

# Climate Change: Identifying Publics to Enhance Understanding and Engagement

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George Mason University  
Center for Climate Change Communication

## **My main points:**

- In any nation, there are likely multiple climate change publics (or audiences); identifying those publics is the first step in planning effective public engagement methods.
- Audience segmentation data can help focus your public education and engagement efforts in three ways:
  1. Identifying the best audience(s) for a strategy you wish to implement
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  1. Identifying messages/experiences that will have value across many (or all) audiences.

# CLIMATE CHANGE IN THE AMERICAN MIND

Americans' Global Warming Beliefs  
and Attitudes in April 2013

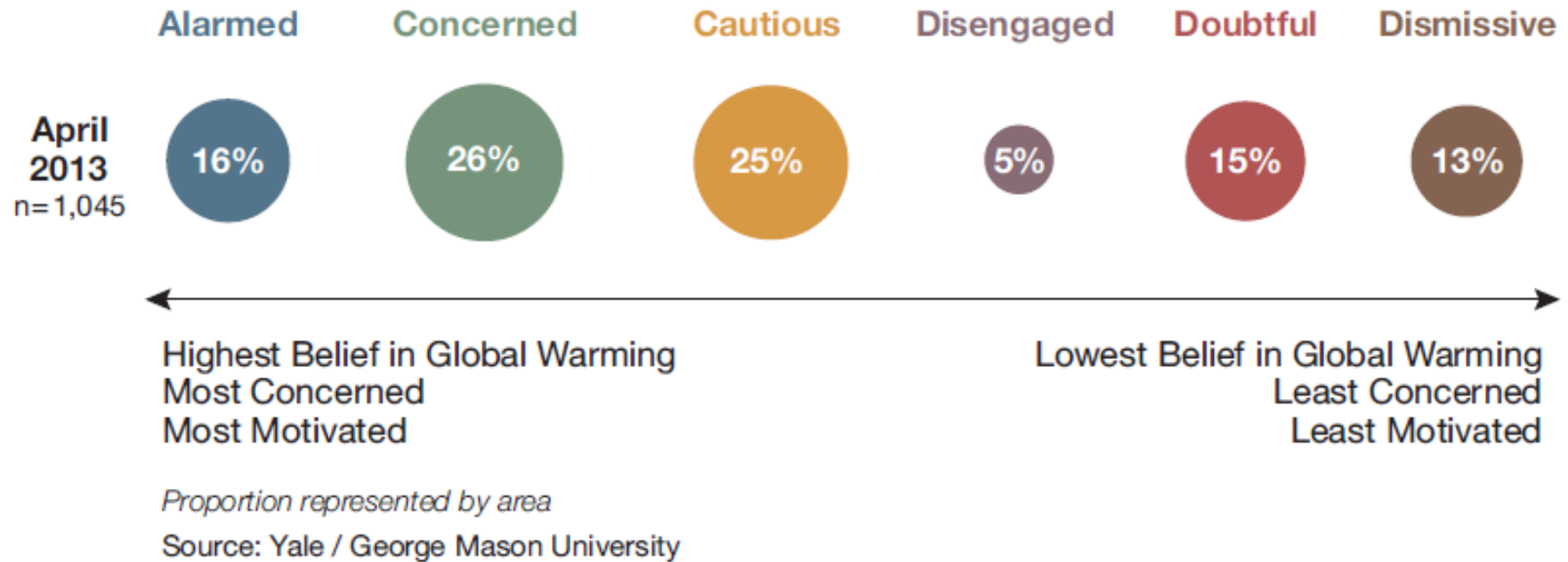


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## Climate Change in the American Mind:

- Nationally representative surveys of adults
- Conducted twice annually
- Started in 2008
- N = 1,000 per survey
- Used to track key indicators of public opinion
  - beliefs
  - behaviors
  - policy support

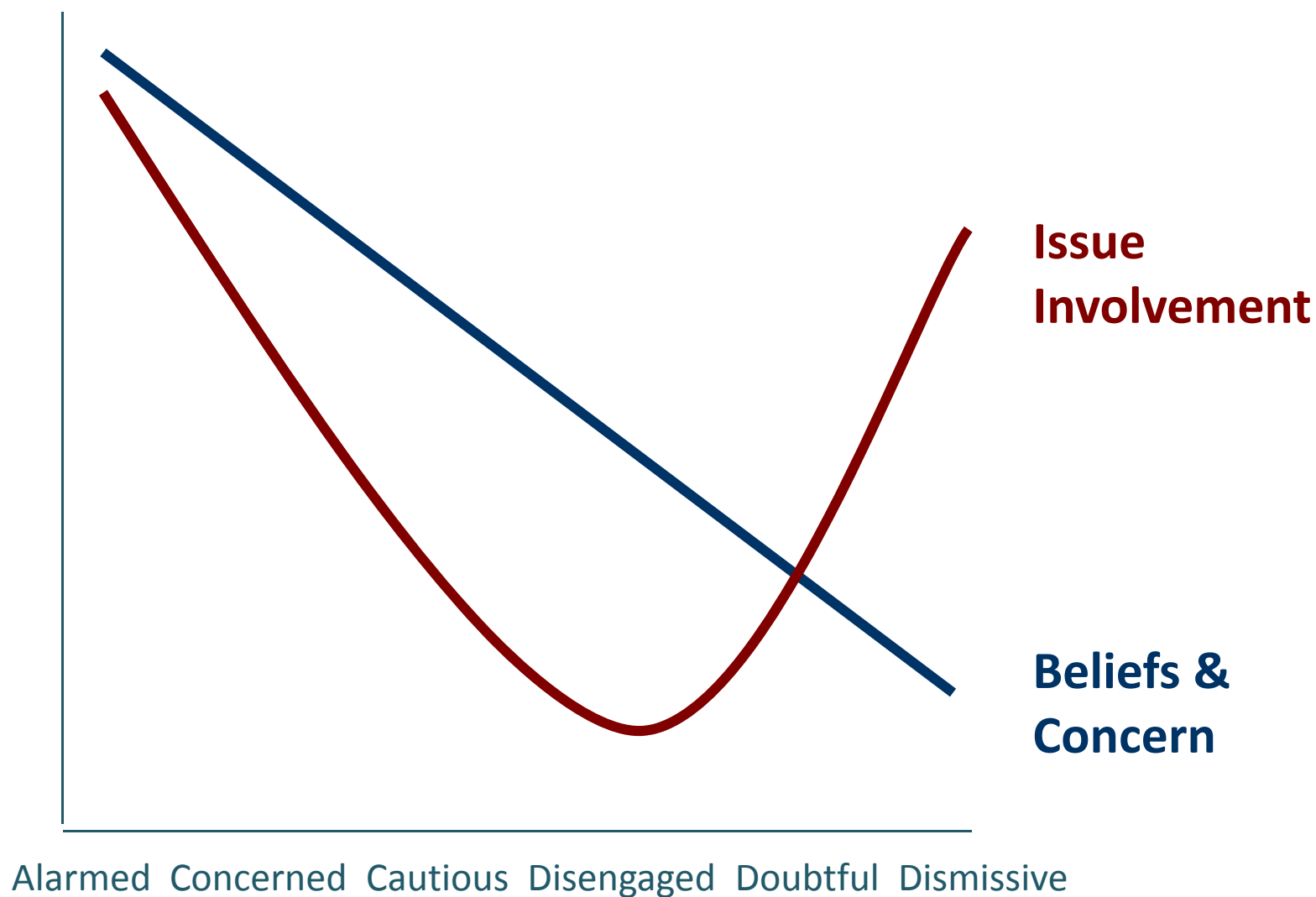
# Global Warming's "Six Americas"



