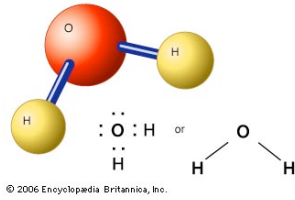




Development of organic apple production – cooperation between farmers, advisors and researchers

Weronika Swiergiel

**2015.12.09 Epok: Research for sustainable organic farming
– System perspectives, stakeholder cooperation and communication**



*"The whole is other
than the sum of its
parts"*

Kurt Koffka



Participatory Action Research & Sustainability



Photos: Veronika Swergel & Mira Rur

*"The best way to
understand something is
to try to change it"*

Kurt Lewin



Organic apple production

- New group of farmers producing according to intensive organic production principles with the purpose of increasing yields and labour productivity while farming according to organic principles.



PAR problem formulation

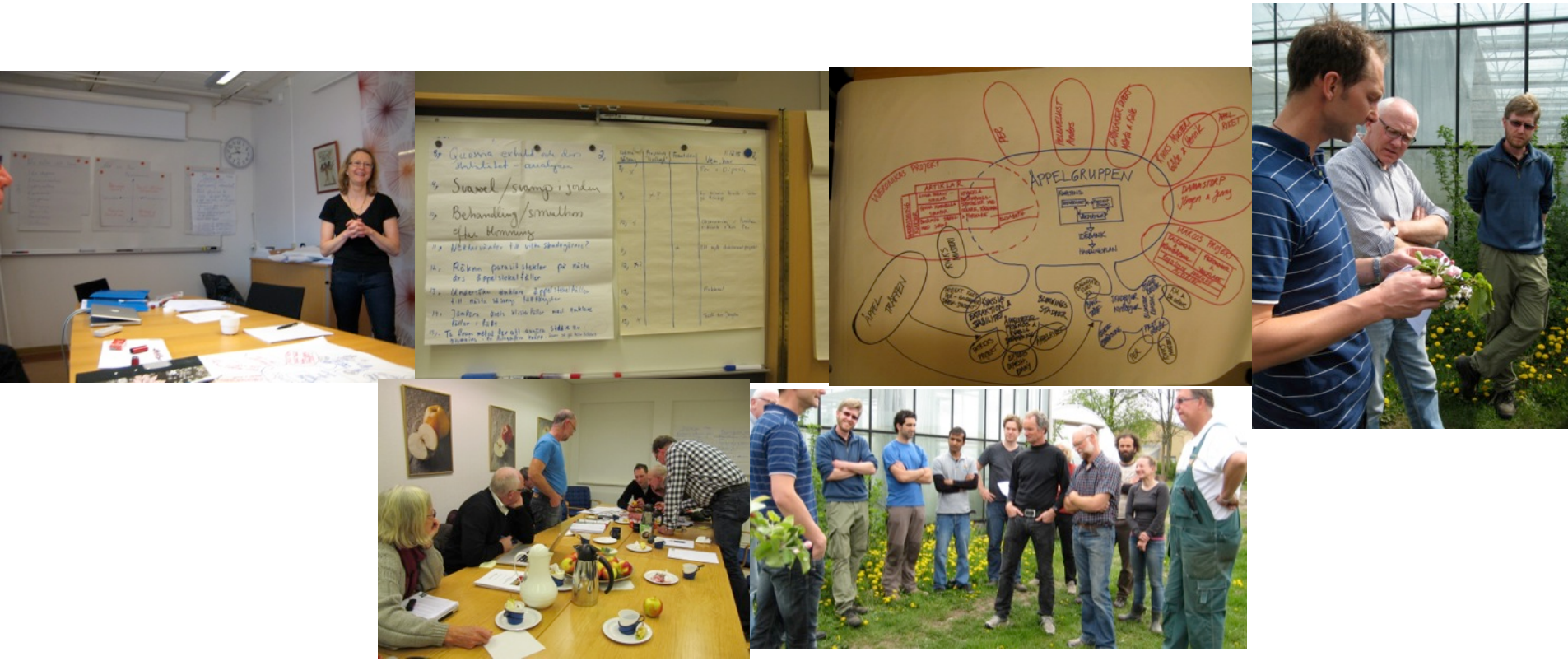
- Developing pest management strategies for organic apple production – emergent issues
- Searching preventive and direct control measures
- Constant trade-off between ecological sustainability & short term profitability – Why? What can we do about it?



