

CONSTRUCTIVISM AND POST-CONSTRUCTIVISM

THE METHODOLOGICAL IMPLICATIONS OF EMPLOYING A
POST-CONSTRUCTIVIST RESEARCH APPROACH



Trial lecture

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Road map

- What is constructivism?
- From constructivism to post-constructivism
- Unifying characteristics of post-constructivism
- Methodological implications
- Concluding remarks



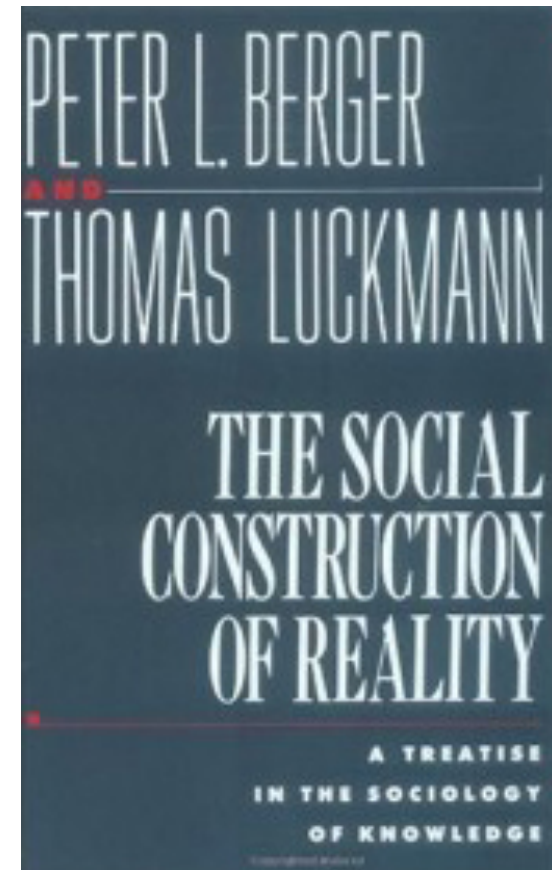
Constructivism

- Meta-theoretical label for various approaches
- Adopted in a number of disciplines and fields in the 20th century
- Critique of naïve realism
- Emphasis on interpretative flexibility: reality is contingent on observer's standpoint



Constructivism in sociology

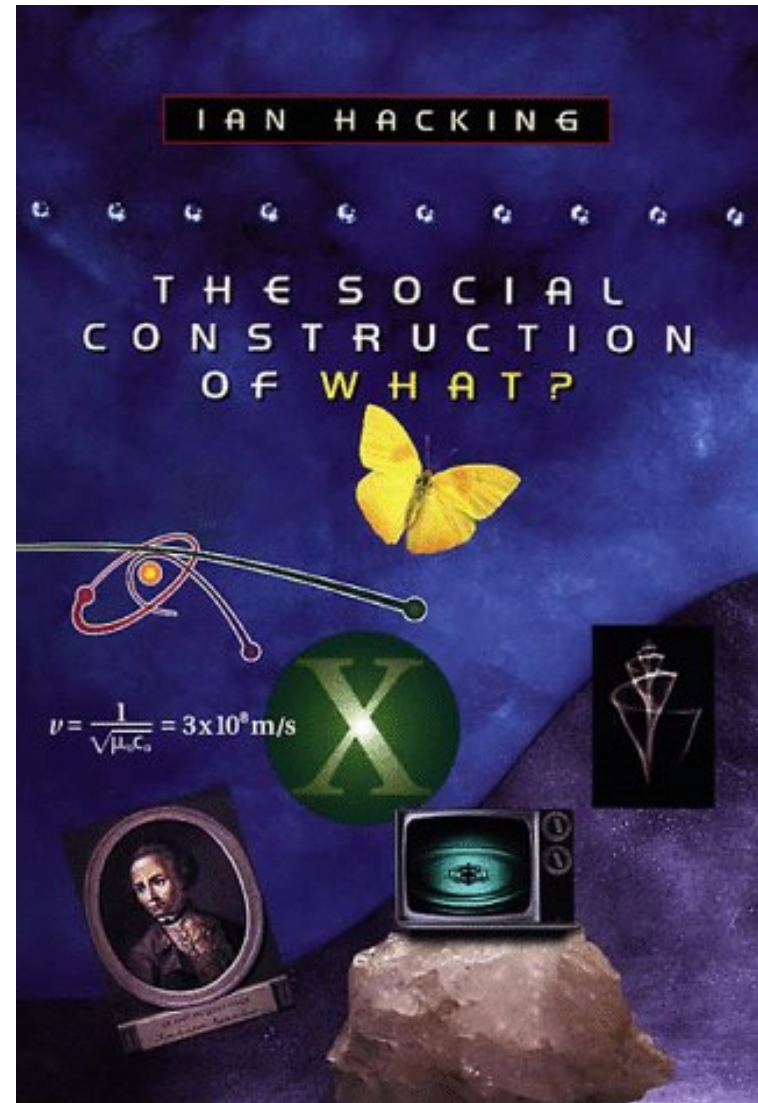
- Reality, objects, facts, phenomena are created and institutionalized through social interactions
- Social construction is an ongoing process; maintained through knowledge, culture and tradition



