

Engaging & Empowering Communities for Climate Action



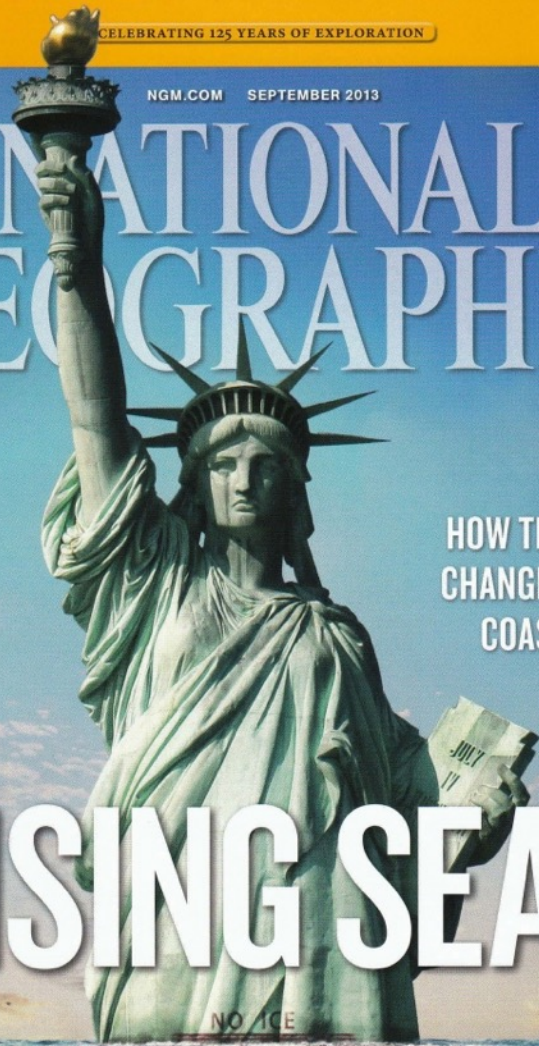
ANTIOCH UNIVERSITY NEW ENGLAND
Center for Climate Preparedness
and Community Resilience

