

# Twenty first century visions: Systems practice for managing complexity

International conference 15-  
17th July 2003, St Anne's  
College, Oxford

# Systems Practice for Managing Complexity (SPMC)

- The SPMC is an EPSRC (Engineering & Physical Sciences Research Council) funded network designed to generate new insights and research questions by integrating the experience, needs and expertise of the business community, government agencies and the not-for-profit sector with researchers and practitioners concerned with systems approaches for managing complexity.

# Systems Practice for Managing Complexity (SPMC)

- The **SPMC Network** was set up in 2001 by the Systems Discipline in the Centre for Complexity and Change at the Open University and the Department of Information Systems at De Montfort University, along with several major international contributors.

# SPMC Events

- **1. The case for Systems Practice for Managing complexity - Theme Setting Meeting, 24th May 2001,**
- **2. Joint workshop for UKSS/OUSys Members, December 8, 2001**
- **3. Systems Practice for Managing Complexity: Experiencing some of the diversity of systems thinking and practice in action, April 2002, Milton Keynes**
- **4. Wisdom in Management, December 2002 , Milton Keynes. A workshop with Dr Pille Bunnell**

# SPMC Events

- **5. Building capacity for public sector reform.** 14th January 2003
- **6. Applying systems thinking to public services: GP's on the line.** 30th April 2003
- **7. Twenty first century visions: Systems practice for managing complexity.** July 15-17, Oxford 2003
- **Website and web forum:** SPMC has facilitated discussions via a web forum on
  - [www.spmc.org.uk/](http://www.spmc.org.uk/)
- **Summary:**
  - six workshops
  - one conference

# ‘Making sense of systems practice for managing change’

**International conference 15-  
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College, Oxford**

# Outline of this presentation

- Description of the main activities of the SPMC Network to date
- Highlight some of the learning points
  - content - SPMC
  - our own process
- Explain the rationale for today's event
  - what is at stake

Connectivity and judgement -  
complexity skills for high  
performance organisations -  
***David Robertson***

Systems thinking and the  
practice of government -  
***Geoff Mulgan***

The research  
submission revisited:  
systems practice for  
managing complexity -  
***Ray Ison, Rosalind  
Armson & Frank  
Stowell***

## 1. Theme Setting Meeting - May 2001, Milton Keynes

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Proceedings of a Workshop on  
*The Systems Practice for Managing  
Complexity Network*

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**SYSTEMIST**

The Publication of  
The United Kingdom  
Systems Society

**Geoff Mulgan's claims: There are seven factors which are forcing government and administrators to increasing receptiveness of systems ideas.**

- 1. The way that information now flows around government forces a greater awareness of feedback loops, information flows and the need for managing information.
- 2. A recognition that many social phenomena have to be understood holistically. Solutions by one-dimensional departments do not work.
- 3. The recognition that environmental issues impinge on policies forces the use of a systems approach. There is a shift to holistic thinking that incorporates ecology and life-cycle assessments.

**Geoff Mulgan's claim: There are seven factors which are forcing government and administrators to increasing receptiveness of systems ideas.**

- 4. An appreciation of the increased vulnerability created by just-in-time systems and greater interconnectedness of systems. The fuel crisis (September 2000) and electronic viruses have powerfully illustrated this.
- 5. Globalisation has forced decision makers to look at the world more holistically. There is a greater international governance, but by informal networks rather than command centres. Almost no area of domestic policy is unaffected by international affairs.

**Geoff Mulgan's claim: There are seven factors which are forcing government and administrators to increasing receptiveness of systems ideas.**

- 6. The modern workforce is required to have more than just formal education in subjects. It also needs abilities to think more holistically and systemically.
  - David Robertson presented a paper in which he identified eight key abilities required of high-flyers in modern corporations.
- 7. Unintended consequences have forced government to perceive the limitations of rational planning and decision making. Indeed awareness of unintended consequences has reached the point where decision makers are afraid to act and implement policies.

DEMEMOS

# System failure

Why governments must  
learn to think differently

Jake Chapman

# The outcomes of our first workshop suggested

- that in building a community of conversation (about systems thinking and practice)
  - we need to talk about it in ways that are accessible
  - explore what it is
  - and how we recognise it

# Participant responses included:

- Understanding of “Systems “ by the wider community is lacking
- Language of Systems presents barriers to many
- Failure of “Systems Practice” to communicate to Business
- Business has a problem of over saturation of “new” ideas - this may present a significant difficulty for introducing ideas.