Quassia vs habitat manipulation



A Cultural Historical Activity-Theoretical lens on pest management development in apple production within a PAR project



Kurt Koffka

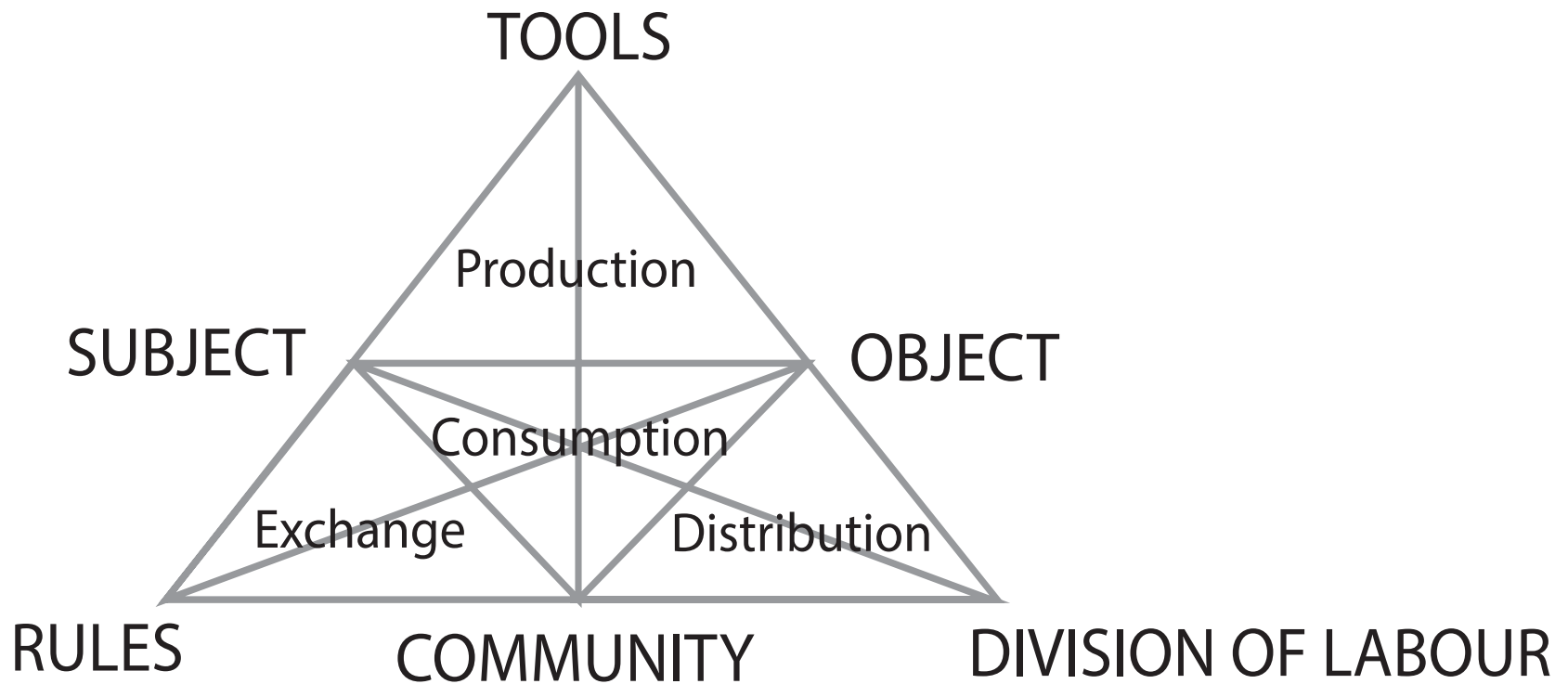


Figure 2.1. Activity system triangle (Engeström, 1978:78)

