Addressing the climate crisis

The power of language and framing

WÄNDI BRUINE DE BRUIN

Introduction

Around the world, most people are now worried about climate change. The 2019 Lloyd's Register Foundation World Risk Poll found that 69% of people worldwide were "somewhat worried" or "very worried".[1] These numbers have remained relatively stable over the years.[2] The worldwide recognition of the threat of climate change signals a shift from 2007–2008, when there was still worldwide apathy or lack of awareness about climate change.[3]

The Intergovernmental Panel on Climate Change (IPCC) has long been warning that climate change will bring more extreme weather to countries around the world.[4] Worldwide, the weather has been getting hotter, and there have been more heat waves, droughts, and wildfires. The IPCC has released reports every 7 years. These reports reflect insights from climate science for policymakers, practitioners, and members of the public. Among other things, the reports discuss two types of behavior change that are needed in the face of climate change: "mitigation" and "adaptation". "Mitigation" means stopping climate change from getting worse by reducing the amount of greenhouse gases we put into the atmosphere. "Adaptation" means protecting ourselves against the climate impacts that are already happening.

IPCC reports have been criticized for using jargon and university-level language.[5] As a result, communications about climate can be hard to understand for people who do not have a degree in climate science. Climate jargon can be confusing, off-putting, and lead people to go elsewhere for their information.[6] Everyday language is even preferred by

people who read well.[7] Many adults in the United States, Canada, United Kingdom, and Europe read at the level of 12- or 13-year-olds.[8] Readability studies have found that text meant for the public is better understood if it is written for 12–13 year-olds.[9] Sentences of 16–20 words and words with no more than 2 syllables are easier to read.[10]

Of course, there are always exceptions. Some short words can be confusing, and some long words can be easy to understand. To test how well the wording works, it is therefore important to conduct interviews with members of the intended audience.[11] In these interviews, they should be presented with words and phrases. They should also be asked to interpret the words and phrases, and to give suggestions for improvement.

Do people understand climate terminology?

Out of concerns that climate communications may be too hard for people to read, we teamed up with the United Nations Foundation to test how well climate change terminology is understood among the US general public.[12] In our study, we asked people from across the US to interpret words and phrases about climate change. The terms and phrases were selected by climate scientists who served as authors of IPCC reports. The terms included "mitigation" and "adaptation", which I introduced at the beginning of my chapter.

Overall, we found that people were confused by climate change terminology. Even those who were concerned about climate change often did not know how to interpret climate jargon. One person we interviewed said: "it sounds like you're talking over people".[13]

When we asked interviewees to define "mitigation", we found that it was thought of as a difficult term. When asked to define it, we heard definitions such as "resolving a conflict". Thus, mitigation was confused with mediation. Interviewees also had trouble coming up with definitions that linked the term "mitigation" to climate change.[14] Regarding "adaptation", we found that people thought of it as an easy term. But when asked to define it, many said it meant "turning a book into a movie", reflecting its use in everyday language, where it typically refers to the movie version of a book. However, that is not what "adaptation" means in the context of climate change.[15]

We also asked interviewees who did understand the terms to provide

descriptions in everyday language. We found that it is possible to talk about climate terms in a simple way. It was suggested that "mitigation" can be described as stopping climate change from getting worse,[16] and that "adaptation" can be described as protecting people against the climate change that is already happening.[17]

Our findings are not limited to the US. In a follow-up study we did in Germany, we found similar confusion about climate jargon.[18] Even though the German language has a lot of long sentences, one interviewee said: "[By the time I reached the end of the sentence,] I forgot how the sentence started".[19] In a study that was conducted in the UK, one participant referred to climate jargon as "science babble".[20]

Using everyday language is not only helpful for members of the general public. A policymaker we interviewed about IPCC reports said: "It's never good if you feel lost [during] a first look because you lose interest, and if you lose interest you just skip to the next page".[21]

I have been sharing these findings with climate scientists, climate journalists, and others who communicate about climate change. When I talk to these audiences, they often have questions about specific terms they use. A common question I have received is whether it might be a good idea to change the term for climate change.

Should we change the term we use for climate change?

"Climate change" used to be more commonly referred to as "global warming". Google Trends between 2004–2014 found that, as an internet search term, "global warming" was less common than "climate change".[22] However, "climate change" and "global warming" were searched equally often in 2014, and "climate change" overtook "global warming" in 2016.[23] "Global warming" refers to increasing temperatures and "climate change" refers to broader changes in the climate.[24] An advisor to the US government under President George W. Bush popularized the term "climate change" to de-emphasize the role of human activity and sound less alarming.[25] In the past, Democratic-leaning individuals also used to think of "global warming" as more serious than "climate change" while Republican-leaning individuals used to think of "climate change" as more serious than "global warming". But a recent review found that

these partisan differences have now faded and a majority of individuals from both political groups tend to express concern about both terms. Many people currently treat "global warming" and "climate change" as if they have the same meaning.[26]