# Participant responses included:

- Enable people to see what they are already doing as systemic - i.e. give them language and concepts for reflection on practice;
- Have a product champion - create demand pull in organisations and academia;
- Engage actively with intractable messes
- ‘There are practical examples’ - make them better known.
- Use Systems as part of an asset enhancement strategy.

# The feedback led to changes in our process design: e.g. Event 2 - UKSS/OUSys

- We would like to learn from you
  - Your experiences of systems thinking
  - How you talk about systems thinking?
  - What helps or hinders you talking about it?
  - What you experience when you see systems thinking in action?
  - How you know if you are practising systems?
  - How you know if you are doing it well?



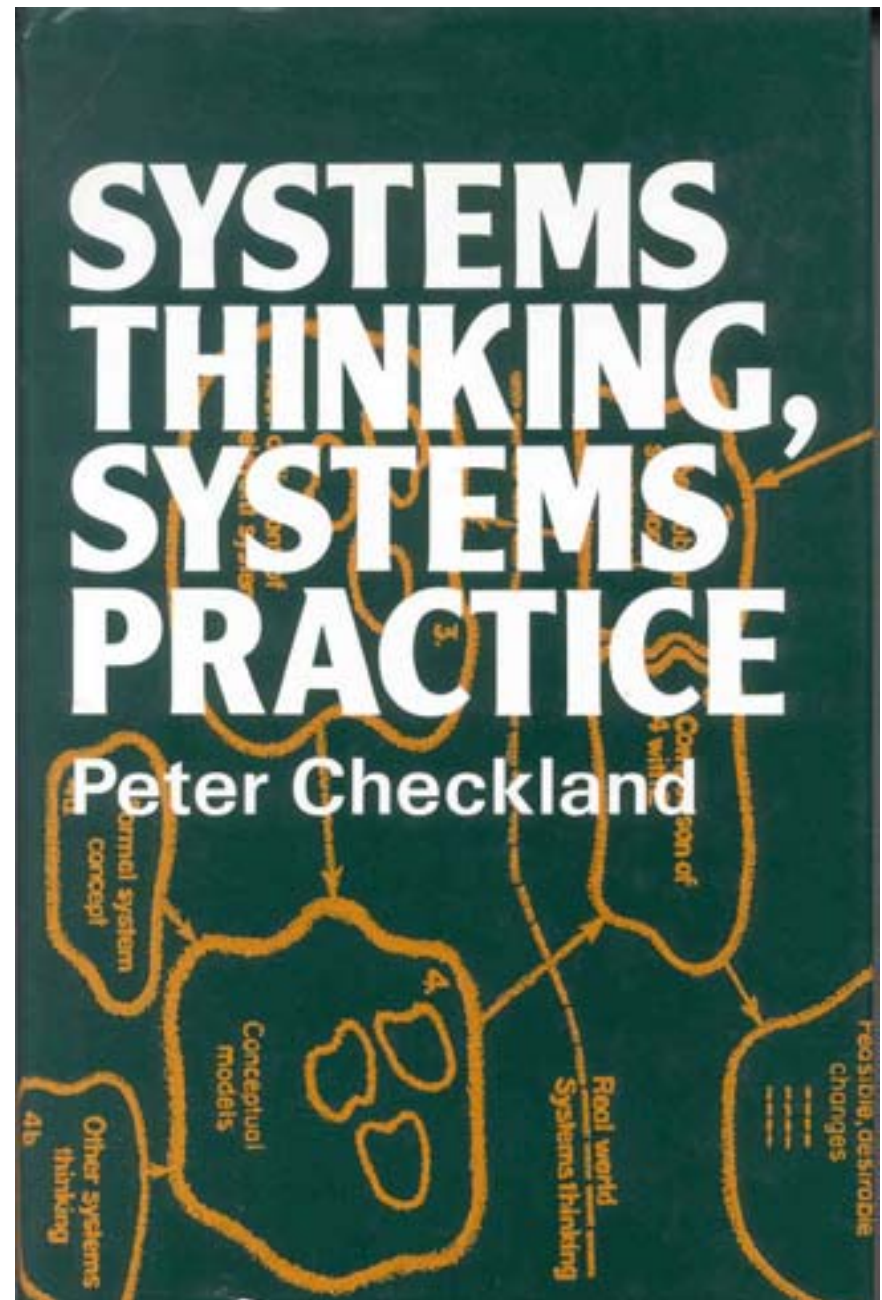
# Conversation mapping

- Start with the main question
- Build a spray diagram (or mindmap) as you explore the question;
- Listen to each other's perspectives;
- Use the pens at any time;
- Make sure you capture the sense of all that is said;