Input-output chains or collaboration based activity system networks

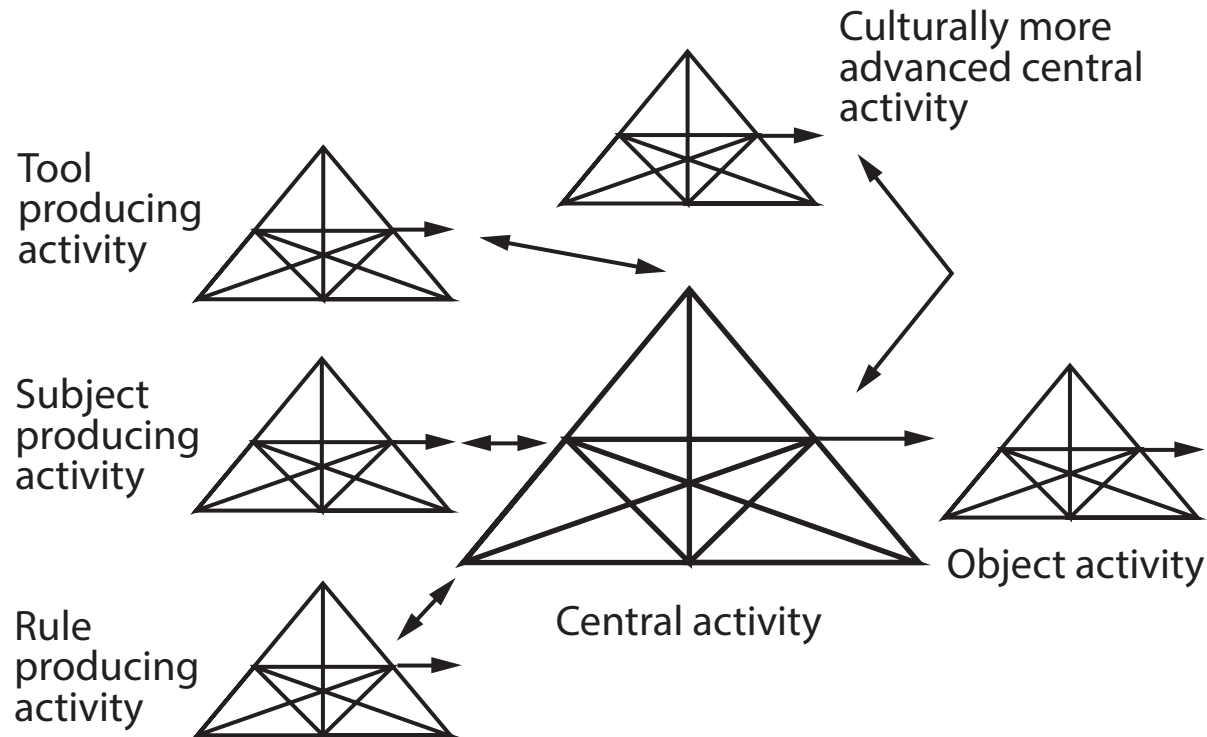


Figure 2.2. Network of functionally interdependent activities with neighbouring activities related to a central activity system (Engeström, 1987:89).