CELEBRATING 125 YEARS OF EXPLORATION

ANTARCTIC ADVENTURE
Australia's Big Bird

NGM.COM SEPTEMBER 2013

NATIONAL GEOGRAPHIC



HOW THEY CHANGING COASTL

RISING SEAS

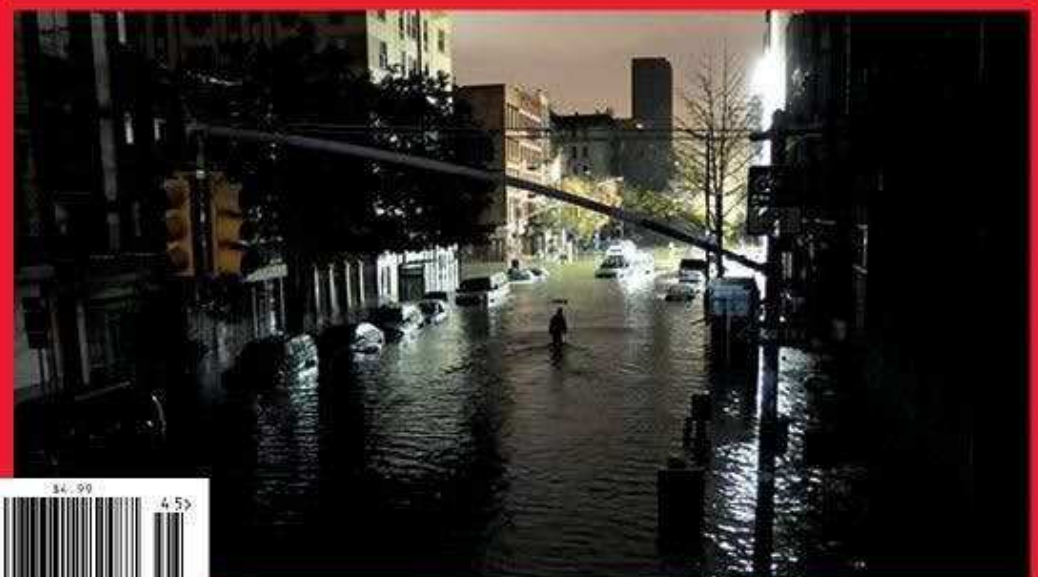
NO ICE

FREE POSTER
Mapping a World Without Ice



Bloomberg Businessweek

IT'S GLOBAL WARMING, STUPID

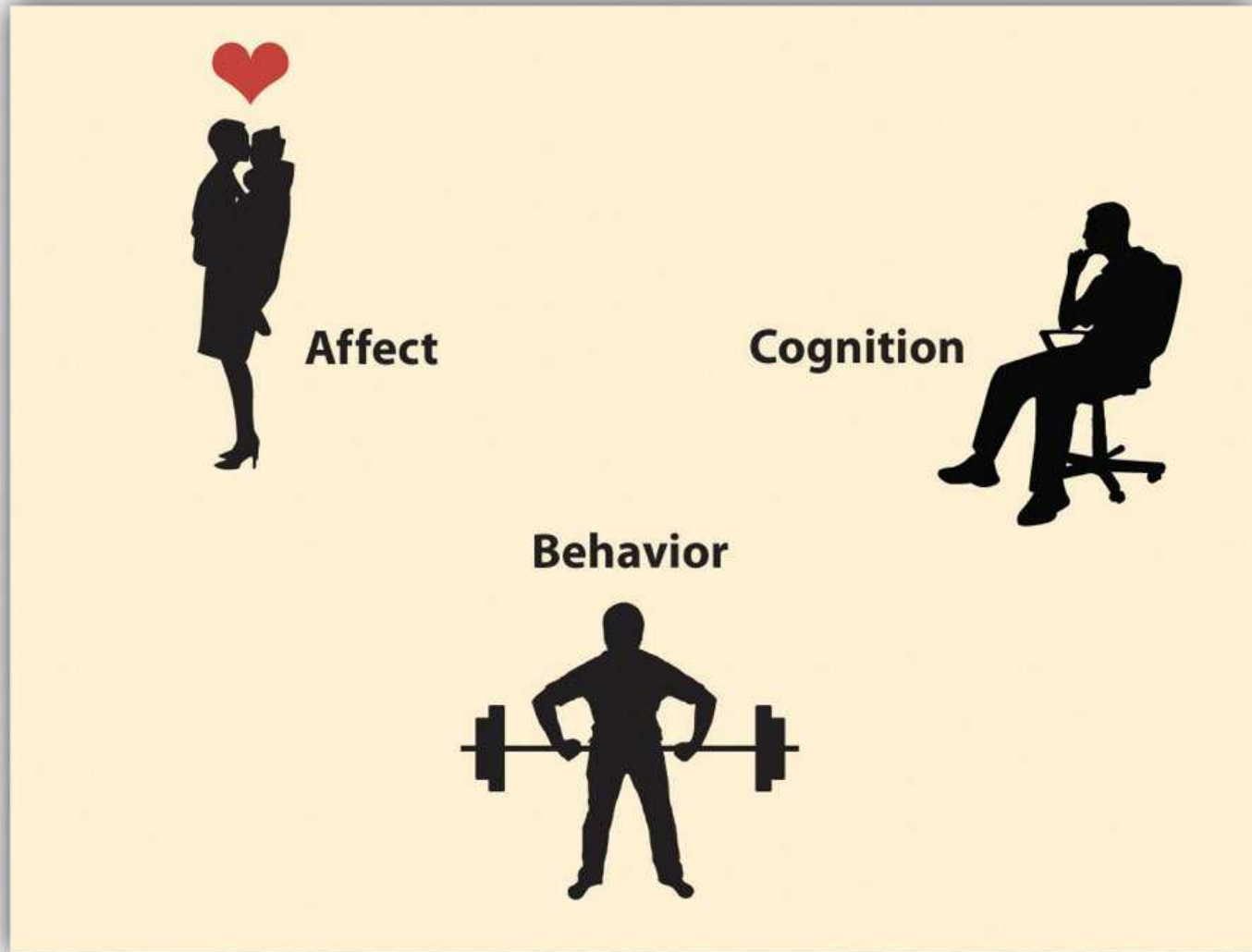




WHAT IS ENGAGEMENT?

Are Americans Engaged?

Engagement is a broad term!



CLIMATE CHANGE RESILIENCE

Is the American Public Engaged on the issue?

Knowledge/Cognition



Concern/Affect



Action/Behavior



The US Third National Climate Assessment (NCA) lists **implementation** as the number one **significant gap** in the state of adaptation in the U.S.

**WHAT IS THE MOST
IMPORTANT AND FIRST STEP
TO ENGAGE THE PUBLIC?**

Know Thy Audience...



Know Thy Audience...

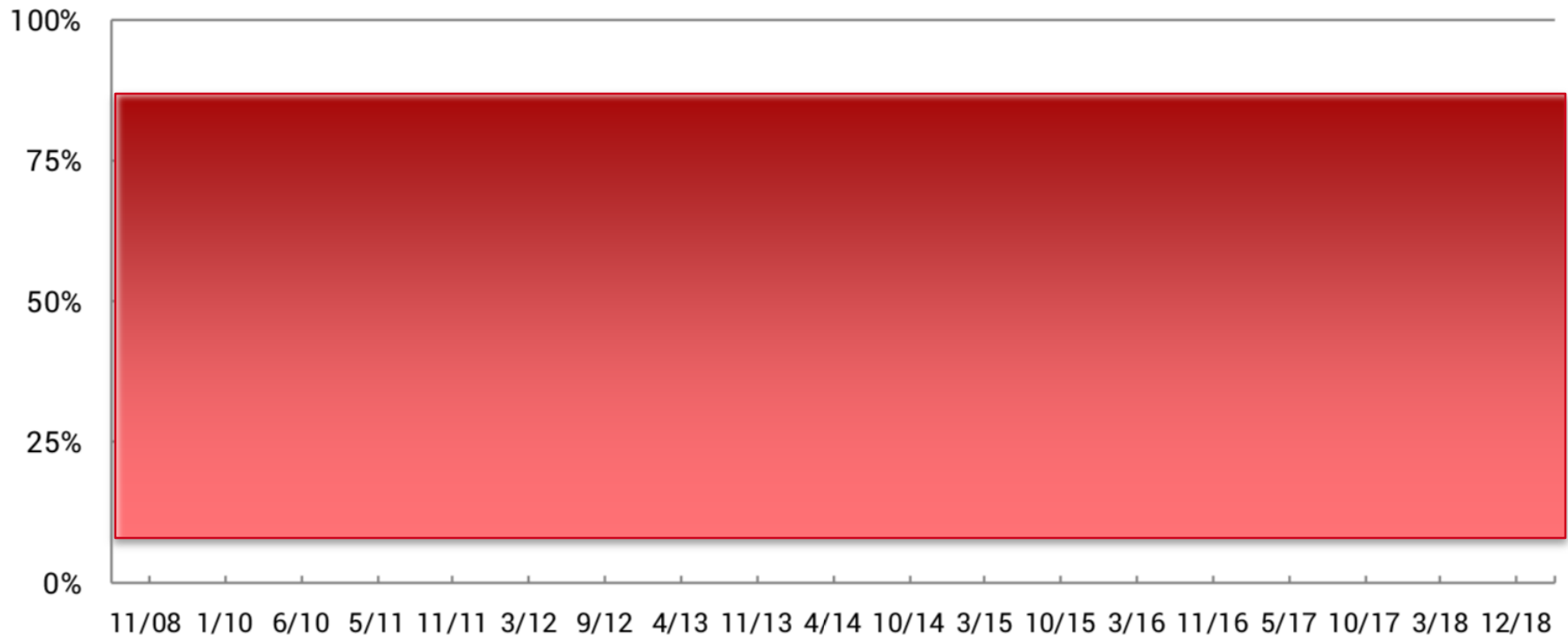
**Where are American's at
with knowing and feeling?**

