

Climate Change Fake News

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Australian Government
Australian Research Council



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Today

1. The “post-truth” world
2. The disinformers
3. The possible responses

1. The “Post-Truth” World



The Washington Post

Fact Checker  • Analysis

**In four years, President Trump made
30,573 false or misleading claims**

The Fact Checker's database of the false or misleading claims made by President Trump while in office.

Updated Jan. 20, 2021

Repeated polling showed $\frac{3}{4}$
of Republicans considered
Trump to be honest

“the largest audience to ever witness an inauguration, period”

– Sean Spicer, Trump Press Secretary, 21 January 2017

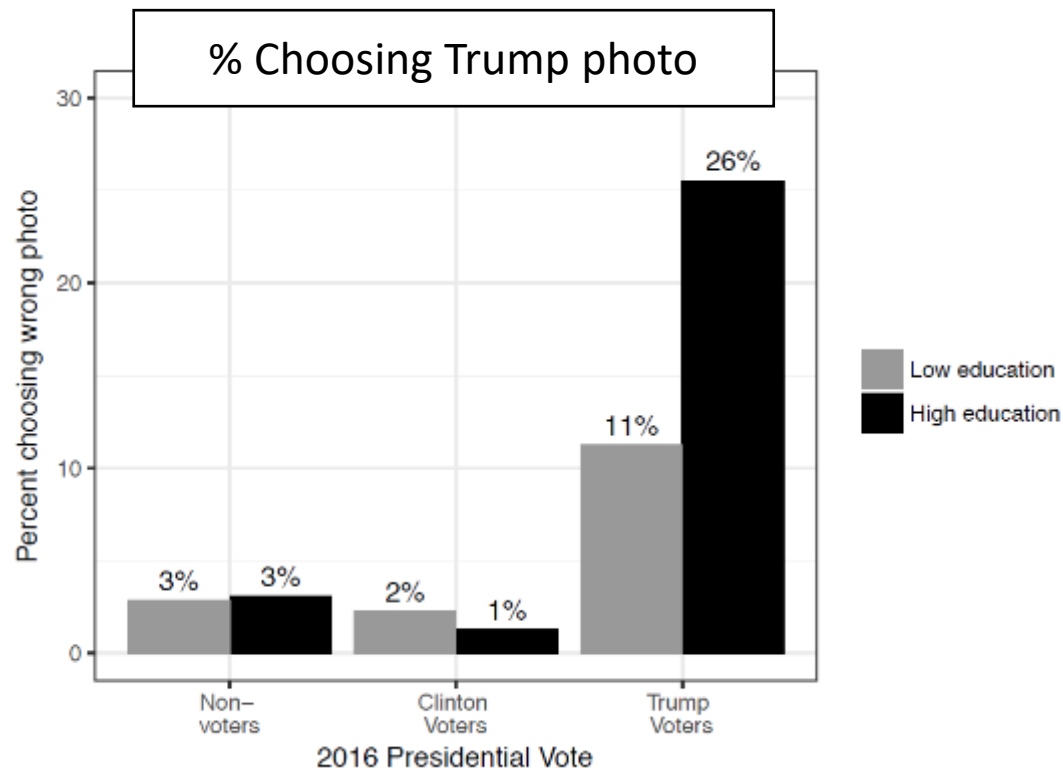


Donald Trump

Barack Obama

“Which Photo Has More People In It”?

(Schaffner & Luks, 2018)



“Participatory propaganda”
(e.g., Lewandowsky, 2022)

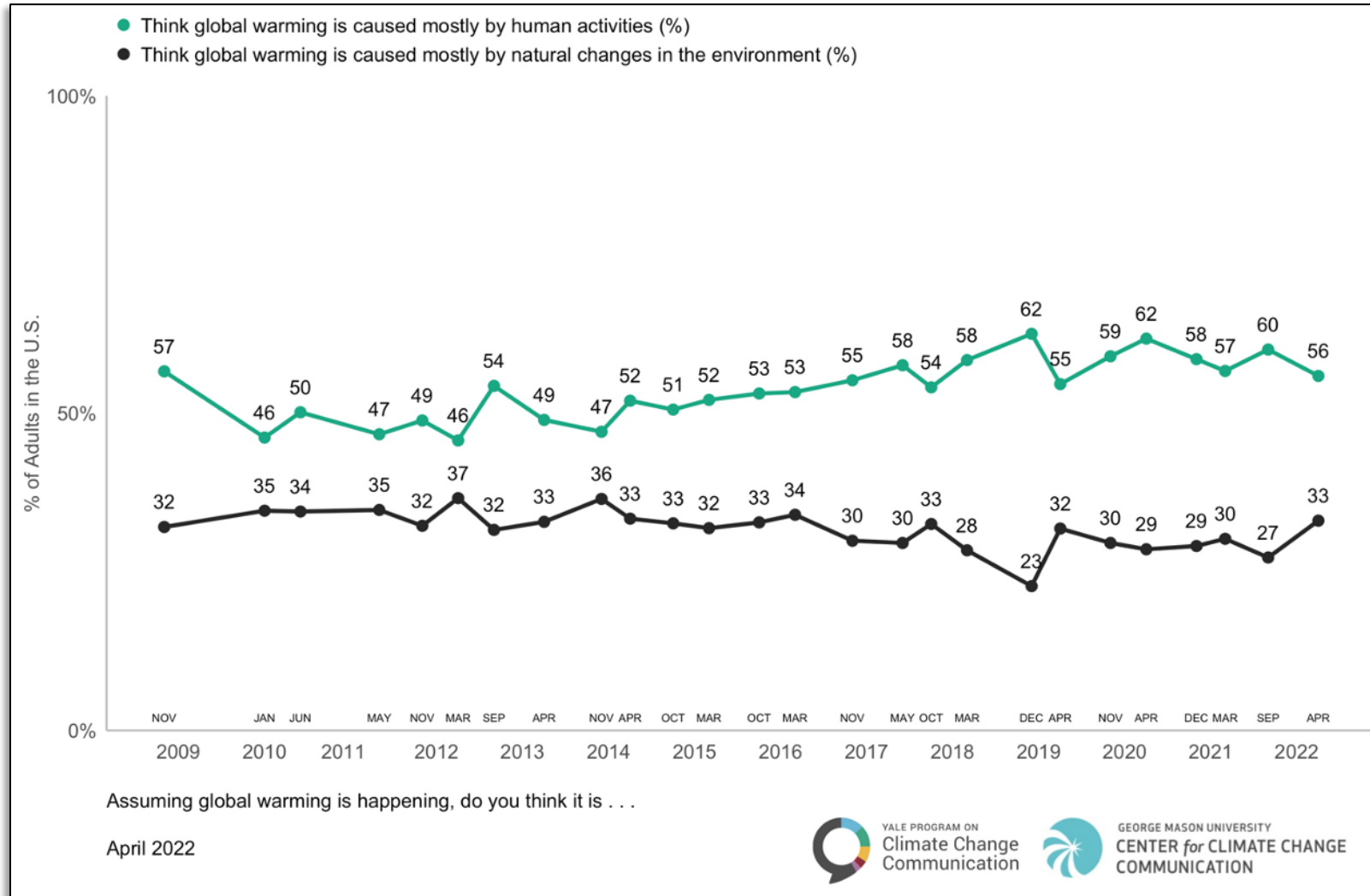
“Just remember, what you’re
seeing and what you’re reading is
not what’s happening”
— U.S. President Donald Trump, 24 July 2018

