

Fake News 'Vaccine' Inoculates Against 'Alternative Facts'

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We live in a social media era in which the epidemic of 'fake news' and 'alternative facts' go viral far too often. Fortunately, an international [team](#) of social psychologists has pinpointed simple ways that the general public can be 'vaccinated' against the virus of calculated misinformation campaigns.

The new groundbreaking report, "Inoculating the Public against Misinformation about [Climate Change](#)," was published today in the open-access journal *Global Challenges*.

For this study, researchers at Yale University, the University of Cambridge, and George Mason University investigated how the general public can most effectively be inoculated against strategic misinformation efforts designed to portray climate change as a hoax.

To unearth novel ways to create a 'vaccine' against fake news regarding climate change, the researchers exposed participants to polarizing climate-change statements using a cohort of 2,167 men and women from across the United States. The demographic of study participants covered a broad spectrum of age, [education](#), and political parties.

The main goal of the study was to compare participants reactions to climate

change reports based on scientific facts with those of widespread misinformation websites that rely on hyperbole and falsehoods.

The study reaffirmed the power of fake news: When presented back-to-back in immediate succession, the libelous material on 'fake news' websites completely negated the accurate scientific findings in people's minds. Their opinions ended up right back where they had started in terms of being confused about what to believe about climate change.

Prior to this study, the researchers scoured the internet to find the most effective climate change misinformation campaign currently influencing public opinion in the United States. Top honors for spreading provable falsehoods on climate change went to the [Oregon Global Warming Petition Project](#). This website claims:

“31,487 American scientists have signed this petition, including 9,029 with PhDs stating there is no evidence that man-made carbon dioxide emissions will cause climate change.

These scientists are convinced that the human-caused global warming hypothesis is without scientific validity and that [government](#) action on the basis of this hypothesis would unnecessarily and counterproductively damage both human prosperity and the natural environment of the Earth.”

According to a statement by [Sander van der Linden](#), a social psychologist from the University of Cambridge and Director of the Cambridge Social Decision-Making Lab who led this research,

“Misinformation can be sticky, spreading and replicating like a virus. We wanted to see if we could find a 'vaccine' by pre-emptively exposing people to a small amount of the type of misinformation they might experience. A warning that helps preserve the facts.

The idea is to provide a [cognitive](#) repertoire that helps build up resistance to misinformation, so the next time people come across it they are less susceptible.

It's uncomfortable to think that misinformation is so potent in our society. A lot of people's attitudes toward climate change aren't very firm. They are aware there is a debate going on, but aren't necessarily sure what to believe. Conflicting messages can leave them feeling back at square one."

The researchers found that the most effective way to inoculate someone to potential misinformation was to take a two-pronged 'vaccination' approach:

First, the *general inoculation* consisted of a warning: "Some politically-motivated groups use misleading tactics to try and convince the public that there is a lot of disagreement among scientists."

Second, another *detailed inoculation* picked apart the Oregon petition based on specifics. For example, by highlighting that many of the supposed signatories are fraudulent, such as Charles Darwin and members of the Spice Girls. Also pointing out that less than 1 percent of signatories actually had backgrounds in climate science.

The first phase of general inoculation saw an average opinion shift of 6.5 percentage points towards acceptance of the climate science consensus, despite exposure to fake news. But when the second, more detailed inoculation was added to the first, the opinion shift jumped almost 13 percentage points, despite exposure to the falsehoods of Oregon petition fake news.

The researchers point out that, historically, tobacco and fossil fuel companies have used psychological inoculation to plant seeds of doubt about science-based findings and to undermine [faith](#) in a scientific consensus in the public consciousness.

They believe their latest study provides empirical evidence that suggests psychological inoculation techniques can be utilized to promote scientific discoveries and fact-based empirical evidence that promote public [health](#) and well-being by inoculating against misinformation campaigns.

The researchers conclude that pre-emptively warning people about political and profit-motivated agendas to spread misinformation on climate change may help to promote and protect public attitudes about the resounding scientific consensus through a type of psychological inoculation.