# Systemic Water Governance as Integration: Rethinking concepts and practices

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# Overview

Water governance

Paradigms

Systems and social learning

Integration

Case study insights

Praxis for systemic water governance

# Water governance: why and what

'The water crisis is mainly a governance crisis' (OECD, 2015)

Water governance refers to the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society (Global Water Partnership, 2002)
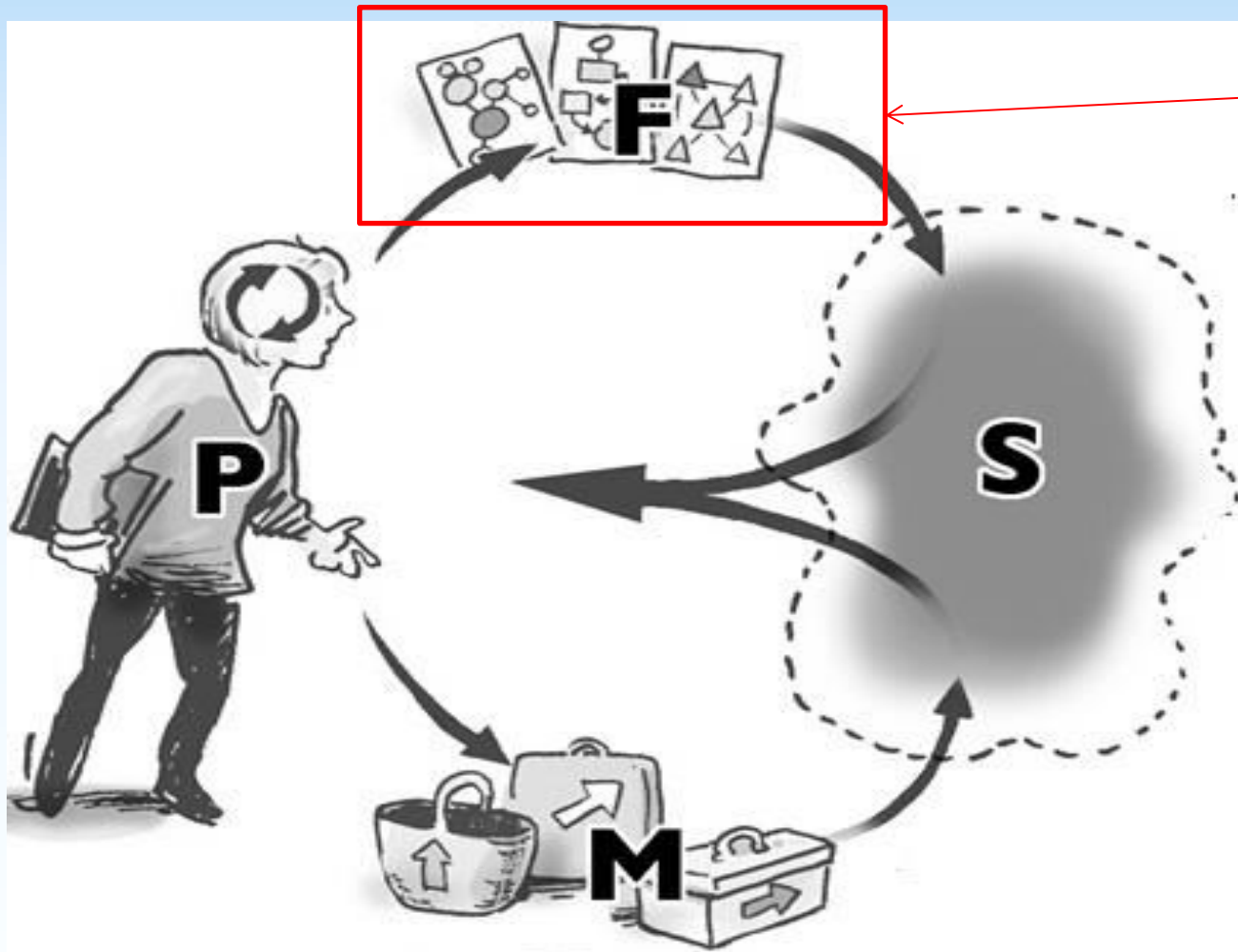
# Why are paradigm choices important?



Paradigms

**P** = practitioner

**F** = framework of ideas/theory

**S** = situation

**M** = method or methodology

# Paradigms: critiques

History of the situation (Walther, 1987)

Context (Blackmore, 2007; Ison et al 2010; Molle & Hoanh, 2011; Mhuktarov and Gerlak, 2014)

Complexity; multi-dimensional pressures (Ison et al 2007; Tortajada, 2010; Biswas & Tortajada, 2010)

Different water systems (urban/ rural etc)

Prescriptive, technocratic (Mhuktarov and Gurlek, 2014)

Silos and institutional fragmentation (Collins and Ison, 2009; Molle, 2009)

# Epistemic awareness

New policy concepts will likely face the same fate as IWRM if there is not a fundamental change in how problems are identified and understood, and policy solutions are designed.'