Contradictions

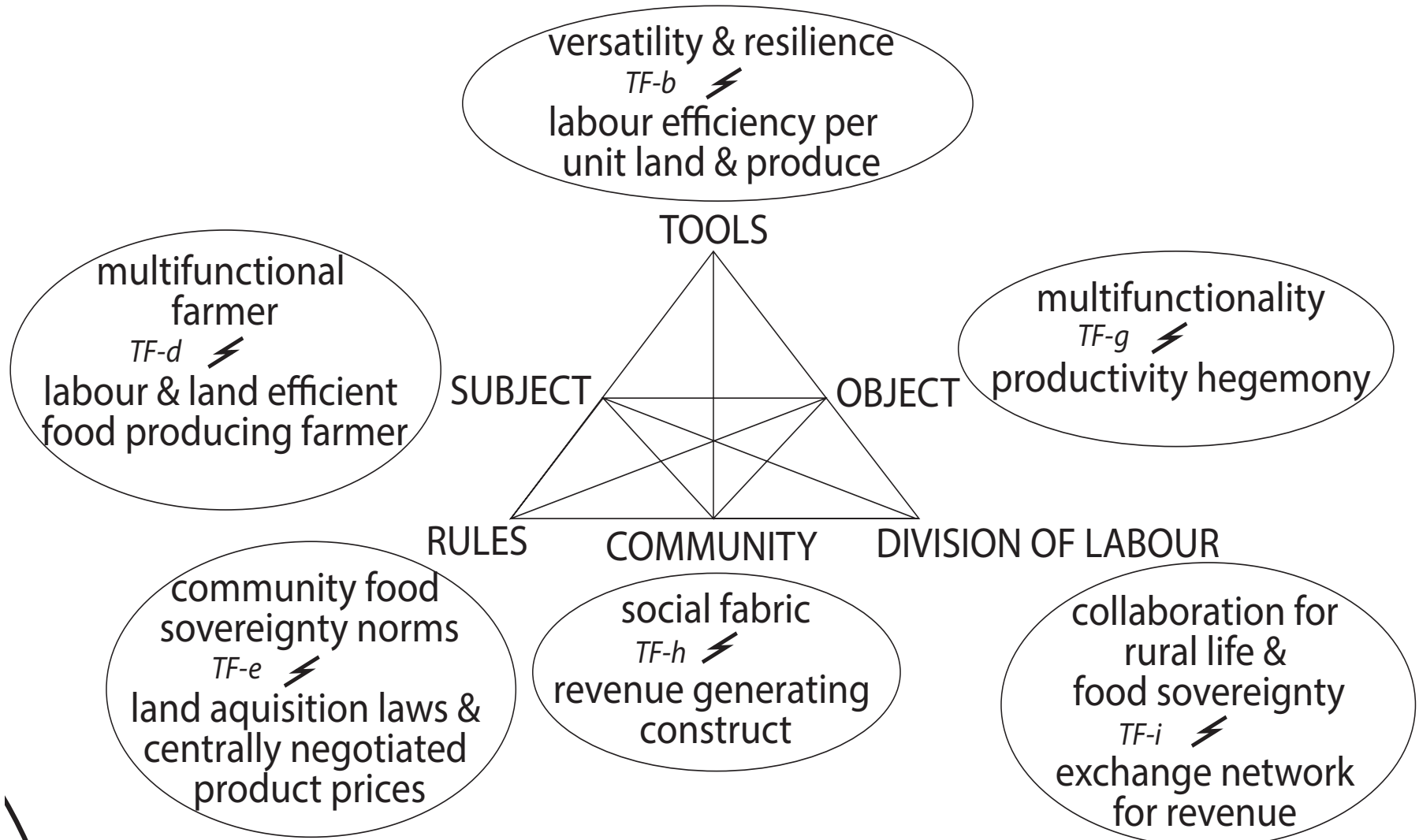


EXCHANGE VALUE



USE VALUE

Contradictions



"The best way to understand something is to try to change it"