Populism and Truth

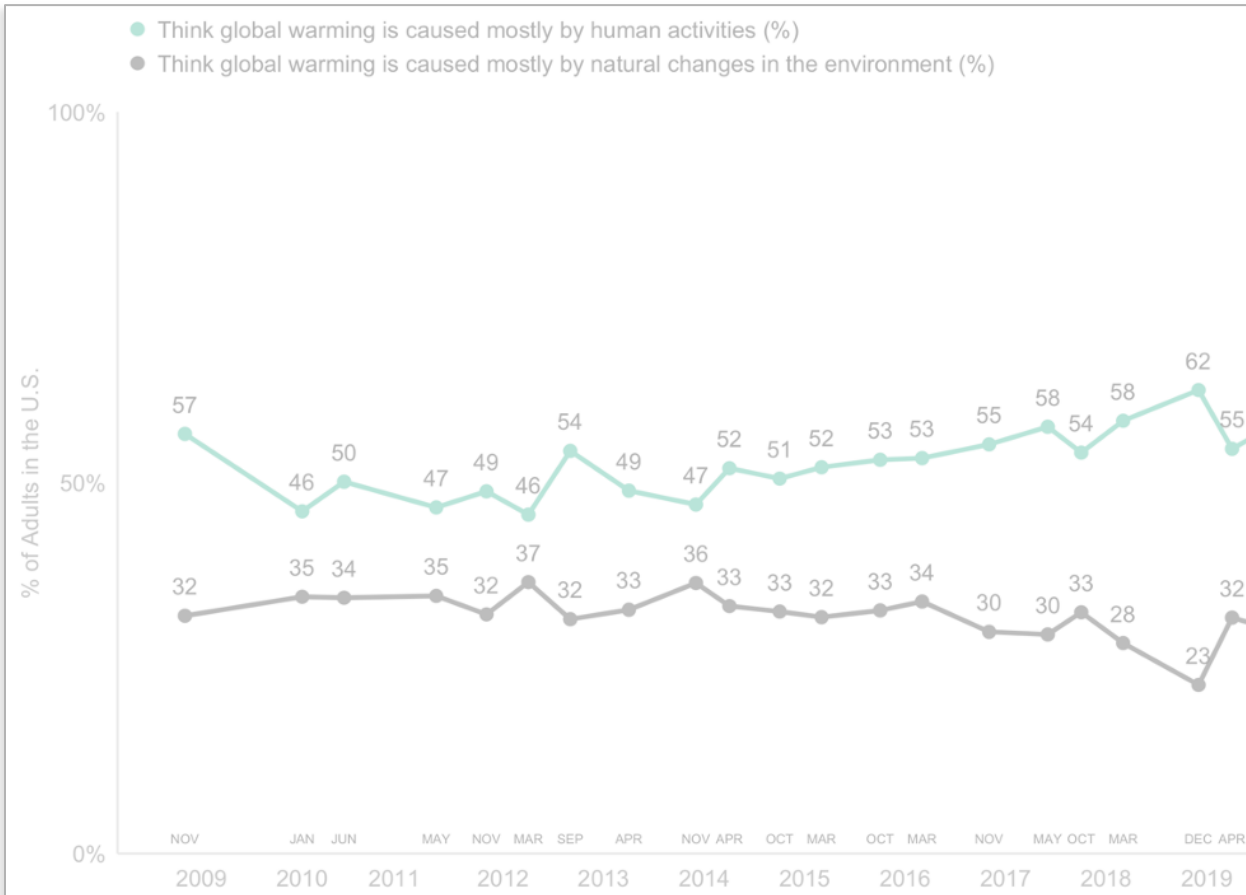
(e.g., Waisbrod, 2018)

- Manichaen binary conflict between virtuous “people” and “elite” (or “others”)
 - entirely artificial construction
 - negates pluralism and hence anti-democratic
- Corollary is affirmation of “common sense” of people against “lies” of elites
 - truth-seeking as shared goal of society is denied
 - science is considered part of “elite”
- Populism provides fertile ground for science denial