(Mhuktarov and Gerlak 2014:103)

'… greater reflection and awareness of multiple ways of knowing in a policy setting, along with multiple epistemologies which underline these ways of knowing, would allow for better decision-making processes.'
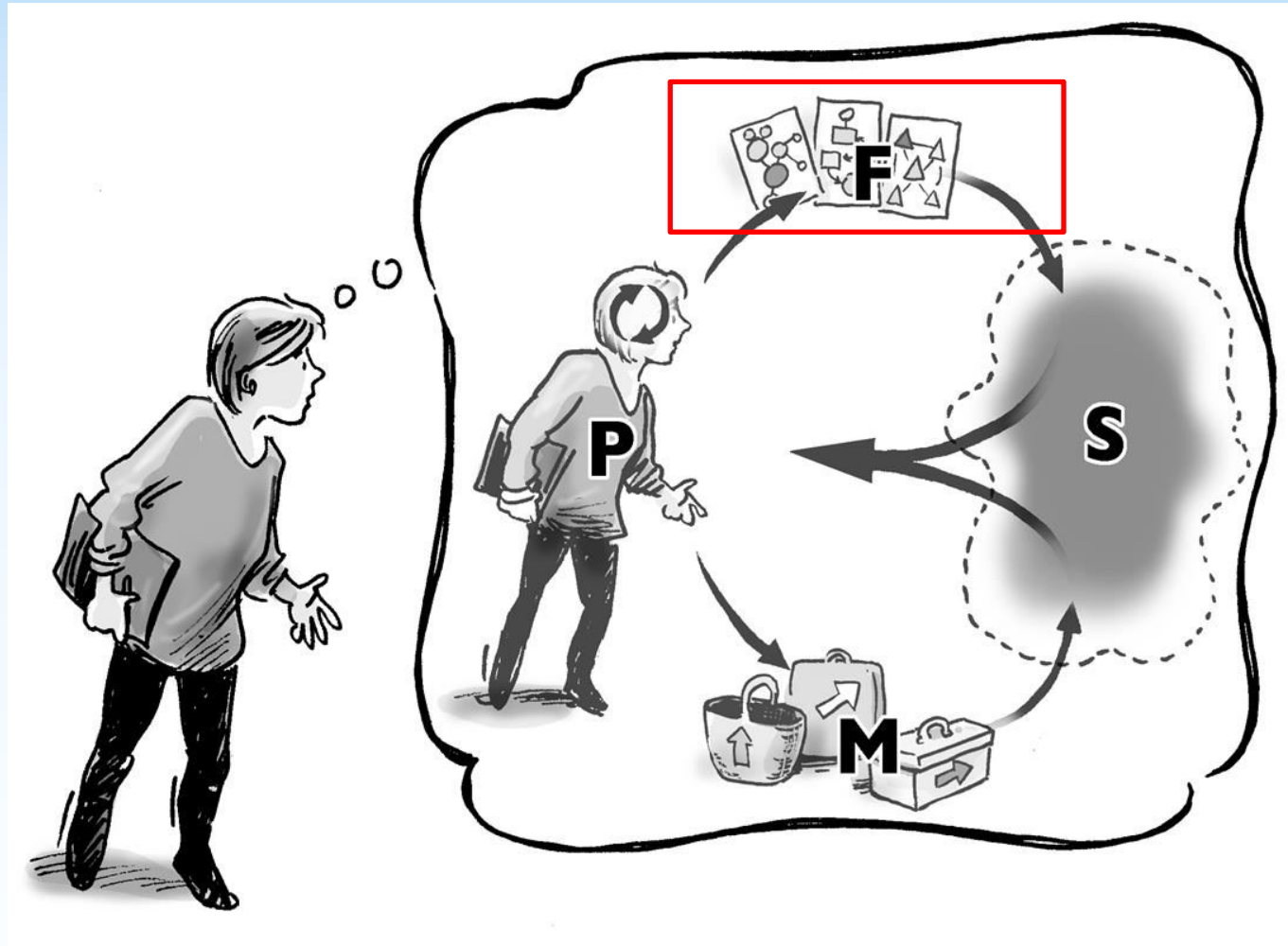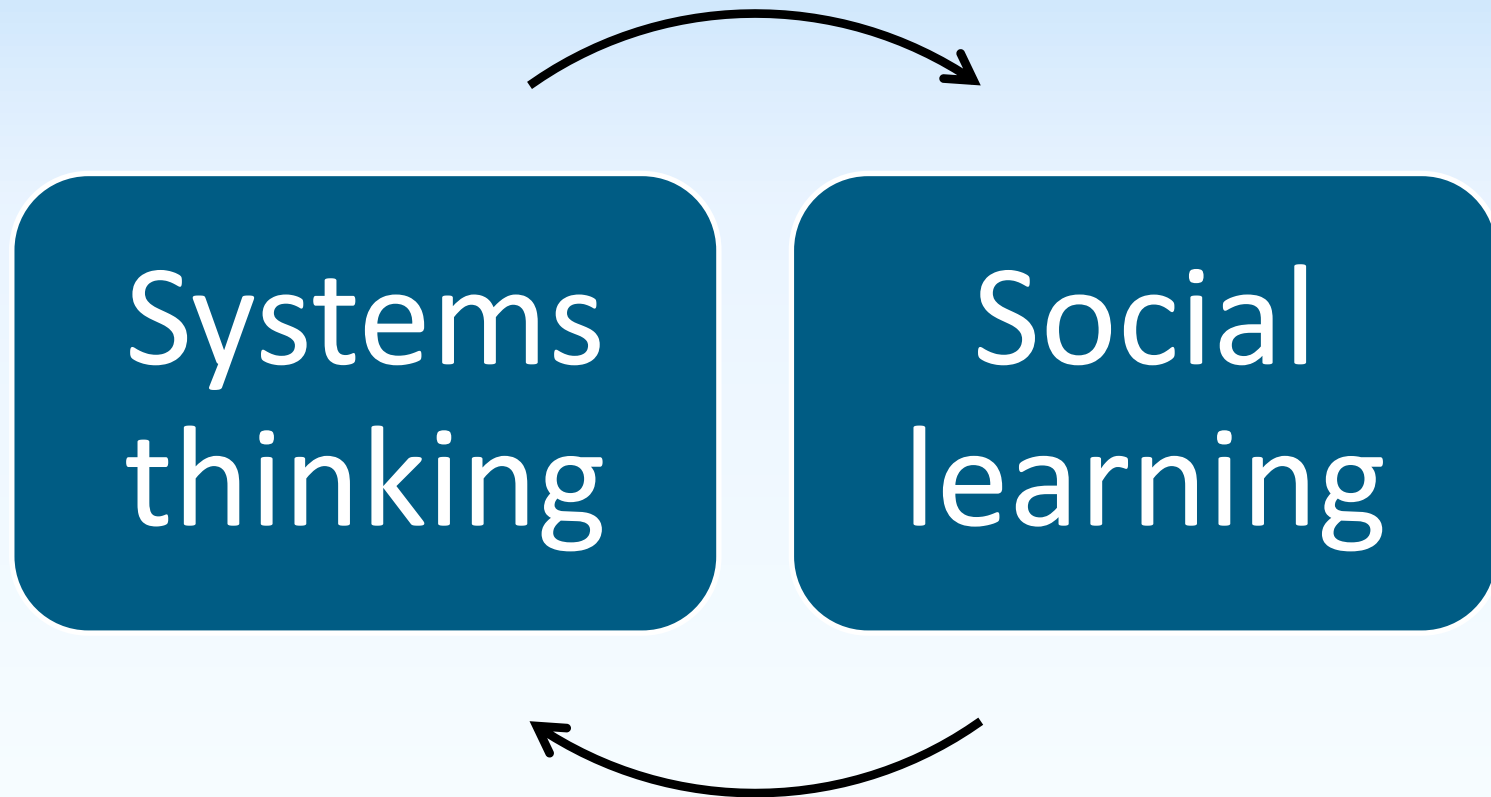
(Mhuktarov and Gerlak, 2014:114)