Terms like "climate crisis" and "climate emergency" have been used to stress the urgency with which climate action is needed. In 2019, *The Guardian* newspaper switched to using these terms instead of "climate change".[27] The term "climate justice" has been introduced by grassroot organizations to draw attention to climate change as a human rights challenge:[28] that is, low-income communities will suffer the most from the effects of climate change despite being the least responsible for causing it.[29]

Psychologists have long shown that wording matters.[30] Words that draw attention to different aspects of a topic can sway public opinion about that topic.[31] Seemingly slight variations in how options are framed can affect people's judgments and decisions.[32] For example, we have found that food without meat and dairy products is more likely to be chosen when it is labeled "plant-based" rather than "vegan"—and becomes even more popular when labels say "healthy" or "sustainable" to emphasize the benefits of eating food without meat and dairy products.[33] Hence, there is reason to suspect that the terms that have been proposed to emphasize different aspects of "climate change" may affect people's responses, including their concern about the topic, and their willingness to do something about it.[34]

We therefore conducted a national US wording experiment that examined people's responses to the terms "climate change", "global warming", "climate crisis", "climate emergency", and "climate justice".[35] The study was conducted with a nationally representative sample recruited through the University of Southern California's Understanding America Study. Overall, "climate change" and "global warming" were rated as most familiar and most concerning, and "climate justice" the least, with ratings for "climate crisis" and "climate emergency" falling in between. Moreover, we found no evidence for "climate crisis" or "climate emergency" eliciting more perceived urgency than "climate change" or "global warming". Rated willingness to support climate-friendly policies and eat less red meat were less affected by presented terms, while these ratings were lowest for "climate justice". Although effects of terms on rated familiarity,

concern, and perceived urgency varied by political leaning, "climate justice" generally received the lowest ratings on these variables among Democrats, Republicans, and Independents/others. Auxiliary analyses found that when terms were unfamiliar, participants were generally less likely to express concern, urgency, policy support or willingness to eat less red meat.

Thus, we found no evidence that switching to newer terms will actually raise concern, feelings of urgency or willingness to act.[36] That is likely a result of these terms not being very familiar. Even when the alternative terms do become familiar, there is no guarantee that they will raise concern. Indeed, it has been suggested that saying "climate crisis" can backfire due to sounding alarmist.[37] A study in the UK found that narratives that focus on "climate justice" are politically polarizing because they resonate with left-leaning audiences and are off-putting to right-leaning audiences.[38] Therefore, we recommend sticking with the familiar terms "climate change" and "global warming".

Conclusion

Climate change affects people around the world. Communities are increasingly being hit by severe weather, including heat waves, droughts, and wildfires. Climate communications aim to inform people about expected climate impacts and what to do about it. But these communications may fail if people have trouble understanding what they are saying. In the words of Pete Ogden, Vice President for Energy, Climate, and the Environment at the United Nations Foundation 2021: "We have to get better at communicating the dire threat posed by climate change if we want to bring more people into the fight for faster and greater action on climate. That starts by being able to translate the best science into language that all of us can understand."[39]

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Notes

1. Bruine de Bruin & Dugan 2022.
2. Lloyd's Register Foundation 2024; Bruine de Bruin *et al*. 2025.
3. Lee *et al*. 2015.
4. IPCC 2022.
5. Barkemeyer *et al*. 2015.
6. Bruine de Bruin *et al*. 2021; Bruine de Bruin *et al*. 2024a.
7. Wong-Parodi *et al*. 2013.
8. Paasche-Orlow *et al*. 2003; Davis *et al*. 2006; Daraz *et al*. 2011; Neuhauser & Paul 2011; OECD 2013.
9. Wong-Parodi *et al*. 2013.
10. McLaughlin 1969; Cutts 2013.
11. Bruine de Bruin & Bostrom 2013.
12. Bruine de Bruin *et al*. 2021.
13. Bruine de Bruin *et al*. 2021.
14. Bruine de Bruin *et al*. 2021.
15. Bruine de Bruin *et al*. 2021.
16. Bruine de Bruin *et al*. 2021.
17. Bruine de Bruin *et al*. 2021.
18. Wege *et al*. 2024.
19. Wege *et al*. 2024.
20. Brook Lyndhurst Ltd 2007.
21. Bruine de Bruin *et al*. 2024a.
22. Lineman *et al*. 2015.
23. Penz 2017.
24. Penz 2017.
25. Penz 2017.
26. Benjamin *et al*. 2017.
27. Schäfer *et al*. 2023.
28. Dutta 2019–2020.
29. Schlosberg & Collins 2014; Saraswat & Kumar 2016; Dutta 2019–2020.
30. Sudman *et al*. 1996; Schwarz 2007.
31. Cantril 1944; Payne 1951.
32. Tversky & Kahneman 1981; Levin *et al*. 1988.
33. Sleboda *et al*. 2024.

34. E.g., Schuldt *et al*. 2011.
35. Bruine de Bruin *et al*. 2024b.
36. Bruine de Bruin *et al*. 2024b.
37. Feldman & Hart 2021.
38. Whitmarsh & Corner 2017.
39. United Nations Foundation 2021.

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