1966

The social construction of what?

- The child viewer of television
- Gender
- Homosexual culture
- Illness
- Knowledge
- Literacy
- The medicalized immigrant
- Women refugees
- Youth homelessness
- Zulu nationalism



Social construction as a liberating force

- 1980s: peak in the social construction literature with a political agenda
- Liberating effect: ideas and meanings were not fixed, but a product of
 - Historical events
 - Social forces
 - Ideology
- Social construction related in particular to the traditional objects of sociology: race, gender, etc.

Social construction critique

- A group of scholars criticize social construction works for its **social reductionism** (critique is directed against those with a political agenda)
- Ian Hacking depoliticizes social constructivism: objects and ideas may interact
- Something can be real and socially constructed at the same time

From social to post-constructivism

- The development towards *post*-constructivism stems from a desire:
 - To move away from social reductionism
 - To deal with new objects for sociological research: technology, science, and scientific practices
- Growing desire to move beyond the *social construction – realism dichotomy*
- Bruno Latour: “social scientists need a *new realist attitude*”

Post-constructivist approaches

- Another *post!*
- Confusing and perhaps not so interesting label at first sight
- Umbrella notion for:

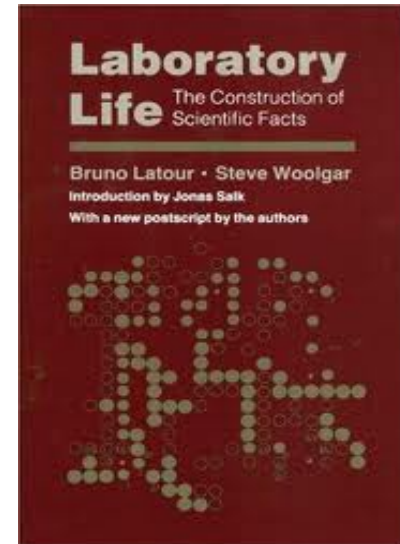
Pragmatic realism	Andrew Pickering
Philosophical naturalism	Joseph Rouse
Feminist science studies	Donna Harraway
Actor-network theory	Bruno Latour, John Law, Michel Callon
- Included here: co-production idiom in STS (particularly the work of Sheila Jasanoff)

A return to the construction-site metaphor



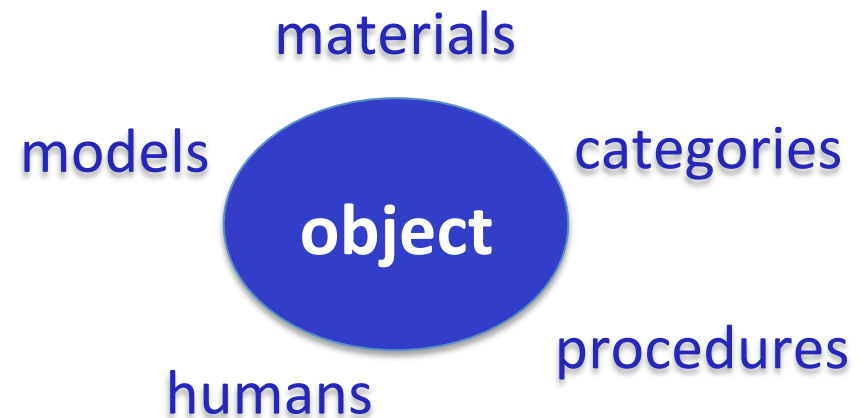
Following construction practices

- Construction of scientific facts: without devices, no facts!
- Thought experiment: water freezes at 0 degrees: either inside or outside the laboratory!
- Water freezes at 0° C, but only after its construction through instruments, standards, devices, institutions, congresses
- It has become a stabilized fact; to which no one pays attention anymore



