

What makes us care about climate change?

April 26 2016, by Greta Guest



It's been argued that how much we know about climate change is unrelated to how much we care about addressing it.



But focusing primarily on cultural drivers, as is the case with emerging research on "cultural cognition," takes us on a path that misses critical characteristics of knowledge, according to a University of Michigan study published in *Nature Climate Change*.

"We looked at this emerging work, and immediately had problems with how knowledge and culture were being measured—specifically not measured," said Joseph Arvai, the Max McGraw Professor of Sustainable Enterprise at the U-M School of Natural Resources and Environment and the Ross School of Business.

"What others were measuring had little to do with climate change and more to do with general scientific literacy. They also relied on what amounts to U.S.-based political ideologies as a proxy for culture."

So Arvai and co-authors Jing Shi, Vivianne Visschers and Michael Siegrist from ETH Zurich measured climate-specific knowledge and cultural differences across six countries.

"What we found was that culture plays a relatively small role, and that knowledge about climate plays a larger one," Arvai said. "Why is this important? If you take the previous cultural work at face value, it paints a hopeless and pessimistic picture. It sends the message that there's little we can do until 'culture' changes, which tends to be very slow.

"Our research clearly shows that education and decision support aimed at the public and policy makers is not a lost cause."

Knowledge about the causes of climate change was correlated with higher levels of concern about climate change in all of the countries studied—Canada, China, Germany, Switzerland, the United Kingdom and the United States.



"We think this is because knowledge about causes cements in our minds the fact that it's human actions that have set the risks in motion, and that human action may be taken to reduce the risks," Arvai said. "This finding was weakest in China, perhaps because the emphasis is on economic growth, even it comes at the expense of the environment."

Knowledge about the consequences of climate change was also a strong predictor of concern. But greater <u>knowledge</u> about the biophysical dimensions of climate change tended to dampen public concern.

"We think this is because focusing on the technical dimensions of a problem like <u>climate change</u> dehumanizes it and focuses our collective attention away from the individuals and communities—human and nonhuman—that are at the gravest risk," Arvai said.

More information: Jing Shi et al. Knowledge as a driver of public perceptions about climate change reassessed, *Nature Climate Change* (2016). DOI: 10.1038/nclimate2997

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