

Climate Communication in a Politically Polarized Society: Which Message Frames Work the Best?

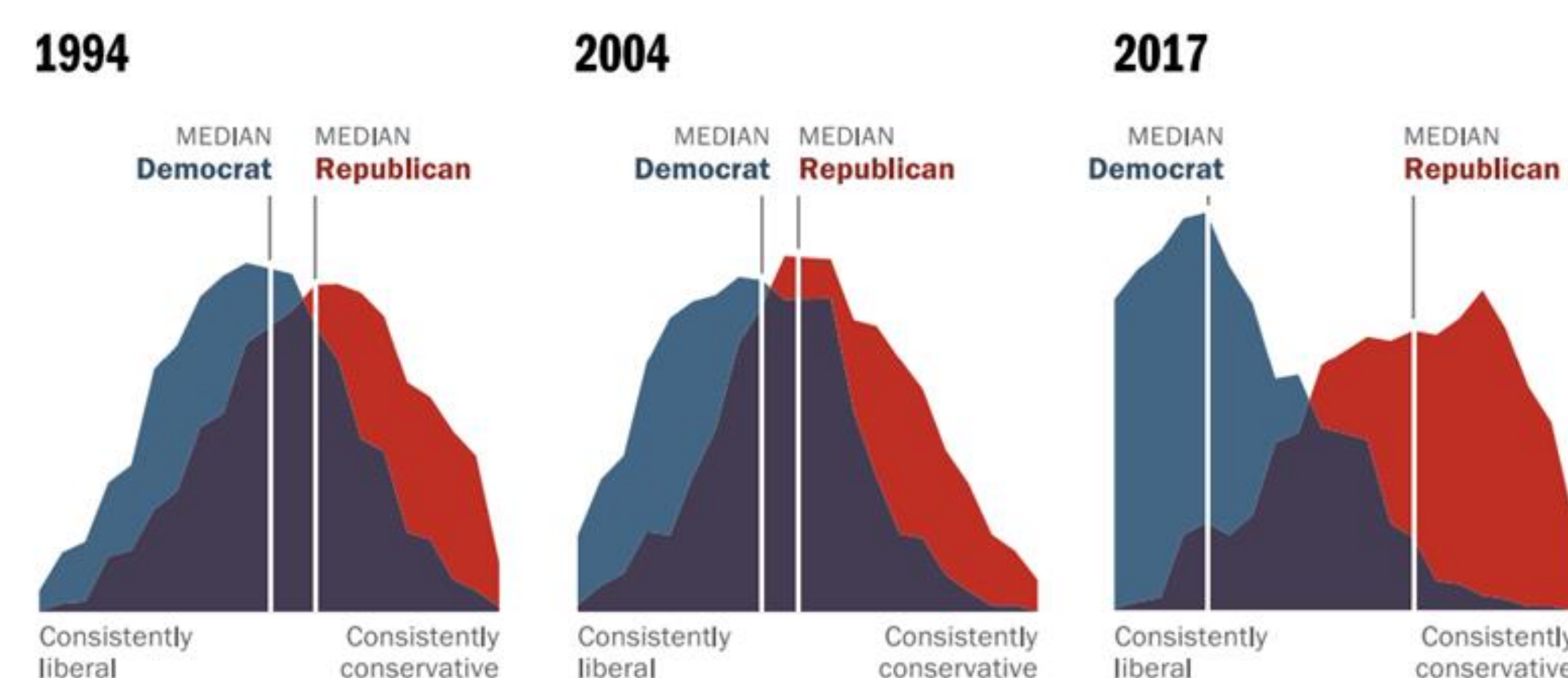
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The Problem

- Effective communication needed to generate public support for climate adaptation and mitigation policies and practices
- Communication is difficult in an increasingly polarized society; most messages by liberals, for liberals
- Need to understand which climate message frames work, and which ones do not, across diverse stakeholder groups - especially those with different political ideologies