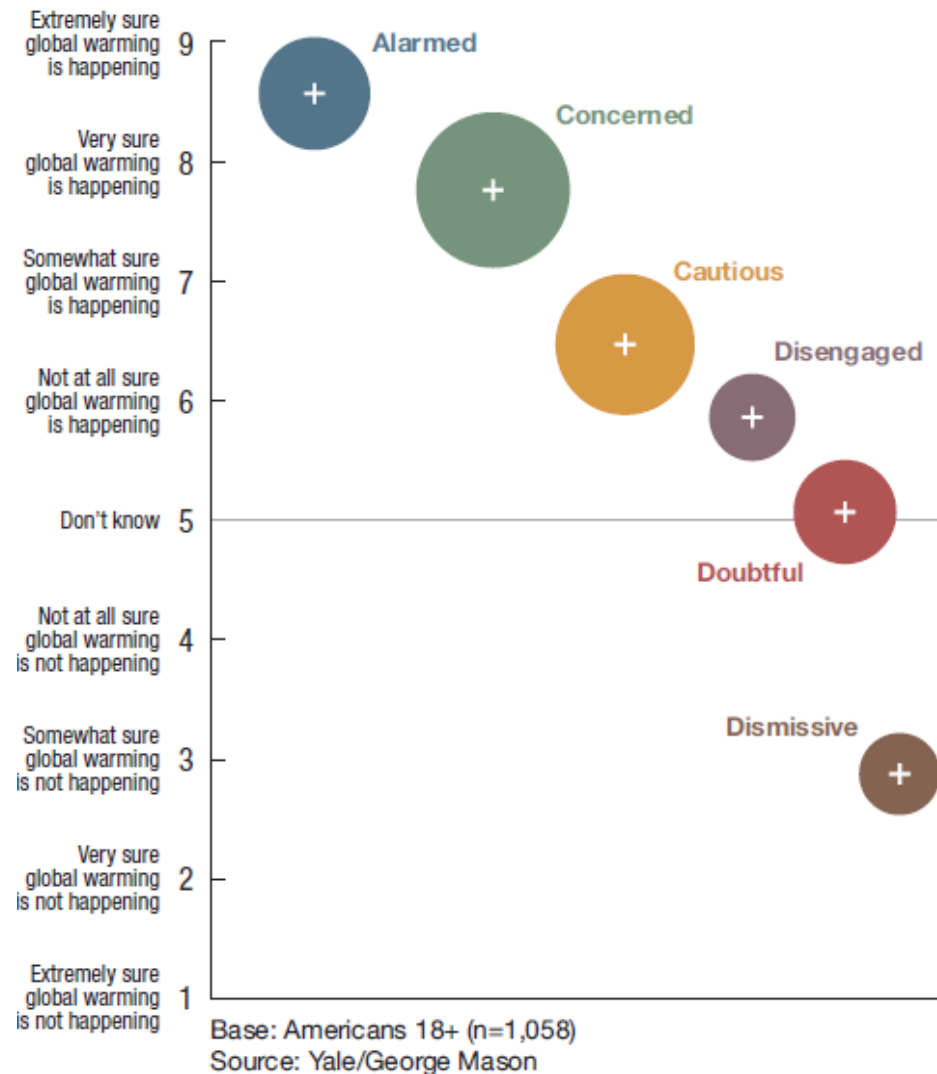
*The size of the bubbles shows the proportion of Americans that belonged to each group in Apr. 2013*



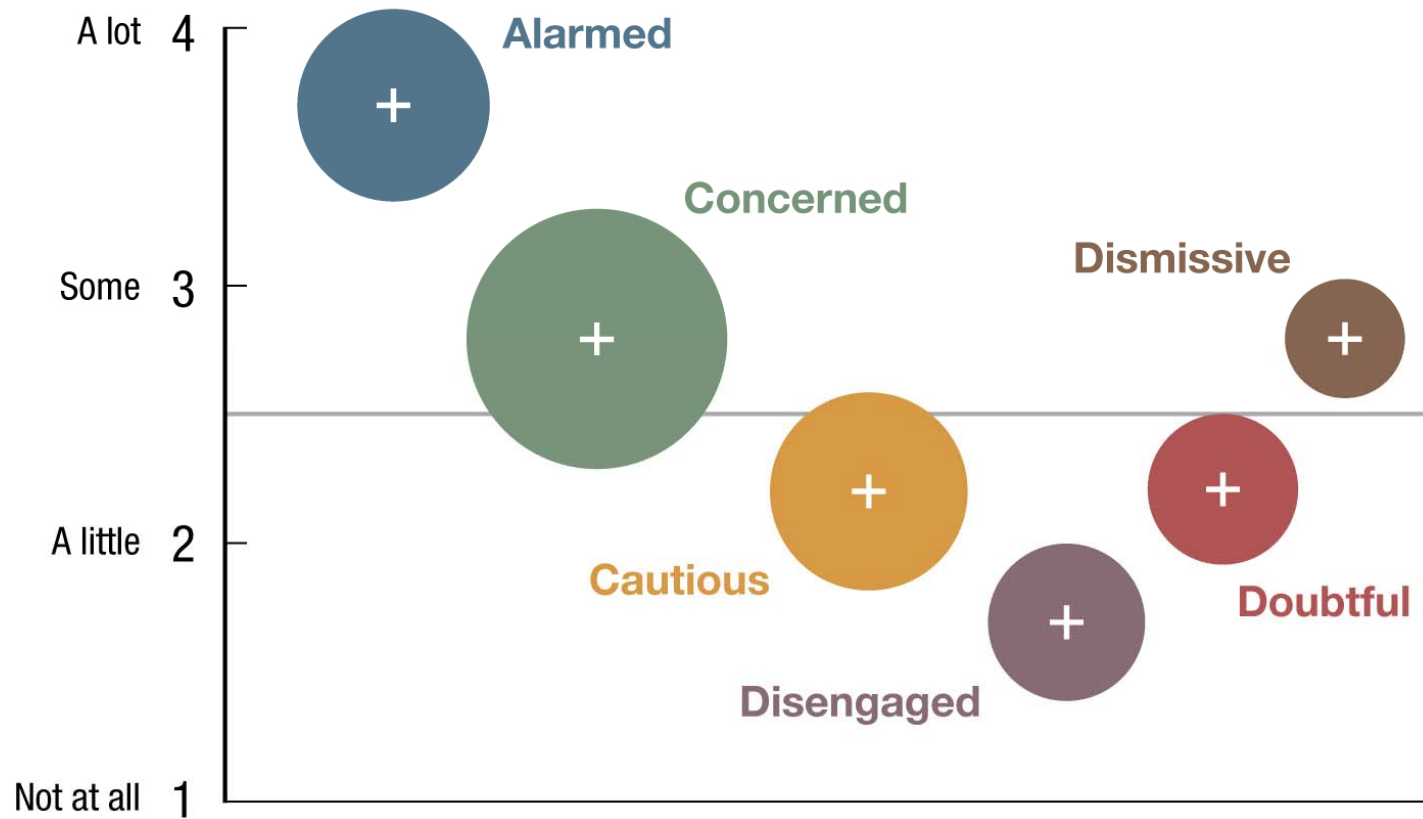
## Primary Differences between the Six Groups



# Do you think that global warming is happening? How sure are you?



# How much had you thought about global warming before today?

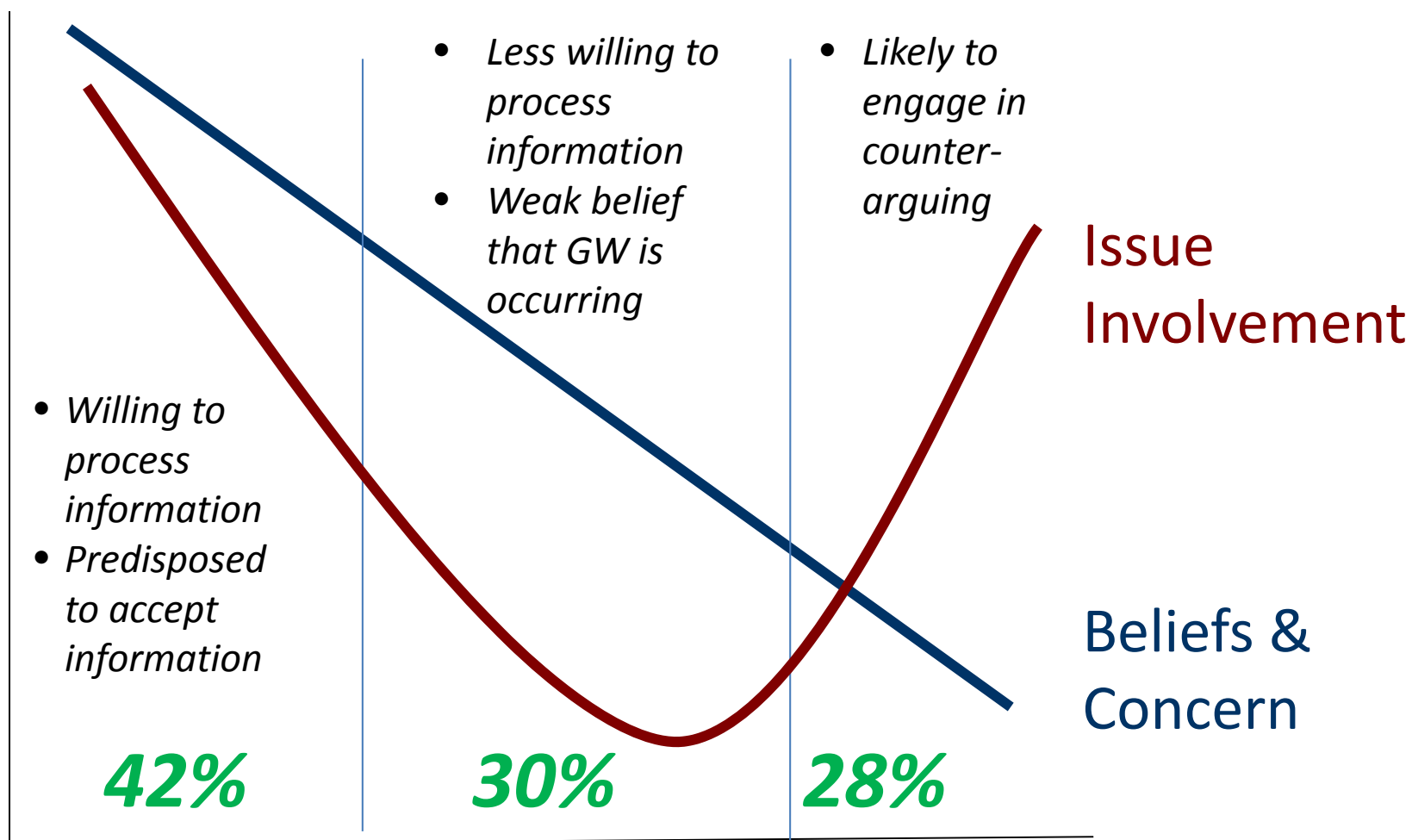


n=2,129

Source: Leiserowitz, Maibach & Roser-Renouf (Yale, 2009)



