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Interactive comment on "Fracking bad language: Hydraulic fracturing and earthquake risks" by Jennifer J. Roberts et al.

Jennifer J. Roberts et al.

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Dear Dr James Verdon,

Thanks for your comment on our paper, and for bringing your new publication, Verdon and Bommer (2020) (and its laudable title!) to our attention. Thanks also for presenting such an overview of the landscape of hydraulic fracturing induced seismicity (HF-IS) and its history.

Your comments echo Reviewers 1&2 who wish to see further context to hydraulic fracturing and HF-IS in the UK and internationally in the introduction. In our revised manuscript we plan to present an overview of the changing global landscape – and will refer to your paper. We will clearly link our results and discussion to this context.

C₁

Thanks for pointing out our erroneous claim that the UK experienced the highest recorded magnitudes for HF-IS. This is now rectified. This was meant to refer to the Preese Hall events being the first case of HF-IS to be felt, but we see from your comment and paper that there have been other such events in British Colombia that were not so widely reported at the time.

Thanks also for alerting the Eaton (2018) paper to our attention as an example of an attempt to harmonize the language used to describe seismic events of different magnitudes.

Finally, we agree that there is scope for further research in this topic, in particular to see how views (and language) might have shifted since 2014. Given the issues we raise in our study, we would not favour a repeat of our survey research. However, the development of a shared language framework would require input from a range of stakeholders, and research accompanying the framework development would, we think, shed interesting light on how perceived risks have evolved.

Best wishes,

Dr Jen Roberts (lead author)

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