US POLLING: ISSUE UNDERSTANDING



85% of Americans believe global warming is happening with **70%** believing it is human caused. December 2018.

- Think global warming is happening
- Think global warming is NOT happening





Global Warming Belief

- Americans who think global warming is happening outnumber those who think it isn't by more than a 5 to 1 ratio



 Happening  NotHappening



The Public and Scientific Consensus



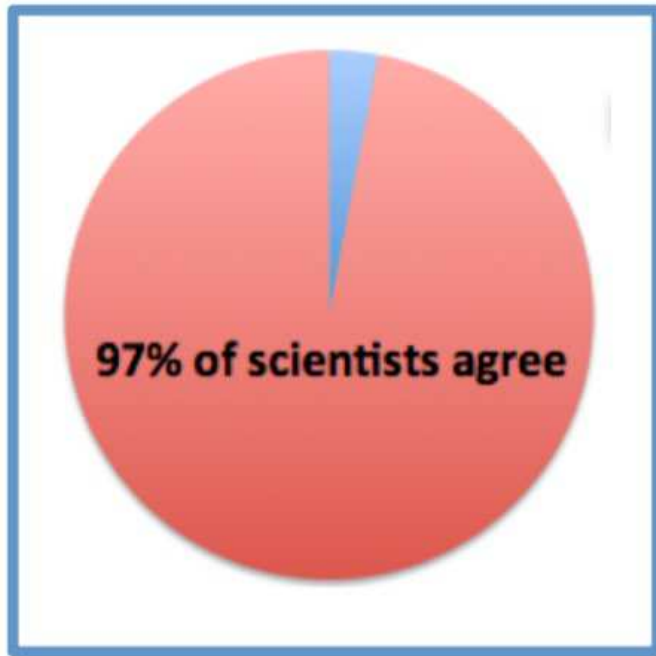
**Climate Change
is Happening and
Human Caused**



**What percent of the
American Public
understand above?**



Most Successful Message to Communicate Consensus



“Based on the evidence, 97% of climate scientists have concluded that human-caused climate change is happening.”



WINNING THE GLOBAL WARMING DEBATE – AN OVERVIEW

Please keep in mind the following communication recommendations as you address global warming in general, particularly as Democrats and opinion leaders attack President Bush over Kyoto.

1. ***The scientific debate remains open.*** Voters believe that there is *no consensus* about global warming within the scientific community. Should the public come to believe that the scientific issues are settled, their views about global warming will change accordingly. Therefore, ***you need to continue to make the lack of scientific certainty a primary issue in the debate,*** and defer to scientists and other experts in the field.

Excerpt from the Luntz memo.