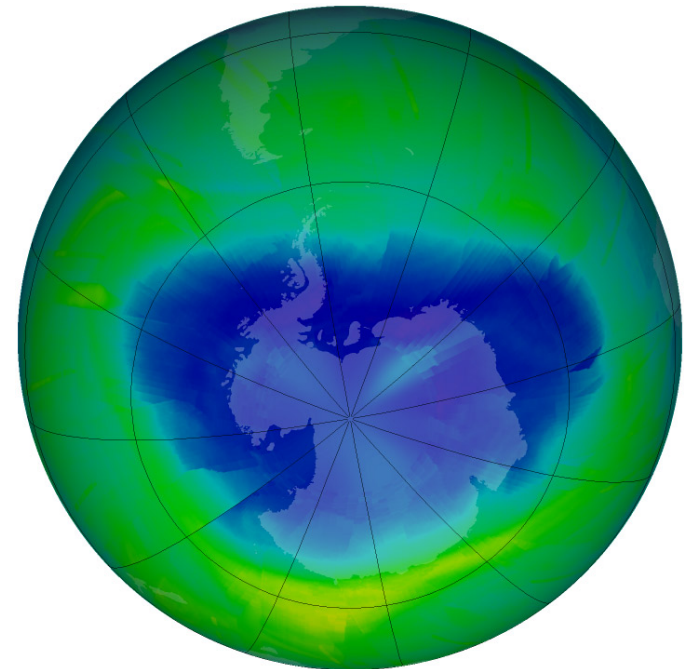
The construction process continues....

- When studying facts or objects in the making: include material practices
- With different materials or practices, the object could have been totally differently
- Following construction practices provides insight in the actual design, its **durability**, **stability** and **reliability**



What unites post-constructivists?

The desire to explain how science, nature and politics are interlinked and produced together.

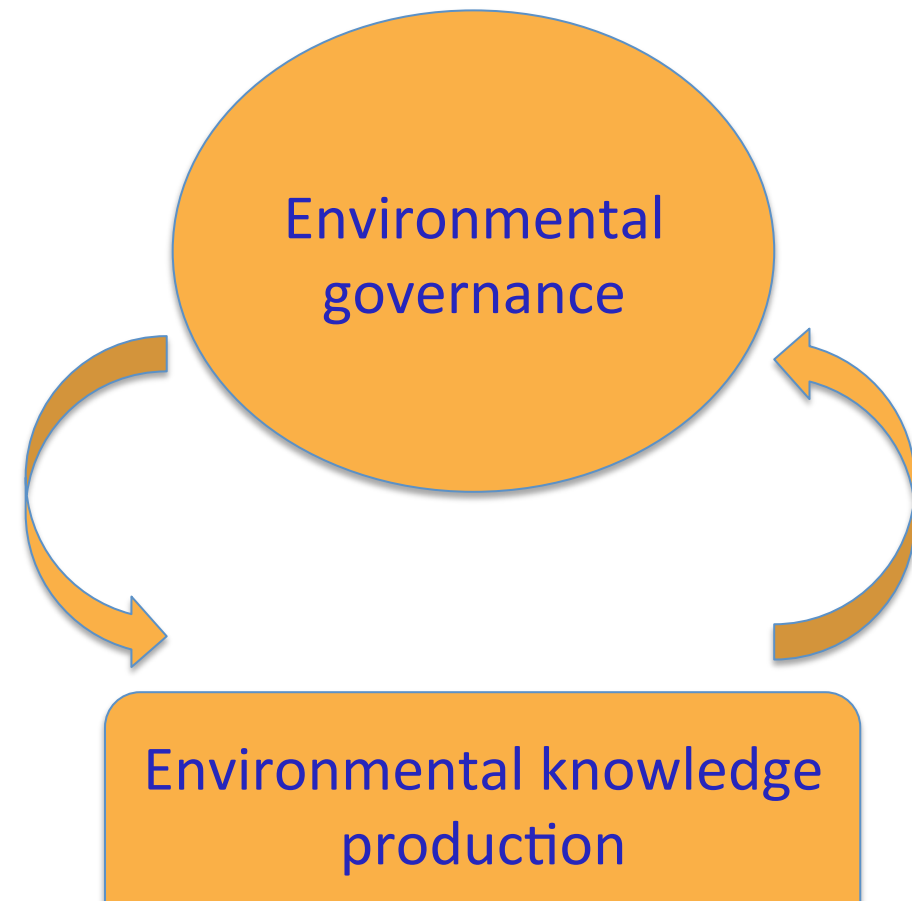


Studying the science-politics interface

- How is environmental knowledge-making incorporated in governance?

