"The media plays a super important role. And the reason is people, most people, do not read scientific reports. They really rely on the media to take these scientific reports and translate them into everyday language and sort of summarize them."

Prof. Parrish Bergquist, Georgetown University
TILclimate podcast: Today I Learned What Americans Think About Climate Change

### **Understanding the Media**

News and entertainment media take many forms and influence our thinking about many things – not just climate science! *Media literacy* is the set of skills that can help us understand what we are being told and whether to believe it. The old saying "you can't believe everything you read" extends to all forms of media. How do we decide what to accept and what to question?

#### The Five W's (and an H)

Taking a close look at any message can help us better understand it. Messages in this case can be news articles, podcast episodes, videos, advertisements... Really anything you read, hear, or watch. Be more aware of the messages you are getting by asking:



**Who made this?** Every piece of media was made by someone. Who are they and what are their credentials? Does that tell you anything about whether the message is trustworthy?



**Why was it made?** What is the goal of the message? Is it an advertisement, information, opinion? Is the goal clear, or does it seem hidden?



What is missing from the message? A content creator must choose what to include and what to leave out. What was left out?



**Who might benefit from this message?** Who would be happy to get this message? Who would be happy to have you receiving it?



**Who might be harmed by this message?** Who would be angry or hurt by this message? Who might not want you to hear it?



**How might different people interpret this message?** Is there background information you need to understand it? Does it assume you believe something?



### Who Is Talking About Climate Change?

Think of a recent message you have received about climate change. This could be a social media post, a news article, a video, a mention on radio or TV, or something else. If you haven't heard anything about climate change in a while, search a website or app you visit frequently for the term "climate" and see what comes up. These messages do not have to be formal news articles – they should be the kinds of things you see every day, however you interact with media.

### **Question the Message**

1. Briefly describe the message. What form did it come in? How did you find it?



(F)

- 2. Where did this message come from? Who made it? Was it made by the site where I am seeing it, or are they sharing someone else's messages? What are the credentials of the people who made it?
- 3. Why did they make this message? Are they trying to inform, persuade, cause an emotional reaction, or something else?
  - 4. What is missing? If they include facts, do they say where they got their facts? If they do not include facts, are there facts that would help their argument?
  - 5. Who might benefit? Is this message trying to persuade you to buy something, follow someone, or something else?
  - 6. Who might be harmed? Is there language that would hurt someone? Is there information someone might not want you to have?
  - 7. Would everyone see this the same way? Would someone who doesn't agree with you about political or other issues see this message the same way?

#### To Trust or Not To Trust

- 8. After considering all these questions, do you think you should trust this message? Why or why not?
- 9. Would you recommend the source of this message to a friend? A family member? A teacher? Why or why not?

#### Share

10. Media literacy is important for people of all ages. How would you explain it to a younger sibling, cousin, or friend? How about an adult friend or family member?

### **Cognitive Biases**

Our brains work hard to decide which information to trust, and which to question. Some social scientists study how the human brain takes in and processes information. They have defined hundreds of *cognitive biases*. These are shortcuts that our brains use to help sort the information we are faced with every day. Without these shortcuts, we would be overwhelmed by choices all the time. Unfortunately, shortcuts can also lead to false information, biased thinking, and stereotypes.

There are hundreds of cognitive biases, but here are two that social scientists often point to when thinking about how we understand messages in the media and politics.



**Confirmation Bias** is an instinctive habit to accept new information that supports beliefs we already hold.

For example, if people have heard that red cars tend to speed more, they will notice when a red car zooms past them on the highway – even if five cars of other colors have already passed them.

Our brains *confirm* our existing beliefs by noticing the red car.



**Availability Bias** (also called the availability heuristic) is an instinctive habit to think things are more common if we have heard about them more often.

For example, if there have been a series of articles about a single shark incident at a beach, people are more likely to avoid the beach – even in areas where there are no large sharks.

Our brains make the shark stories more available to our thoughts.

#### **Check Your Biases**

Thinking about the same message you considered on the previous page:

- 7. Is the source one that I tend to trust? When we get information from sources we trust, we do not tend to question it. This can lead to *confirmation bias* if our sources are biased or incomplete. On the flip side, if we do not tend to trust the source, we often will not accept information that we would otherwise. If your source is news media, you can check their rating on the Ad Fontes Media Bias Chart <a href="https://www.adfontesmedia.com/">https://www.adfontesmedia.com/</a>
- 8. Is the story one I have heard before? Even when our conscious minds know that we have seen a story before, our brains log each new reading as another time that the same thing happened. This can lead to *availability bias* and make us think that something is happening more often than it is.



