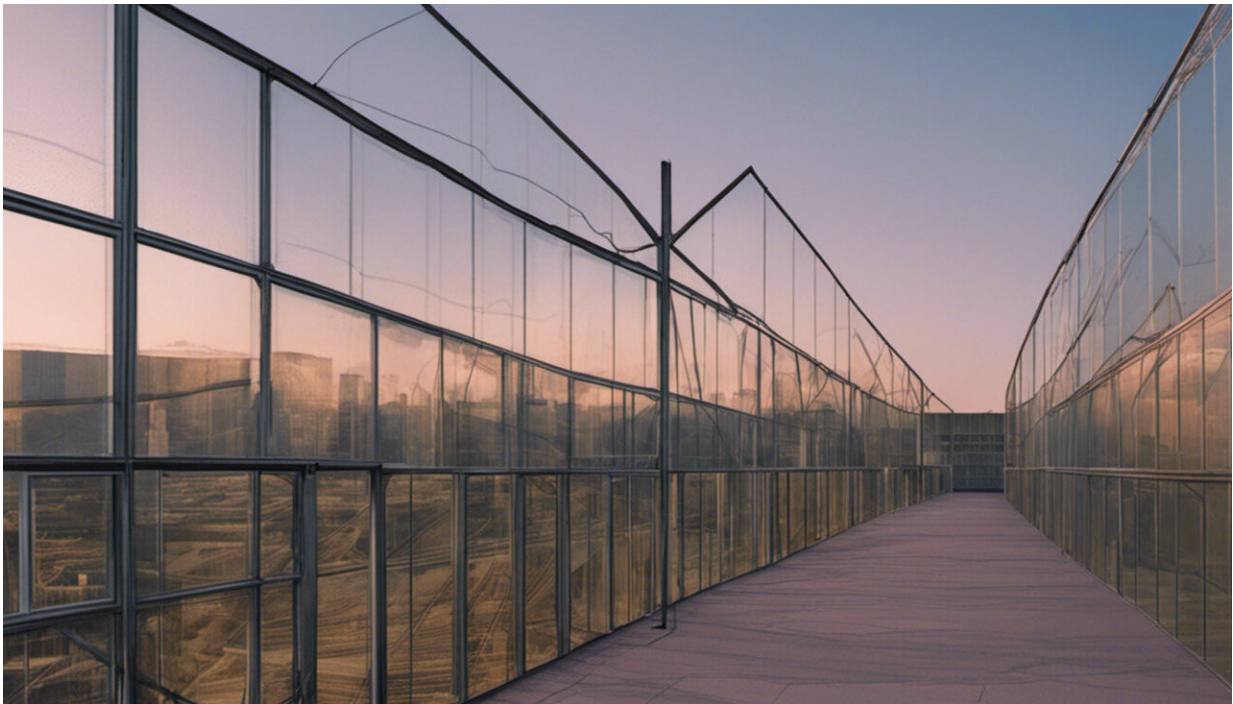


Inside the mind of a skeptic: The 'mental gymnastics' of climate change denial

September 13 2022, by Rachael Sharman and Patrick D. Nunn



Credit: AI-generated image ([disclaimer](#))

The numbers of climate skeptics [are dwindling](#). But they remain a noisy and at times powerful minority that continues to have political influence. This group is unmoved by the near-universal agreement among scientists on the reality and impact of climate change.

[Past research](#) into [climate change](#) skepticism has focused on sociodemographics. It has found people are more likely to express skepticism if they are older, male, highly value individualistic beliefs and don't value the environment.

These characteristics are generally entrenched. It means this information, while interesting, may be of little use when trying to increase [public support](#) for [climate action](#).

Our latest [study](#) of Australian skeptics focused on potentially more malleable factors—including the thought processes of people who reject climate science messaging. Our findings suggest some people reject consensus science and generate other explanations due to mistrust in climate science and uncritical faith in "alternative science."

We hope these findings help researchers, scientists and those responsible for public messaging to understand and overcome skeptics' concerns.

What factors did the study consider?

For our research, we surveyed 390 Australian climate change skeptics. They were recruited via [social media](#), including from skeptic interest groups and websites. We explored whether the following variables predicted climate change skepticism above and beyond sociodemographic factors:

- the extent to which you feel your life's outcomes are within your [personal control](#), or are mostly influenced by external factors
- information-processing style
- trust in those who defend the industrial capitalist system against accusations that its activities are causing harm.

We broke skepticism down into four types based on rejection of, or

uncertainty about:

- the reality of climate change
- its causes
- its impacts
- the need to follow scientific advice.

[@realDonaldTrump](#) said " The concept of [#global](#) warming was created by and for the Chinese in order to make US manufacturing non-competitive."

US leaves Paris climate treaty 4th November.

Leader of the "free world" you must be kidding!

pic.twitter.com/PMYJO49jxN

— Ausenviroman (@terraconcern) [September 12, 2020](#)

Similar to [previous research](#), our study found:

- [older people](#) were more likely to be skeptical of the reality of climate change
- conservatives were more likely to be skeptical of the reality, causes and impacts of climate change
- lower environmental values were strongly linked to all types of skepticism.

Unlike in the United States, we found religious beliefs had little influence on climate change skeptics in the largely secular Australian population. Instead, they had faith in "alternative" or pseudo-science explanations.

Those who favored explanations of chance, believing that luck determines outcomes, were also more likely to believe there was no need to act on climate change.

This suggests those who believe outcomes in life are beyond their control are more likely to think individual action on climate change is of little use. Hence, we suggest increased efforts to emphasize the difference individual efforts can make.

Those with stronger individualistic worldviews—their priority is individual autonomy as opposed to a more collectivist worldview—were more skeptical about humans causing climate change.

Contrary to our predictions, people with high analytical abilities were even more likely to be skeptical about this. Our further analyses suggested that mistrust in climate science and uncritical faith in "alternative science" prompted them to reject consensus science and generate other explanations.

How people explain their skepticism

We asked participants to explain their skepticism. From their responses, we identified five overarching themes:

1. faith in alternative science—they offered answers such as "real science concerning solar activity and other factors such as planetary tides" to explain their rejection of climate science
2. belief that climate changes naturally and cyclically—expressions such as "the climate has always changed quite naturally and always will. Nothing we can do about it" defend against the overwhelming evidence of human-enhanced climate change for five decades or more
3. mistrust in [climate science](#)—questions such as "how can anyone support a premise supported by consensus science based on adjusted temps?" invoke claims of data manipulation to support the supposedly nefarious aims of climate scientists
4. predictions not becoming reality—explanations such as "seeing

climate change alarmists' predictions being completely false" result from a basic misunderstanding of model-based climate projections ("prediction" is rarely used any more) and probabilities

5. ulterior motives of interested parties—claims such as "the Man-Made climate change HOAX is pushed by the UN to transfer wealth to poorer nations and make wealthier nations poorer" are contradicted by [recent studies](#) that suggest soaring adaptation costs in developed countries like Australia will limit their future generosity to poorer neighbors.

So how do we begin to change minds?

In all, our results suggest climate change skepticism may be influenced by:

- favored explanations of pseudoscience and/or belief that events happen by chance
- a belief that the problem is too large, complex and costly for individuals to deal with alone.

Unlike sociodemographic characteristics, these thought processes may more open to targeted public messaging.

In the end, reality bites. Multi-year droughts and successive never-before-seen floods will struggle to fit a skeptic narrative of yet another "one-in-100-year event." Even the attitudes of Australian farmers, including some of the most entrenched skeptics, are shifting.

Climate change is upon us, and skepticism is rapidly becoming a topic for historians, not futurists.

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