U.S. Public Opinion

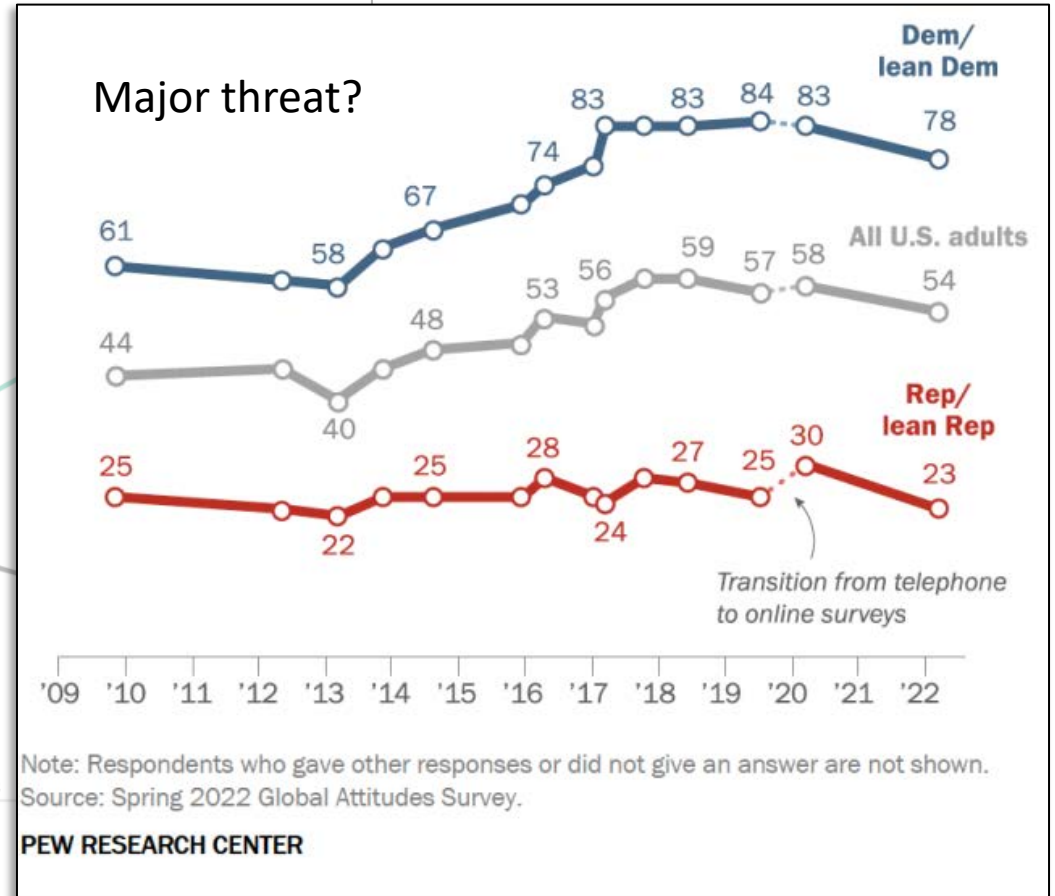


U.S. Public Opinion



Assuming global warming is happening, do you think it is . . .

April 2022



2. The Disinformers



The Infrastructure

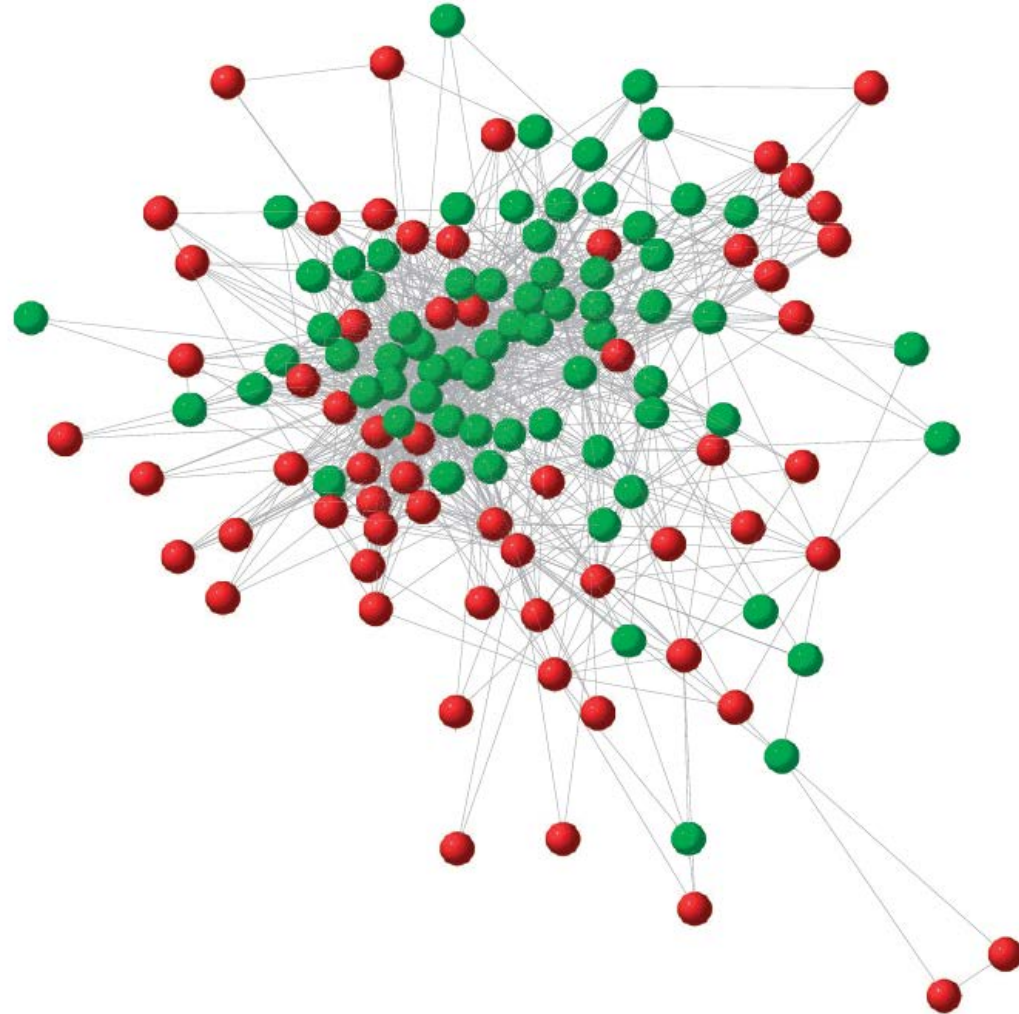
- Disinformation about climate change is well funded and disseminated through network of organizations
- Annual income of conservative “think tanks” engaged in denial around \$900 million (Brulle, 2013)
- Between 2000 – 2016, more than \$2 billion spent lobbying against climate change legislation (Brulle, 2018)