# Primary Differences among the Six Groups

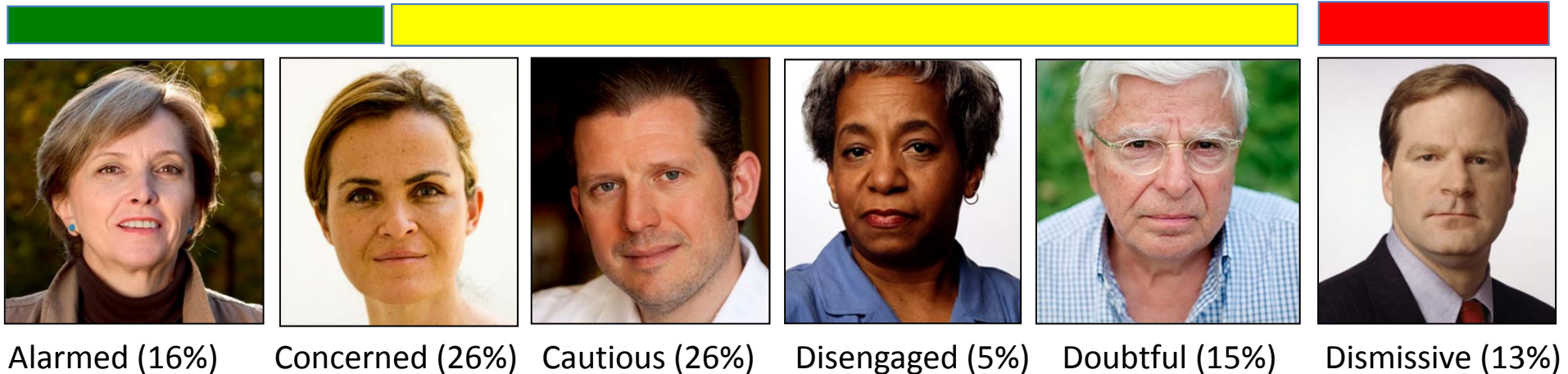
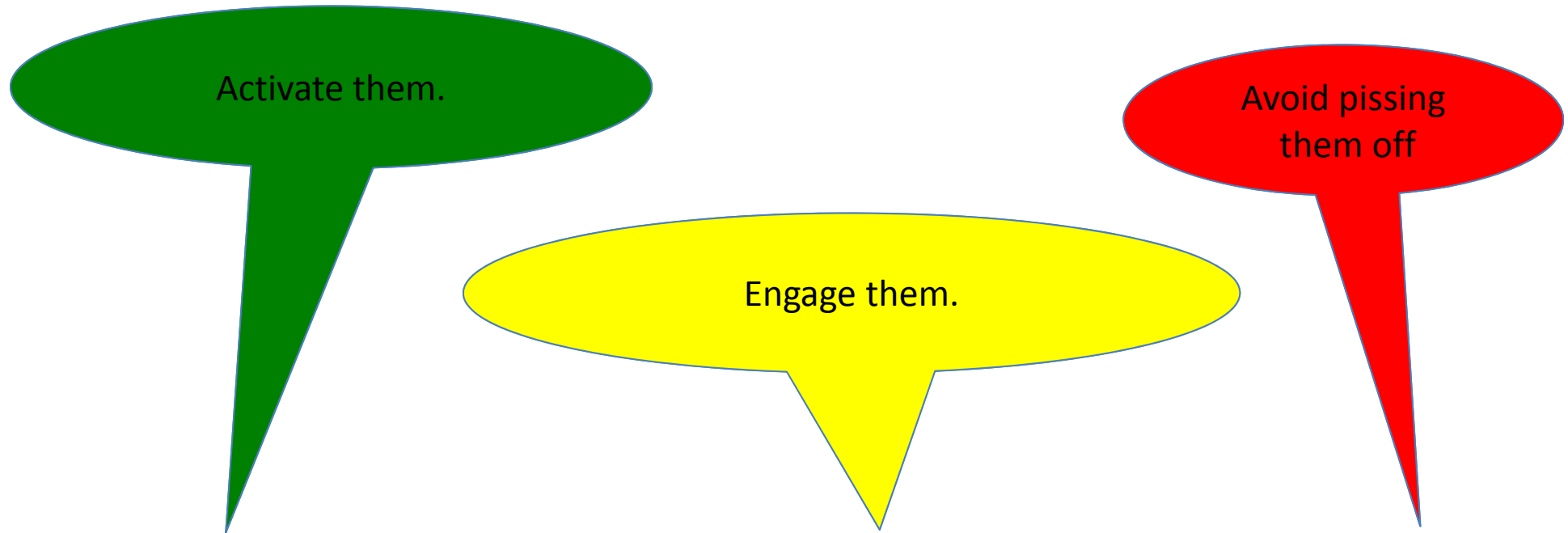


Alarmed Concerned Cautious Disengaged Doubtful Dismissive





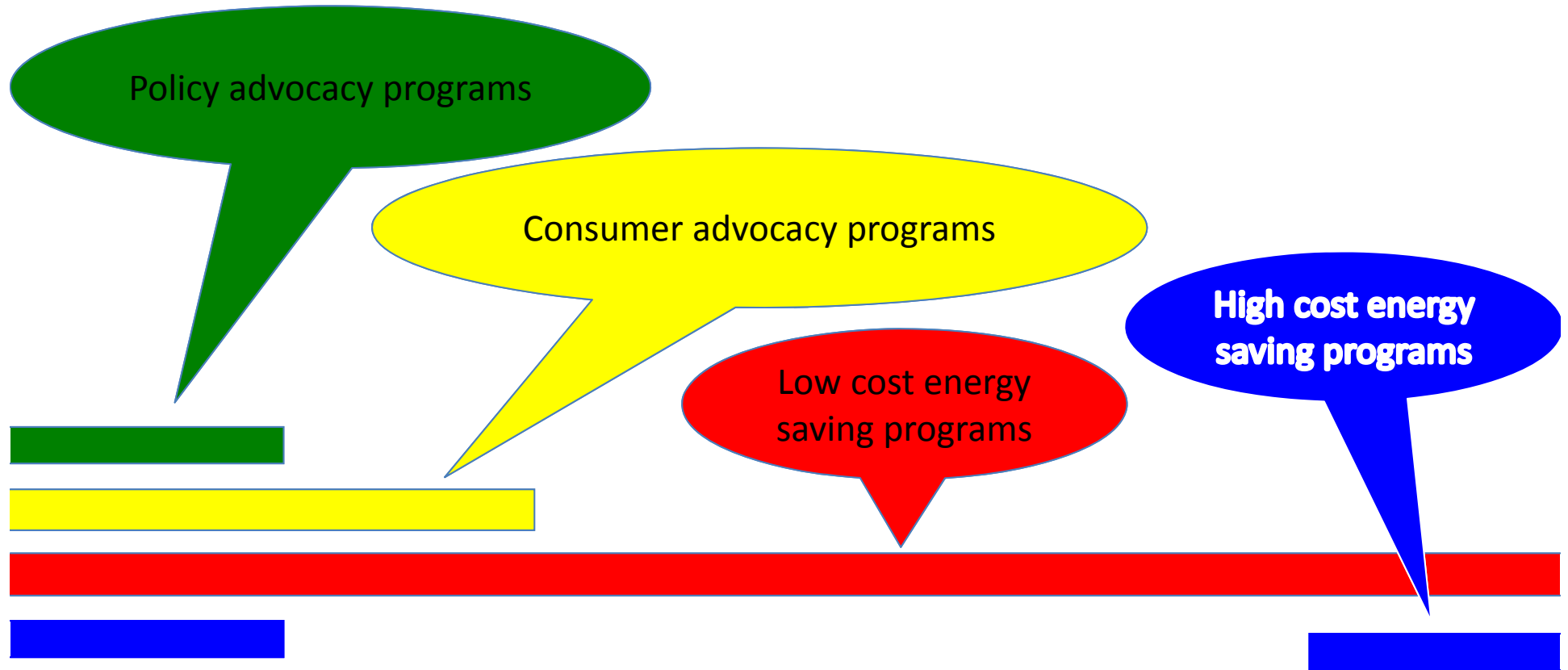
## Potential objectives for each audience



## My main points:

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## Potential audiences for behavior change programs



Alarmed (16%)



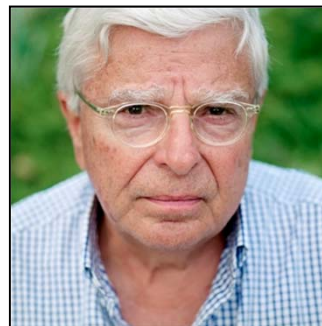
Concerned (26%)



Cautious (26%)



Disengaged (5%)



Doubtful (15%)



Dismissive (13%)

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Our survey data suggest that heightening the engagement of segments in the middle of the Six Americas continuum is the best approach.

