

Interactive comment on “The human side of geoscientists: comparing geoscientists’ and non-geoscientists’ cognitive and affective responses to geology” by Anthea Lacchia et al.

Anonymous Referee #2

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This paper presents new data concerning the contrast in perceptions of geoscience between geoscientists and the lay public, highlighting the role of affect in a mental models approach. The results present an interesting view of an important topic, namely the role of identity and emotion in influencing risk communications between experts and non-experts. Though the results of the paper are interesting, I have some questions regarding the nature of the study that I think need answering before publication.

Firstly, the authors present data in response to the stimulus to "sketch the ground beneath your feet" and then "make sketches of drilling, mining/quarrying and flooding" and these results were analyzed collectively, except for the affective component, where

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the flooding data was missing. My question is about the inclusion of the flooding data in the analysis at all. Firstly the dataset for flooding is not complete, given the missing affective survey results, and secondly the type of hazard here is very different to those anthropogenic hazards of commercial geoscience. Thus, unless another (more natural) hazard was also included (such as landslides?) as a comparison, it feels like the stimulus would be related to different conceptualizations of risk and that would confuse the final results.

Secondly in the presentation of the affective beliefs of the geoscientists, the authors state that "the geoscientists have more positive affective responses to mining/quarrying", etc and I am curious how much of that was related to their employment within those fields? It has been shown (such as in Mearns and Flin, 1995) that people working in an industry are more likely to operate from within their own specific and subjective risk framework which is often more positive about the risk than the objective assessment would be, particularly as beneficial employment prospects contribute to mitigating the perceived risk. Therefore if those geoscientists surveyed worked in mining and quarrying fields, it is reasonable that their more positive assessment of the activity could equally be related to their employment, which would be useful information in the context of this study.

Overall, I do think this paper has value but I would like these points addressed before publication.

Additional notes: Line 75: open parenthesis Ref from above: Mearns and Flin (1995) Risk perception and attitudes to safety by personnel in the offshore oil and gas industry: a review, *Journal of Loss Prevention in the Process Industries*, 8, p299-305

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