The Dissemination Networks

(Farrell, 2016)

4,556 individuals
164 organizations
40,785 documents

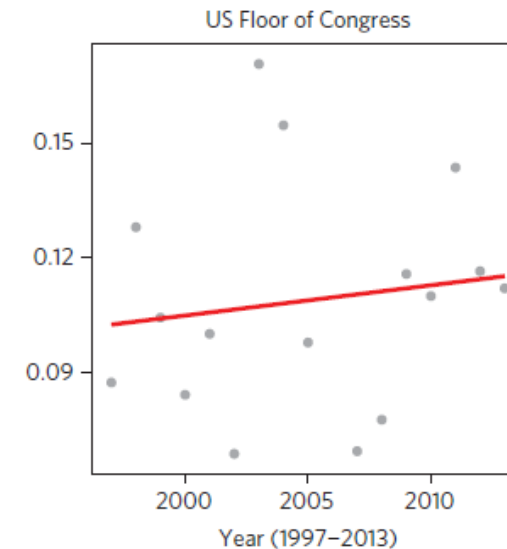
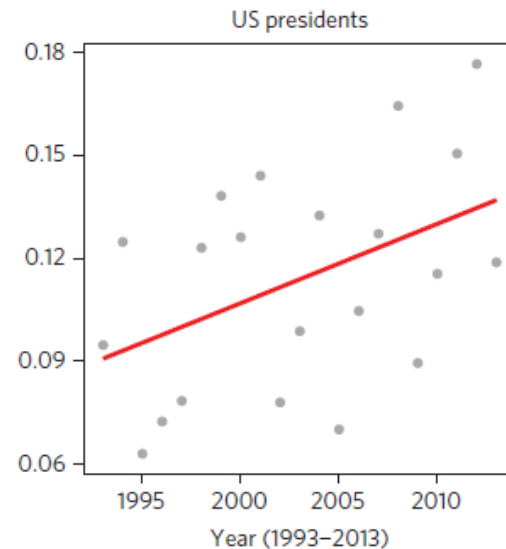
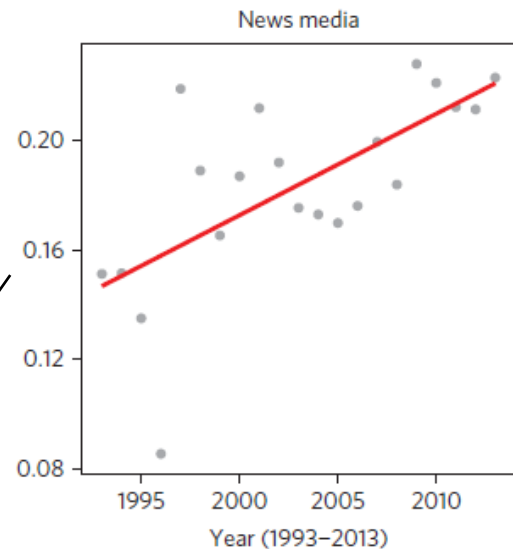
-  Exxon or Koch funded
-  No Exxon or Koch funding



The Dissemination Networks

(Farrell, 2016)

4,556 individuals
164 organizations
40,785 documents



Similarity between contrarian texts and public output
(cosine from LSA)

Media False Balance

- “Balance” is a journalistic norm
 - balance of opinions
 - balance of evidence
- U.S. coverage gave equal voice to scientists and contrarians for a long time (e.g., Boykoff, 2008)
- Improved now but contrarian scientists still disproportionately visible (Petersen et al., 2019)
- Press releases from contrarians and business coalitions find more media coverage than from scientific organizations (Wetts, 2020)

AMERICA MISLED

How the fossil fuel industry
deliberately misled Americans
about climate change

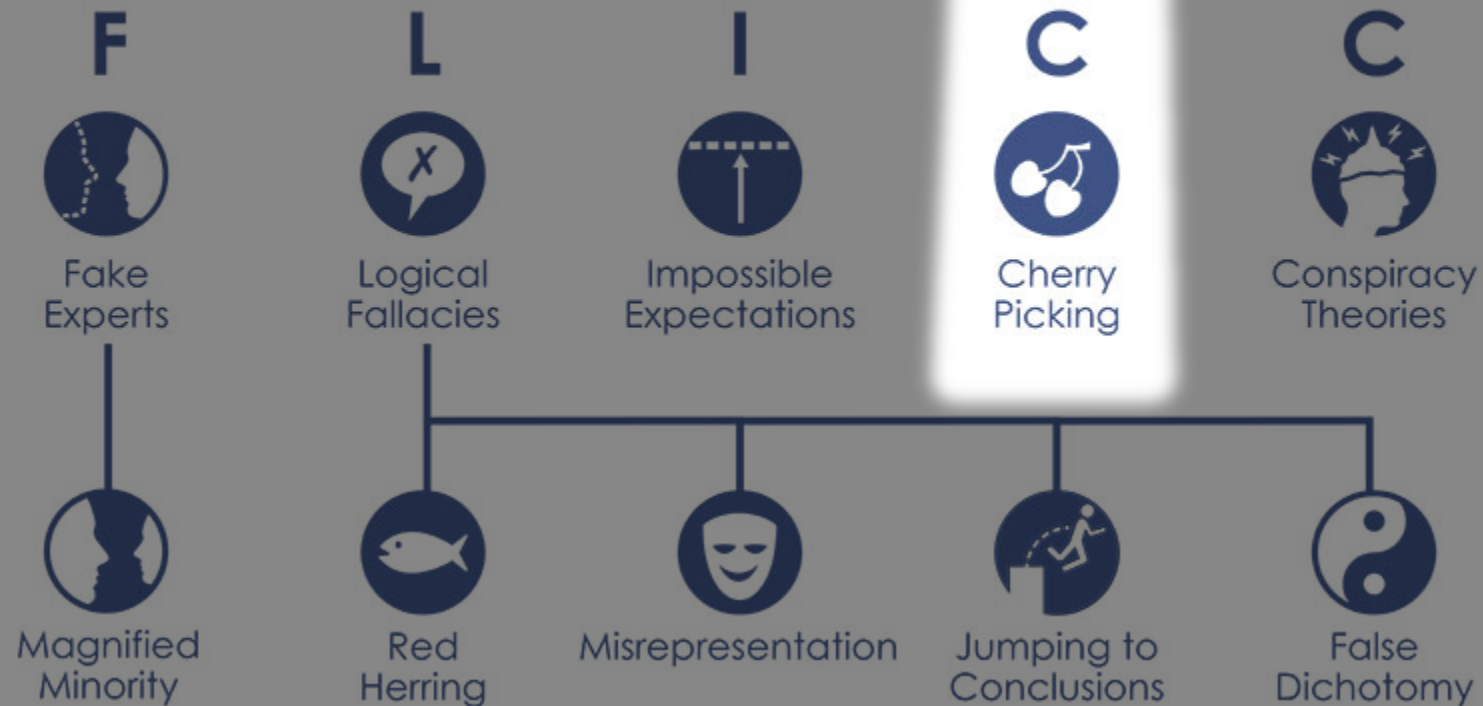
John Cook, Geoffrey Supran,
Stephan Lewandowsky, Naomi Oreskes, Ed Maibach



