# Crowdsourcing Effective Educational Interventions

J. Hunter Priniski and Zachary Horne Arizona State University



Can researchers use online arguments (e.g., from Reddit's Change My View) to develop effective educational interventions?

#### Introduction

- Developing effective educational interventions is difficult, and whenever a scientifically-tested intervention fails, it is still possible that other interventions would be effective.
- However, no single lab or group of labs can systematically explore and test the entire hypothesis space of possible interventions.
- We propose that researchers build on successful crowdsourced arguments (here, from Reddit's Change My View) to develop effective educational interventions.

#### Methods

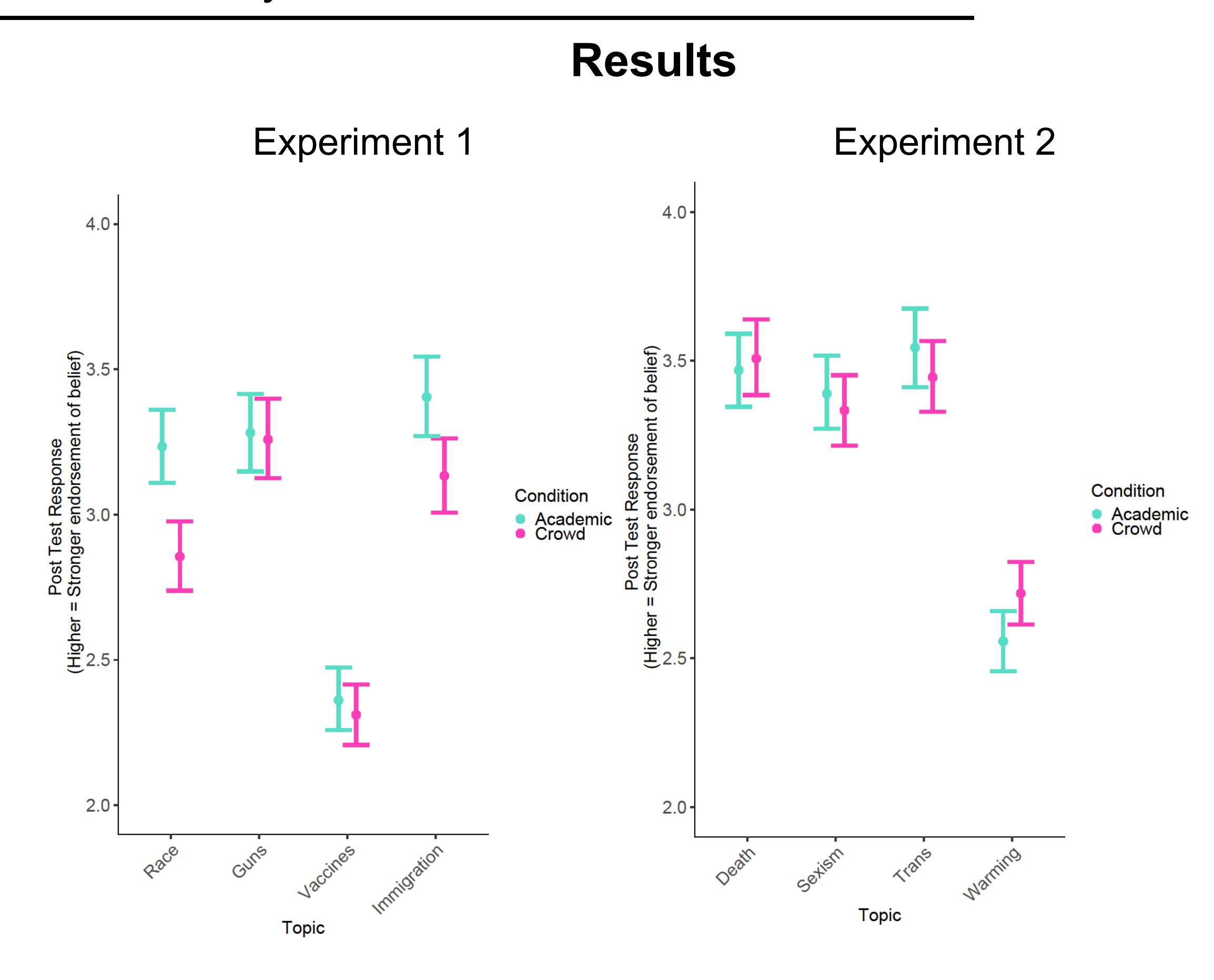
• In two within-subjects experiments, we identified successful arguments on Change My View and performed a head-to-head comparison to interventions reported in the literature—adopting a methodological approach most analogous to a strategy relied on in clinical trials.

## Experiment 1 (N = 916)

• Participants received two crowdsourced and two academic interventions aimed at changing beliefs on four different topics.

### Experiment 2 (N = 900)

• An extension of Exp. 1, we compared crowdsourced and academic interventions for four new topics.



For seven out of eight hotly-debated topics, we found that crowdsourced arguments were as effective or more effective at changing beliefs than interventions developed by academics and published in top-tier scientific journals.

## Discussion

Two studies suggest that arguments mined from online communities can be used to develop educational interventions.