Democrats and Republicans more ideologically divided than in the past

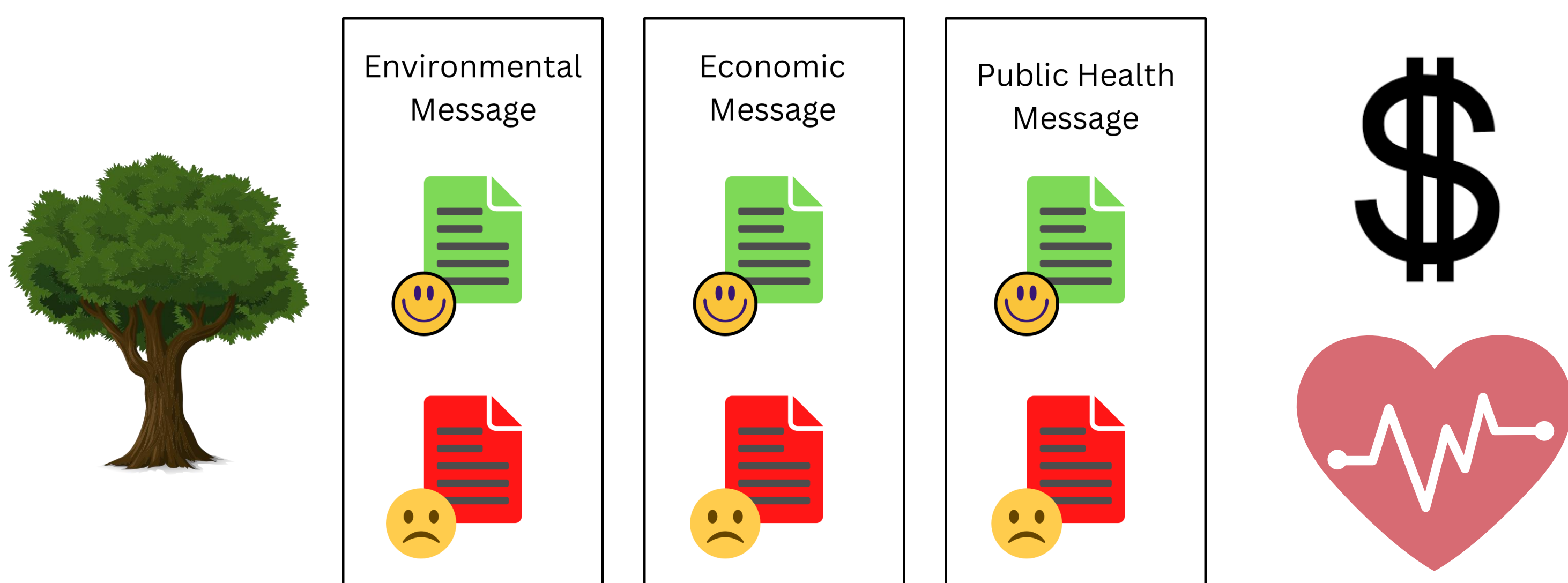
Distribution of Democrats and Republicans on a 10-item scale of political values