<http://sks.to/americanmisled>

Denial vs. Skepticism: The Triage

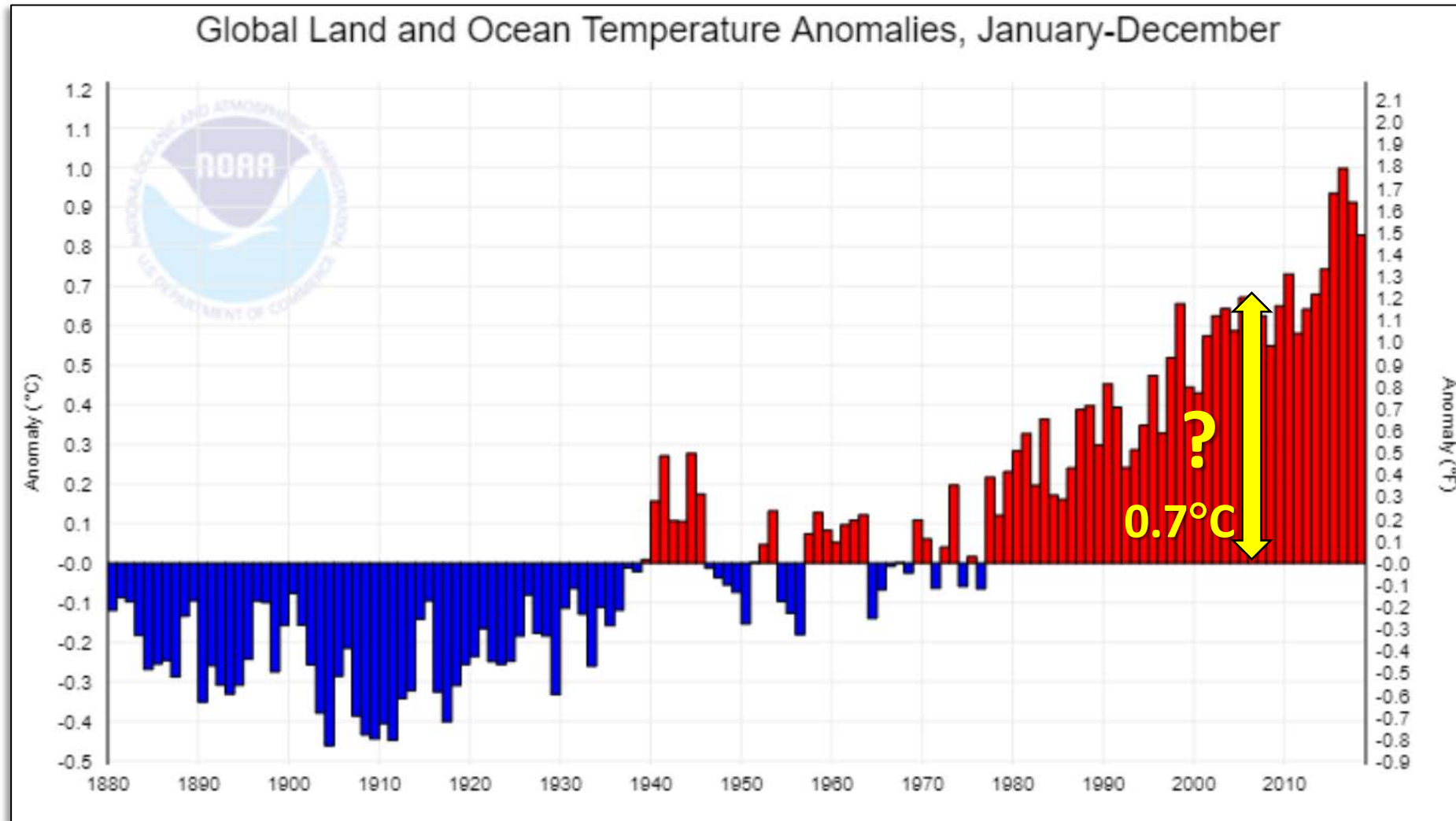
5 CHARACTERISTICS OF SCIENCE DENIAL



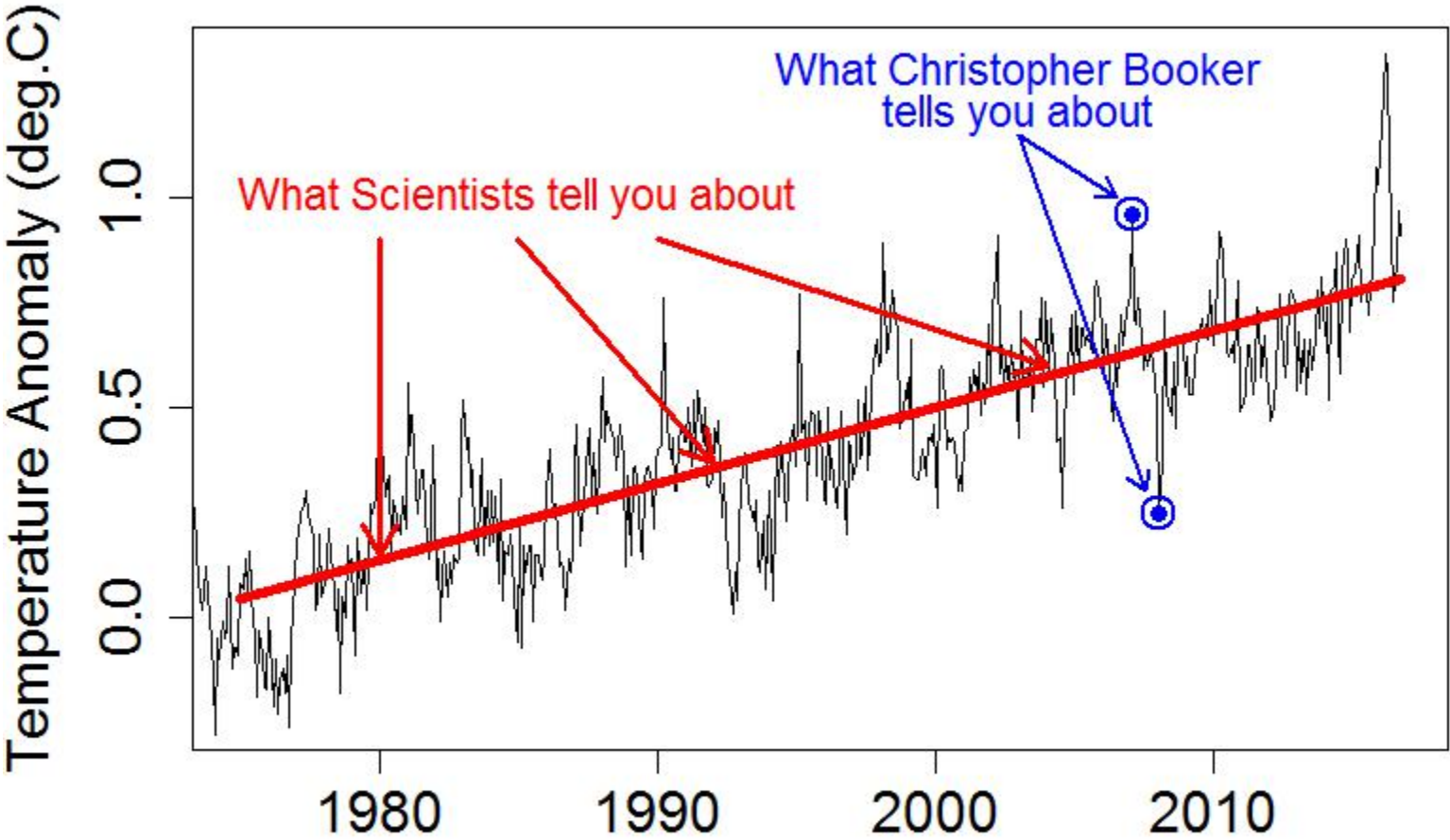
The Sunday Telegraph

- “... official climate models got their predictions so hopelessly wrong Only gradually since 2007, when none of them predicted a temporary **fall in global temperatures of 0.7 degrees, equal to their entire net rise in the 20th century**, have they been prepared to concede that CO2 was not the real story.”

“fall of 0.7 degrees”



January 2007 – January 2008



Adjudication?

- Global warming was created by the Chinese (U.S. President Trump)
