

Systemic research methodology

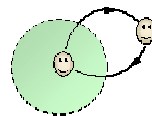
On the role of values in research in organic farming

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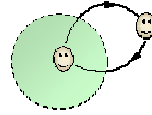


Two key points

- Science is an important actor in the development of organic agriculture
- In order to fulfil this role as an actor, science needs to be able to handle values

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What is a systems approach?

Two perspectives:

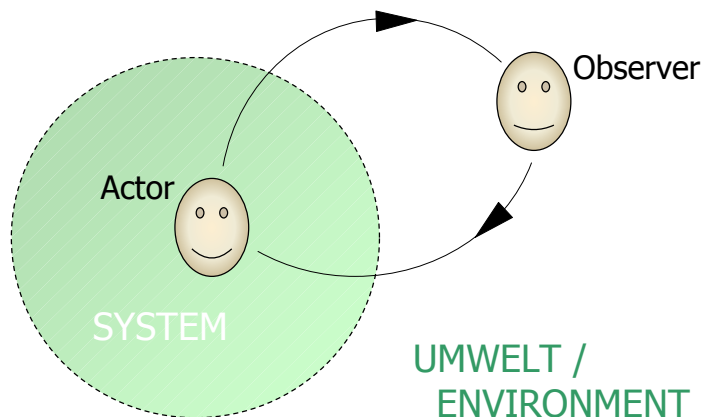
1. Agriculture as a system

- Without human actors
- With human actors (often farmers)

2. Agricultural science as a system



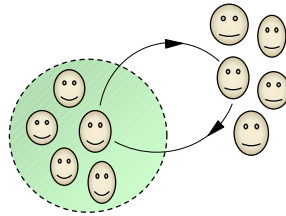
Science as actor and observer



Communicating values

Reveal the values embedded in ...

Decide on values to be employed in ...



- the identification of problems
- the design of methods and experiments
- model assumptions

- the use of concepts
 - Sustainability
 - Food quality
 - Soil quality
 - Nature quality
 - Animal welfare
 - Farm well-being
 - Rural development
 - Human well-being