Source: Pew Research Center, 2018

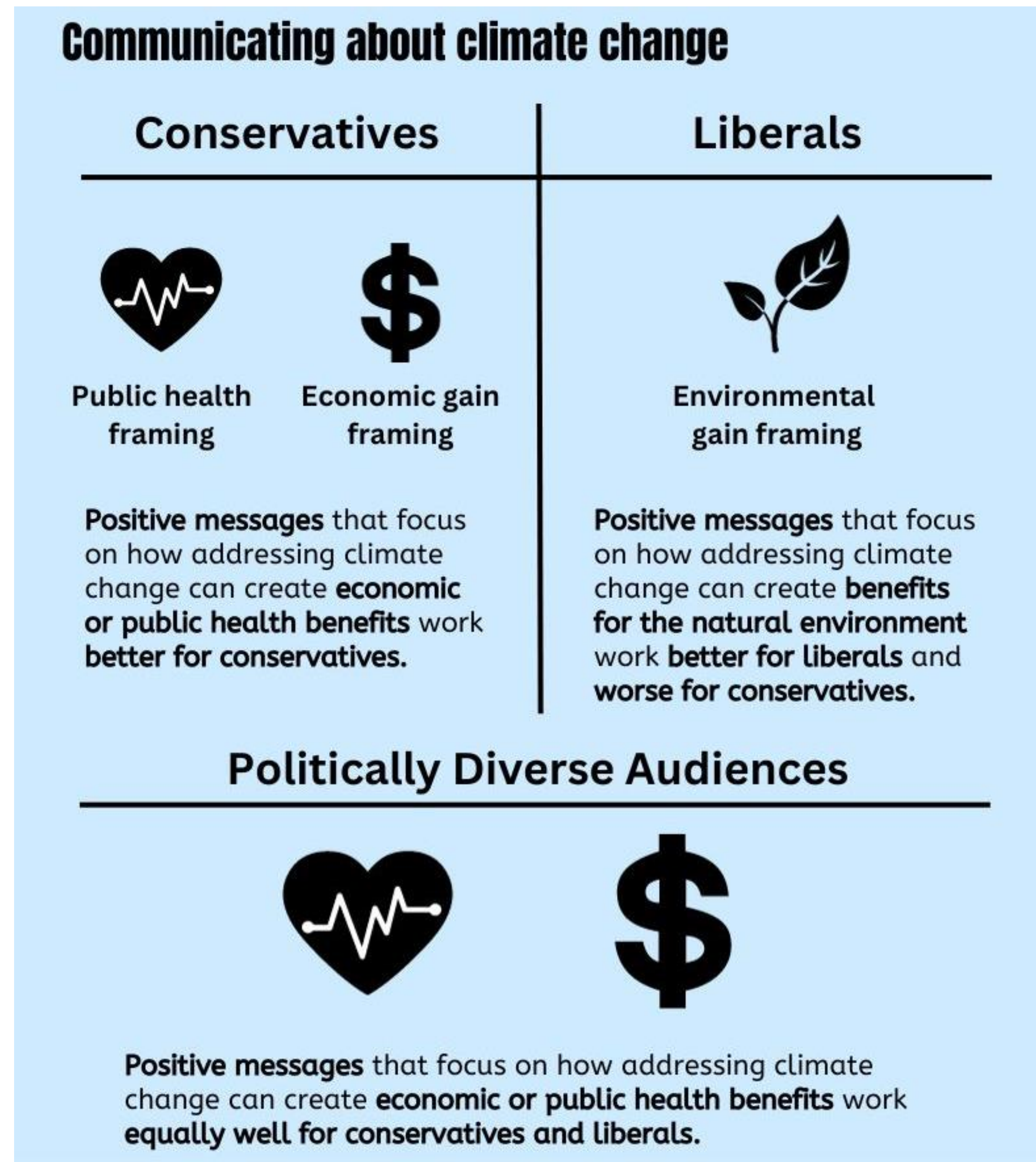
Methods

- 3 x 2 experimental design with representative sample of survey respondents across the United States (n = 1,536)
- FIRST, each participant randomly received one of 6 different message frames: **Emphasis frames** focused on broader themes related to climate: environment, economy, public health; **Equivalence frames** positioned each issue as either a gain (opportunities if we address climate change) or a loss (impacts of not addressing climate change)



- NEXT, after assignment to one of the treatments, all participants received the same, frame-free scientific communication about climate change
- **Dependent variables:** (1) Perceived validity of climate science article; (2) Perceived risk of climate change; **Key Independent variables:** (1) Political ideology (liberal vs. conservative); (2) Cultural cognition (hierarchy vs. egalitarian), individualism vs. communitarianism)

Implications



Research Questions

- How do different message frames impact the **perceived validity of climate science** for people with different political ideologies?
- How do different message frames impact the **perceived risk of climate change** for people with different political ideologies?

#1 - Different Framings: Economic Loss Example

Scientists: Massive Damage to the U.S. Economy is Possible if We Don't Respond to Climate Change Now

For example, the report highlights a massive decline in industries - including forestry, fisheries, farming, and tourism - that would be caused by a slow and disorganized response to climate change. Ultimately, this would slow the overall growth of the U.S. economy. A decline in these industries would decrease available jobs, hurting people throughout the nation.

"If we do not take steps to address climate change, the property of businesses and people will be destroyed by extreme weather events," said a member of the group. "By not responding, we will also prevent investment in green technology. This will limit available jobs within the United States."

Ultimately, the report sends a clear message: we will weaken the U.S. economy if we don't address climate change immediately.

#2 - "Council on Climate Science" Report

Excerpt from the Council on Climate Science Annual Report

Emissions of greenhouse gases have risen to the highest levels in human history within the last decade. Without immediate and steep reductions in emissions, it will be impossible to limit global warming to 1.5°C. Even with current reductions promised more than 1.5°C and it will be difficult to keep warming below 2°C.

Warming above 2°C above the pre-industrial average poses a substantial risk to human life on Earth as we know it. Based on our models, keeping warming around 1.5°C (2.7°F) would require emissions to decrease by 43% by 2030. Even with these precautions, we will likely exceed the 1.5°C threshold, but could possibly return to it by the end of the century.

In this report, we summarize potential impacts of climate change to the U.S. that will occur across multiple sectors. We also discuss adaptation and mitigation strategies that can help us avoid these impacts. Adaptation involves adjusting our current systems and infrastructure to better withstand the impacts of climate change. Mitigation strategies involve taking action now to reduce or prevent future climate change.

Ultimately, the report sends a clear message...

- We will weaken/strengthen the U.S. economy if we don't/do address climate change immediately
- We will threaten/support U.S. public health if we don't/do address climate change immediately
- We will threaten/support the natural environment of the U.S. if we don't/do address climate change immediately

Findings

Beliefs	Conservatives	Moderates	Liberals	Everyone
Climate change is happening	58%	83%	95%	79%
Climate change is caused mostly by human activities	23%	33%	58%	37%

- Predictors of both perceived validity and perceived risk included political ideology, cultural cognitions, and conspiracy beliefs
- Interactions showed different response to different frames: Economic and public health framings were slightly less polarizing, gain frames generally more polarizing