Kurt Lewin

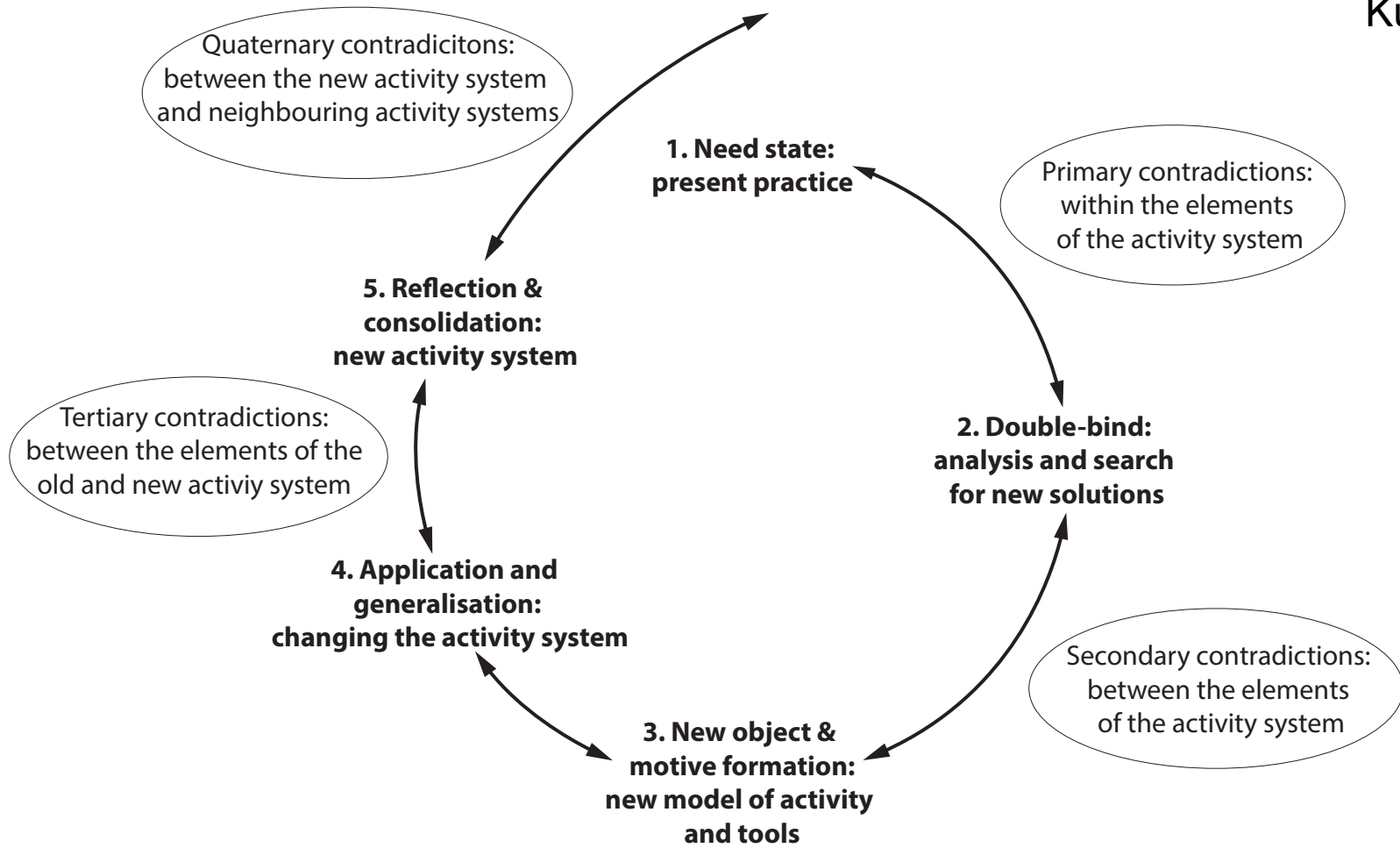
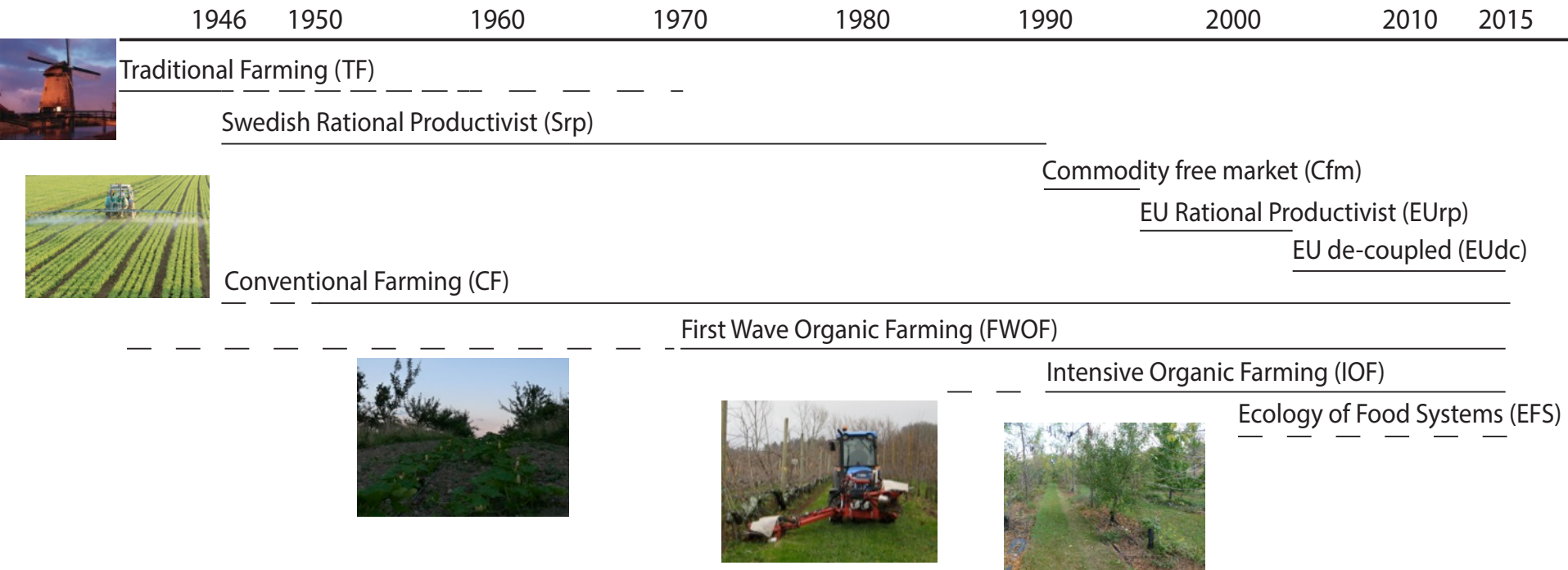


Figure 2.3. Ideal model of the *expansive learning cycle* (Engeström & Sannino, 2010).