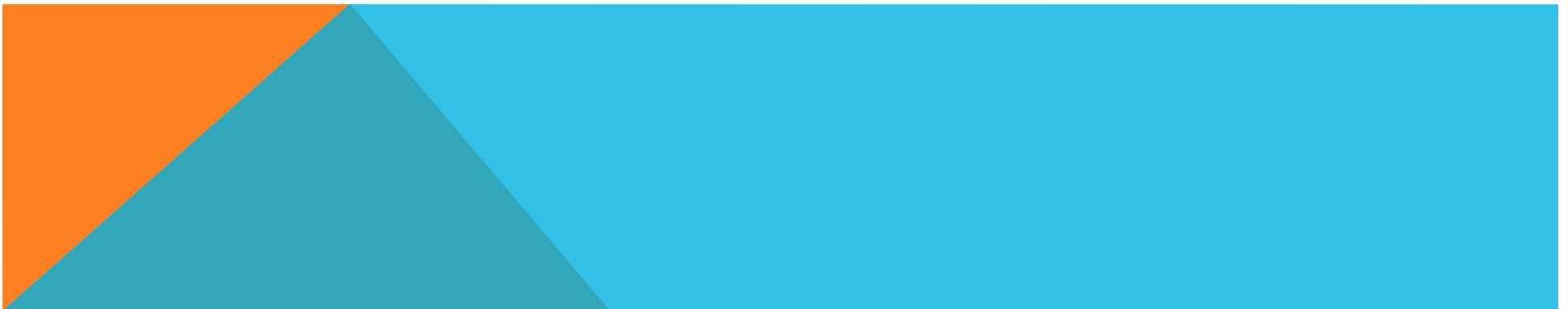
and, in reverse

- How do practices of governance influence the making and use of knowledge?



Implications of a post-constructivist research approach

- Notes on the practicalities of method
- Connecting scales
- Science as practice
- Performativity of science



Notes on the practicalities of method (1)

- Post-constructivist studies are rather silent on practicalities of method
- Why? Dealing with very different, transforming, messy objects *in-the-making*
- Requires a variety of practical techniques for empirical inquiry

Notes on the practicalities of method (2)

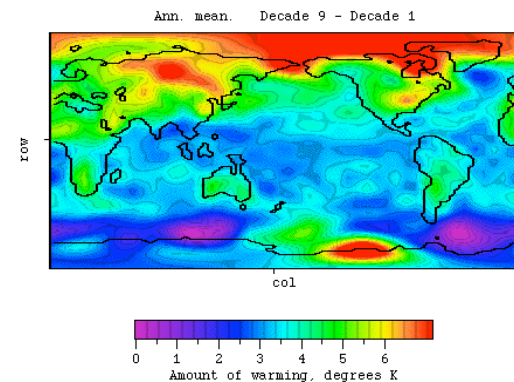
- A situational, relational, dynamic view
- Less-formalized, adaptable and flexible research practices
- Follow *a case-study method*, which is
 - Mobile
 - Multi-sited
 - Materially sensitive
- Follow objects in the making *in real-time*, when
 - Uncertainties proliferate
 - Values are in conflict

Connecting scales

- Post-constructivist approach is simultaneously *local* and *global*
- The objective is to build systematic connections between the **micro**-worlds of scientific practice and **macro**-categories of political thought
- Relational approach: trace attachments and associations
- Study empirically the shifts from analytical categorizing to co-constructed phenomena

Shifting scales: From local weather models to global climate science

- Miller (2004): Case study of how climate science started from science concerned with local weather patterns
- With ascendance of computer use: possibility of aggregated modeling
- ‘Climate change’ developed into globally connected whole
- Global outlook made possible through, and maintained in, local networks



Follow science as practice

- From 'science as knowledge' to 'science as practice'
 - Science as knowledge: passive mode
 - Science as practice: active mode (processes of *transformation*)
- Follow situated **discursive and material practices** at the construction site
- Interdisciplinary science: the shaping of reality in different places and institutions, with a variety of practices

Science as practice: constructing knowledge gaps

- Environmental governance: production of *non-knowledge*
- Barents Sea management plan: construction of knowledge gaps
- Who constructs? Where? When?
- Who prioritizes?