The question is: How best to engage them?

Engage them.



Alarmed (16%)



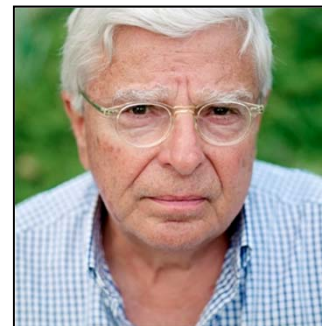
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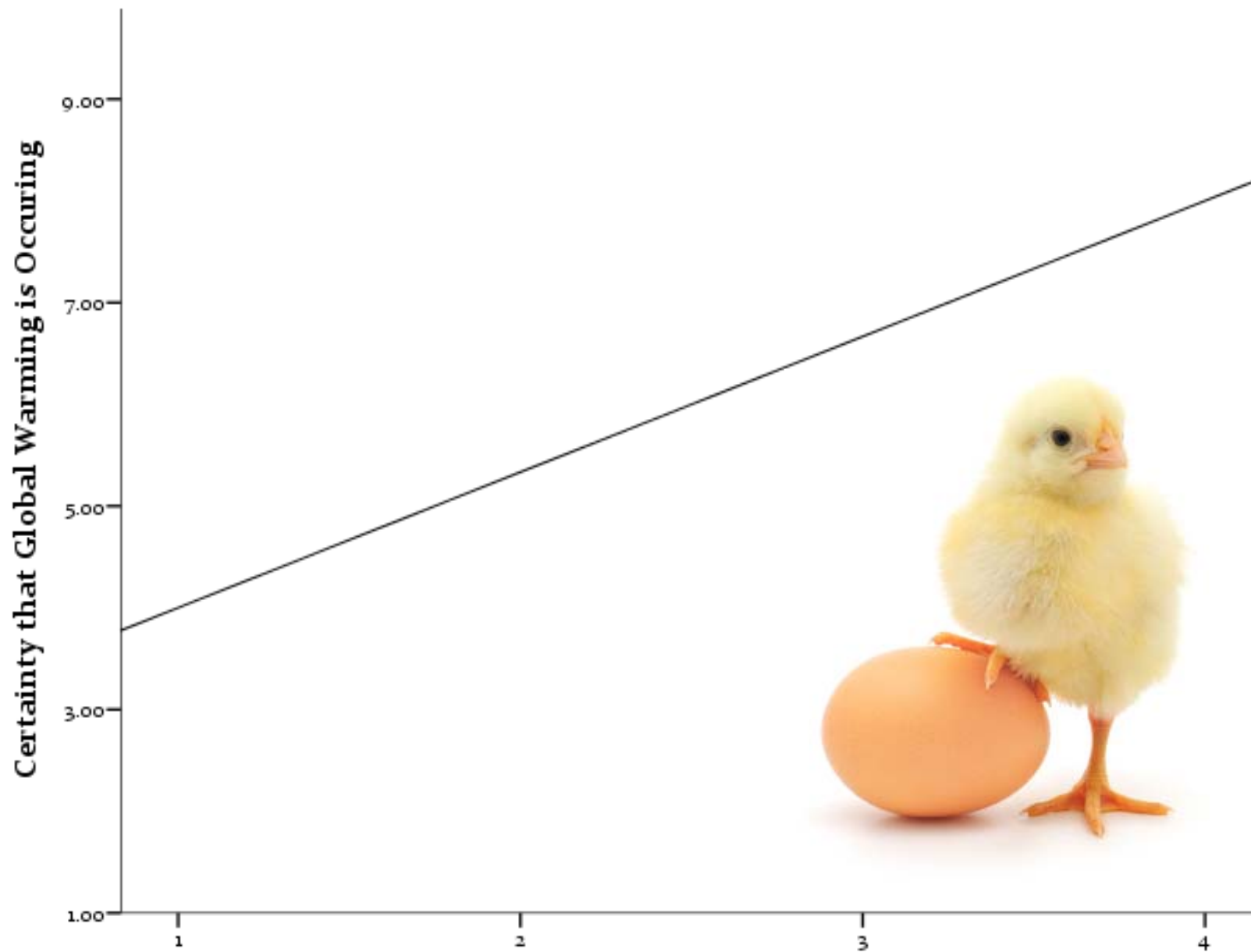
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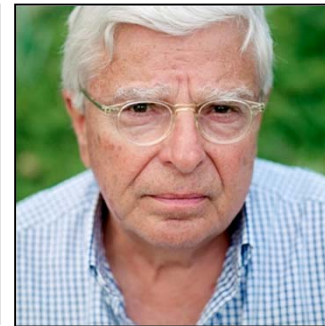
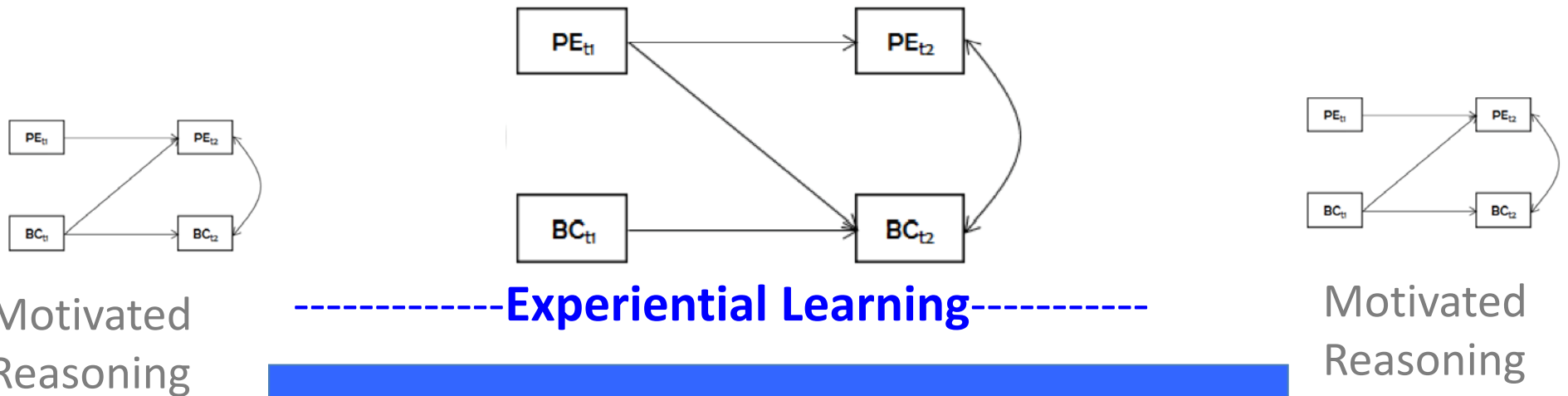
**I have personally experienced the effects of global warming.**

Yale/George Mason, Oct 2008/Jun 2011; n=1,043



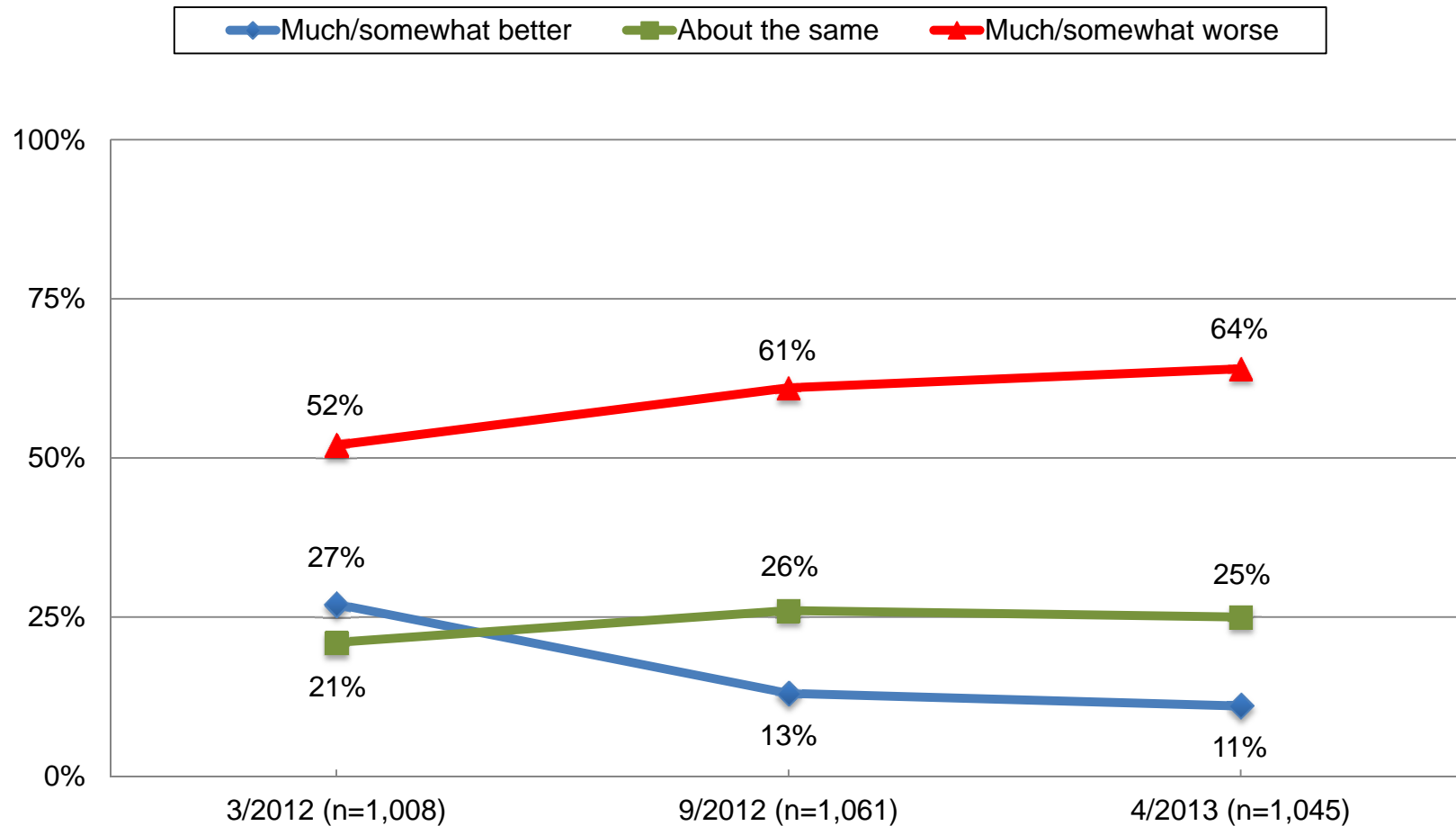
# Personal Experience or Belief in the Reality of Global Warming: Which Comes First?