US POLLING: DISTANT THREAT

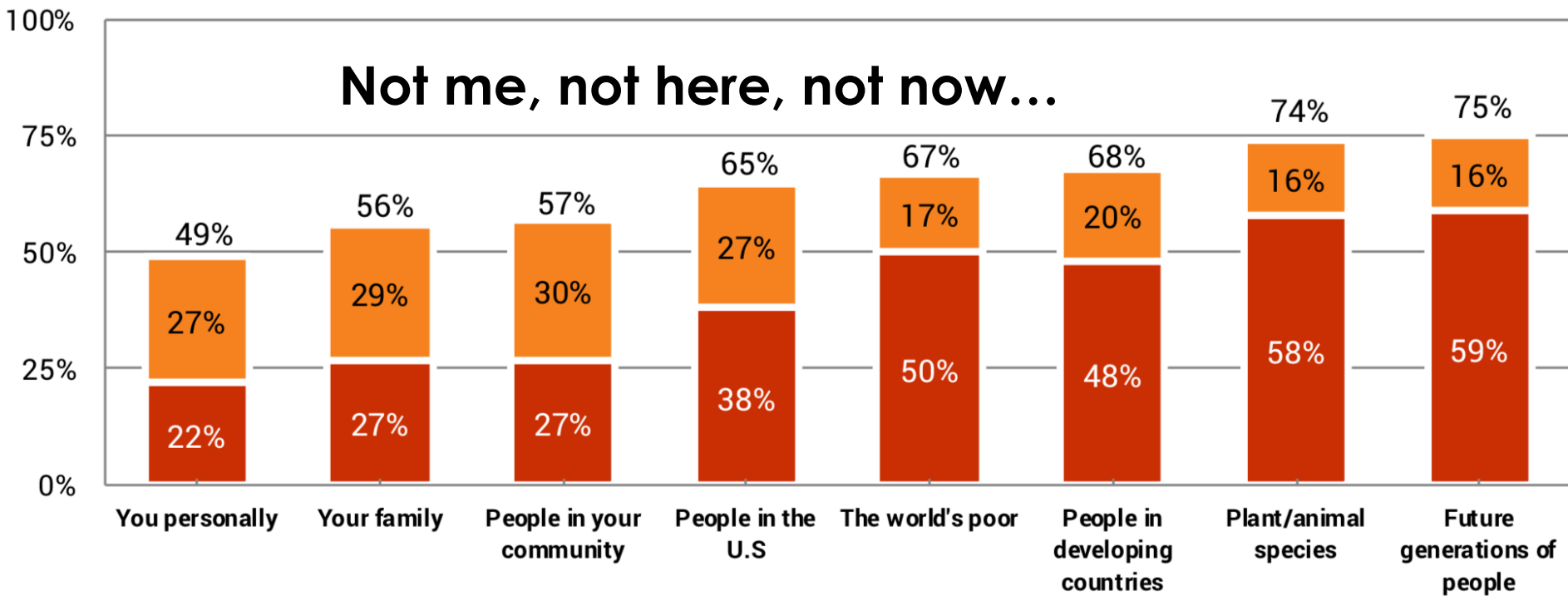


Most Americans believe global warming will primarily harm future generations and plant/animal species.

Only 29% are Very Worried

"Global warming will cause..."

■ ...a great deal of harm ■ ...a moderate amount of harm

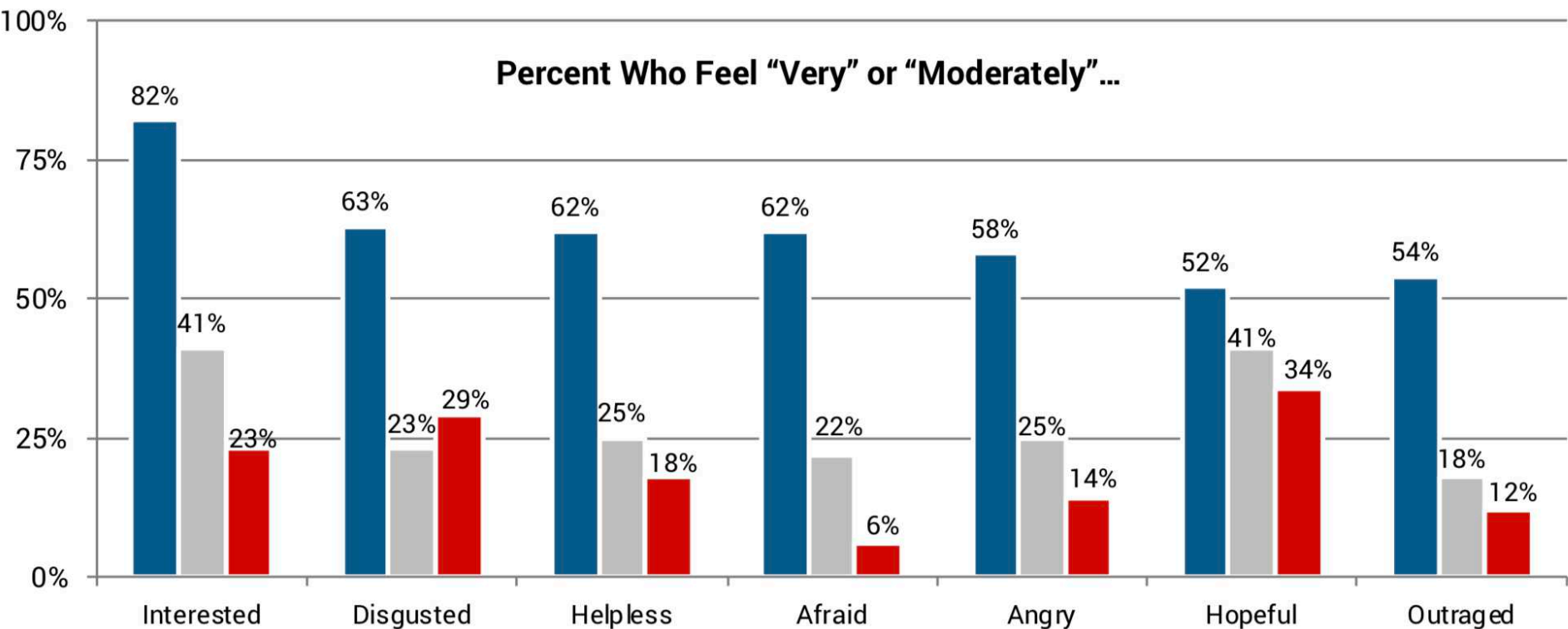


Concerned but: Lack of personal worry



What does this tell us?

- Think global warming is happening (73%)
- Don't know if global warming is happening (13%)
- Think global warming is not happening (14%)



Helpless and Not Much Hope



What are Common American Values?

Personal Freedom/Choice
Individualism
Patriotism
Self Reliance
Dedication/Hard Work/
Equal Opportunity
Common Sense
Frugality
Efficiency/Avoid Waste
Conservative
Morality
Uniqueness
Innovation

Social Justice
Equity
Common Good
Reciprocity
Benevolence
Nurturance
Cooperation
Collective
Innovation
Avoid Waste