- Climate scientists say otherwise
- Public highly polarized
 - 20% think climate change is a hoax perpetrated by corrupt scientists (Lewandowsky et al., 2013)

Blind Expert Test

(Lewandowsky et al., 2016)

- 6 different scenarios involving various climate indicators
- Representative contrarian statements sampled from media and online sources
- Translated into other domain:

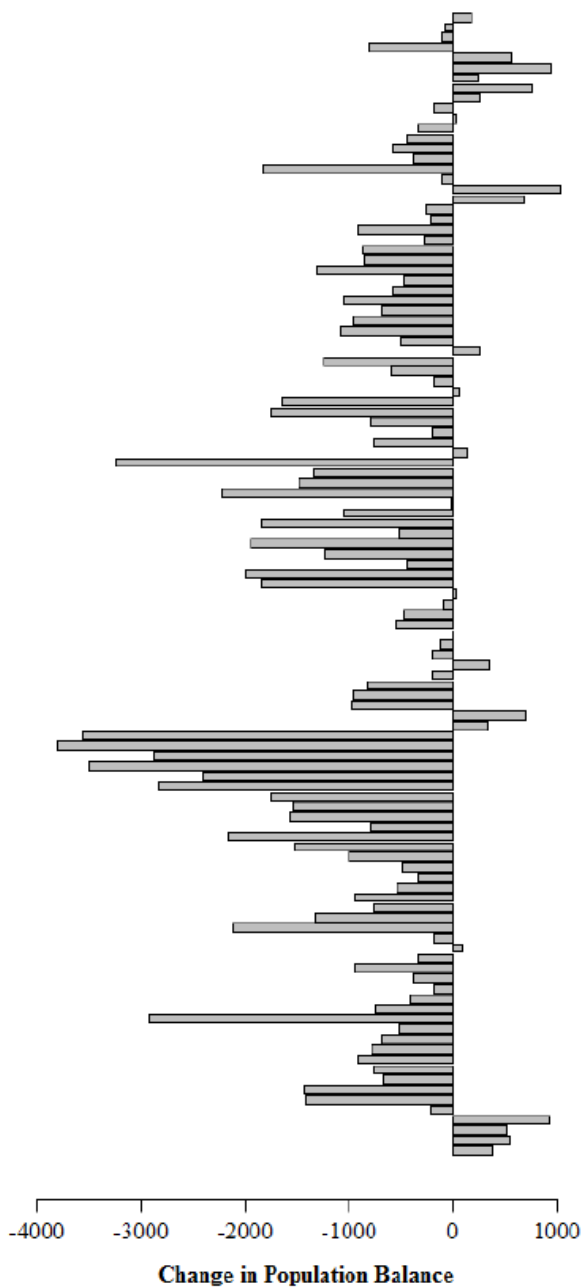
A blogger who comments on population migration issues, Mr. Z, wrote an article in 2010 with a title that claimed:

“Our country's rural population is growing, not shrinking.”