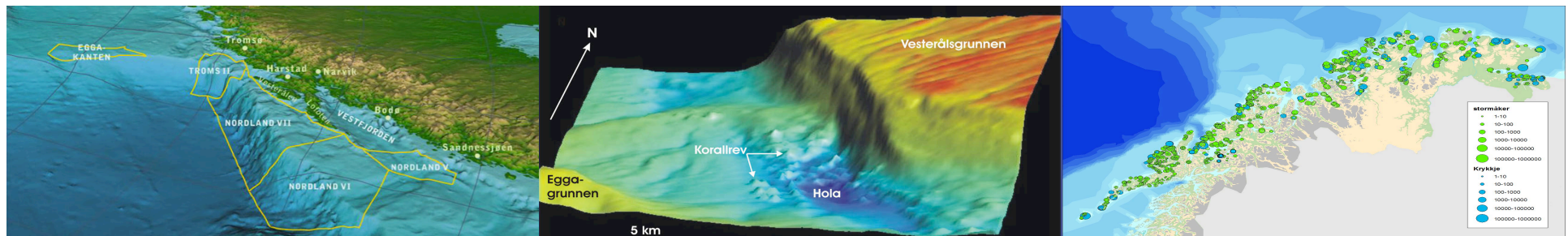
Number of knowledge needs	Monitoring needs	Research needs	Mapping needs
Total	37	77	23
Prioritized	15	23	5

The transformation of a knowledge gap

- Abstract notion of ‘knowledge gap’ has transformative power
- How is (non)knowledge transformed further, outside the scientific ‘laboratory’?
- Follow the ‘knowledge gap’ as an active agent in the governance network

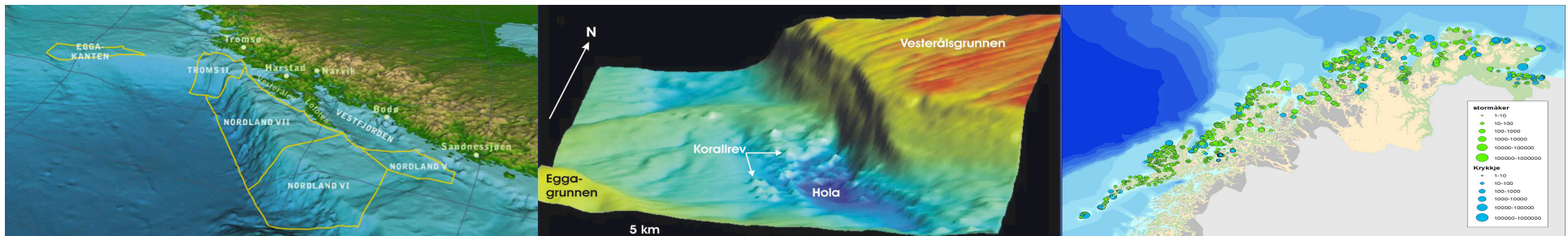
Consider the performativity of science

- Co-production of science, nature, politics
- ‘Nature’ as such does not exist: thus be aware of the performative powers of science and politics in *enacting* environmental realities
- Construction of nature starts after there is a human interest in an area



Consider the performativity of science

- Before nature is made governable, it needs to be made **readable** and **measurable** (categorizing and classifying)
- Scientists become the *spokespersons* of nature
- Creation of *boundary infrastructures* for environmental governance



Delimiting the Doggerbank: an example of the co-production

- The Doggerbank potentially qualifies as marine protected area
- Question: what is a sandbank?
Ecological categories in the making
- Through delimitation practices scientists have performative roles in the enactment of new *eco-political realities*



Ontological politics

- Study of performativity and enactment; of ontological politics
- Science not only represents, but enacts nature
- By analyzing the potential solidness and durability of the construction of eco-political realities, *the social scientist takes part* in this process of co-production
- The post-constructivist researcher is part of shaping the world that we (wish to) live in



Thank you!