"[Yale researchers] take a bunch of different questions about people's beliefs and attitudes about global warming and use them to categorize people into six different groups based on how concerned they are and how much people know about this problem."

Prof. Parrish Bergquist, Georgetown University

TILclimate podcast: Today I Learned What Americans Think About Climate Change

#### "Both Sides"?



In the media, discussions of climate change are often shown as a 'both sides' debate. We are presented with the opinion of a climate activist on one side, and a climate denier on the other. This makes it easy to believe that equal numbers of Americans fall into two separate camps when it comes to climate change.



Since 2008, scientists from Yale University and other institutions have surveyed over 22,000 Americans across all 50 states. They have found that people's opinions on climate change fall into six broad categories, not just two. Each of these categories respond to communication about climate change in their own ways.

#### The Six Americas

According to the Yale Program on Climate Change Communication, the six categories of American opinion on climate change are:

Alarmed	Concerned	Cautious	Disengaged	Doubtful	Dismissive
Convinced climate change is happening, is human-caused and is an urgent threat.	Think climate change is happening and human-caused, but impacts are distant.		Know little about climate change and do not hear about it in the media or daily life.	Do not think climate change is happening, or it is happening, but not humancaused and not urgent.	Believe climate change is not happening, not human-caused, not a threat, and may be a hoax or conspiracy.
				uigent.	conspiracy.

Image by glyph.faisalovers from the Noun Project



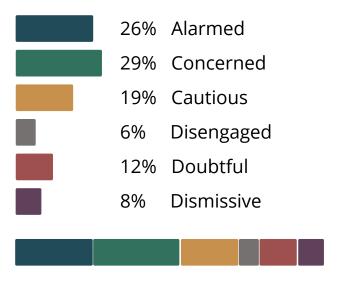
#### What Do Americans Think?

- 1. What do you think about these categories? How would you describe them in your own words?
- 2. Which category would you\* fit into? What about your family or friends? Famous people you follow? How do you know what these people think?
- 3. What percent of Americans do you think fit into each category?
- 4. What information leads you to your predictions?
- 5. Do you think the number of people in each category has changed since 2008? (\*Optional: take a 4-question quiz at <a href="https://climatecommunication.yale.edu/visualizations-data/sassy/">https://climatecommunication.yale.edu/visualizations-data/sassy/</a>)

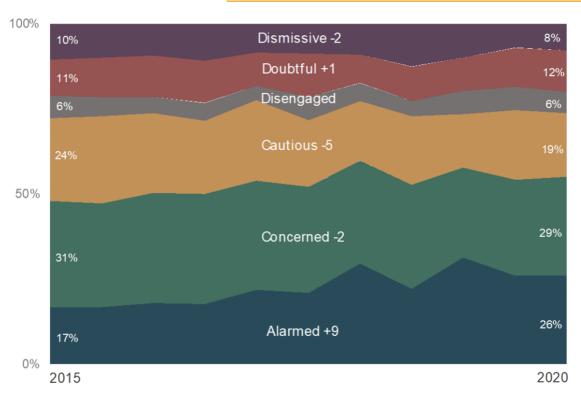
On the next page, you will find the 2020 Six Americas results. After you read this page, come back to answer the following questions.

- 6. How close or far off were you?
- 7. Why do you think your predictions did or did not fit the collected data?
- 8. Are you surprised about these results? Why or why not?
- 9. Which of these categories of Americans would you expect to support or oppose climate-related policies?
- 10. How did American climate opinions change between 2015 and 2020?
- 11. What events, stories, or people may have influenced the changes you see?
- 12. What further questions do you have based on what you notice?

#### The Six Americas, December 2020



#### The Six Americas Over Time



Data from 11 waves of the Climate Change in the American Mind national survey October 2015 – December 2020 (n = 13,381)

https://climatecommunication.yale.edu/about/projects/global-warmings-six-americas/

Yale Program on Climate Change Communication & George Mason University Center for Climate Change Communication





"We can kind of think of two dimensions of public opinion about a particular policy. One is how popular the policy is. The other is how salient it is, which is how much people care about it."