# Being epistemically aware

# Starting off systemically

Systems thinking

Social learning
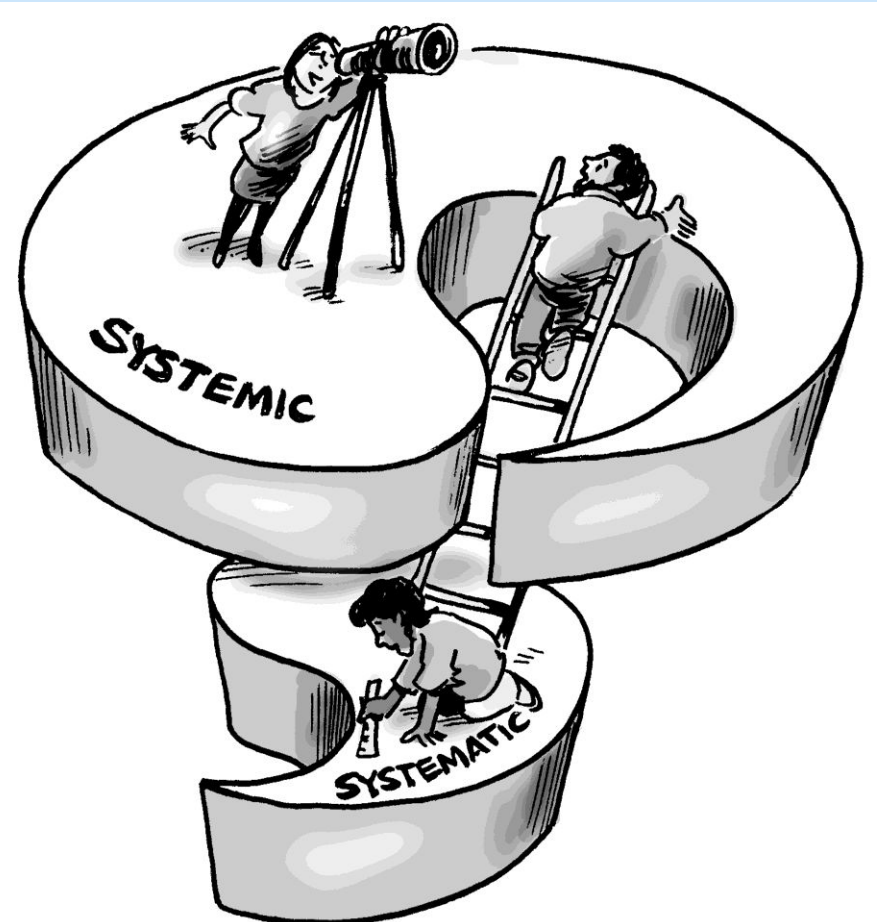
# Systems thinking and practice