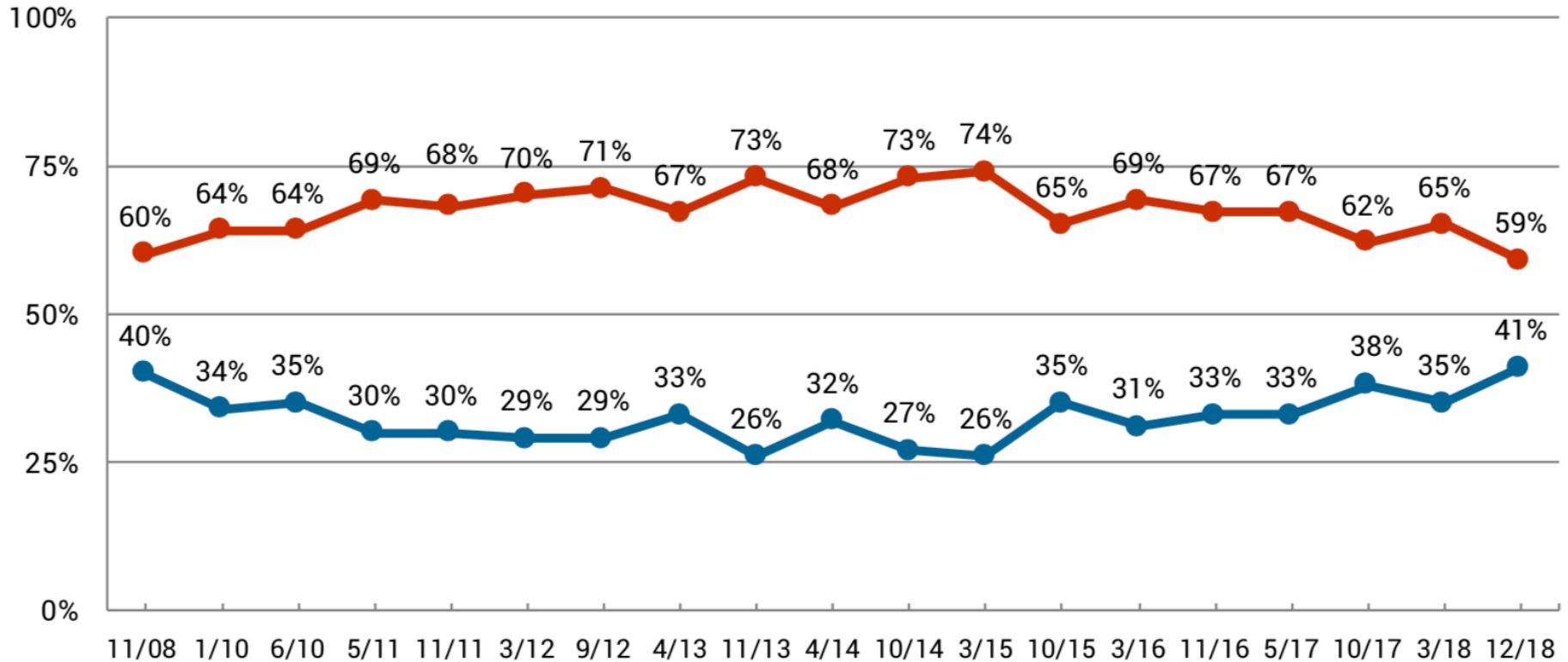
Why are we not talking about it?

About Four in Ten Americans Say They Discuss Global Warming With Family and Friends “Often” or “Occasionally”

“Discuss global warming with family and friends...”

● ...often/occasionally

● ...rarely/never





Communicating Climate Change: Do we really know our audience?



EAT MOR CHIKIN

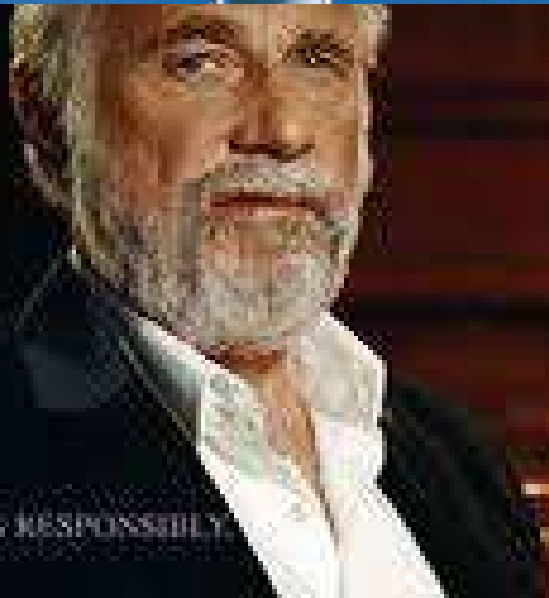
Chick-fil-A



DOS EQUIS

STAY THIRSTY, my friends!
Amigos, ¡cual Dos Equis!

ENJOY DOS EQUIS RESPONSIBLY



I summer will refresh you all winter long.

© 2010 B&W BEER CO. A B&W BEER COMPANY. ALL RIGHTS RESERVED.



Numbers Numb

Stories Succeed

Barriers to Engage

Issue Polarization

(obvious)



Lack of Urgency/Not Concern

(not me, not here, not now)

