

Reply to 'Clarity of meaning in IPCC press conference'

Pearce and Hollin reply — Scientific information about climate change has proved to be a relatively poor motivator for meaningful public action^{1,2}. That Jacobs *et al.*³ critique our recent Letter⁴ about public meanings attached to abstract scientific knowledge by using even more abstract scientific knowledge reaffirms this central point: that some in the climate science community fail to understand that scientific knowledge alone, no matter how certain, is poorly equipped to meaningfully communicate climate change.⁵

Continuing this misplaced focus on certainty, much of the Jacobs *et al.* correspondence gives supporting scientific evidence for the claims of certainty made by speakers during the press conference for the Working Group I contribution to the Fifth Assessment Report of the IPCC. However, such evidence is superfluous, as we do not argue in our Letter that short-term events such as 'the pause' undermine any well-established certainty. Rather, we examine, first, the attempts of press conference speakers to make well-established certainty meaningful and, second, the resulting confusion among journalists as to what constitutes valid scientific evidence. This confusion seems to leave Jacobs *et al.* untroubled, as they ignore it in their Correspondence.

Instead, we highlight that the '30-year rule' is used flexibly during the press

conference. Emphasizing the past decade, as IPCC speakers do, may well help to make anthropogenic global warming meaningful and potentially motivational for action⁶. However, this emphasis on the decadal scale also seems to make journalists' questions about 'the pause' both reasonable (because it is also decadal in scale) and meaningful (for it might seem to demotivate action). If asking about the decade-long pause is an "ill-posed scientific question", as asserted by Michel Jarraud during the press conference, then using the past decade of heat and extremes to emphasize the meaningfulness of anthropogenic global warming is not scientifically appropriate. It is the resulting confusion among journalists, caused by the flexible application of the '30-year rule', that illuminates the tension between certainty and meaning faced by climate communicators.

We also disagree that we misrepresent particular quotes in our Letter. First, a quote from former IPCC chair Rajendra Pachauri is said by Jacobs *et al.* to require contextualization. This particular portion of the press conference transcript was selected because it is illustrative of references to the warmest decade made by all three speakers. Second, Jacobs *et al.* suggest that we present a quote as concerning 'the pause' when it does not. This is not the case. The quote appears within a general discussion of technical uncertainty^{7,8} (within Supplementary Data C

of our Letter⁴) that does not refer exclusively to the pause.

We hope that through restating our central argument this response has assisted in clarifying our original analysis. Excellent examples do exist of making climate change publicly meaningful through the acceptance and accommodation of uncertainties in science^{9–12}. Sadly, the press conference in question was not such an example. □

References

1. Pearce, W., Brown, B., Nerlich, B. & Koteyko, N. *WIREs Clim. Change* <http://dx.doi.org/10.1002/wcc.366> (2015).
2. Kahan, D. M. *Polit. Psychol.* **36**, 1–43 (2015).
3. Jacobs, P. *et al.* *Nature Clim. Change* **5**, 961–962 (2015).
4. Hollin, G. J. S. & Pearce, W. *Nature Clim. Change* **5**, 753–756 (2015).
5. Demeritt, D. *Ann. Assoc. Am. Geogr.* **91**, 307–337 (2001).
6. Jasanoff, S. *Theory Cult. Soc.* **27**, 233–253 (2010).
7. Star, S. L. *Soc. Stud. Sci.* **15**, 391–427 (1985).
8. Pickersgill, M. *Sci. Cult.* **20**, 71–87 (2011).
9. Marvel, K. The hidden importance of clouds. *Nautilus* (18 June 2015); <http://go.nature.com/EiQWhS>
10. Orłowski, J. Chasing Ice (2012); <https://chasingice.com/>
11. O'Neill, S. J. & Smith, N. *WIREs Clim. Change* **5**, 73–87 (2014).
12. Hulme, M. *Humanities* **3**, 299–312 (2014).

Additional information

Supplementary information is available in the [online version of the paper](#).

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COMMENTARY:

Megaproject reclamation and climate change

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Megaprojects such as oil sands mining require large-scale and long-term closure and reclamation plans. Yet these plans are created and approved without considering future climate and hydrological conditions, jeopardizing the sustainability of reclaimed landscapes.

Resource extraction megaprojects are defined by their massive operational spatial extents and timeframes. Well-known examples include mountain-top removal and open-pit diamond mines. Some of these projects are large

enough to be seen from space. Oil sands mining is a megaproject with a collective footprint in Canada's western boreal zone that exceeds 813 km² and is growing (<http://go.nature.com/7HE7Zj>). Following mine closure, disturbed land

must legally be reclaimed under the Conservation and Reclamation Regulation within the Environmental Protection and Enhancement Act¹, which now requires mine companies to return mined lands to a naturally appearing and self-sustaining