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Evidence-based narratives as a new tool for policy-design



Philipp Schepelmann



- negative megatrends on raw materials, resource efficiency and climate action
- hitting the limits to growth (planetary boundaries)
- remaining environmental space becomes smaller
- decreasing number of options (example biofuels)

Implications for responsible research and innovation in the post-truth era

Social innovation for improved and faster policy-learning

- Better interfaces between policy-making and science
- Border-objects (indicators, narratives and heuristics) to reduce complexity

Political Background

New College of Commissioners, political priority “jobs & growth“

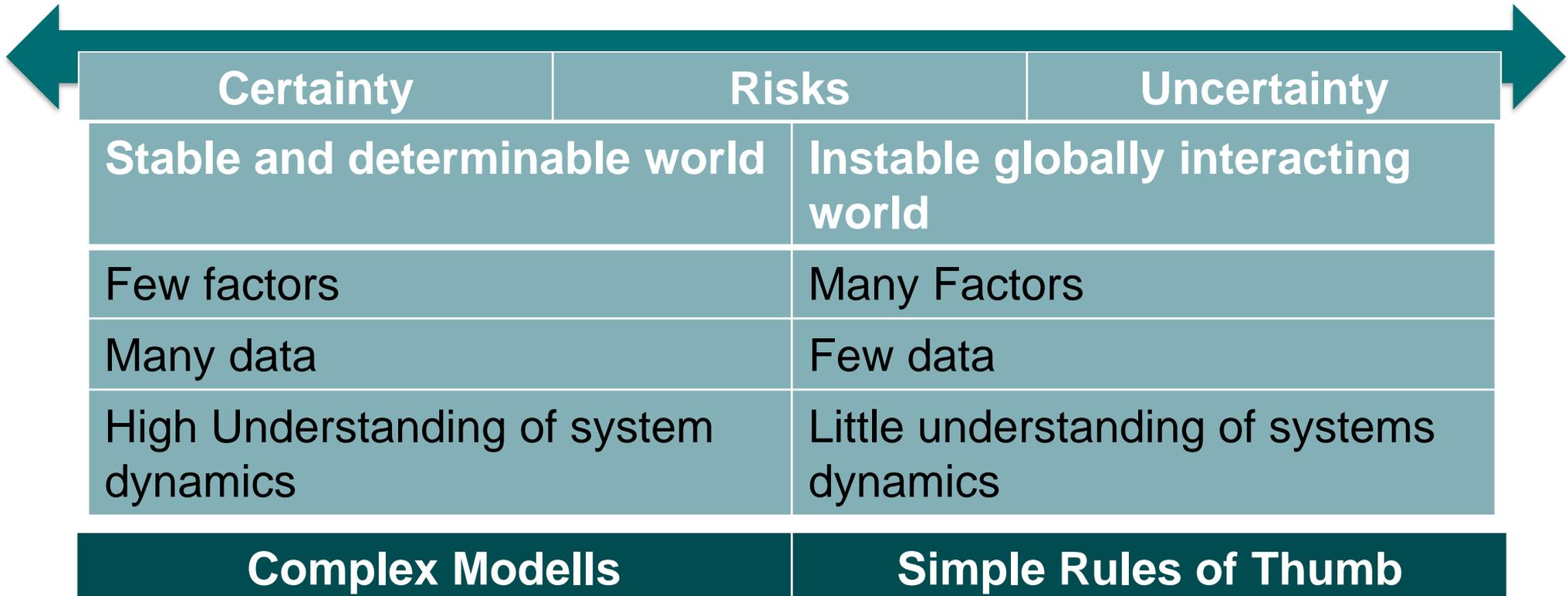
Mission

Construct narratives to legitimize RTD interventions

Specifically

Make cases for investment (e.g. markets of the future, cost-benefit-ratios, a potential for upscaling at European scale, assessment of market size, effects on employment etc.).

How to make predictions for investment cases under the condition of uncertainty?



Source: Gerd Gigerenzer (2013): Risk Savvy – How to make good decisions.

EBNs can serve to construct heuristics that can provide orientation in a situation characterized by complexity:

1. “Narratives reduce complexity, create a basis for current and future-oriented action plans, are a foundation for the co-operation between actors, and support reliability of expectations”
(German Advisory Council on Global Change, WBGU 2011: The Great Transformation, p. 84)
2. Narratives as ‘boundary objects’ (Star and Griesemer 1989) improve translation and knowledge integration between science and policy-making.

Climate Information Services

1. Urban Climate Information Systems Copenhagen
2. Climate media factory
3. Factor CO₂
4. Cl:Grasp

Nature-Based Solutions

5. Healthcare cost reduction through the use of green urban space
6. Use of natural solutions for protecting cities from flooding
7. Sustainable urban drainage systems

Systemic Eco-Innovation to realize a Circular Economy

Waste-to-Fuel

8. Bioethanol from residues and waste
9. Biodiesel from waste oil and fats
10. Black liquor gasification for DME synthesis

Recycling

11. Concerted stakeholder action advancing the recycling of plastics
12. Recovery and recycling of rare earth elements from EOL products
13. Cross-sectoral learning from steel recycling

Leasing Society

14. Selling Solar Services

Sustainable Urban Material Management

- 15. Economics of waste prevention
- 16. Service-based remanufacturing
- 17. ICT-based waste and resource management

Sustainable Urban Infrastructure Systems

- 18. Free-floating electric car-sharing
- 19. Utility of municipal waste water in a green economy

Sustainable Urban Adaptation and Resilience

- 20. Risk appraisal toolboxes based on climate and weather data for urban areas

- DG RTD: e.g. invitation to Transition to the Green Economy (T2ge) of the Slovak Presidency of the Council of the European Union September 7 in Bratislava
- Science: International Sustainability Transitions Conference (IST) 2016
- RECREATE: scientist and stakeholder

- RECREATE researchers followed conclusions of **cognitive science** for decision-making under the condition of uncertainty according to Gigerenzer aiming at simple rules of thumbs
- **transdisciplinary** approach unfolding the potential of **narratives** for creating meaning and order by reducing complexity
- For the **co-design of the methodology** it had been helpful to get a clear demand from policy-making (DG RTD) of how the narratives should be framed (“jobs & growth”)
- The **Technological Innovation System** approach provides a suitable framework for framing evidence not only about innovative technologies (such as waste to fuel), but also social innovations (such as solar services), business models or organisational innovations (climate information services)

The EBNs functions **in an early stage of policy development:**

- **Selection of evidence** from a (theoretically) infinite number of potentially relevant items as a means of interpreting and structuring reality.
- **Structure evidence** and heuristics in time and space resulting in a specific (not necessarily chronological) sequence to form a coherent whole.
- **Giving evidence a meaning** in a storyline.
The emerging causal pattern allows to derive intervention logics and policy recommendations.

1. A narrative turn as applied in the EBNs has the potential of transforming policy-making in the European Union (“better regulation”): evidence-based policy instead of policy-based evidence
2. EBNs could contribute to the emerging mission-based programming
3. EBNs could bridge FP9 pillars “Global Challenges & Industrial Competitiveness” and “Open Innovation” (instruments: Pathfinder and Accelerator)

Prof. Dr. Philipp Schepelmann | philipp.schepelmann@wupperinst.org

Come on!



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