'The implementation of the concept of water governance requires that the entire water cycle be considered as a system. An overall 'system thinking' mentality is urgently needed...

(Tortajada, 2010:304)

# Integration – a systematic view

A + B = AB?

A + B = C?

A - B = ?

A x B = ?

A / B = ?

B + A = BA?

B - A = ?

B / A = ?

A + B + C = ABC?

**Which of these = integration?**

# Integration – a systemic view

*Integrare* (L.) - to make whole

Integration:

1.the process of making wholes

2. an emergent property

To integrate requires that we are able to conceptualise and act with awareness of 'wholes'
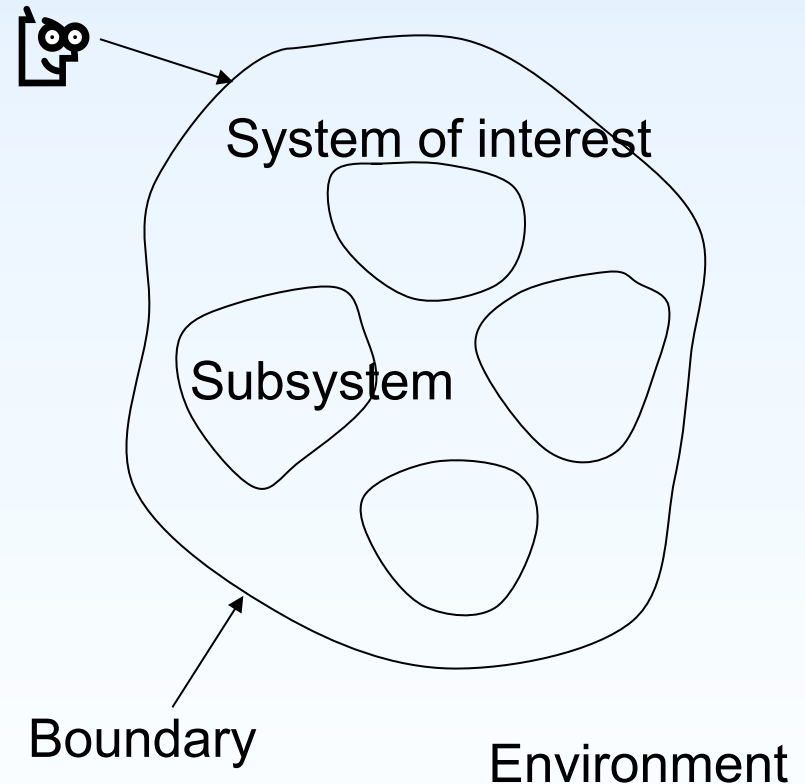
# Systems of interest

Greek verb: *synhistanai* - 'to place together'

An organised *whole* defined by someone as having a purpose: a system of interest

A distinction made by someone (they have placed things together)

System of interest

Subsystem

Boundary

Environment

# Social learning – constructing wholes

Process of socially constructing an issue by actors in which their understandings and practices change, leading to transformation of the situation through collective / concerted action (Ison et al 2007)



