

How do scientists generate scientific claims? Individual, collaborative, and collective accounts from scientific practice

Dr. Nora Hangel

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12 Uhr, Raum 201 (LCSS)

Der Vortrag findet als **Brown Bag Lunch**-Vortrag statt, d.h. Sie können gerne Ihr Lunchpaket mitbringen. Das LCSS stellt Tee, Kaffee und Wasser bereit.

Knistern Erlaubt!

ABSTRACT

Philosophical topics about the nature of scientific knowledge, scientific belief formation, reliability and scope of reconstructed justifications in published articles, epistemic trust and dependence remain of utmost relevance within and outside the field of philosophy of science. For some decades, a naturalized philosophy of science has used science as a resource to inform these philosophical questions. By accessing the microstructure of belief formation processes as described by collaborating experimental scientists, we find a plurality of motives of what drives scientists, collaborating groups and science as a whole. Scientific reasoning processes, which accumulate to scientifically justified belief are less dependent on individual agency as one might expect. The main motives for individual scientists span between the desire for meaningful contributions to drive scientific progress, the accountability for the reliability of these contributions, and the need for recognition to continue academic research. I argue to take into account scientists' conceptions about their challenges in collaborative experimental practice: challenges about epistemic dependence and trust that point to an interdependence between the social organization of research groups and the epistemic aim to generate scientifically justified belief collaboratively.

The proposed qualitative analysis adds scientists' conceptions about belief formation processes. This naturalist approach in social epistemology is based on the analysis of conceptions by more than 60 working scientists reflecting on processes of scientific reasoning in collaborative experimental sciences. Those accounts help us to understand how on the one hand the social organization of the research group is utilized from belief forming processes to published results. On the other hand, we learn about actual challenges of working scientists. Even if qualitative analysis does not claim a generalizable picture compared to quantitative research, it includes relevant information about how actual collaborative scientific belief formation develops into reconstructed justifications published in peer reviewed articles.

BIOGRAPHY

Dr. Nora Hangel

Nora Hangel holds a Ph.D. in philosophy from the University of Vienna. Her research specialization ranges from Kantian ethics to philosophy of science in practice to empirical science studies. Her current work continues in topics of social epistemology, e.g., belief formation in collaboratively working research groups.



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