

Joint GAP-GWP-Colloquium

Belief Aggregation and Epistemic Diversity in Science

Colloquium Details

- Venue: University of Cologne, Universitätsstraße 35/37
- Date: September 18, 2018, 09:00–12:00
- Organisation: Christian J. Feldbacher-Escamilla & Gerhard Schurz (DCLPS, University of Duesseldorf, Germany)
- Funding and Support: German Research Foundation (DFG), German Society for Analytic Philosophy (GAP), German Society for Philosophy of Science (GWP), and the Duesseldorf Center for Logic and Philosophy of Science (DCLPS)

Speakers

- Christian List (LSE, UK)
- Stephan Hartmann (MCMP, LMU Munich, Germany)
- Jan-Willem Romeijn (University of Groningen, The Netherlands)

Comments by:

- Vlasta Sikimic (University of Belgrade, Serbia)
- Corina Strößner (DCLPS, University of Duesseldorf, Germany)

Aims & Scope

 ndividuals acting within a group very often try to come up with a joint decision. Sometimes they do so by first deliberating, sometimes no process of deliberation is implemented. Sometimes they aggregate by voting procedures, sometimes they apply principles of justice etc. Formal problems of such aggregations are well known, spanning from impossibility results to problems of intuitively plausible constraints that lead to the characterization of implausible aggregation rules. The underlying assumption of aggregation, namely that prima facie groups of individual beliefs should be amalgamated to a single belief, a group belief, is not tackled very often. However, there is a dialectic tension between epistemic diversity and belief aggregation. On the one side, epistemic diversity may have positive effects, e.g. wise-crowd effects or Condorcet effects, which exploit the fact that the average belief of a group may have a significantly higher reliability than the individual beliefs. On the other side this process of aggregation decreases epistemic diversity within a group and thus undermines the epistemic benefits of these effects, especially within a dynamical perspective. In this colloquium questions concerning the interrelation between diversity of beliefs and belief aggregation as well as its application in different fields of research are discussed.

Schedule

Tuesday, September 18, 2018:

09:00	Brief Introduction
09:00–09:40	Jan-Willem Romeijn: <i>Epistemic Diversity and Editor Decisions</i>
09:40–09:50	Comment by Corina Ströbner
09:50–10:00	General Discussion
10:00–10:40	Stephan Hartmann: <i>Deliberation, Epistemic Diversity and the Anchoring Effect</i>
10:40–10:50	Comment by Vlasta Sikimic
10:50–11:00	General Discussion
11:00–11:40	Christian List: <i>Arrow's Theorem in Social and Individual Epistemology</i>
11:40–11:50	Comment by Christian J. Feldbacher-Escamilla
11:50–12:00	General Discussion

Abstracts

Christian List:

Arrow's Theorem in Social and Individual Epistemology

 In this talk, I will show that there are some structural parallels between two at first sight very different problems in epistemology – one in social epistemology, the other in individual epistemology – and that a classic result in social choice theory, Arrow's theorem, can be adapted to yield insights into both problems. The two problems are: (i) how the beliefs of a group relate to its members' individual beliefs (the problem of belief/judgment aggregation or group doxastic states); and (ii) how the (all-out) beliefs of an individual relate to his/her degrees of belief (the problem of belief binarization, as in the lottery paradox). I will explain how these two problems are related to one another and show that, in each case, a variant of Arrow's theorem establishes an impossibility result. Specifically, a number of initially plausible desiderata on a solution to the given problem are mutually incompatible. This, in turn, forces us to choose which desiderata to keep and which ones to give up.



Stephan Hartmann:

Deliberation, Epistemic Diversity and the Anchoring Effect

 eliberation is a standard procedure for making decisions in not too large groups. It has the advantage that group members can learn from each other and that, at the end, often a consensus emerges that everybody endorses. Unfortunately, however, implementing a deliberation procedure also has a number of disadvantages due to the cognitive limitations of the individual group members. What is more, the very process of deliberation introduces an additional bias which we investigate in this presentation. We demonstrate that even in a group of (boundedly) rational agents the resulting consensus (if there is one) depends on the order in which the group

members speak. More specifically, the group member who speaks first has an unproportionally high impact on the final decision, which we interpret as a new instance of the well-known anchoring effect. To show this, we construct and analyze an agent-based model – inspired by the disagreement debate in social epistemology – and obtain analytical results for homogenous groups (i.e. for groups whose members consider each other as epistemic peers) as well as simulation results for inhomogeneous groups which exhibits epistemic diversity. The talk is based on joint work with Soroush Rafiee Rad.



Jan-Willem Romeijn: Epistemic Diversity and Editor Decisions

his paper offers a new angle on the common idea that the process of science does not support epistemic diversity. Under minimal assumptions on the nature of journal editing we prove that editorial procedures, despite being impartial in themselves, disadvantage less prominent research programmes. In particular, relying on previous work in psychometrics and in formally oriented social studies of science, we show that the quality of editorial decisions, as measured by false positives and negatives, is lower for programmes that on the whole deliver fewer good papers or perform worse in editor assessments. This purely statistical bias in article selection further skews the existing differences in the success rate and hence attractiveness of research programmes, and exacerbates the reputation difference between the programmes. The talk is based on joint work with Remco Heesen.