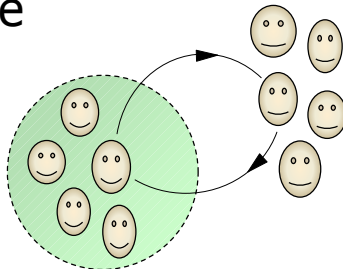


Criteria for doing good science

Reflexive objectivity

Relevance

Value inquiry
Participation
Transparency

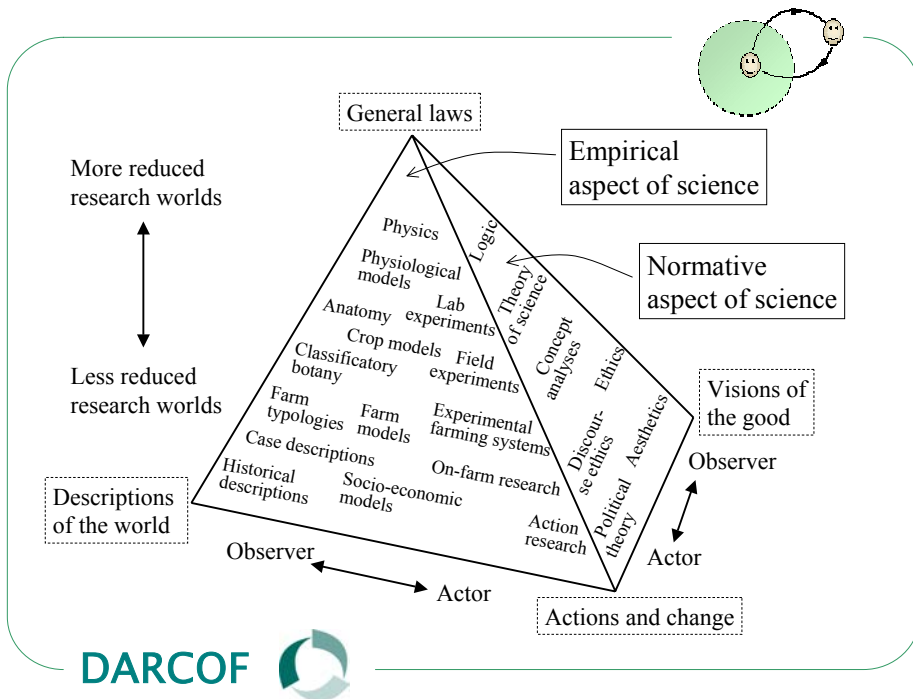
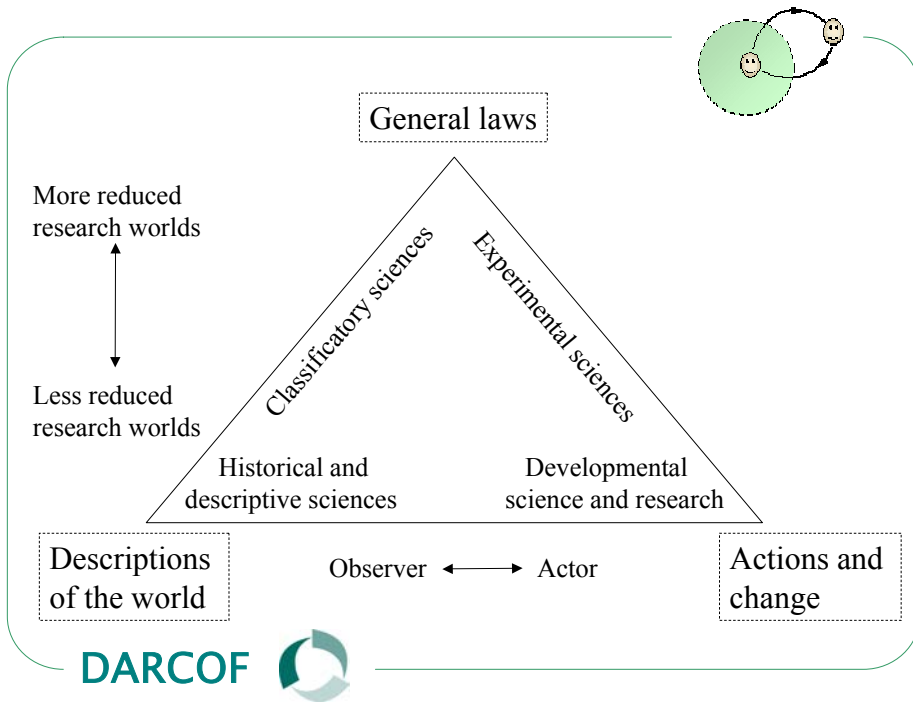


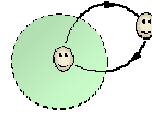
Communicating the cognitive context

- societal
- intentional
- observational

Revealing ignorance and uncertainties



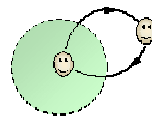




Examples

- Knowledge syntheses
- Criteria for evaluation
- Organic Eprints

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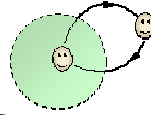
Knowledge syntheses

Before initiating research projects - in areas where there is a lack of clarity.

- Nitrate leaching
- Health and welfare in milk production
- Nature quality
- Pig production
- Organic seed production
- Consequences of GMO production
- Energy use

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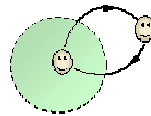




Evaluation criteria for organic research

- Quality of research process (following and adjusting plans, cooperation, etc.)
- Number and quality of different research products (papers, meetings, etc.)
- Reflexive objectivity (e.g. how are values handled)

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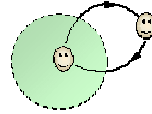
Organic Eprints

Organic Eprints is an electronic, open access archive for papers related to organic agriculture.

<http://www.orgprints.org>

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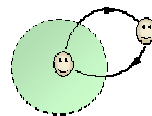




Conclusions

- Values play a key role in 'a systems approach' to agricultural research
- Science is an actor in organic farming
 - Do researchers employ values that correspond with the spirit of the organic movement?
 - Should they always?

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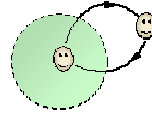


Conclusions

- Science works at different levels of reduction
 - but values still play a role
- There are normative and empirical disciplines in science
 - but there is always an interplay of facts and values

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More information

- My workpage -- [http:// www.alroe.dk/hugo](http://www.alroe.dk/hugo)
 - Alrøe and Kristensen (2002) Towards a systemic research methodology in agriculture
 - and other related papers
- DARCOF -- <http://www.darcof.dk>
- Organic Eprints -- <http://www.orgprints.org>

