

Uncertainty & Journalism: Am I being redundant?

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How the world looks



How my editors (and most
journalists) want the world to look



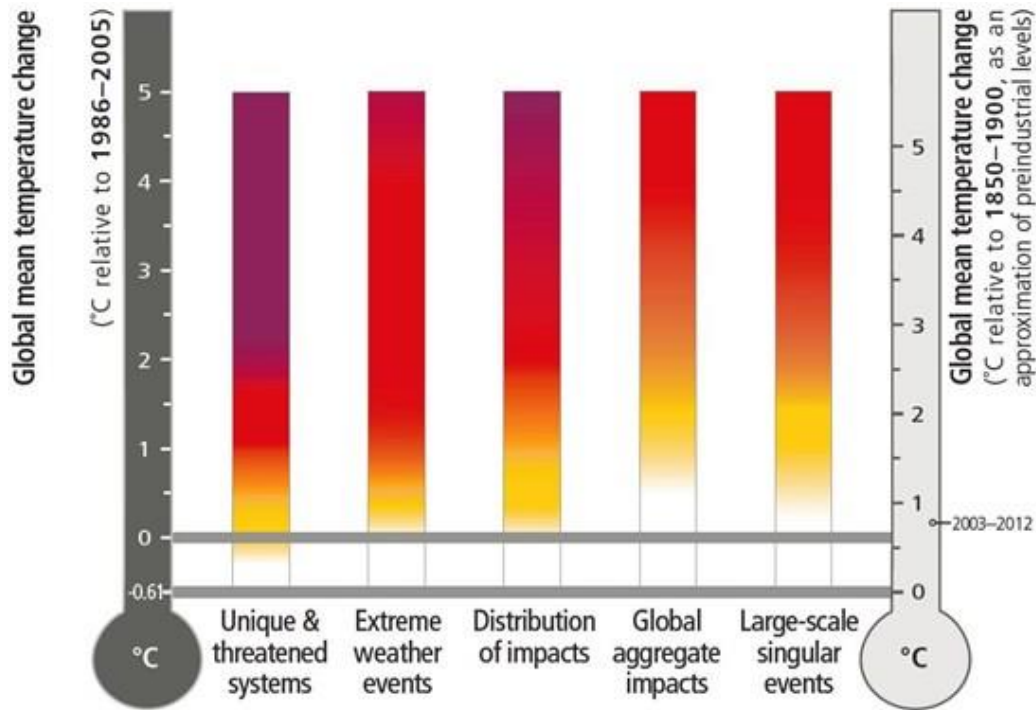
Why?

- 1. It's easier.
- 2. It's faster.
- 3. It's shorter.
- 4. It doesn't involve numbers.
- 5. Nuance sucks.
- 6. People like bumper sticker type thoughts.

Intergovernmental Panel on Climate Change's way to quantify uncertainty

- PART ONE**
- Virtually certain 99–100% probability,
 - Very likely 90–100%
 - Likely 66–100%
 - About as likely as not 33–66%
 - Unlikely 0–33%, very unlikely 0–10%
 - Exceptionally unlikely 0–1%.
 - Extremely likely: 95–100%
 - More likely than not >50–100%
 - Extremely unlikely 0–5%

IPCC Working Group II 2014: “burning embers”



I took a whole story to explain it

- **WHAT 95% CERTAINTY OF WARMING MEANS TO SCIENTISTS**
- By [SETH BORENSTEIN](#)
- — Sep. 24, 2013 3:12 PM EDT
- Easy tiny url:
<http://tinyurl.com/uncertainty95>

The story:

- WASHINGTON (AP) — Top scientists from a variety of fields say they are about as certain that global warming is a real, man-made threat as they are that cigarettes kill.
- They are as sure about climate change as they are about the age of the universe. They say they are more certain about climate change than they are that vitamins make you healthy or that dioxin in Superfund sites is dangerous.
- They'll even put a number on how certain they are about climate change. But that number isn't 100 percent. It's 95 percent.
- And for some non-scientists, that's just not good enough.
- There's a mismatch between what scientists say about how certain they are and what the general public thinks the experts mean, specialists say.

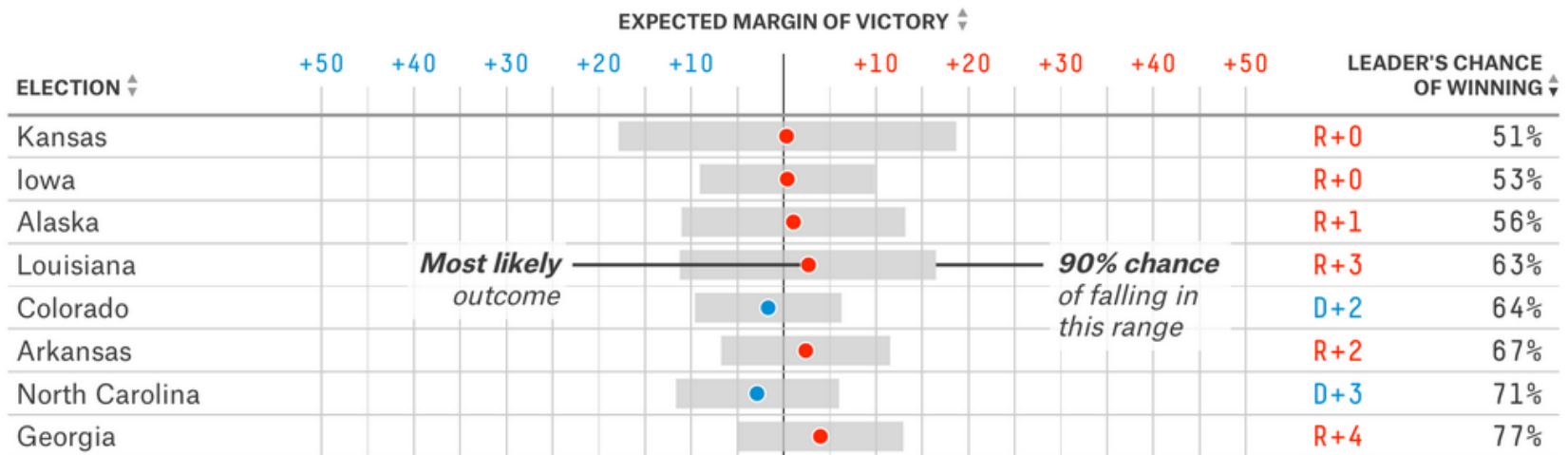
A little more:

- With the U.N. panel about to weigh in on the effects of greenhouse gas emissions from the burning of oil, coal and gas, **The Associated Press asked scientists who specialize in climate, physics, epidemiology, public health, statistics and risk just what in science is more certain than human-caused climate change, what is about the same, and what is less.**
- They said gravity is a good example of something more certain than climate change. Climate change "is not as sure as if you drop a stone it will hit the Earth," Princeton University climate scientist Michael Oppenheimer said. "It's not certain, but it's close."
- Arizona State University physicist Lawrence Krauss said the 95 percent quoted for climate change is equivalent to the current certainty among physicists that the universe is 13.8 billion years old.
- **The president of the prestigious National Academy of Sciences, Ralph Cicerone, and more than a dozen other scientists contacted by the AP said the 95 percent certainty regarding climate change is most similar to the confidence scientists have in the decades' worth of evidence that cigarettes are deadly.**

And what about polls?

Nate Silver's 538.com does it right

Probabilities For Each Race



The formula for success:

- Description
- Quantification
- Analogy