Efficacy Gap/Helpless

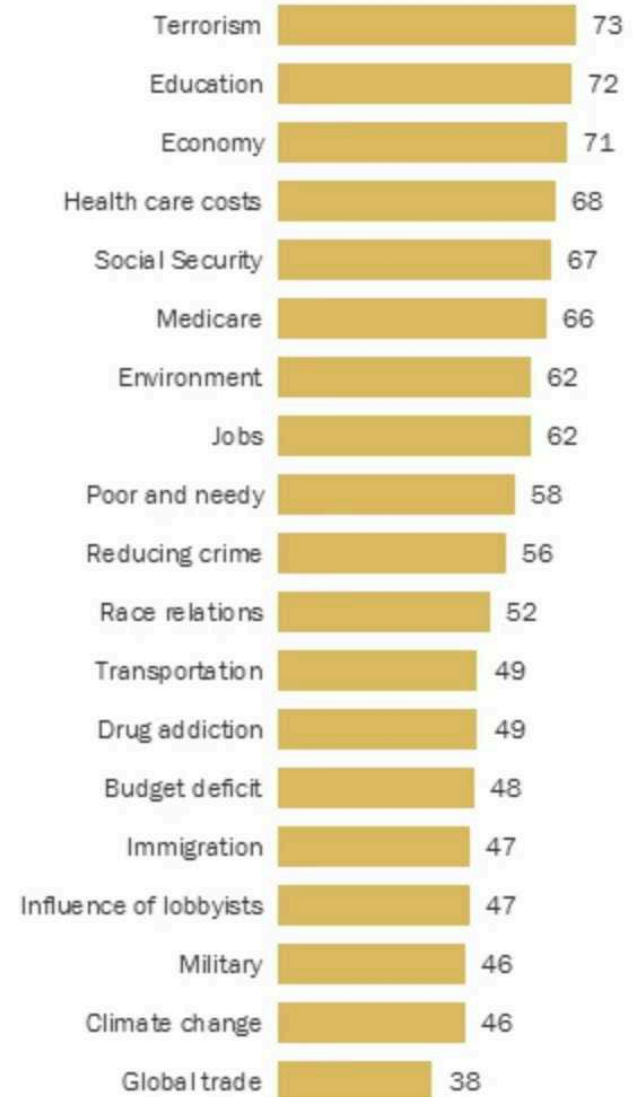
(Can I do anything meaningful?)

Psychological Processing



Public's policy priorities for 2018

% who say ____ is a top priority for Trump and Congress



Risk Without Positive Outcome Separates the Worriers from the Doers



Efficacy

The belief that their
actions matter

“Paralysis of Action”

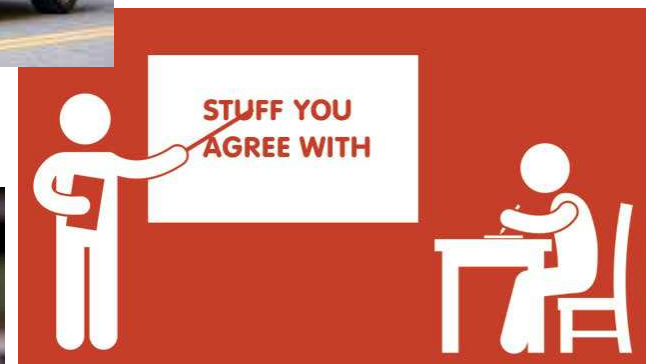


**Risk is Based on Emotion.
It is not Rational**



Psychological Processing Barriers

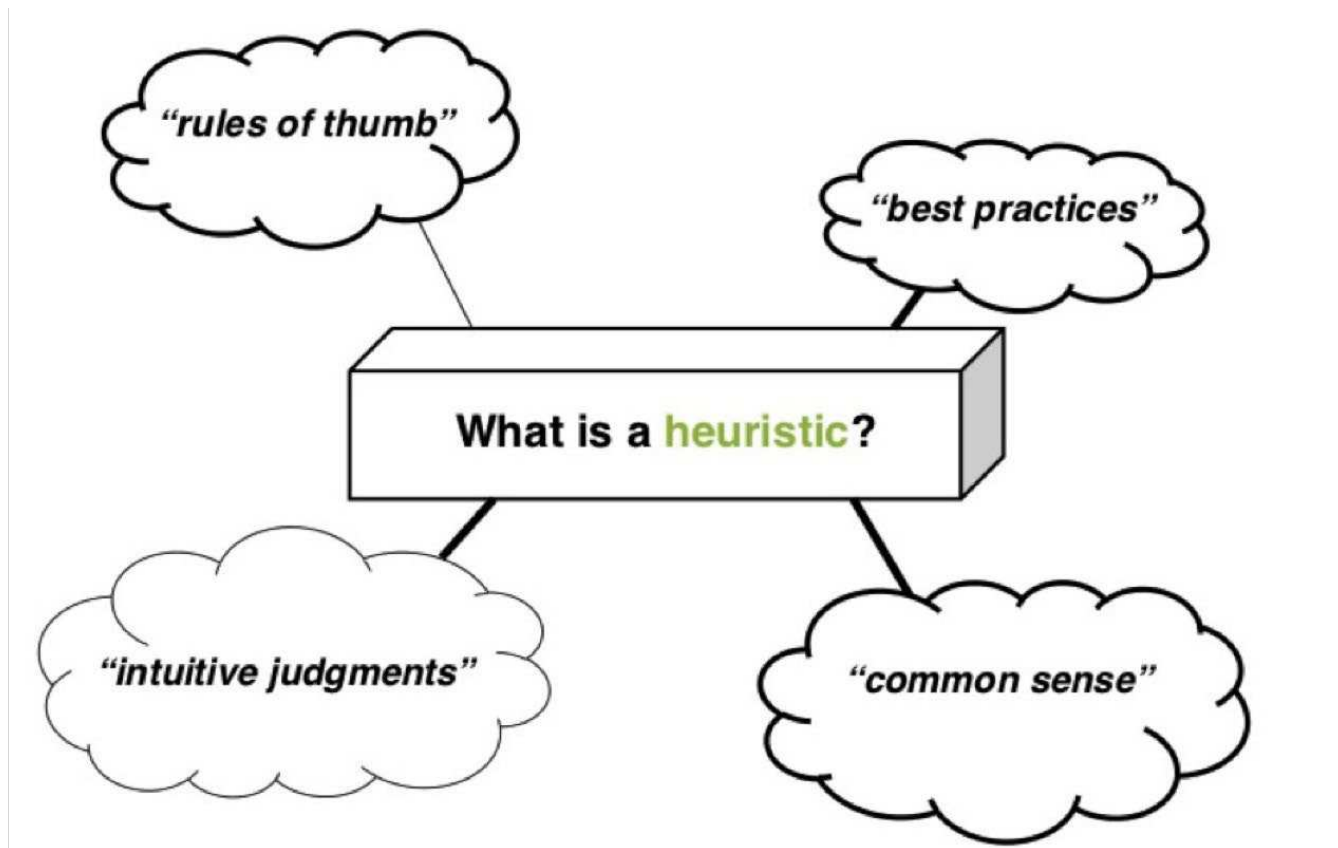
Discount the Future
Psychological Distancing
Optimism Bias
Confirmation Bias
Cultural Cognition
Social Norms
Cognitive Dissonance
Heuristics





Barriers

Heuristics: Short cuts the brain makes! Heuristics are strategies to minimize learning time or make more efficient.