Teresa A. Myers<sup>1a</sup>, Edward W. Maibach<sup>1</sup>, Connie Roser-Renouf<sup>1</sup>, Karen Akerlof<sup>1</sup>, Anthony A. Leiserowitz<sup>3</sup> (2012) Nature Climate Change, doi:10.1038/nclimate1754





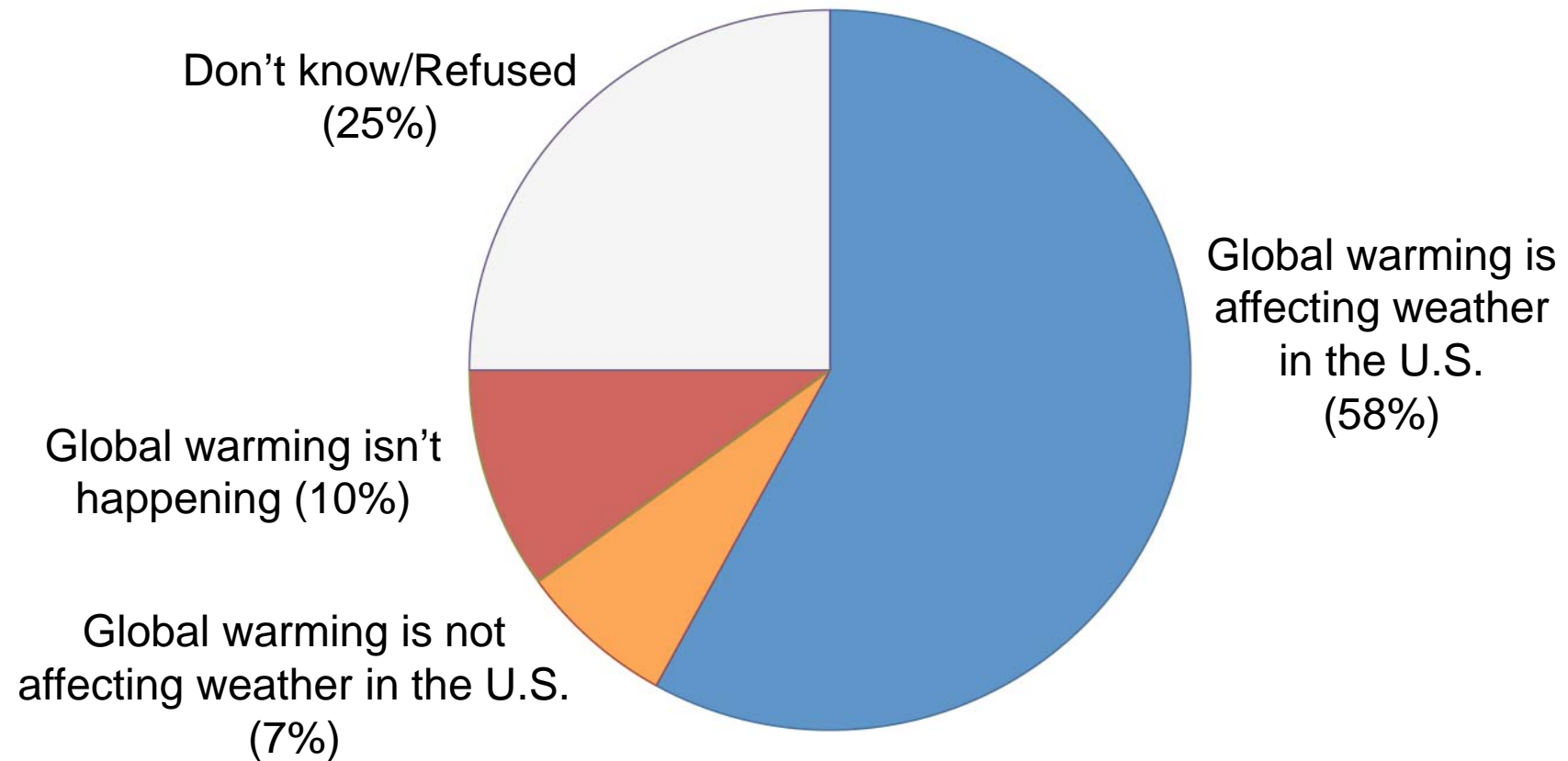
# A growing majority of Americans say weather in the United States has been “worse” over the past several years



In your opinion, over the past several years, has the weather in the U.S. been...

Base: Americans 18+.

# A Majority of Americans Say Global Warming Is Affecting Weather in the United States



Which statement below best reflects your view?

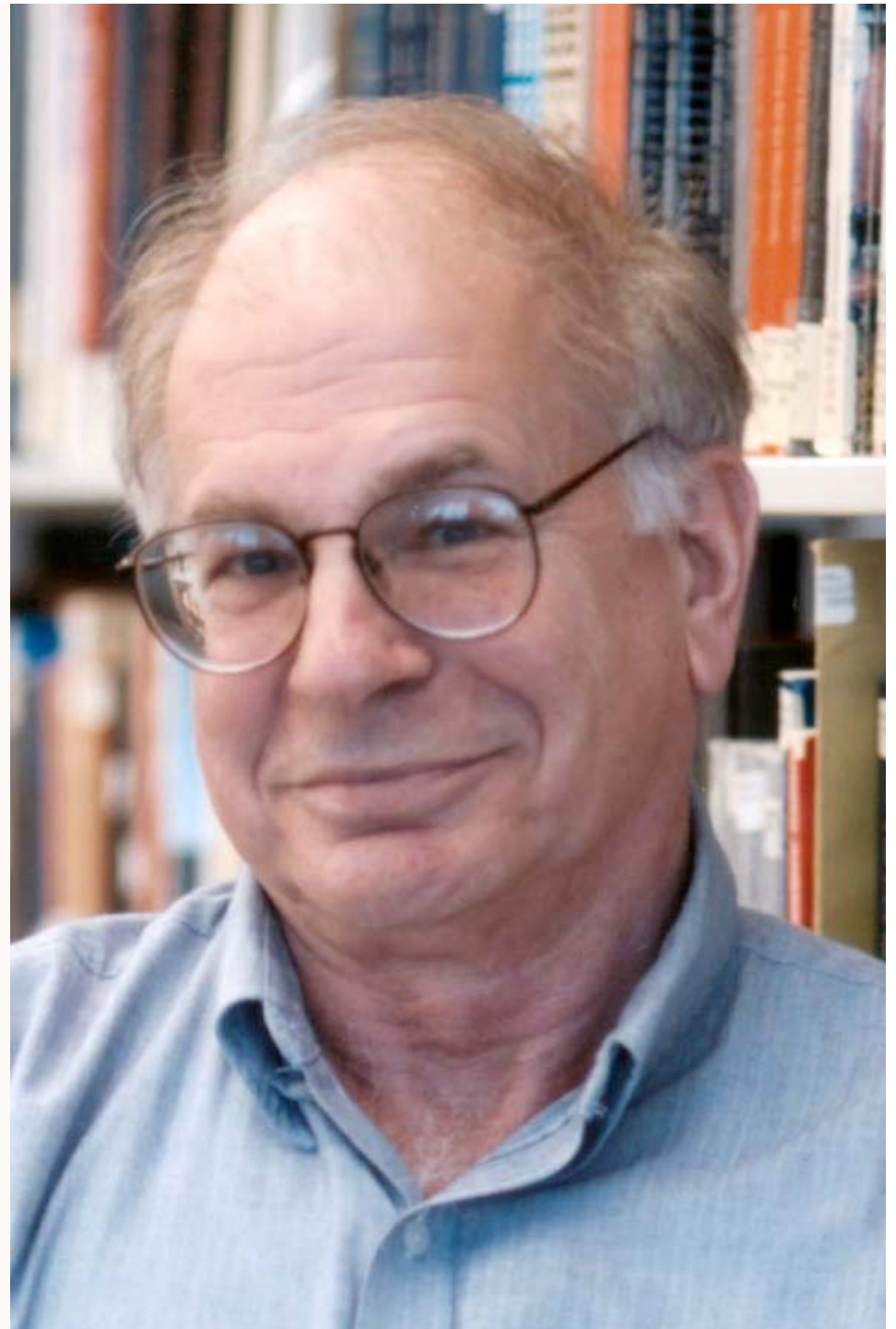
Base: Americans 18+ (n=526, split sample)

