

## ***Interactive comment on “Ideas: a simple proposal to improve the contribution of IPCC WG1 to the assessment and communication of climate change risks” by Rowan T. Sutton***

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Another way of framing this discussion is in the relative attention paid to avoiding Type 1 (false positive) and Type 2 (false negative) errors. I think it's fair to say that WG1 has emphasized the avoidance of Type 1 errors. Indeed many climate scientists would no doubt argue that this is the scientifically rigorous approach. However as Lloyd & Oreskes (2018 Earth's Future doi: 10.1002/2017EF000665) point out, any applied science has to consider both Type 1 and Type 2 errors, with the relative emphasis depending on the context. For example, in assessing the efficacy of a new drug, the tests guard against Type 1 errors, but in assessing possible detrimental side-effects,

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the tests guard instead against Type 2 errors.

If the climate science community guards only against Type 1 errors, then it runs a large risk of making Type 2 errors. Such a conservative approach should not be equated with scientific rigour (Lloyd & Oreskes 2018). And it clearly compromises the ability to embrace the risk framework that IPCC is working towards.

How far the WGI report can go in this direction remains to be seen. It is not a simple matter, especially under the consensus framework within which IPCC operates. But if it fails to do so, then I fear that WGI will lose its relevance as it will have failed to address the most pressing questions currently facing climate science.

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Interactive comment on Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2018-36>, 2018.

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