

Hist. Geo Space. Sci. Discuss., author comment AC1
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Reply on RC1

Lif Lund Jacobsen

Author comment on "Intellectually gifted but inherently fragile – society's view of female scientists as experienced by seismologist Inge Lehmann up to 1930" by Lif Lund Jacobsen, Hist. Geo Space. Sci. Discuss., <https://doi.org/10.5194/hgss-2021-20-AC1>, 2022

Q4: Do the authors give proper credit to related and previous work and clearly indicate their own new/original contribution?

RC1: This could be clearer, what new archival work was undertaken to make this revision?

Reply: The introduction now specifies what new data are included and how it affects the conclusion compared to Jacobsen (2015).

Q5: Does the title clearly reflect the contents of the paper?

RC1: It could be more descriptive and exciting.

Reply: While I believe that the title accurately describes the content of the paper, I agree that it is not very exciting and will try to come up with something better.

Q6: Does the abstract provide a concise and complete summary?

RC1: The abstract is rather mundane and repeats materials from Lehmann's Royal Society biographical memoir, it should be more exiting as well.

Reply: The reviewers have an excellent point and I have amended the abstract accordingly.

Q9: Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated?

RC1: NO, but I recommend the author examine the experience of women in science in other nations (beyond Denmark and America) , for example in other Nordic nations, UK, and possibly Germany. For example, women who received advance training in meteorology before 1930 under N. Shaw and V. Bjerknæs. I like the table showing Danish laws for women's rights, but I also think a short comparative study of women in science would be helpful.

Also, the question of perceptions of Inge's fortitude and ability to conduct scientific campaigns in the field, especially in the Arctic which was traditionally seen as a man's domain, could be further explored.

Reply: The response raise an interesting conundrum well known in science studies. If we cannot make general assumptions based on the extraordinary, why study such gifted individuals at all? What is the purpose of biographies of scientists? Quoting Helge Kragh: "On scientific biography and biographies of scientists" in Relocating the History of Science (2015) "One of the advantages of the biographical method is that it stimulates a more integrated and coherent picture of science, if limited to a unique case only, precisely of its focus on the individual scientist."

By putting Inge Lehmann into a social context, we discover structures in science that might be overlooked in more generalized studies. In Inge Lehmann's case it is also very difficult to do a comparative study because of her unique status. The problem is not solved by extending the study to female scientists in other nations because of their different cultural backgrounds. As my article documents the experiences for women studying in Cambridge was vastly different from studying in Copenhagen which again was different from studying in Germany or USA, making transnational comparisons highly speculative. However, I acknowledge the benefit of providing some additional contexts to Inge Lehmann's experiences and have provided some examples of contemporary female academics educated or working in Denmark.

Arctic expeditions and station's life in the Arctic was very much a man's domain (and possibly still is). Point in fact paleo-climatologist Willi Dansgaard infamously excluded female scientists from his expeditions until the late 1970s.

Inge Lehmann never worked in the Arctic, and she, like most other seismologists at the time of her research, relied on seismograms sent to her. The only time we know she was in Greenland was two weeks around 1934, when she supervised the installation of instruments at SCO after a fire. As a mountaineer, she was physically capable, but as the head of department it was inconvenient for her to be out of reach for long periods of time.