THINKING,  
FAST AND SLOW

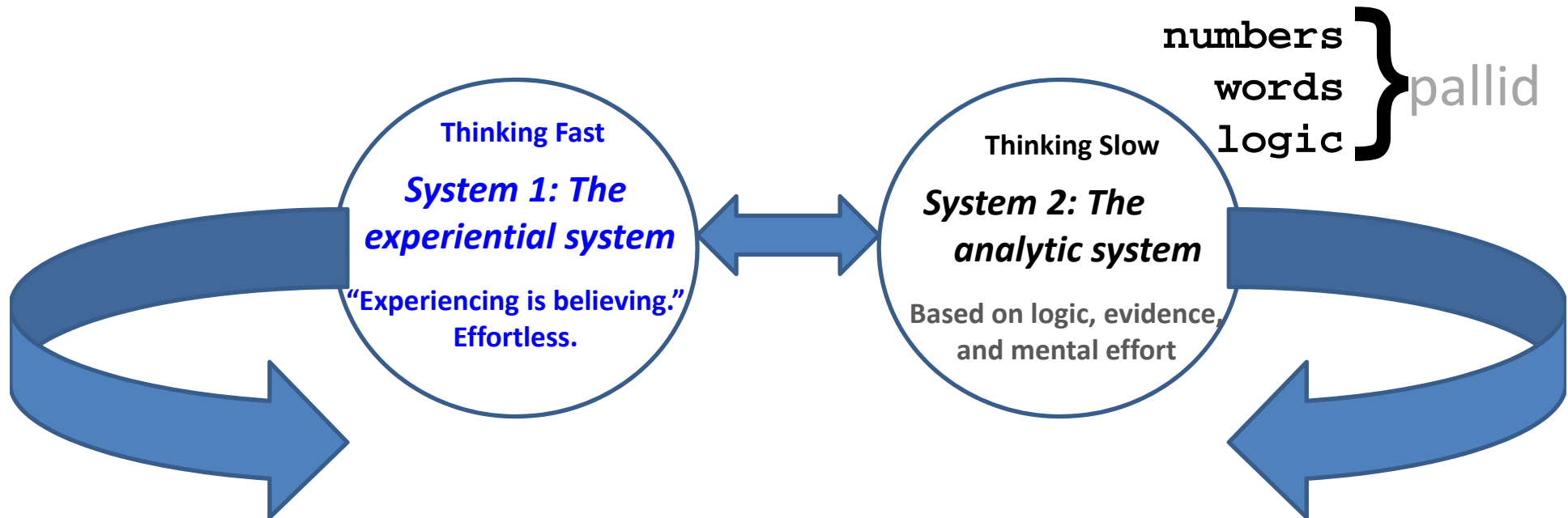


DANIEL  
KAHNEMAN

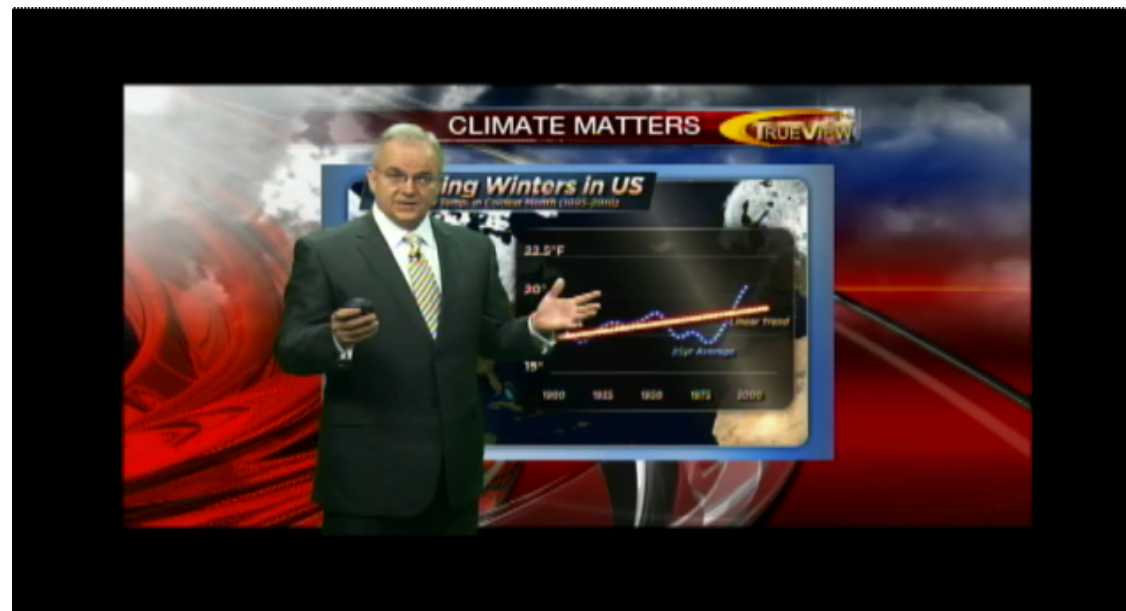
WINNER OF THE NOBEL PRIZE IN ECONOMICS



# Our brains process risk information in two ways



vivid



Jim Gandy, Senior Meteorologist, WLTX, Columbia, SC



# Climate Change Education through TV Weathercasts: Results of a Field Experiment

Zhao, Maibach, Gandy, Witte, Cullen, Klinger, et al. (2013) DOI: 10.1175/BAMS-D-12-00144.1



Note: Article was published as an "early release" – this is not the real journal cover.

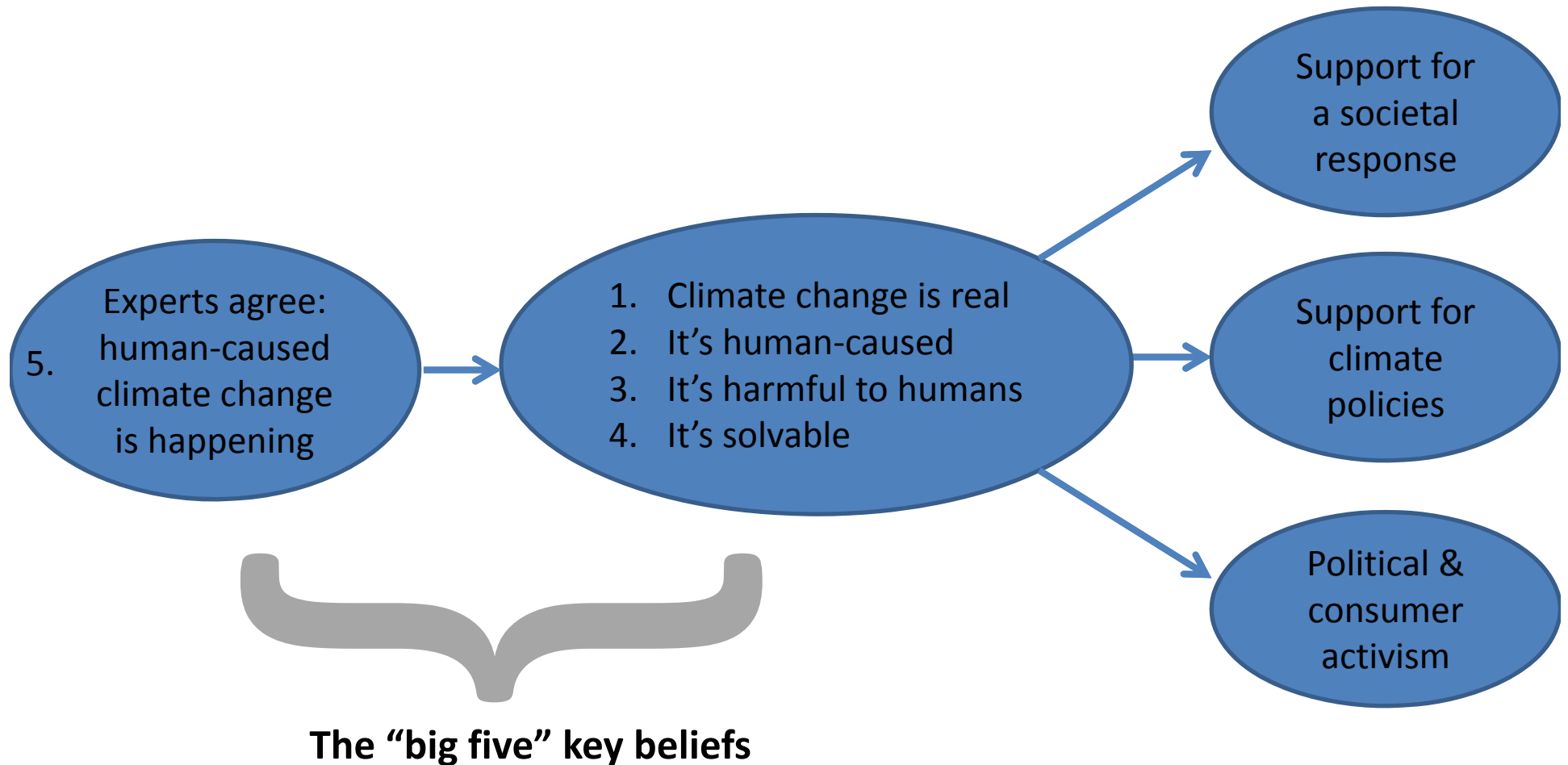
***“The results of this field experiment suggest that when TV weathercasters educate their viewers about climate change, viewers gain a more science-based understanding of the issue.”***