Let's test it out...

**I'm going to tell you 3 pairs of words.
Remember them without writing them down**

Drew Weston, Emory University

System 1



Fast



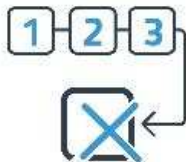
Unconscious



Automatic



Everyday
Decisions

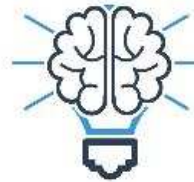


Error prone

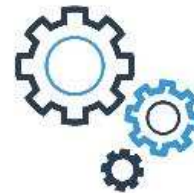
System 2



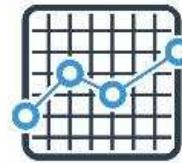
Slow



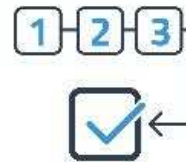
Conscious



Effortful



Complex
Decisions



Reliable

Mental Models

O'P
THE SACRAMENTO BEE
©2014-10/19-TCA

EBOLA!!!

OBESITY:
300,000
DEATHS PER YEAR

TOBACCO:
450,000
DEATHS PER YEAR

ALCOHOL:
88,000
DEATHS PER YEAR



RACHEL
ARON KRASHINSKY

How to Enter Into a Meaningful Conversation

Be aware of mental models

Understand values

Strive to increase efficacy and hope

Use stories and pictures (when possible)

Be prepared to debunk misconceptions



Common Misconceptions



Debunking a Myth

Three Elements

- 1) Focus on the **core facts** right from the start, not the myth
- 2) When referring to the myth, precede the statement clearly indicating it is **false information** or a myth.
- 3) Lastly, **explain why the myth is false** in clear concise terms.

Keep it
simple

It's not just
what people
think that
matters, but
how they
think.

Common Misconceptions

The climate's
changed before!





Myth Versus Fact

FACT: Greenhouse gasses, principally CO₂, have controlled most ancient climate changes. This time around humans are the cause, mainly by our CO₂ emissions.

MYTH: One of the most common and persistent myths is that the changing climate is natural.



Jumping to conclusions: To infer that humans can't be behind today's climate change because climate changed before humans is bad reasoning

Common Misconceptions

Models are unreliable!

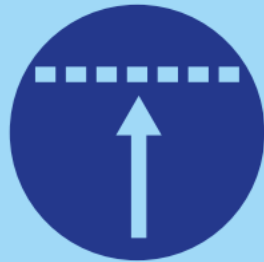




Myth versus Fact

FACT: Models are based on fundamental physical principles. Models successfully reproduce temperatures since 1900 globally, by land, in the air and the ocean.

MYTH: A very common myth is that our climate models are unreliable



Impossible expectations: no model is perfect but they are useful tools that can reproduce the past and provide insights into the future.

Common Misconceptions

What else have you heard in your circles?

How can we help you “answer/address” them?



Myth versus Fact

FACT: The sun and climate are going in opposite directions. Over the last few decades of global warming, the sun has shown a cooling trend. Scientists have concluded the sun can not be the cause of GW.

MYTH: One of the most common myths is the sun is the cause of GW



Cherry picking: ignores human fingerprints and recent period where sun and climate move in opposite directions.

Myth versus Fact

FACT: Negative impacts of global warming on agriculture, health & environment far outweigh any positives.

MYTH: A very common myth is that it's not going to be that bad.



Cherry picking: this focuses on a few good impacts of global warming but ignores the overwhelming number of bad impacts.



Myth versus Fact

FACT: 97 out of 100 of climate experts agree humans are causing GW.

Several independent surveys find 97% of climate scientists who are actively publishing peer-reviewed climate research agree that humans are causing GW

MYTH: Another common myth is that there is no consensus. For example: OISM Petition Project claims 31,000 scientists disagree with the scientific consensus on global warming.



Cherry Picking: 99.9% of the scientists in the Petition Project are not climate scientists. Anyone with a BS or higher and includes medical doctors, mechanical engineers and computer scientists are listed



Myth versus Fact

FACT: All the indicators show that global warming is still happening. In the 1970s, the majority of climate papers were predicting warming.

MYTH: A very common myth is that our planet is cooling or was predicted to be heading into an ice age.



Misrepresentation: confuses mainstream media reports with scientific papers which overwhelmingly pointed towards warming.



Myth versus Fact

FACT: We can measure temperature in many ways and they all say the same thing - our planet is warming.

The warming trend is the same in rural and urban areas, measured by thermometers and satellites, and by natural thermometers.

MYTH: A very common myth is that our temp record is unreliable



Jumping to conclusions: just because measurements have uncertainty doesn't mean it's unknowable. The uncertainty is smaller than measured global warming.

Myth versus Fact

FACT: Mass extinctions happen when climate changes too fast for species to adapt.

Currently species are going extinct at similar rates to past mass extinctions.

MYTH: A very persistent myth is animals and plants can adapt



Jumping to conclusions: just because species can adapt to some climate change doesn't mean they can adjust to the rapid climate change happening now.