Prof. Parrish Bergquist, Georgetown University
TILclimate podcast: Today I Learned What Americans Think About Climate Change

## **Yale Program on Climate Change Communication**

Since 2008, scientists from Yale University and other institutions have surveyed over 22,000 Americans across all 50 states, and more than 3,000 counties. By studying climate attitudes at the state and local level, researchers are better able to model and visualize the diversity of public opinion across the country. The survey questions go into detail, which allows researchers, communicators, and others to ask about specific beliefs, risk perceptions, policy support, and behaviors.

### **Climate Change vs Global Warming**



You may notice that the Yale Program on Climate Change Communication uses both the terms "global warming" and "climate change."

Carbon dioxide acts like a blanket, trapping heat from the sun. This is natural, but as we burn fossil fuels like coal, oil, and natural gas, we release a great amount of carbon dioxide into the atmosphere.

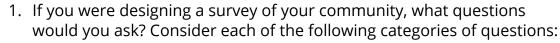
This extra trapped heat is warming the atmosphere, land, and ocean around the globe (global warming.)

Warmer air, water, and land are causing dramatic changes in climate patterns such as storms, heat waves, and flooding (climate change.)

A build-up of heat-trapping gases cause global warming, which causes climate change.

## What Are Your Questions?

Think about what you know and have heard about climate change and public opinion.





- a. Agreement with the science of global warming.
- b. Sense of risk from the effects of climate change.
- c. Support for policies or laws related to climate change.
- 2. Which of these categories of questions are you most interested in?
- 3. What patterns would you expect to see across the US for these questions?

Images by Vectors Point and Berkah Icon from the Noun Project



### **The Yale Program on Climate Change Communication**



Since 2008, scientists from Yale University and other institutions have surveyed over 22,000 Americans across all 50 states. Public opinion polling is often done at the national or state level, which gives a broad idea of American opinion.



The team of scientists at YPCCC have developed a statistical model that allows them to estimate opinions at the congressional district and county levels. This makes for a richer dataset that shows the variation in Americans' thoughts about climate change.

### **Explore the Data**

Visit <a href="https://climatecommunication.yale.edu/visualizations-data/ycom-us/">https://climatecommunication.yale.edu/visualizations-data/ycom-us/</a>

Explore the data, changing the questions from the drop-down menu.

- 1. What do you notice?
- 2. What questions do you have?
- 3. What happens if you zoom in on your state, or another state of interest?

Switch between National, States, Congressional Districts, Metro Areas, and Counties on the left side.

- 4. How does this shift change how you see the data?
- 5. Does each area on the map have the same population? Why is this important?
- 6. If you were showing this map to someone else, which scale would you use and why?

Scroll down to the bars that show national average answers to all questions.

- 7. What do you notice?
- 8. Which method of showing the data do you like best? Why?
- 9. Think about the questions you wrote on the previous page. Do you still have the same questions about American opinions on climate change? What new questions do you have?

### **Policy Support and Salience**

Visit <a href="https://climatecommunication.yale.edu/visualizations-data/ycom-us/">https://climatecommunication.yale.edu/visualizations-data/ycom-us/</a>

Scroll down to Policy Support. The estimated percent of Americans who agree with the statement are shown in orange (left), while those who disagree are shown in blue (right.) Undecided or unsure answers are shown in white in the middle.

Agree/Support Unsure/Undecided Disagree/Oppose
------------------------------------------------

The first nine questions ask about specific policies related to energy production and use.

- 1. What do you notice about these nine policies? Are there any surprises?
- 2. What percent of people are undecided on these policies?

The second eight questions ask about who should address climate change.

- 3. What do you notice about these eight questions? Are there any surprises?
- 4. What percent of people are undecided on these questions?

Just below Policy Support are two questions about climate-related communication.

- 5. Given the answers to these questions, as well as what you observed in Policy Support how *salient* do you think climate change is for most Americans? In other words, do you think most Americans think about climate change in their daily lives?
- 6. Why do you think this is?
- 7. What do you think impacts people's opinions on climate policy?

For an even deeper dive into the impact of demographics and politics on climate views, visit <a href="https://climatecommunication.yale.edu/visualizations-data/americans-climate-views/">https://climatecommunication.yale.edu/visualizations-data/americans-climate-views/</a>