

Review of: "Motivated Reasoning Leads Climate Change Deniers to Access Unreliable Online Sources of Information: Automated Text Analyses of Multiple Reddit Communities"

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Review of Motivated Reasoning Leads Climate Change Deniers to Access Unreliable Online Sources of Information

I apologize for my English and the mistakes of this text. I hope they will not disturb the reader and impede the comprehension of my comments.

The article aims to account for differences in the reasoning of climate change deniers and believers in order to alter their reasoning and make them come to their senses.

To do so, the author analyses posts from Internet Reddit communities which names indicate a definite posture (denial or approval) towards climate change. He does not perform any full-text analysis (1) of the posts and focus instead on references to particular internet sites categorized as academic journals, blogs, news media, reddit and social media.

This result allows him to differentiate amongst believers and deniers depending on the category of internet site they refer to.

Deniers refer more to blogs and social media while believers refer to academic journals, news media and reddit.

This shows not only a 'behavioral' difference between believers and deniers, but also suggests a cognitive difference in the selection of relevant information - though due to the data processing method this cannot be verified in greater detail.

With this result, the author proposes a method for changing the deniers' 'wrong' reasoning. One consists of facing them with new information sources acceptable for them, like a celebrity, but which would advocate for environment-friendly practices. Another entails a first contact with slightly remote topics such as the defense of nuclear energy, which they support, associated with statements advocating climate change. Another proposition consists of setting a forum encouraging a variety of opinions about the existence of anthropogenic climate change. As the author underlines, all these suggestions would need to pass the selection of relevant information by the deniers and therefore require a careful choice of the vocabulary.

(1) The article includes a co-word analysis of the content of the forum posts. Still the analysis and method choice need deepening. The coefficient used to measure the word co-occurrences is decisive for interpretation. But the article provides almost no information about it, only a reference to the soft used. Additionally, the results represented in the map are not discussed and the sentence "As shown in Table 2 below, difference in proportion tests based on the underlying co-occurrence matrix confirmed the interpretation of Figure 1. " remains very opaque to my understanding.

Several points have worried me in this article.

Motivated reasoning and identity defense

Maybe the first one is the non-critical (in the positive sense) recourse to the theory of 'motivated reasoning' and its particular way of tying self-identity with beliefs. In a nutshell reasoning would aim to discuss beliefs AND defend one's identity, hence its name 'motivated reasoning'.

There is an often very subtle relation between the self and political views about the world. Still, it would be worth a detailed inquiry instead of black-boxing the difficulty in the theory of 'motivated reasoning'.

Still, and quite disturbingly, the notion of self-identity does play any significant role in the article. Therefore, the reference to motivated reasoning looks like an added theory that does not bring much water to the argumentation mill. This may even unnecessarily complicate the argument.

Objectivist format hiding the topic's complexity

The article takes a very formal objectivist format. The author lists a series of ex post reconstructed hypotheses:

H1: Compared to climate change believers, climate change deniers comment on information sourced from blogs advocating political ideologies similar to their own more frequently.

H2: Compared to climate change believers, climate change deniers comment on information sourced from social media pages advocating political ideologies similar to their own more frequently.

H3: Compared to climate change deniers, climate change believers comment on information sourced from news media more frequently.

H4: Compared to climate change deniers, climate change believers comment on information sourced from academic journals more frequently.

Then he presents a smartly-designed experiment aiming to verify them (or not).

This way of presenting the research dresses it with the appearances of objectivity and reliability. But I fear the appearances discharge the author of examining more carefully how climate change believers and deniers deal with information and consider it as relevant or not.

The analysis of the references to internet sites confirms all 4 hypotheses. But do they really bring anything new to the issue under consideration?

Believers and deniers strongly differentiate amongst information sources according to their support (or not) of climate change existence. As the author notes, this confines them in a bubble that prevents them from changing their mind about climate change.

Yet, instead of redundantly stating this point thanks to the transformation of the already known fact that believers and deniers strongly differentiate amongst information sources into a set of hypotheses to be tested, would it not be more interesting to describe more finely what this bubble consists of? Or to what its specific resistance is due? This would additionally make the propositions of methods to change the deniers' minds more accurate and original.

Asymetric analysis

There is a last (but not least) issue with this study. As illustrated by the title, the author adopts an asymmetrical stance - climate change deniers are wrong and must get back on the right track, which prevents the author from understanding the specificity of deniers compared with climate change believers. Sociology of sciences and techniques (STS) has brought decisive insights on the topic. A connection with these works would greatly help to enrich the author's considerations about the change of mind of the deniers.

In conclusion, I think this article shows some critical issues, and I hope these comments bring some food for thought.