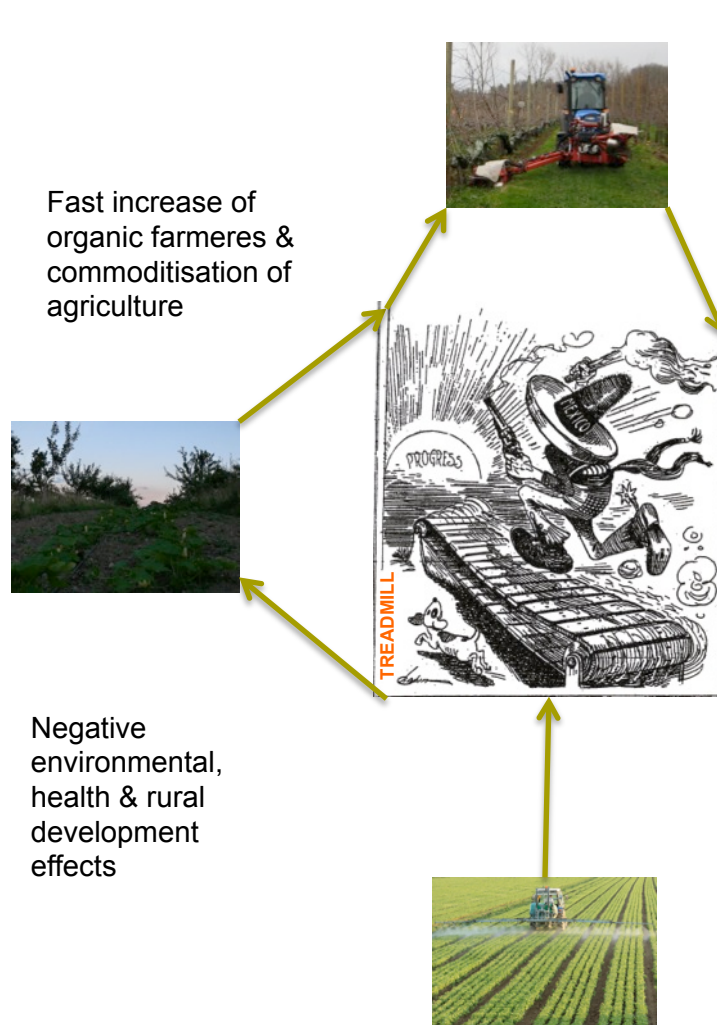
Timeline of historical farming concepts



TREADMILL



Historical contradiction analysis



Fast increase of organic farmeres & commoditisation of agriculture

Technological innovation of organic practices give only temporary relief

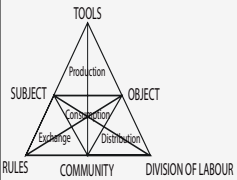
Treadmill circle not developmental spiral...

Only what standards require...

Risks and uncertainty...

Historical contradiction analysis

Paper I



Fast increase of organic farmeres & commoditisation of agriculture

Technological innovation of organic practices give only temporary relief



?



?

Negative environmental, health & rural development effects



Support that brakes treadmill?



Quassia vs habitat manipulation

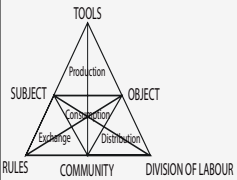


Partial contradiction solution



Historical contradiction analysis

Paper I



Fast increase of organic farmeres & commoditisation of agriculture



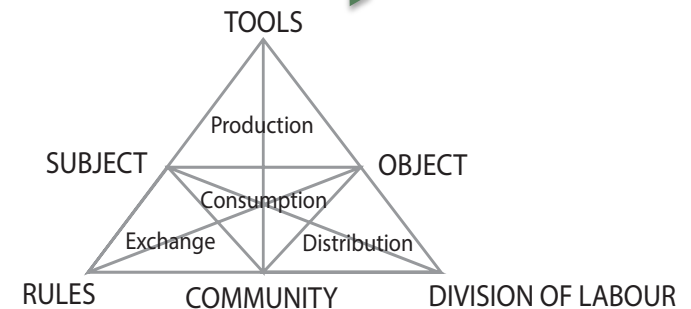
Technological innovation for organic practices give only temporary relief



What else than technology development?



