

Research links the increase of misinformation shared by Republican US politicians to public perception of honesty

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An international study, published in *Nature Human Behaviour*, analyzed millions of tweets by members of Congress over the last decade. Its

findings showed both Republican and Democratic politicians were increasingly sharing their beliefs and opinions as well as evidence-based information. But among Republicans, their expression of honestly-held beliefs and opinions was strongly linked to less trustworthy information sources.

Lead author Jana Lasser, a postdoctoral research fellow in computational social science at Graz University of Technology (TU Graz), said, "We wanted to find out what reasons and [social changes](#) contribute to people sharing untrustworthy information."

3.8 million tweets from the last 10 years

Data science and psychology experts from TU Graz in Austria, the University of Konstanz in Germany, and the University of Bristol in the UK, analyzed 3.8 million tweets posted by Republican and Democratic members of Congress between 2011 and 2022. The findings showed that since Donald Trump's election victory at the end of 2016, representatives of both political camps have increasingly expressed their opinions and convictions.

The researchers developed a unique method to recognize and measure the speech patterns of "belief-speaking," which relies on authentic expression of a conviction irrespective of evidence or fact, and "fact-speaking," which examines evidence and substantiates opinion with facts.

Novel AI-supported method

Supported by linguists and [test subjects](#), the researchers compiled two dictionaries of terms associated with authentic opinion expression (belief-speaking) and fact-based information (fact-speaking). These dictionaries

were computerized to include related terms and translated into numerical values, each representing a word in the context of the whole language.

"These numerical values can be used to calculate the distance of a word or an entire dictionary to all terms in the English language," said Lasser. This allowed the content of congressmen and congresswomen's tweets to be rated, with each tweet receiving a belief-speaking pattern score and a fact-speaking score.

Co-author Professor Stephan Lewandowsky, Chair in Cognitive Psychology at the University of Bristol, said, "The distinction between fact-speaking and belief-speaking may explain why three-quarters of Republican voters considered Donald Trump to be honest, despite his extensive record of false and misleading statements.

"The key insight is that one aspect of honesty is sincere expression of one's beliefs, no matter whether or not they are accurate. This is where Donald Trump scored highly because he always seemed to speak his mind and reported how he felt in the moment."

To assess the quality of the information on the linked websites, the researchers used data from the renowned fact-checking organization NewsGuard. NewsGuard has examined several thousand news sites since 2018 with regard to journalistic quality standards and ranked them on a scale from 0 (very untrustworthy) to 100 (very trustworthy).

Republicans: Clear correlation of belief-speaking and poorly rated sources

Using statistical models, the findings demonstrated a clear correlation between the language pattern of belief-speaking and the linking of poorly rated sources, such as low-quality [news sites](#) reporting poorly

researched 'facts,' for Republican members of Congress.

"In spreading their opinions and beliefs on Twitter, the Republicans are moving more and more in the direction of right-wing populists," added Lasser. "A few years ago, the quality of the linked websites was comparable to those shared by CDU MPs in Germany. Meanwhile, the level has sunk to that of the AfD."

People might learn to recognize linguistic signals

But there may also be potential solutions that emerge from this research. Lewandowsky said, "Our analysis identified clear linguistic signals associated with the sharing of low-quality information. It follows that the public might learn to recognize these linguistic signals which would enable them to avoid being misled by that information."

The findings build on [previous research](#), which evidenced the increasing dissemination of untrustworthy information by Republican members of Congress.

More information: Jana Lasser et al, From Alternative Conceptions of Honesty to Alternative Facts in Communications by U.S. Politicians, *Nature Human Behaviour* (2023). [DOI: 10.1038/s41562-023-01691-w](https://doi.org/10.1038/s41562-023-01691-w)

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