(after SLIM, 2004)
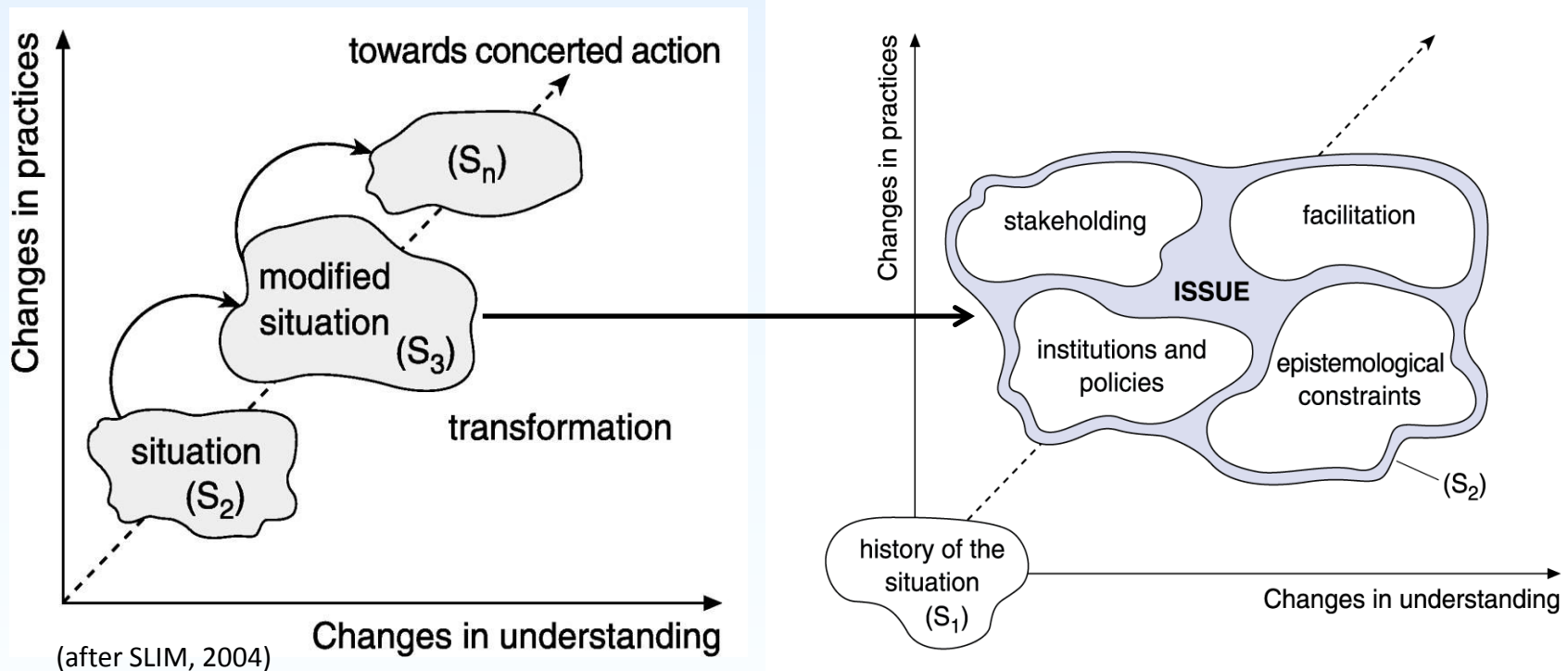
A systems
view
of
a
situation….
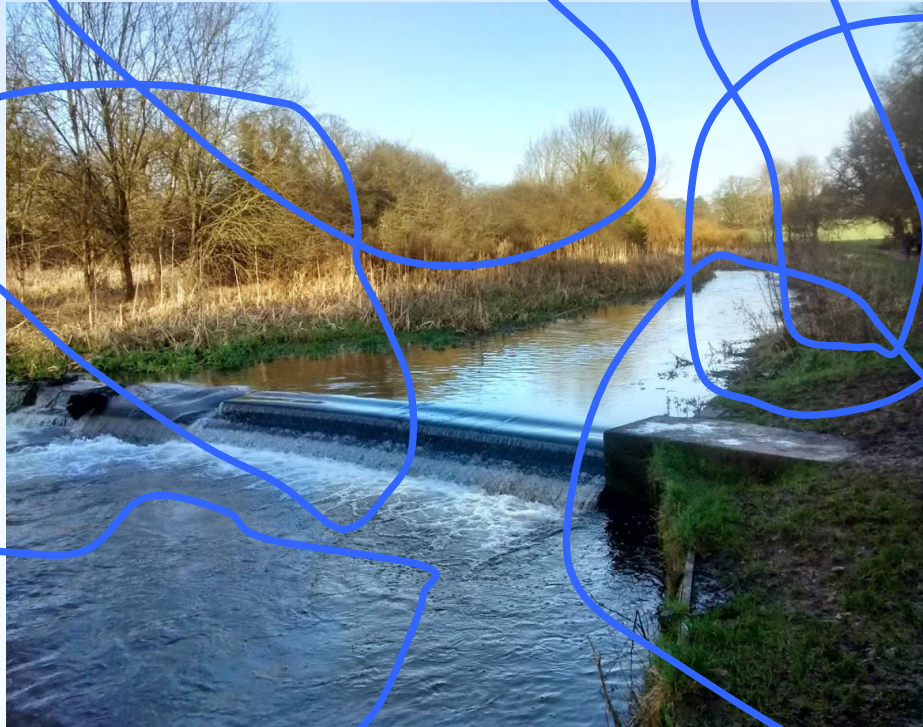
...recognises multiple stakeholders

which means....