Negative environmental, health & rural development effects



What more than technology is needed for sustainability?

Policy level

- Review agricultural land acquisition laws
- Reimbursement for management of common goods
- Rural development & jobs



Local level

- State advisors
- Participatory research & development
- Community Supported Agriculture (CSA)



Conclusions

- The whole is other than the sum of its parts
- The best way to learn about something is to try to change it
- Solve the problem not the symptom - only developing technology may increase efficiency but not solve the problem
- The techniques we develop are dependent on the current and future contexts we envision
- We need theories and tools which guide us in historical and structural/systemic analyses to help us find the root causes of problems.
- Understand the root causes and how they developed into the problems we experience today we can find more sustainable solutions
- Solutions need to address the whole activity and not only its separate parts, and therefore they need to be evaluated in reality
- Relations & societal mechanisms that avoid the treadmill to promote sustainability



Thank you for your help & attention!!

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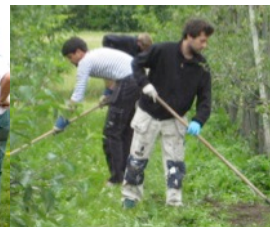
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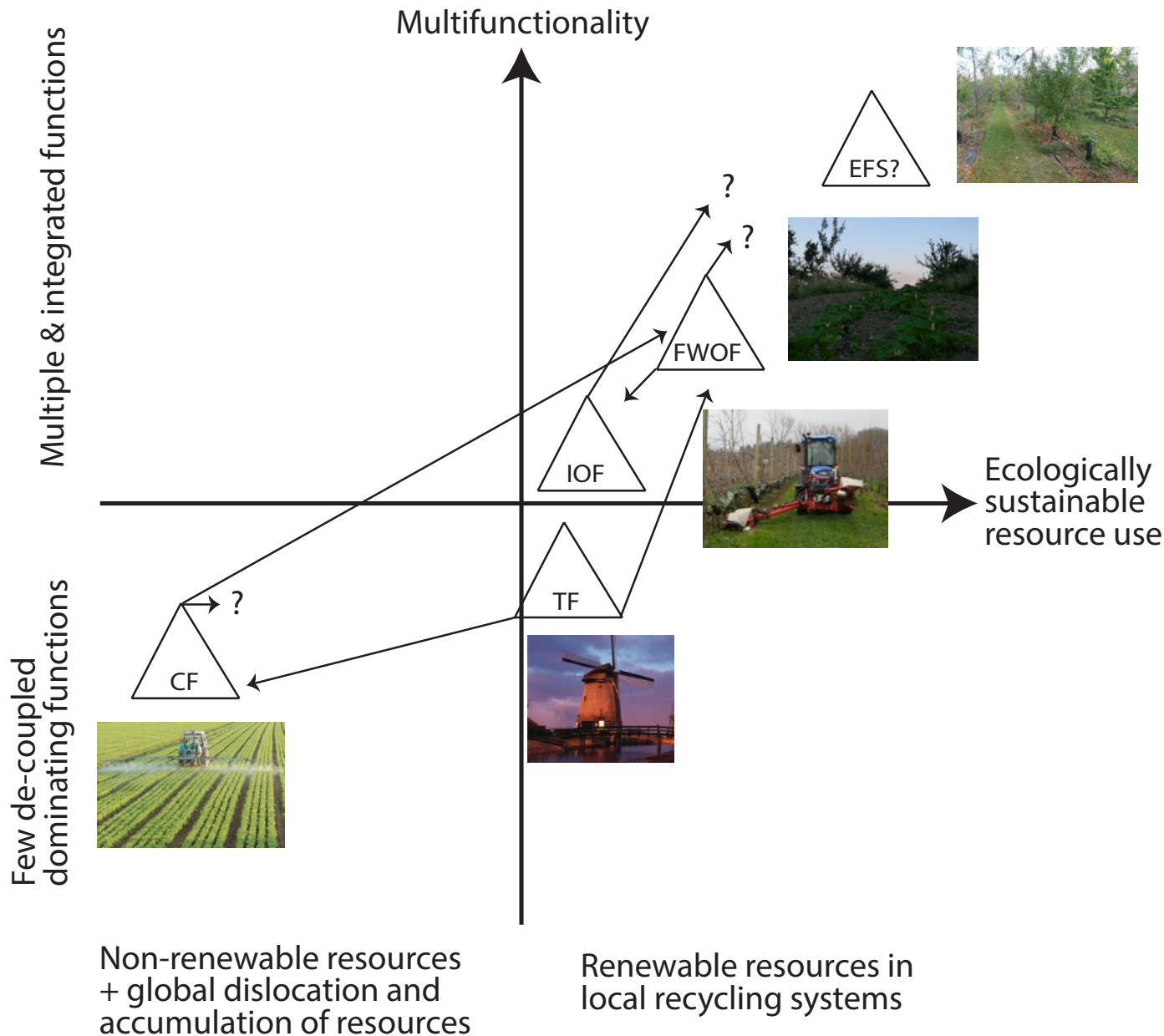
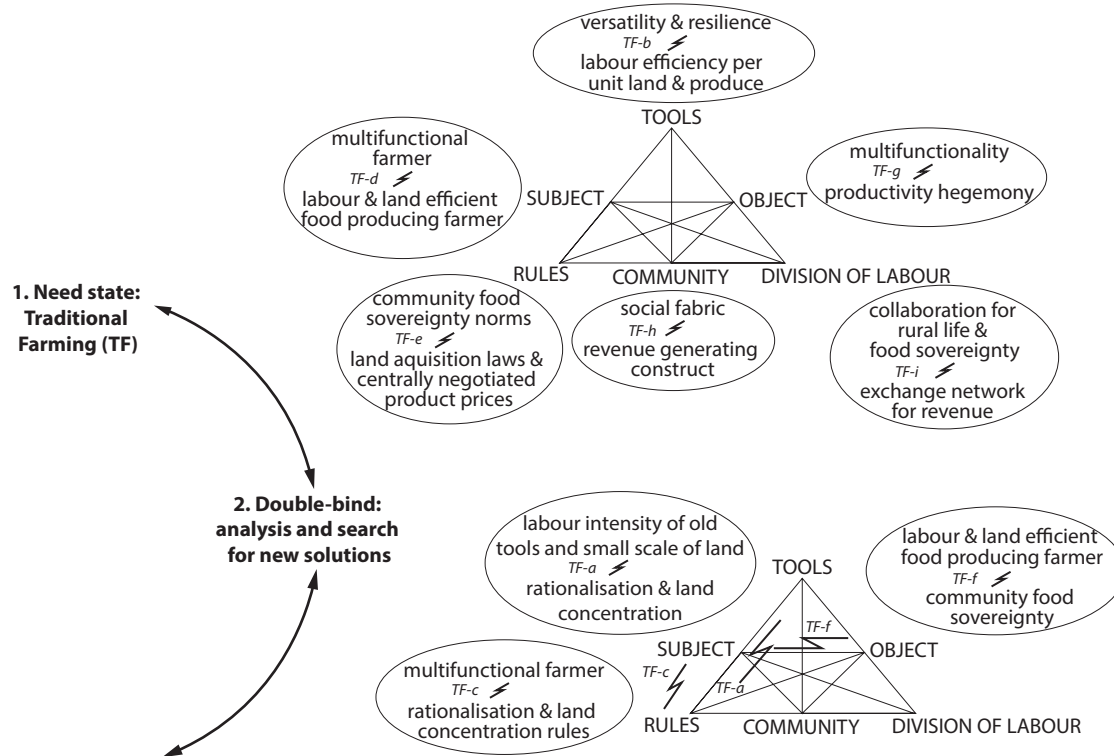
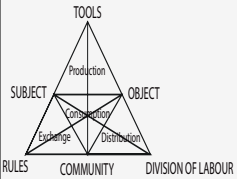


Figure 5.3.1. The historical dimensions of Swedish farming. Triangles represent historical farming activity systems and arrows their movements within the dimensions. Activity systems in approximate order of historical appearance: TF: Traditional Farming; CF: Conventional Farming; FWO: First-wave Organic Farming; IOF: Intensive Organic Farming; EFS: Ecology of Food Systems. EFS is an emerging activity system in an early developmental phase.



Paper I

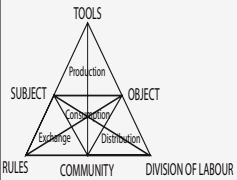


Feasible and permitted to use *Q. Amara*?



Alternative and complementary control measures against the apple sawfly

Paper I



Mass-trapping



Sanitation



Enhancing natural enemies?

Paper I

