UNIVERSITÄT BERN
OESCHGER CENTRE CLIMATE CHANGE RESEARCH

Swiss National Science Foundation

Philosophy of Climate Science Workshop and PhD Defense of Mason Majszak

In conjunction with the SNF funded project "The Epistemology of Climate Change"

Date: Feb 29th, 2024
Location: Mittelstrasse 43, Bern, 3012
Workshop: Room 128 from 9am – 4pm
Dissertation Defense: Room 220 from 5pm – 6pm

	Workshop: Mittelstrasse 43 – Room: 128
9:00 – 10:00	Torbjørn Gundersen (University College of Norwegian Correctional Service) – Political Neutrality, Partisan Science Advice, and the Intergovernmental Panel on Climate Change
10:00 – 10:30	**Coffee Break**
10:30 – 11:30	Federica Bocchi (University of Copenhagen) – Two Operationalizations of "Evidence" in Biodiversity Conservation
11:30 – 12:30	Carlo Martini (Università Vita-Salute San Raffaele) – Scientific Consensus and Bogus Consensus: How Disinformation Affects Climate Communication
12:30 – 2:00	**Lunch**
2:00 – 3:00	Ted Shepherd (University of Reading) – What are Physical Climate Storylines Good For?
3:00 – 4:00	Julie Jebeile (University of Bern) – Useful Information and Climate Modelling Strategies
4:00 – 5:00	**Coffee Break and Room Change**
	Dissertation Defense: Mittelstrasse 43 – Room: 220
5:00 – 6:00	Mason Meyer Majszak (University of Bern) – Explicating Expert Judgment and its Role in Overcoming Uncertainty in Climate Science Supervisors: Prof. Vincent Lam and Prof. Stefan Brönnimann External Examiners: Prof. Ted Shepherd and Prof. Mathias Frisch Chair: Prof. Claus Beisbart

Invited Speakers

Torbjørn Gundersen (University College of Norwegian Correctional Service) – Political Neutrality, Partisan Science Advice, and the Intergovernmental Panel on Climate Change

Abstract: Holman and Wilholt have recently argued that philosophers should contribute to what they have dubbed the 'the new demarcation problem'. Instead of examining whether values can and should play a role in science, the central task for philosophy of science is now to examine how we can draw a line between legitimate and illegitimate kinds of influence of values in science. This paper contributes to the new demarcation problem in two main ways, using the Intergovernmental Panel on Climate Change and the climate science debates as sources of examples. First, I develop a notion of what I call 'partisan science advice', which aims to conceptualize clear cases of illegitimate ways in which non-epistemic values can influence science advice. Second, as a normative response to the problem of partisan science advice I propose a principle of political neutrality, that constrains the illegitimate ways values can influence science advice and allows the legitimate ways.

Federica Bocchi (University of Copenhagen) – Two Operationalizations of "Evidence" in Biodiversity Conservation

Abstract: Over the past decades, the rise of "evidence-based approaches" has reshaped decision-making in science, emphasizing the importance of empirical data over subjective judgment. This paradigm extends to evidence-based conservation (EBC), advocating for environmental actions grounded in empirical data rather than untested ecological hypotheses. Despite the momentum behind evidence-based paradigms, philosopher Nancy Cartwright (2013) argued convincingly that this trend still lacks a philosophically sound and yet actionable account of evidence. In this talk, I explore the conceptual landscape philosophers should pay attention to when considering evidence in conservation, focusing on two case studies: the Conservation Evidence Project and the GeoBon biodiversity project. These case studies highlight two distinct senses in which "evidence" is used in EBC, each raising philosophical challenges that demand attention.

Carlo Martini (Università Vita-Salute San Raffaele) – Scientific Consensus and Bogus Consensus: How Disinformation Affects Climate Communication

Abstract: Science progresses through debate and disagreement, and scientific controversies play a crucial role in the growth of scientific knowledge. However, not all controversies and disagreements are progressive in science. Sometimes, controversies can be pseudoscientific; in fact, bogus controversies, and what seem like genuine scientific disagreements, can be a distortion of science set up by non-scientific actors (e.g., interest groups). Bogus controversies are detrimental to science because they can hinder scientific progress and eventually bias science-based decisions. This work examines climate change ignorance resulting from encounters with pseudoscience. It presents data highlighting the challenge of distinguishing between science and pseudoscience. The paper argues that the production and dissemination of hard-to-detect pseudoscience and disinformation in climate change significantly impact attributions of blame to ignorant agents, emphasising the potential for virtuous individuals to hold false beliefs without blame.

Ted Shepherd (University of Reading) – What are Physical Climate Storylines Good For?

Abstract: In general usage, 'storylines' are causal explanations which help to make sense of a real or imagined situation or sequence of events. They are distinguished from predictions by the incorporation of contingent (i.e. unpredictable) causal factors. Storylines have an obvious power in literature and drama. But they have a pedigree in science too, notably in natural history. Recently, storylines have become an accepted tool within climate science, defined by the IPCC as "a self-consistent and plausible unfolding of a physical trajectory of the climate system, or a weather or climate event, on time scales from hours to multiple decades". In this talk, I will discuss the rationale behind physical climate storylines, some of the ways in which they have been used to make sense of climate change in situations involving deep (i.e., hard-to-quantify) uncertainty, and some of the questions which keep cropping up whenever I talk about storylines.

Julie Jebeile (University of Bern) – Useful Information and Climate Modelling Strategies

Abstract: The development of climate services invites us to define what useful information is. Useful for impact studies, mitigation and adaptation policies, collective awareness of present and future changes in the conditions of habitability and life on Earth. A first objective of my talk will be to offer a working definition: information is useful if it is reliable, relevant and legitimate, but also if it is intelligible, and if it is produced and communicated on time. A second objective will be to provide a (non-exhaustive) overview of different climate modeling strategies: the construction of increasingly realistic and complex dynamic models, the use of machine learning type algorithms or even the development of narrative explanations called storylines. The question will be: to what extent do these strategies satisfy the criteria for usefulness? If none of them can produce information that is reliable, relevant, legitimate, intelligible and timely, how can we structure a pluralism of strategies likely to better cover our needs of climate information?