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## Five indicators of public opinion/engagement predict a range of supportive attitudes and actions



## An Overarching Strategy:

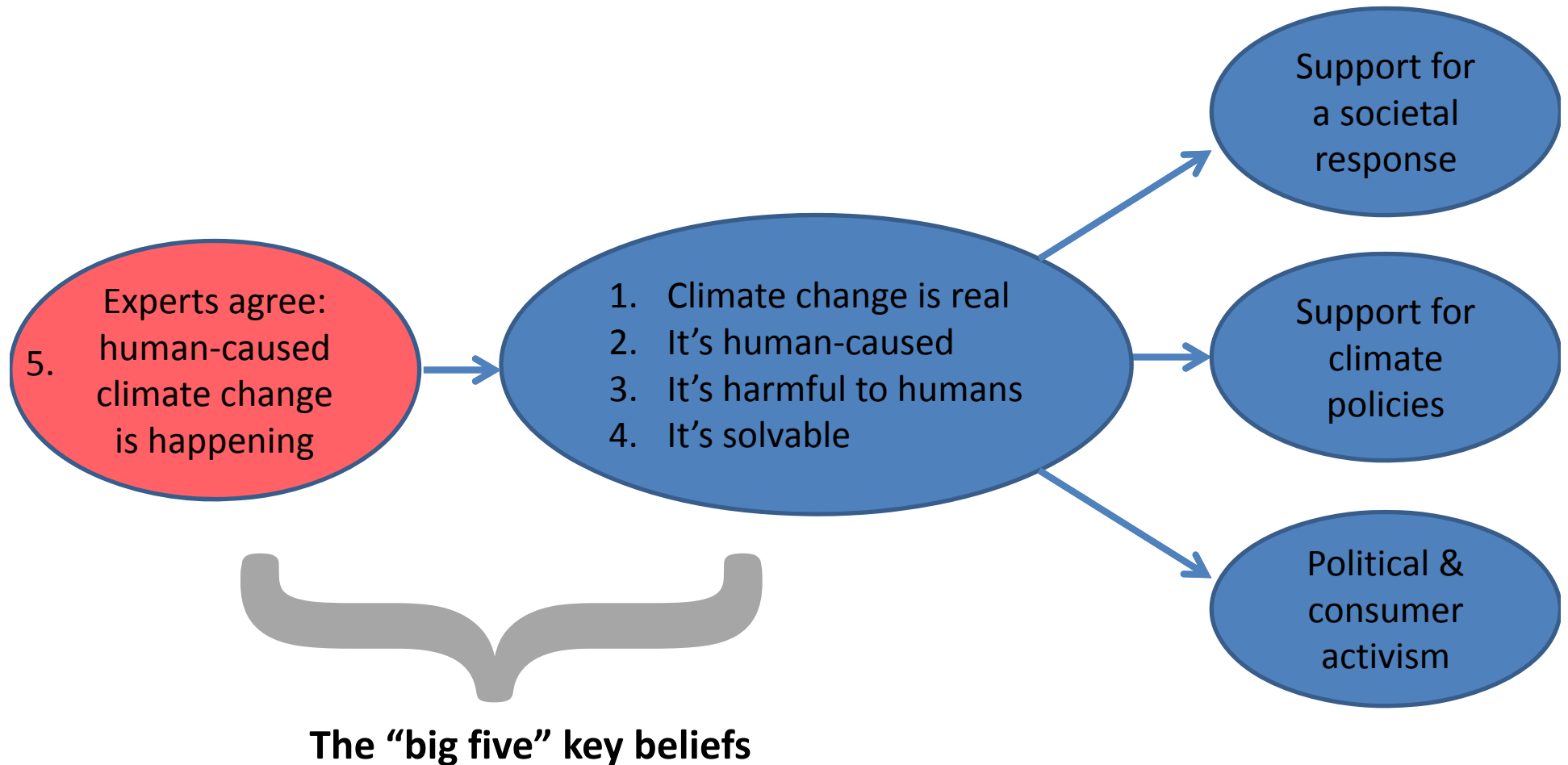
*Simple clear messages, repeated often,  
by a variety of trusted sources*

- It's real
- It's us (i.e., our actions are causing it)
- It's harmful (to people)
- Scientists agree
- There's hope (i.e., our actions can make a difference in limiting it, and protecting people, other species, and ecosystems on which we depend)

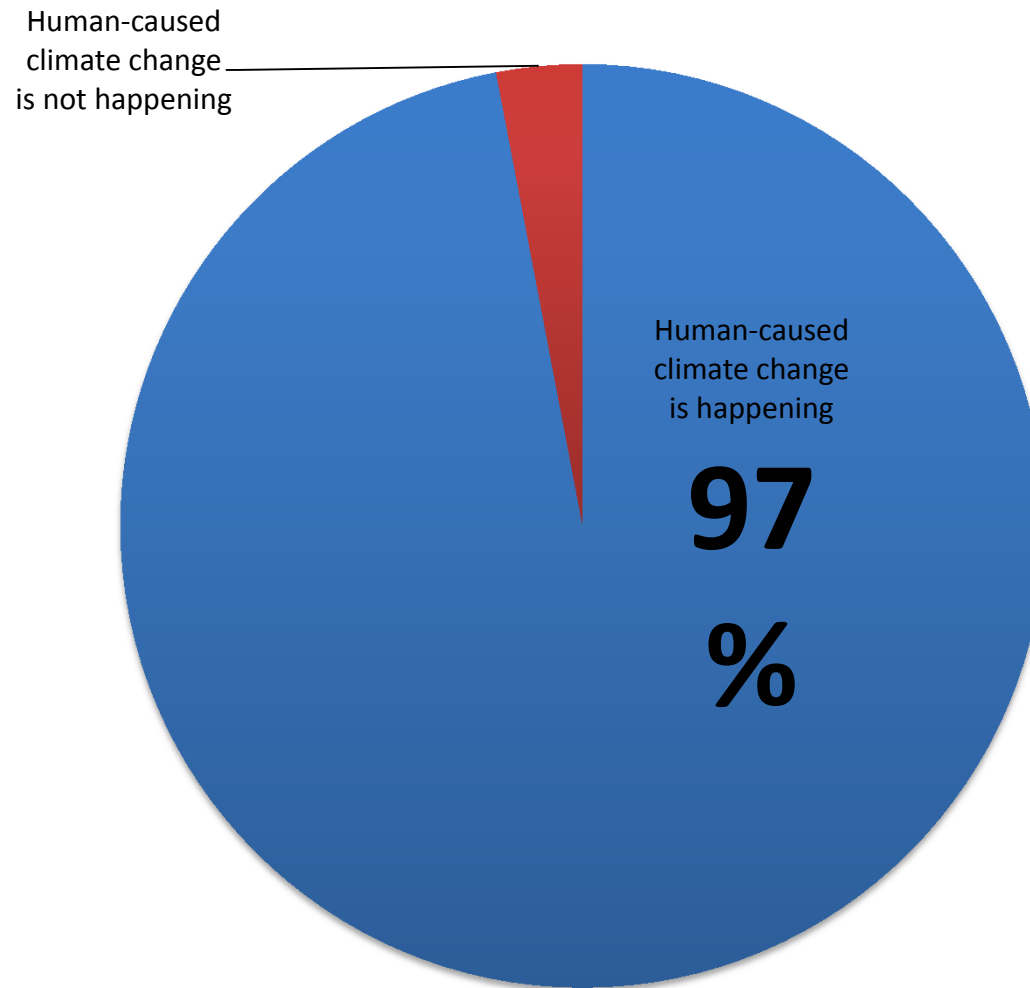
## 5 Key Messages expressed in 10 words

- It's real
- It's us
- It's harmful
- Scientists agree
- There's hope

# Understanding the scientific consensus about human-caused climate change is key influence on public opinion



# Scientific Agreement on Climate Change



Above: Proportion of peer-reviewed research papers that stated a position on the reality of human-caused climate change and said that it is happening and human-caused (Cook et al., 2013)