The article proceeded to identify rural villages in different parts of the country that are growing, claiming that:

"almost all of the rural regions of the country are now *gaining* population."

Individual Village Population Change Between 2009 and 2010



The data confirm the claim made by Mr. Z.

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

The data confirm the claim made by Mr. Z.

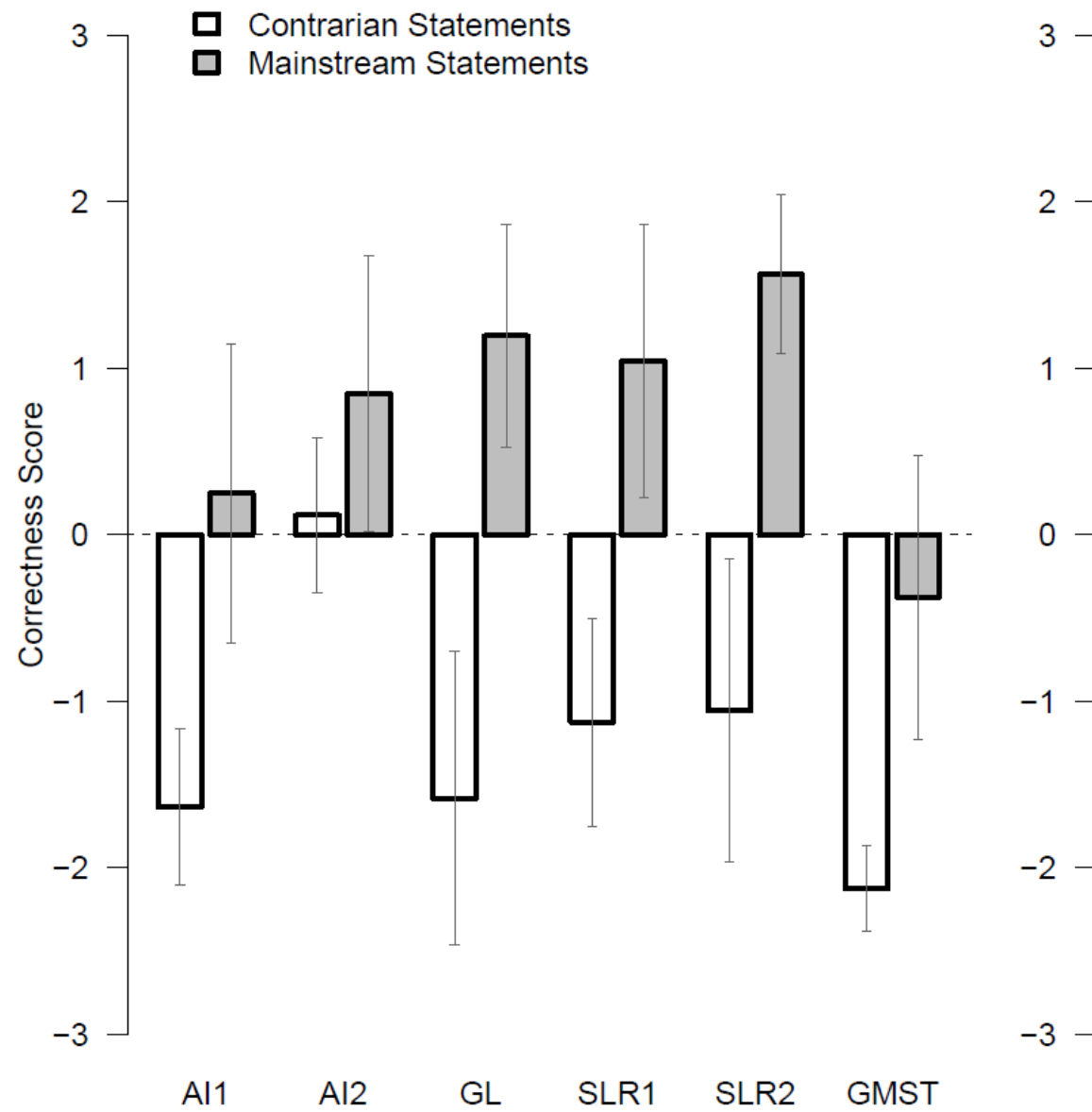
- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

The claim made about the data by Mr. Z is misleading.

- Strongly disagree
- Moderately disagree
- Slightly disagree
- Slightly agree
- Moderately agree
- Strongly agree