...recognising multiple viewpoints and partial understandings of the 'situation'
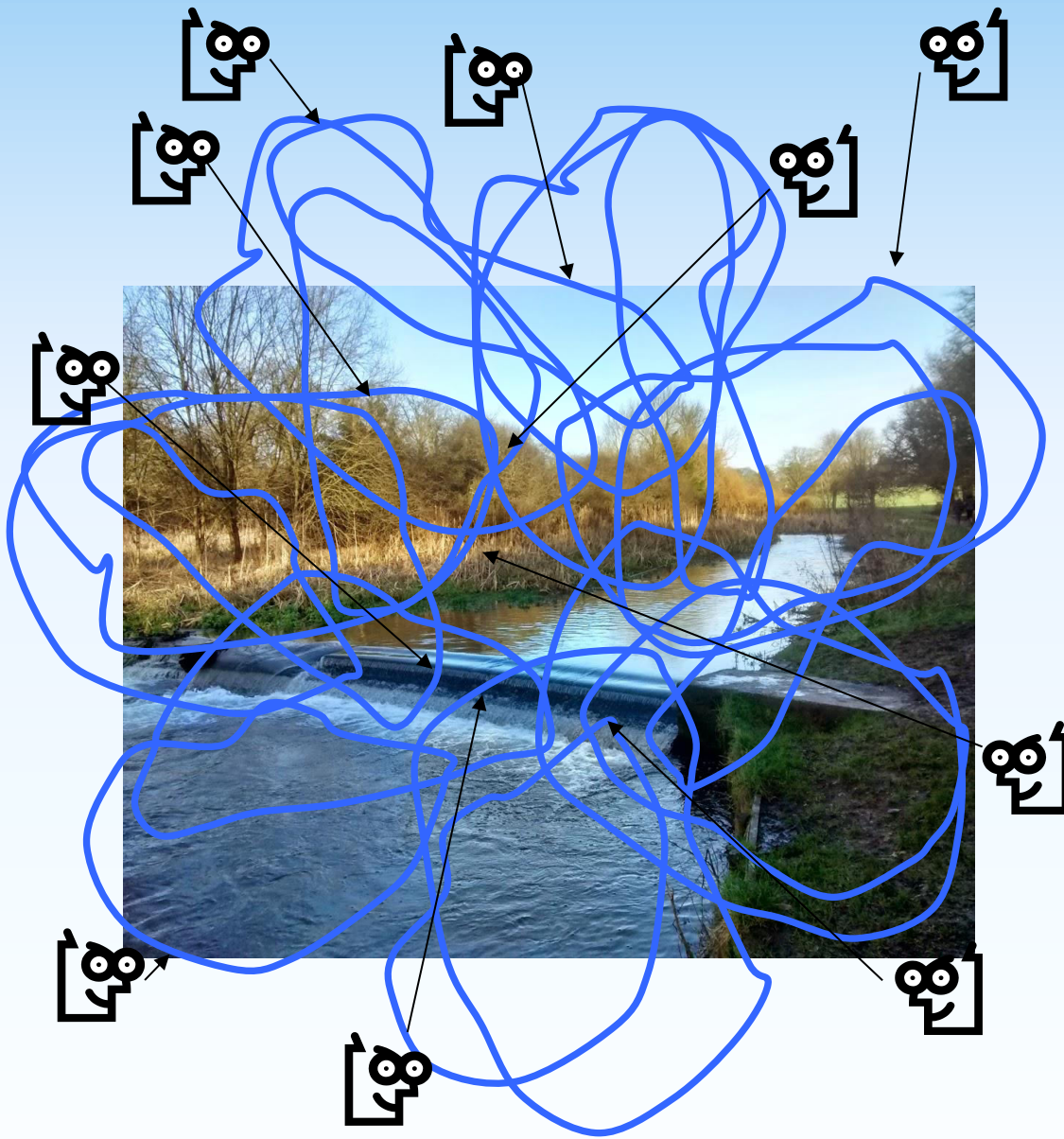
Ackoffian 'messy' situation of multiple:

