



***Solution-oriented/
transdisciplinary research
for sustainable development***

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Sustainable Development

- SD concept is **complex, normative, subjective, ambiguous**
- stakeholders, institutions, conflicts of interests, power relations
- different types of knowledge, uncertainties, perceptions of risks
- different value-systems, world views, paradigms, ethics
- process of change: policy and society, structures and culture

Persistent problems

- SD requires **structural** societal change
- Current practices are **deeply rooted**
- In **cultures**; dominant world views and paradigms
- In **structures**; norms, legislation, vested interests, ...



Steering problems



Implications for science and policy

Complex problems require a:

- Different mode of **science**

Mode 1 → Mode 2

- Different mode of **governance**

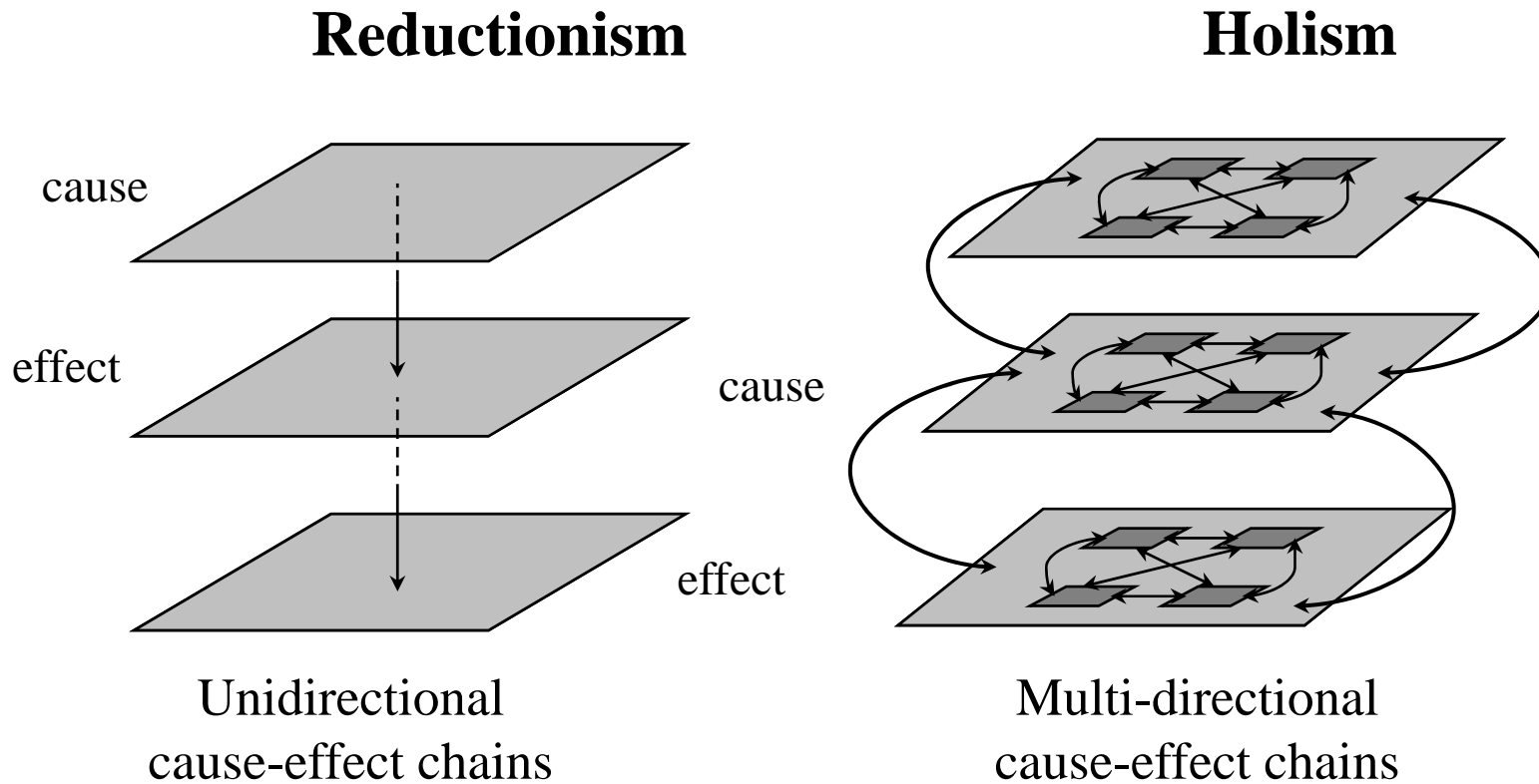
Hierarchical → deliberative

- New perspective on **knowledge production** and the **science-policy-society interface**

Providing knowledge → Co-producing knowledge

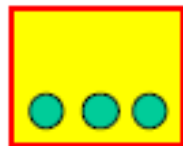
Philosophy

- **Holism** versus **reductionism**

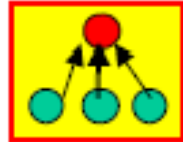


Philosophy

- From **disciplinary** to **trans-disciplinary**



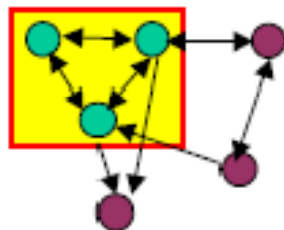
- disciplinary



- multi-disciplinary



- interdisciplinary



- trans-disciplinary

Conclusions: Change and Learning

- SD requires participatory, multi-actor processes aiming for societal change and mutual and joint learning
- sustainability assessments can support dialogue, collective action and social learning
- sustainability assessments should be organised in a way that it fits into existing (policy) context, which can result in innovative and contextual meaningful solutions
- transformative evaluation combines 'thinking perspective' (future, strategic, long term, system, etc.) and 'action perspective' (actors, policies, activities, etc.)

Peter Moll:

Implementation-oriented research: Lessons learned from the 'Coffee project'

Mark Swilling:

Transdisciplinarity of Sustainability in South Africa: the case of Stellenbosch University

Chris Thomas:

Transdisciplinary approaches to climate change and disease in rural Tanzania

Daniel Lang:

Challenges and Potentials of Transdisciplinary Sustainability Research – Understanding and Further Developing Interfaces