Combine items into correctness score

Statisticians



The Public is Denied The Right to be Informed
About Risks it is Facing

3. Possible Responses

- The marshmallows
- The reality

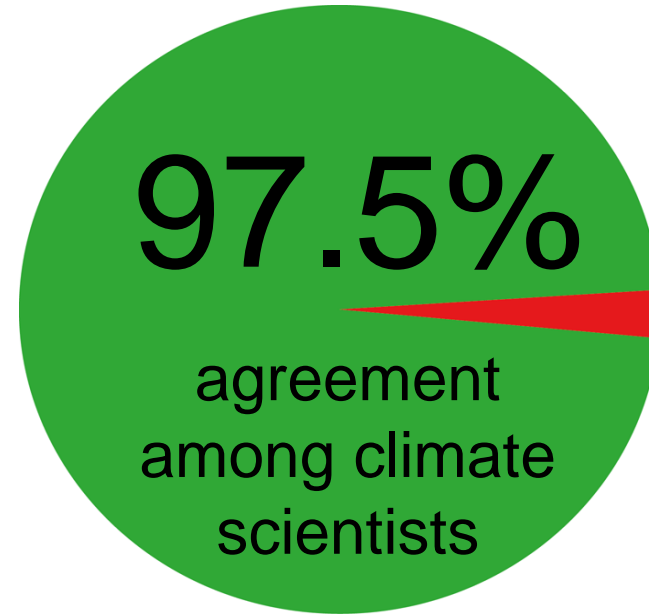
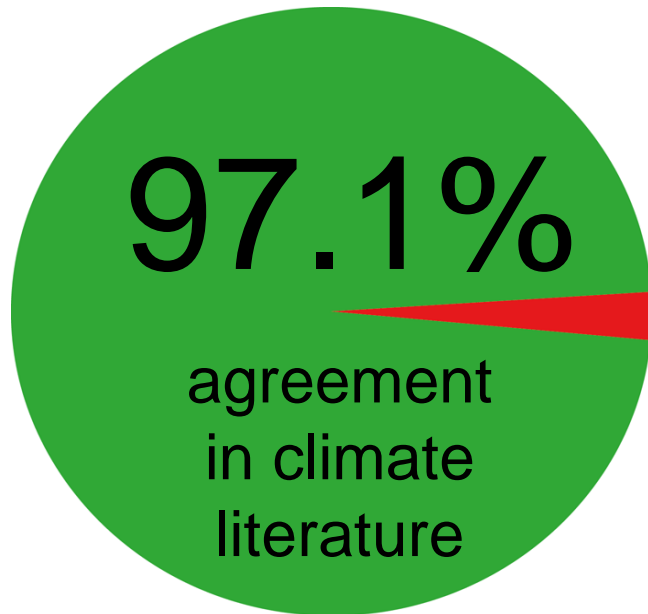
Would you Eat These Oysters?



- **97 out of 100** microbiologists, after independent tests, recommend against eating these oysters because they are contaminated
- 2 out of 100 are unsure
- 1 says they are safe

Scientific Consensus

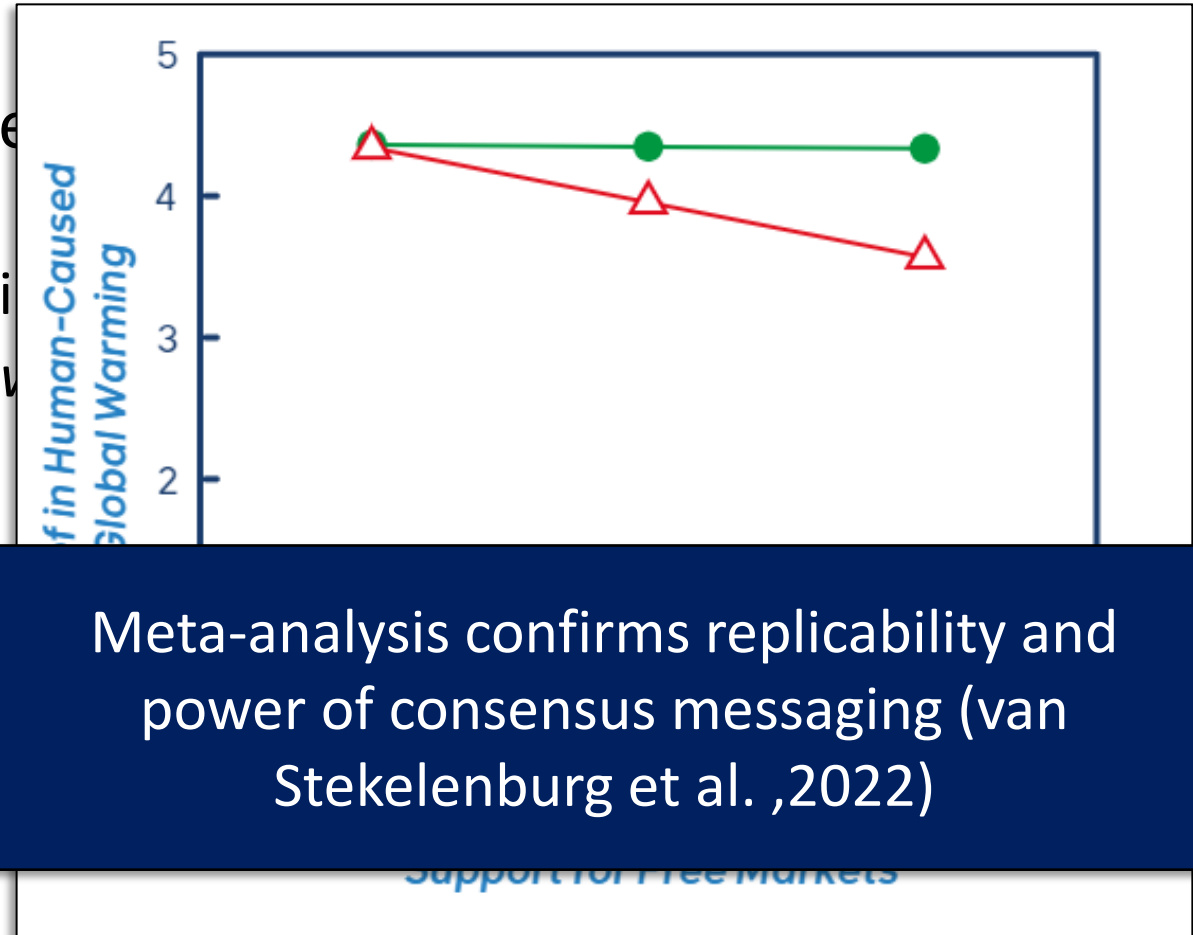
- The climate is changing
- Humans are causing it
- It's a problem



Communicating Consensus

(e.g., Lewandowsky et al., 2013)

- Informing people about the peer consensus often
 - increases acceptance of the science
 - including frequently *but not always*



The Public is Denied The Right to be Informed About Risks it is Facing: The Reality

- Democracy is in retreat around the world (e.g., V-Dem, 2022)
- A number of identifiable individuals have amassed great power without accountability (Mayer, 2016)
- who will oppose any climate mitigation measures, even those based on “free-market” solutions (Bohr, 2016)
- In this adversarial environment, consensus messaging or other evidence-informed “communication strategies” are like bringing marshmallows to a machine-gun fight with organized crime
- It’s not about science or anything else discussed at this conference, it’s about ruthless power politics

Resources



Resources