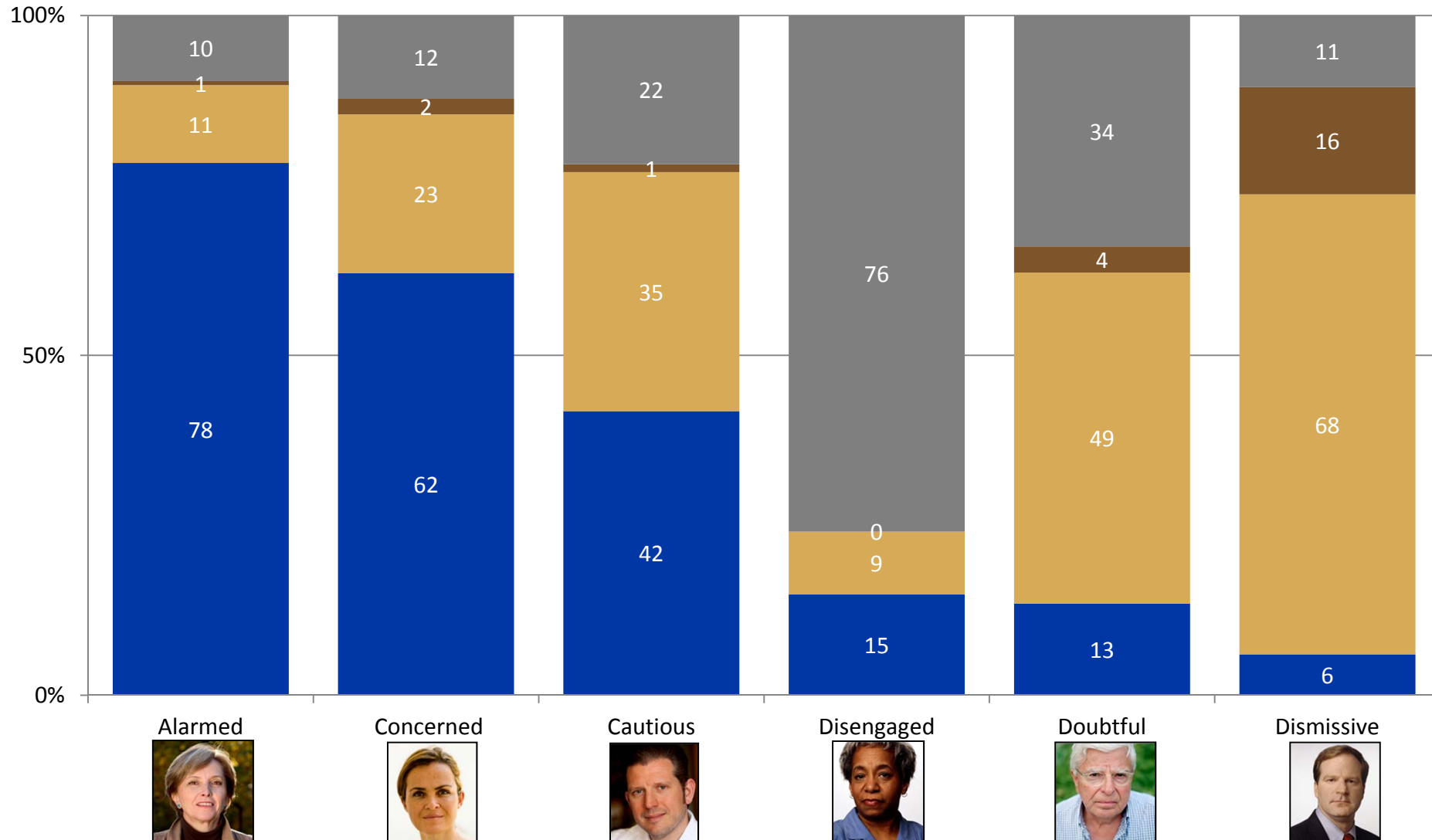
# Beliefs about the Scientific Consensus

*Which of the following comes closest to your view?*

- Most scientists think global warming is happening
- Most scientists think global warming is not happening

- There is a lot of disagreement
- Don't know enough to say

Yale/George Mason  
Apr. 2013; n=1,045



According to a recent report released by the American Association for the Advancement of Science (AAAS), the world's largest general scientific society, several recent peer-reviewed surveys of climate scientists have shown that, based on the evidence, more than 97% of climate scientists are convinced that human caused climate change is occurring.

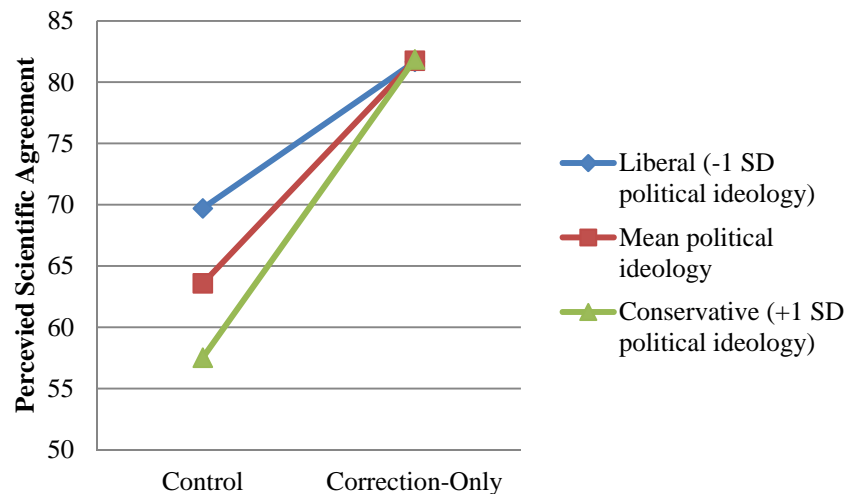
### We thought you might want to know.

*American Association for the Advancement of Science*

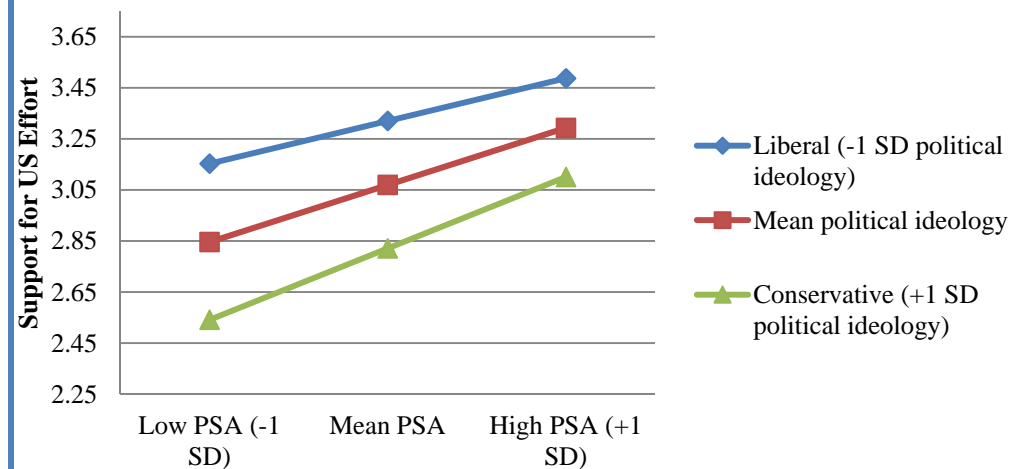


ADVANCING SCIENCE, SERVING SOCIETY

**Figure 1.** Effect of political ideology across message conditions. Note: Perceived Scientific Agreement ranged from 0 to 100.



**Figure 2.** Effect of political ideology across levels of perceived scientific agreement (PSA). Note: Support for U.S. Effort ranged from 1 to 4.





## 5 Key Messages:

- It's real
- It's us
- It's harmful
- Scientists agree
  - “Based on the evidence, more than 97% of climate scientists are now convinced that human-caused climate change is happening.”
- There's hope

## Summary:

- In any nation, there are likely multiple climate change publics (or audiences); identifying those publics is the first step in planning effective public engagement methods.
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## Welcome

### Introduction

Climate change is the result of human actions and choices. Limiting climate change – and protecting people and ecosystems to the degree possible from unavoidable changes in the climate – will require significant public engagement in the issue so that difficult decisions can be made by members of the public and policy makers. Our center was created to conduct unbiased social science research that will facilitate such public engagement.

### More About Us

We use social science research methods – experiments, surveys, in-depth interviews and other methods – to find ways of effectively engaging the public and policy makers in the problem, and in considering and enacting solutions. Social science research has played important roles in many social change campaigns over the past several decades, including reducing smoking and littering, and increasing seat belt use and recycling.

### Our Mission

Our mission is to conduct unbiased public engagement research - and to help government agencies, non-profit organizations, and companies apply the results of this research - so that collectively, we can stabilize our planet's life sustaining climate.

### Latest Reports

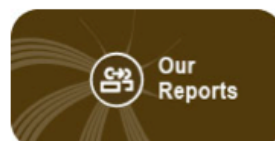
[The Climate Change in the American Mind Series - Fall 2012](#)

[The Climate Change in the American Mind Series, Spring 2012](#)

[American Meteorological Society Member Survey on Global Warming: Preliminary Findings, February 2012](#)

[The Climate Change in the American Mind Series, November 2011](#)

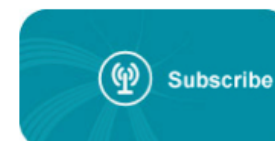
[A National Survey of Television Meteorologists About Climate Change Education, June 2011](#)



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