- *disciplines*
- *perspectives*
- *paradigms / epistemologies*
- *stakeholding*
- *systems of interest*
- *boundary choices*
- *purposes*
- *values*
- *practices*
- *controversies*
- *interdependencies*
- *contexts*
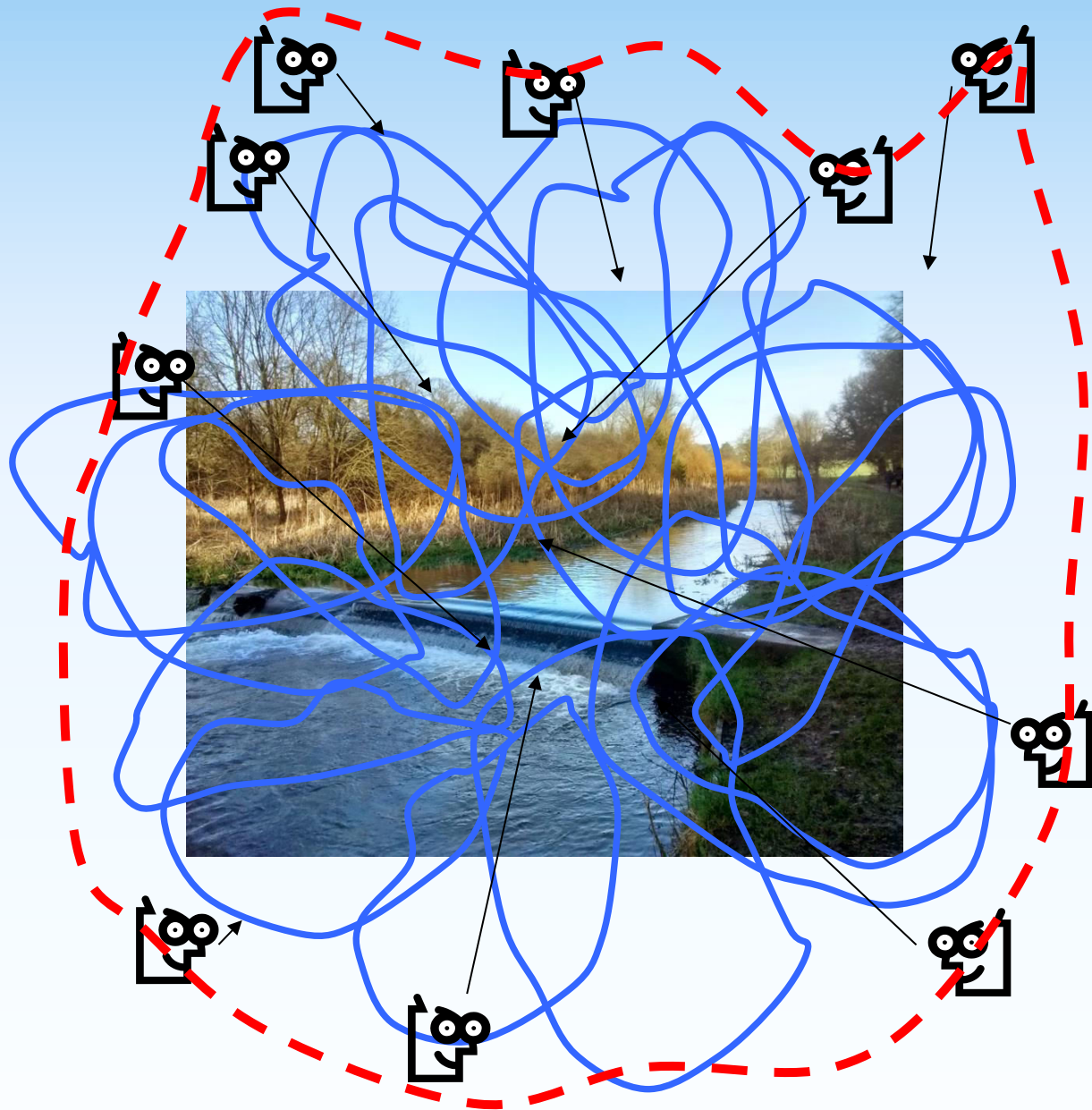
Designing a social learning system ….
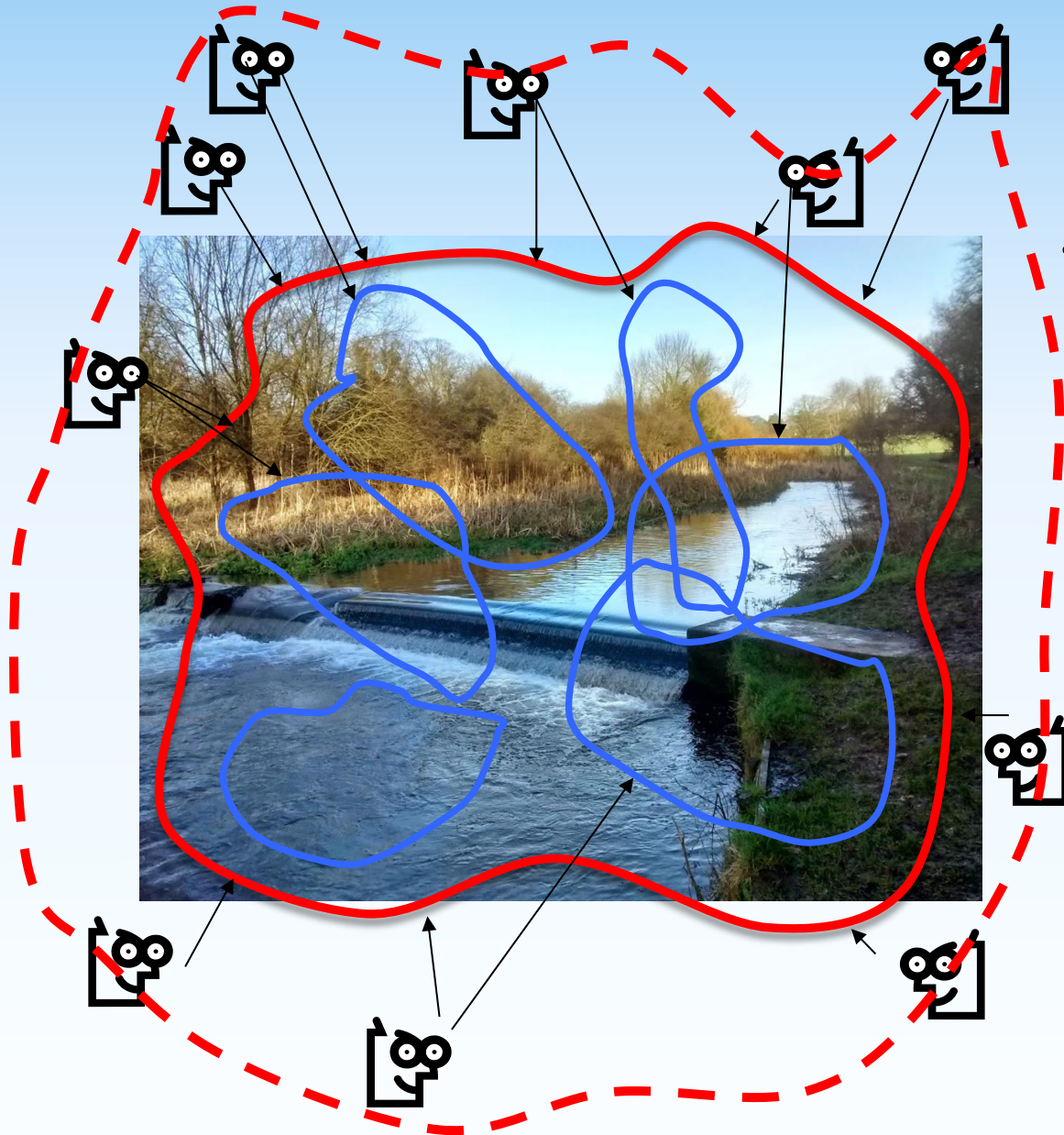
...to bring about more integrated thinking and practice (creating wholes) ...

