

Interdisciplinarity

Why it is so difficult – and yet so rewarding

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Our own discipline is best, of course, because...

- Other disciplines are **much easier**
- Other disciplines are **less scientific** (or **less comprehensive** or **less reflective**)
- Other disciplines have **too loose** (or **too strict**) methods, and end up with **too shaky** (or **too narrow** or **too nerdy**) conclusions
- Other disciplines are **less important**
- In general, in other disciplines they **do weird things**

If you go interdisciplinary: Double the pain; half the gain!

- If you are doing interdisciplinary work, obviously
 - you must be **incapable of competing** within your own discipline, and therefore trying to find a much easier and less scientific playground, or
 - you must have **converted to another value system**, turning your back on your original discipline
- In both cases you are **fair game!**
 - Everybody knows you are *haram* instead of *halal*
 - You should not be supported financially
 - You should not be awarded in any way

On the other hand: disciplines are not always what they used to be

- Human ecology
- Social ecology
- Political ecology
- Cultural ecology
- Soziale Naturwissenschaft
- Sustainability studies
- Post-normal science
- Environmental studies
- Environmental science
- Environmental planning
- Environmental management
- Environment and society
- Environment, technology and society
- Geography

Why did a discipline become a discipline (or sub-discipline) in the first place?

- Defined by a **specific object**
 - Geology, zoology, linguistics, literature studies
- Defined by a **certain kind of practise**
 - Law, theology, medicine
- Defined by a **specific methodology**
 - Economy, archaeology, anaesthesiology
- Defined by a **certain viewpoint**
 - History of ideas, sociology, ecology
- Defined by a **certain kind of problem**
 - Environmental planning, sustainability studies

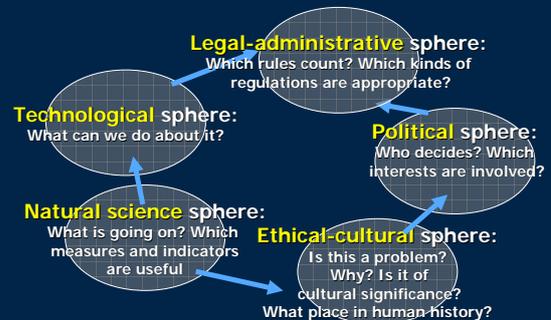
Still, interdisciplinarity raises certain specific problems

- Problems of **organization**
- Differing scientific **ideals and perspectives**
- Differing ideals of **integrations**
- The question of **normativity**
- The question of **explanations**

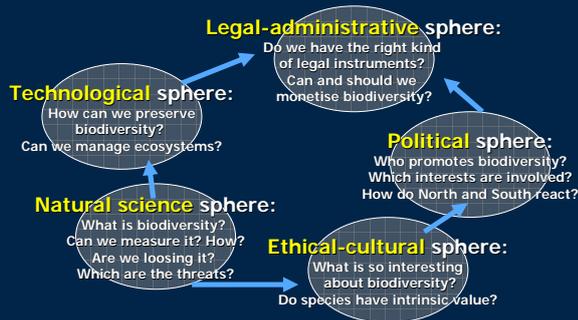
Organizing interdisciplinarity

	Description	Problems
Interdisciplinary projects	Groups existing for few (2-5) years	The group ends just when researchers begin to understand each other
Interdisciplinary projects groups	More permanent groups (> 5 years)	The researchers loose touch with their original discipline, or become interdisciplinaries
Interdisciplinary institutions	Permanent research and/or educational institutions	Interdisciplinarity turns into single disciplinarity
Interdisciplinary persons	Individuals who have worked in integrated interdisciplinary groups or on interdisciplinary projects for a long time	Identity problems unless an interdisciplinary tradition has been established

Spheres and perspectives involved in environmental science



Example: Biodiversity



Ideals of integration (examples)

- The **system ecologists'** ideal
 - Producing a model where everything fits in
 - Use the model to predict (and manage) consequences
- The **economists'** ideal
 - Produce consequence scenarios (behaviour is predictable)
 - Monetise consequences and select the optimum
- The **cultural studies** ideal
 - Put a phenomenon into a historical-cultural context
 - Enhance the cultural understanding

Ideals of explanation

- **Understand**, in order to
 - **Learn** from historical events
 - **Continue and renew** tradition as its existentially engaged present representatives
 - **Extend** the *Wirkungsgeschichte* of an important text or significant event
- **Predict** in order to be able to **manage**
 - Causal explanation
 - Systems logic

Example: interpretations of the Rio Earth Summit



The role of normativity

- Positivism still haunts many research communities, believing that
 - Facts (and theories) are **objective**
 - Values and norms are **subjective**
- The truth is that facts, theories, values and norms are all **intersubjective**, meaning
 - They are all based on certain presuppositions
 - They can all be challenged, discussed, improved

Why are many people attracted to interdisciplinary studies?

- It opens up **new horizons**
- It is often organized around **socially important issues**
- You become aware of your **own identity** and competences
- Everybody is both **teacher and pupil**
- The researchers **depend on each other** – less competition, more cooperation and complementarity