes Storms

"The storm, which stretched 650 miles from east to west, affected at least nine US states, **turning streets into rivers, ripping down power lines, uprooting trees and cutting off coastal communities**….
The hurricane hit southwest Florida on September 10, **battering the state's lower half and leaving a trail** of tornadoes and storm-surge flooding as its core slowly moved inland." - CNN

Research Questions

- **Anthropomorphism:** Does anthropomorphism of disasters affect climate change action in the wake of such disasters?
- **Distance:** Do individuals in the geographic region of the storm report increased likelihood for climate action compared to individuals who live farther away?

Methods

- Two studies: Hurricanes Harvey and Irma (N = 422, October 2017), and California wildfires (N = 450, January 2018)

Intentional Condition:

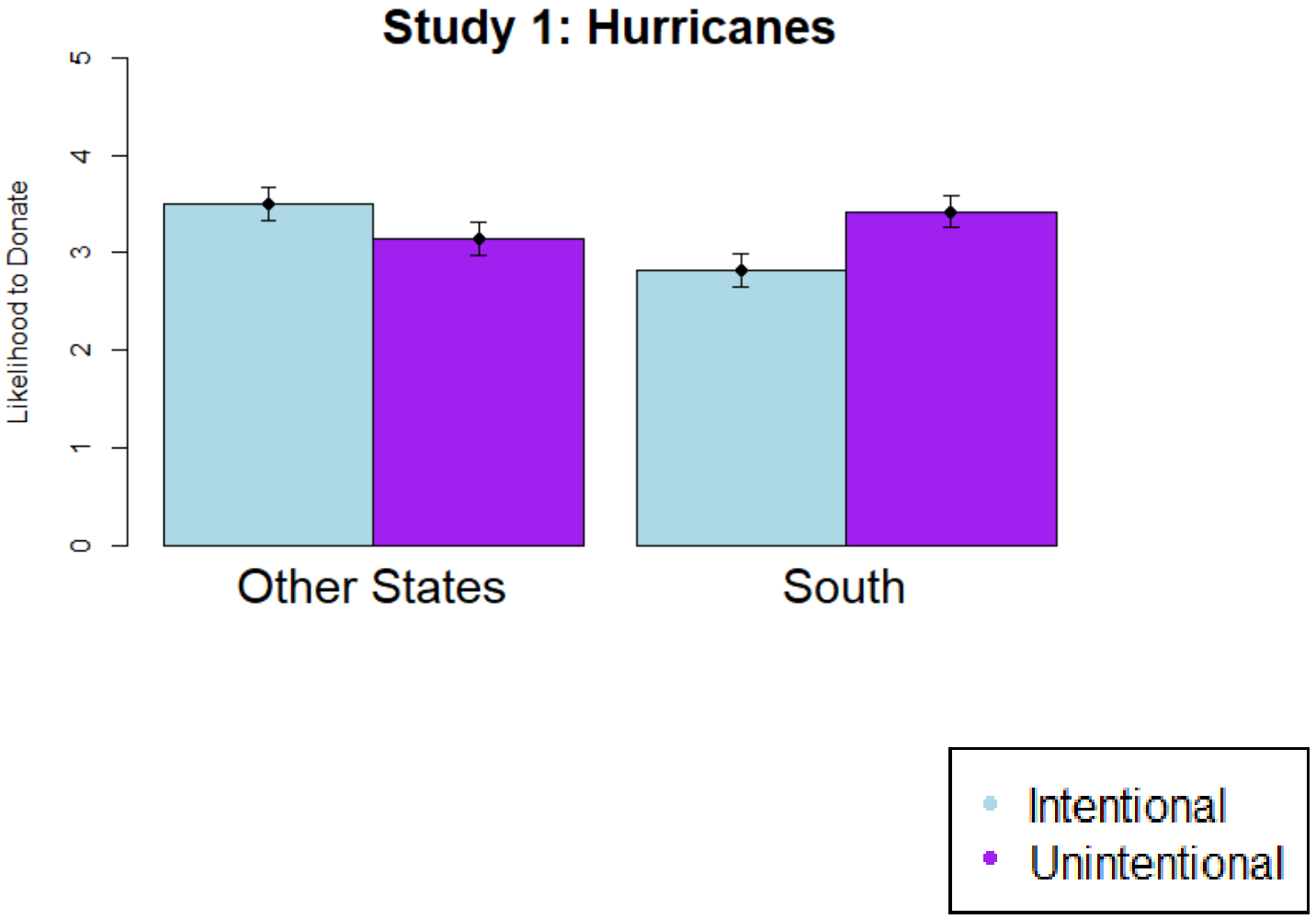
- "…bombarded the area…
- Suffocating…
- Stole power…"

Unintentional Condition:

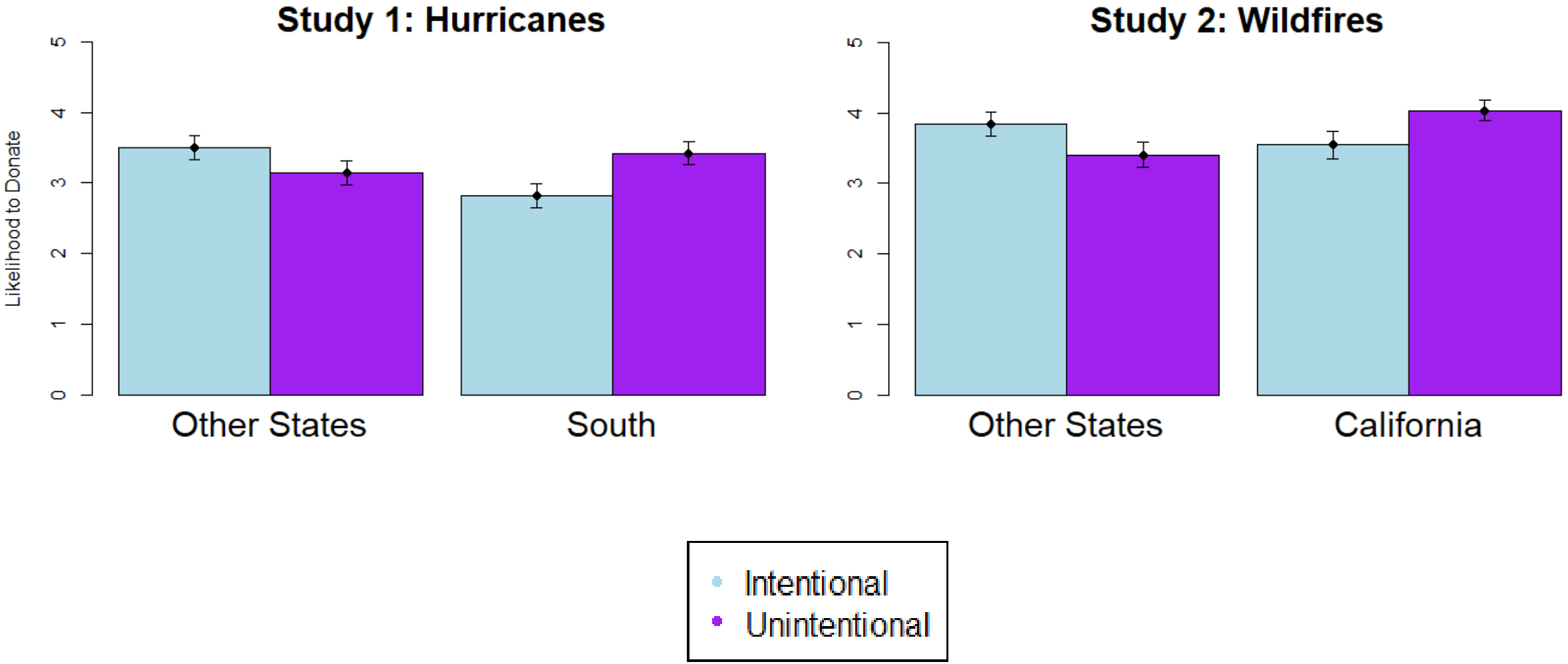
- "…it was formed…
- Resulted in power going out…
- People had to leave their homes…"

- Measured likelihood to contribute to climate change mitigation and adaptation efforts

Intentionality Increases Climate Action for Proximate Regions



Intentionality Increases Climate Action for Proximate Regions



Intentionality Increases Climate Action for Proximate Regions

When disasters are described in anthropomorphized language, individuals close to the disaster are more likely to act on climate change.

Thank you!

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Measures: Belief in Climate Change

1. Global warming refers to the recent and ongoing rise in global average temperature near the Earth's surface. Increasing concentrations of greenhouse gasses is the primary cause of global warming. Global warming, in turn, is causing climate patterns to change. Climate change includes major changes in temperature, precipitation, wind patterns, or other effects that occur over several decades or longer. Please indicate how much you agree with the following statements:
   - Climate change is happening.
   - Climate change poses a risk to human health, safety, and prosperity.
   - Human activity is largely responsible for recent climate change.
   - Reducing greenhouse gas emissions will reduce global warming and climate change.
2. To what extent do you think climate change is increasing the **severity** of disasters like this?
3. To what extent do you think climate change is increasing the **frequency** of disasters like this?
4. How likely do you think it is that climate change worsened the recent wildfires?

- Measure created by averaging score for #1 and responses to #2-#4

Measures: Likelihood to Contribute to Climate Change

- How personally likely are you (or have you been) to contribute to **climate change adaptation efforts** that can protect people against future disasters such as these, **including strengthening infrastructure against damage and improving storm and fire response plans**?
- How personally likely are you (or have you been) to contribute to **climate change mitigation efforts** that can lessen the chance or severity of future disasters such as these, **including reducing carbon emissions and promoting renewable energy sources**?

Results: Likelihood to Donate

Multiple regression model predicting likelihood to donate to climate change adaptation and mitigation efforts by:

- Location of the storm, intentionality condition, belief in climate change, location of participant

Study 1: Hurricanes

Predictor	*b*	*t*	*p*
Intentionality	-0.007	-0.111	0.912
Participant Region	-0.016	-0.233	0.816
Intentionality*Region	0.160	2.39	0.017

Study 2: Wildfires

Predictor	*b*	*t*	*p*
Intentionality	0.055	0.739	0.461
Participant Region	-0.079	-1.21	0.225
Intentionality*Region	0.129	1.99	0.048

References

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