Contested Science

Public controversies about science and policy

2nd European TA Conference, Berlin, February 26th 2015

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Evidence based policy (EBP)

- Present day, high-tech society: growing need for EBP
- All kind of scientific advisory bodies and research institutes
- In general functions well
- But not always: shale gas, IPCC- reports

- ➢ How to understand public upheaval?
- ➢ Growing distrust of science?
- ➢ What role does scientific evidence play?
- ➢ How to deal with it?

6 cases on public controversies

1. Electromagnetic radiation by mobile telephone masts
2. Vaccine against servical cancer
3. Underground storage of carbon dioxide
4. Drilling for shale gas
5. Climate reports IPCC
6. Food safety: EHEC bacterium

➢ What patterns in controversies?

Patterns of unrest

- Various actors: local residents, NGO's, municipal councillors, critical scientists
- Various concerns: environmental/health risks, visual pollution, declining house prices, discomfort parents
- Feeling: decisions already taken by government
- Atmosphere of distrust: "they don't listen to us"


Zeg NEE
tegen
chaliegas

Response policymakers

- Stress sound scientific basis
- Refer to scientific evidence (advisory bodies, risk assessments)
- Not a random group of experts
- Established scientific expert groups and research institutes
- RIVM: for decades responsible for National Vaccination Programme

➢But: response does not dispel public unrest

Counter-discourse

- Doubting ‘evidence based’ policies
- Risk estimations criticised by critical experts
- Scientific uncertainties as source of criticism
- Internet: alternative sources of information; opposing voices
- Broader concerns fuel the controversy
- Distrust toward (self-interest) National Government

Focus on scientific debate

- Increasing focus on scientific uncertainties
- Call for more research, to remove uncertainties, by both sides
- New arrangements: critics invited to discuss research agenda and findings
- Important learning process (!)

➢But: this doesn't settle the controversy either

- New arrangements lead to new disagreements

Conclusions I

- No broad distrust of science
- Scientific evidence is no satisfactory response to public controversy
- Broader concerns do play a role
- EBP can always be criticized because of:

- inevitable scientific uncertainties
- by definition limited scope of research agenda

Conclusions II

- Policymakers:
- should not present scientific findings as more certain than they are
- should take broader concerns into account
- should better get used to critical citizenry

- New arrangements introduced too late, after parties have become entrenched in their positions

Conclusions III

- Scientific findings remain important: we cannot do without EBP!
- Scientific uncertainties need to be acknowledged by scientists, policymakers AND critical groups
- risks cannot be out ruled

- GOOD ENOUGH SCIENCE (D. Sarewitz): willingness of civil society groups to accept scientific uncertainties depends on the extent to which policymakers take broader concerns into account

- Critical parties should be involved in the earliest possible stage to discuss broader concerns as well as research agenda

The serviceable expert I

- =/= academic science
- Bridging science and policymaking
- Providing policy relevant information:
  - assessing scientific state of affairs
  - assessing pro's and con's of policy measures
  - giving policy advice (sometimes)

The serviceable expert II

- Reducing scientific uncertainties:
  - highlight important findings
  - leave out less important findings
- Always be open about status of findings
- Don’t present findings as more certain than they are
- Resist pressure from policymakers to do so

- Be critical on (limited scope of) research agenda

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