Myth versus Fact

FACT: Our planet has continued to build up heat since 1998 - global warming is still happening.

Every part of the Earth's climate system has continued warming since 1998, with 2015 shattering temperature records.

MYTH: A very common myth is that it hasn't warmed since 1998



Cherry picking: looking at one region or a short period ignores the full picture.



Myth versus Fact

FACT: The West Antarctic ice sheet is losing hundreds of billions of tons of ice every year, making it a major contributor to global sea level rise. Satellites measure Antarctica is gaining sea ice but losing land ice at an accelerating rate which has implications for sea level rise.

MYTH: A very common myth is that Antarctica is gaining ice.



Over simplification: A number of factors may contribute to the increase in sea ice - but in no way does it change the fact that climate change is happening.

Resources

Skeptical Science

https://skepticalscience.com/docs/Fact_Myth_Fallacy.pdf

Inoculation Theory

<https://theconversation.com/inoculation-theory-using-misinformation-to-fight-misinformation-77545>

Real Climate

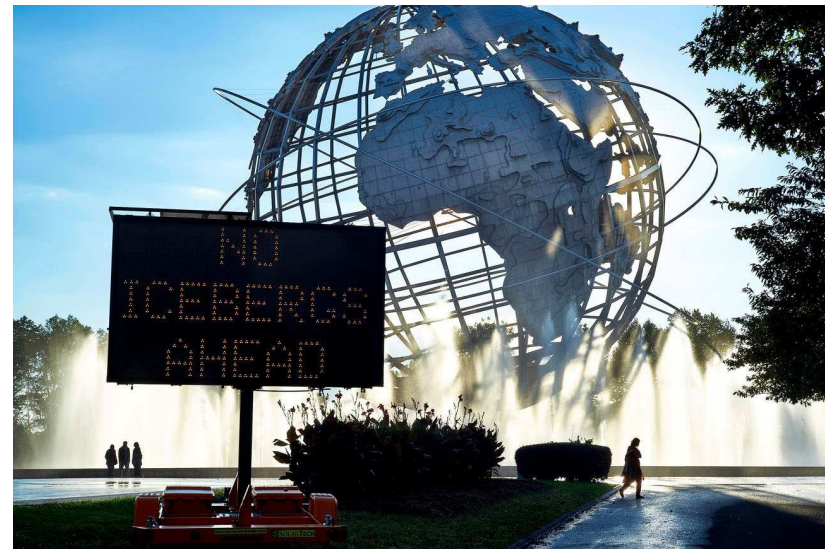
<http://www.realclimate.org/>

You Tube: 6 Principles for IPCC Scientists to Communicate

<https://youtu.be/PIN6qs55NNE>

Grist:

<https://grist.org/series/skeptics/>





“We cannot solve our problems with the thinking we used when we created them.”

-Albert Einstein



Have the Talk: Climate Conversations



Think back to the holidays...

Think back to the holidays every year when family get together to share meals and stories.

Who has experienced family members getting into heated debates?



Roleplay 1!

- Get into pairs
- One student will try to convince the other that **cats are better than dogs**
- One student will try to convince the other that **dogs are better than cats**
- You have 5 minutes to try and convince your partner! Try your hardest!



Roleplay 1!

How did that go?

How did it feel trying to be convinced of something?



It's all in your head

Why do you think people get turned off talking about climate change?

What emotions might come up for people?



It's all in your head

These emotions can make it hard for people to open up and talk about climate. The brain lights up in alarm and shoots up defense mechanisms like:

- Denial: denying the problem even exists
- Avoidance: avoiding the problem or conversation
- Minimizing: making the issue seem like not a big deal
- Blame: blaming others for the problem

Has anyone ever felt these or notice others have felt this when talking about a sensitive topic?



Demonstration

Script between two volunteers



BREAK

The Secret to Talking about Climate Change

Neuroscientists and psychologists have found that conversations can profoundly help this situation. Take a look:

- "The Secret to Talking about Climate Change"
Video <https://ourclimateourfuture.org/video/secret-talking-climate-change/>

Your task

You'll practice having climate conversations then plan to have one with a family member, co-worker, or friend in your life.



OARTAC

- Open: How you open and set the tone for the conversation. Ask to minimize distractions.
- Ask: Ask open-ended questions to learn and understand your partner's experience. (Not yes / no questions).
- Reflect: Reflect back what you heard them say. Reflecting helps the other person know they have been heard.



OARTAC

- **Tell**: Ask if you can tell something you're feeling or are thinking about. Keep it brief.
- **Ask**: Ask what they think about what you've said, other open-ended questions to learn more about them.
- **Close**: Close out the conversation in a respectful way that hopefully leaves them open to having more conversations.



Roleplay 2!

- Take a few minutes to look at the worksheet
- In pairs, each individual will have 10 minutes to lead a climate conversation using OARTAC.
- Use the Conversation Structure: OARTAC worksheet to help!



Roleplay 2!

How did it go?

How did it feel compared to the first roleplay?

How was it different?

Story of Self



Have the talk

Talk with someone about climate change.





How to Enter Into a Meaningful Conversation

Be aware of mental models

Understand values

Strive to increase efficacy and hope

Use stories and pictures (when possible)

Learn how to frame the conversation

Be prepared to debunk misconceptions

Be aware of body language and attitude

Inspiring Hope



“I don’t care if what I’m doing – what we’re doing – is hopeful. We need to do it anyway. Even if there’s no hope left and everything is hopeless, we must do what we can.”



“I can rescue someone”



QUESTIONS?

Christa Daniels, Ph.D., AICP

Center for Climate Preparedness and
Community Resilience

Antioch University New England

cdaniels1@antioch.edu