

Language about climate change differs between proponents and skeptics

October 1 2015

Proponents of climate change tend to use more conservative, tentative language to report on the science behind it, while skeptics use more emotional and assertive language when reinterpreting scientific studies, says research from the University of Waterloo.

Tentative language would include words such as "possible," "probable" or "might." The terms "alarmist" and "wrong" are examples of emotional language.

Using a series of computational [text analysis](#) tools to measure the use of hedging or emotional words, Srdan Medimorec and Gordon Pennycook, both PhD candidates in the Department of Psychology at Waterloo, examined two recent reports of opposing groups. The Intergovernmental Panel on Climate Change (IPCC) holds that [climate change](#) is unequivocal and that humans influence climate, while the Nongovernmental International Panel on Climate Change (NIPCC) is skeptical of the human impact on climate change.

Although the IPCC clearly warns of the threat of climate change, the text analysis showed that their report used more cautious, less explicit language to present their claims. This finding coincides with work indicating that the IPCC has tended to provide overly conservative estimates of the impact of climate change in previous publications. By contrast, the NIPCC report reinterprets the scientific findings with more certain, aggressive language to advance the case that human-made climate change is a myth.

"Given the scientific consensus that climate change represents a real threat, we might expect the IPCC report to exhibit a more assertive style, yet they don't," said Medimorec. "This may be because the charged political atmosphere has made [climate scientists](#) cautious in their choice of words."

The study found substantial differences between the IPCC and NIPCC reports despite the fact that they were both intended to be comprehensive assessments of climate science research and each have many authors.

"The language style used by climate change skeptics suggests that the arguments put forth by these groups may be less credible in that they are relatively less focused upon the propagation of evidence and more intent on refuting the opposing perspective," said Pennycook. "Although there are many factors that determine which words scientists decide to use, the results of our study are consistent with the idea that political context is an important factor for science communication."

Those who study [science communication](#) agree that the nuances in the language may reflect a difference in the function of the two groups.

"When people communicate as advocates, they tend to use more certainty in their [language](#) than may be warranted," said Vanessa Schweizer, a professor with the Department of Knowledge Integration in the Faculty of Environment at Waterloo, and who is also affiliated with the Interdisciplinary Centre on Climate Change. "In contrast, scientists are more tentative when presenting their findings because they don't want to oversell what can be concluded from the science."

The two reports the researchers analyzed are "Working Group 1: The Physical Science Basis" by the IPCC and "Climate Change Reconsidered II: Physical Science" by the NIPCC. The Waterloo researchers did not

evaluate the accuracy of the reports, which are both available online. The study appears in the peer-reviewed journal *Climatic Change*.

More information: *Climatic Change*,
link.springer.com/article/10.1007%2Fs10584-015-1475-2

Provided by University of Waterloo

Citation: Language about climate change differs between proponents and skeptics (2015, October 1) retrieved 9 April 2024 from <https://phys.org/news/2015-10-language-climate-differs-proponents-skeptics.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--