... which offers opportunities for concerted, integrated action among stakeholders

# Case studies of social learning systems for managing situations of water catchments

UK / EU

China
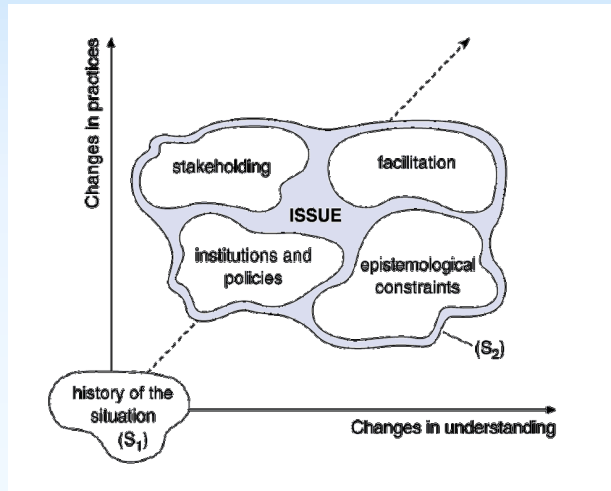


South Africa

Australia

# UK: Environment Agency (EA) - River Basin Planning 2003+

## 1. Individuals exploring practices and learning but….

- flaws in RBP project initiation
- reliance on PRINCE software
- regulatory culture
- how' rather than 'what'
- Institutional dynamics
- lack of systemic thinking skills
- loss of 'bigger picture'



2. 2006: project stalled: RBP became a 'technical process'

3. 2009+ EA realisation of need for involving catchments

4. 2011+ Catchment pilots - a 'learning process'?

5. 2013+ CABA – a reframing of water governance?

# An activity model for designing social learning systems

1. Clarify purpose

2. Map situation understood as 'wicked'

3. Engage in conversation

4. Introduce new concepts, experience and evidence

5. Identify emergent issues and opportunities

6. Collate and rank

7. Design actions (personal or for policy)

8. Monitor & adjust

9. Monitor, evaluate

10. Redesign the system based on feedback

Prior experience of participants valued?

Other likely outputs:
changes in understanding
changed social relations
changed (new) practices

# In practice….



1. Clarify purpose
2. Engage in conversation
3. Appreciate multiple perspectives
4. Introduce new concepts, experience and evidence
5. Identify emergent issues and opportunities
6. Refine
7. Design actions (personal or for policy)
8. Monitor & adjust
9. Monitor, evaluate
10. Redesign the system based on feedback

Prior experience of participants valued?

Other likely outputs:
changes in understanding
changed social relations
changed (new) practices

System maps…

# Reframing integrated water governance in systemic terms…

*'We use the word integration all the time. But this is the first time we've ever had a conversation about its meaning!'*

*'We need to learn our way into this because we've never done anything like this before; and it's obviously a new form of learning that involves doing it together. So it's social rather than technical'*

*'Seeing and hearing a diverse range of understanding, interpretations and points of view on issues'*

*'Interaction with different professions and learning' & 'getting perspectives from other fields'*

# Praxis for systemic water governance

Situations understood as 'messy' with multiple knowledges

Epistemic awareness

Conceptual clarity and skills in systems thinking and practice

Integration – a process and emergent property

Social learning - complementary form of governance

Social learning > participation

Sensitivity to starting conditions

Institutional commitment and investment

# Thank you

# Papers: open.ac.uk/oro

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