

Developing Simple Communication Strategies for Complex Climate Concepts

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Abstract

Recent years have witnessed devastating weather extremes, so it is no surprise that people have started wondering, “what’s up with the weather?” The potential role of climate change in making these extremes worse has gained traction not only in the scientific community but in public discourse as well. While scientists have made considerable progress on statistical “climate attribution”—a way of assessing the probability that climate change is influencing the character of some extreme weather events—public understanding has not kept pace. However, members of society do not need to know everything about climate and its related changes to make decisions. Rather, building climate literacy across society is paramount to better inform those decisions. There are many facets of climate literacy and many ways to help society become comfortable with the concepts. While riddled with challenges, one way of explaining the statistical methods around climate attribution is through carefully designed spinner boards. This is just one demonstration of how to explain a difficult subject, and if properly developed and used, this method holds the potential to significantly improve climate literacy.

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☁️ What's Up With the Weather?

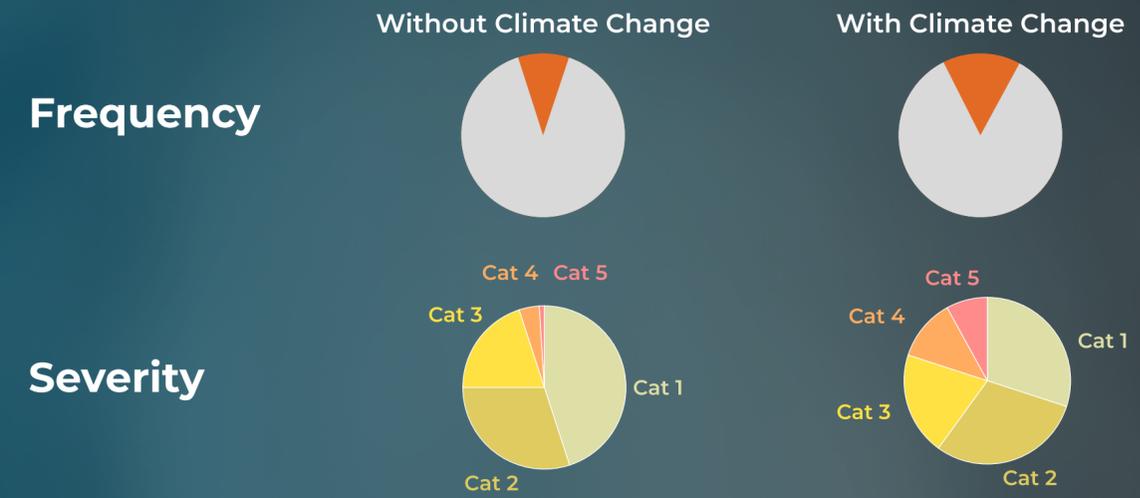
- Recent years have brought super typhoons, apocalyptic wildfires, heat waves and other extremes.
- The potential role of climate change in making these extremes worse has entered the public and scientific conversation.
- Scientists have made considerable progress on statistical climate attribution—the study of whether climate change made it more likely that an event occurred.
- However, **explaining these statistical concepts** to the public has posed **challenges**.

📖 Building Climate Literacy

- Members of society **do not need to know everything about climate** and its related changes **to make decisions**.
- Building climate literacy across society is **crucial** to better inform those decisions.
- Spinner boards are one demonstration of how to explain a difficult concept.
- If developed and used by communication partners, like TV weather forecasters, **this method holds the potential to significantly improve climate literacy**.

😊 Spinner Boards Can Help!

- Using spinner boards, 28 participants aged 18-76 **understood basic concepts** of attribution and explained those concepts to others (even those **who did not understand the difference** between **weather and climate**).
- This included both **understanding** and **explaining** the way in which an extreme weather event may be **more probable** and/or **intense** due to climate change.



✨ Spinner Boards Are Adaptable

- A standard way of communicating about the return period of rare events is to talk in terms of an N-year event, like a 1-in-100-year flood.
- Using spinner boards, you can explain the fact that a 100-year flood could happen two years in a row by noting that, while **unlikely**, there is a **slim chance** that the spinning pointer could **land twice in a row** on the narrow red segment.

💡 Want to Learn More?



A Simple Strategy to Communicate about Climate Attribution

Dryden & Morgan (2020)
Bulletin of the American Meteorological Society



Lay Detection of Unusual Patterns in the Frequency of Hurricanes

Dryden, Morgan & Broomell (2020)
Weather, Climate, and Society