

Presenting facts as 'consensus' bridges conservative-liberal divide over climate change

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In the murk of post-truth public debate, facts can polarise. Scientific evidence triggers reaction and spin that ends up entrenching the attitudes

of opposing political tribes.

Recent research suggests this phenomenon is actually stronger among the more educated, through what psychologists call 'motivated reasoning': where data is rejected or twisted - consciously or otherwise - to prop up a particular worldview.

However, a new study in the journal *Nature Human Behaviour* finds that one type of fact can bridge the chasm between conservative and liberal, and pull people's opinions closer to the truth on one of the most polarising issues in US politics: [climate](#) change.

Previous research has broadly found US conservatives to be most sceptical of climate change. Yet by presenting a fact in the form of a [consensus](#) - "97% of climate scientists have concluded that human-caused global warming is happening" - researchers have now discovered that conservatives shift their perceptions significantly towards the scientific 'norm'.

In an experiment involving over 6,000 US citizens, psychologists found that introducing people to this consensus fact reduced polarisation between higher educated liberals and conservatives by roughly 50%, and increased conservative belief in a scientific accord on climate change by 20 percentage points.

Moreover, the latest research confirms the prior finding that climate change scepticism is indeed more deeply rooted among highly educated conservatives. Yet exposure to the simple fact of a [scientific consensus](#) neutralises the "negative interaction" between higher education and conservatism that strongly embeds these beliefs.

"The vast majority of people want to conform to societal standards, it's innate in us as a highly social species," says Dr Sander van der Linden,

study lead author from the University of Cambridge's Department of Psychology.

"People often misperceive social norms, and seek to adjust once they are exposed to evidence of a group consensus," he says, pointing to the example that college students always think their friends drink more than they actually do.

"Our findings suggest that presenting people with a social fact, a consensus of opinion among experts, rather than challenging them with blunt scientific data, encourages a shift towards mainstream scientific belief - particularly among conservatives."

For van der Linden and his co-authors Drs Anthony Leiserowitz and Edward Maibach from Yale and George Mason universities in the US, social facts such as demonstrating a consensus can act as a "gateway belief": allowing a gradual recalibration of private attitudes.

"Information that directly threatens people's worldview can cause them to react negatively and become further entrenched in their beliefs. This 'backfire effect' appears to be particularly strong among highly educated US conservatives when it comes to contested issues such as manmade climate change," says van der Linden.

"It is more acceptable for people to change their perceptions of what is normative in science and society. Previous research has shown that people will then adjust their core beliefs over time to match. This is a less threatening way to change attitudes, avoiding the 'backfire effect' that can occur when someone's worldview is directly challenged."

For the study, researchers conducted online surveys of 6,301 US citizens that adhered to nationally representative quotas of gender, age, education, ethnicity, region and political ideology.

The nature of the study was hidden by claims of testing random media messages, with the climate change perception tests sandwiched between questions on consumer technology and popular culture messaging.

Half the sample were randomly assigned to receive the 'treatment' of exposure to the fact of scientific consensus, while the other half, the control group, did not.

Researchers found that attitudes towards scientific belief on climate change among self-declared conservatives were, on average, 35 percentage points lower (64%) than the actual scientific consensus of 97%. Among liberals it was 20 percentage points lower.

They also found a small additional negative effect: when someone is highly educated and conservative they judge scientific agreement to be even lower.

However, once the treatment group were exposed to the 'social fact' of overwhelming scientific agreement, higher-educated conservatives shifted their perception of the scientific norm by 20 percentage points to 83% - almost in line with post-treatment liberals.

The added negative effect of conservatism plus high education was completely neutralised through exposure to the truth on scientific agreement around manmade [climate change](#).

"Scientists as a group are still viewed as trustworthy and non-partisan across the political spectrum in the US, despite frequent attempts to discredit their work through 'fake news' denunciations and underhand lobbying techniques deployed by some on the right," says van der Linden.

"Our study suggests that even in our so-called post-truth environment,

hope is not lost for the fact. By presenting scientific facts in a socialised form, such as highlighting consensus, we can still shift opinion across political divides on some of the most pressing issues of our time."

More information: Sander van der Linden et al, Scientific agreement can neutralize politicization of facts, *Nature Human Behaviour* (2017). DOI: [10.1038/s41562-017-0259-2](https://doi.org/10.1038/s41562-017-0259-2)

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