Event 2:

Contribution by Peter  
Checkland

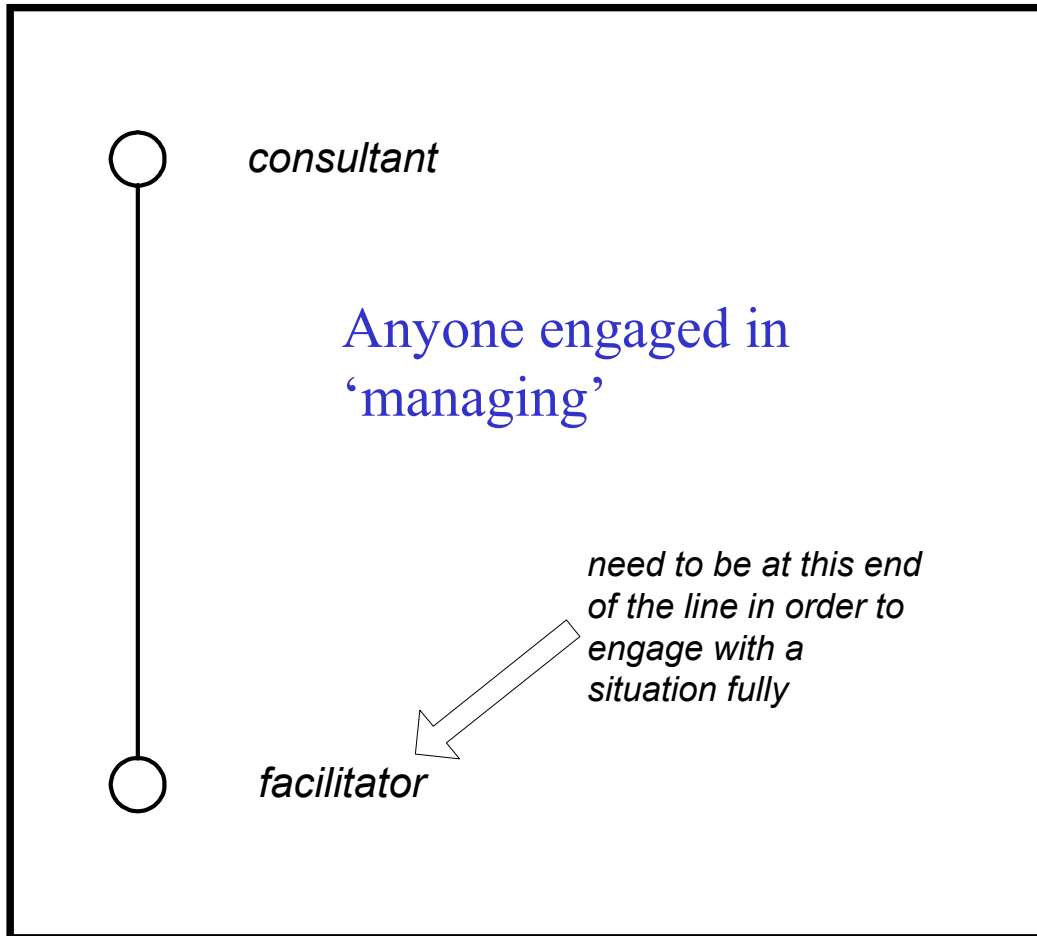
What is the phenomenon  
evoked when Soft Systems  
Methodology is used?



# What is the phenomenon evoked when Soft Systems Methodology is used?

- The answer is that it has something to do with changing modes of thinking. It is a process in which the thinking (of individuals and groups) is shifted to a different level. It produces ‘meta-thinking’ – that is, thinking about how you are thinking about the phenomenal world.
- This mode of thinking rearranges people’s mental furniture and enables plausible action-to-improve to be achieved. ***So SSM is a mental (furniture) rearrangement phenomenon!***

## The Role of the Systems Practitioner



The role of the systems practitioner sits somewhere on this axis – from being a *consultant*, brought in from outside to analyse the situation and advise on change, to a *facilitator*, who helps the participants understand their own situation.

# Success in the process of using SSM requires:

- Thinking ‘situation’ not thinking ‘systems’
- Confidence in learning process
- Thinking consciously at several levels (‘why’, ‘what’, ‘how’)
  - *When you listen to managers talking, you hear them switching between levels in the same conversation without being aware that they are doing it. Soft Systems Methodology makes the jump between levels more explicit*

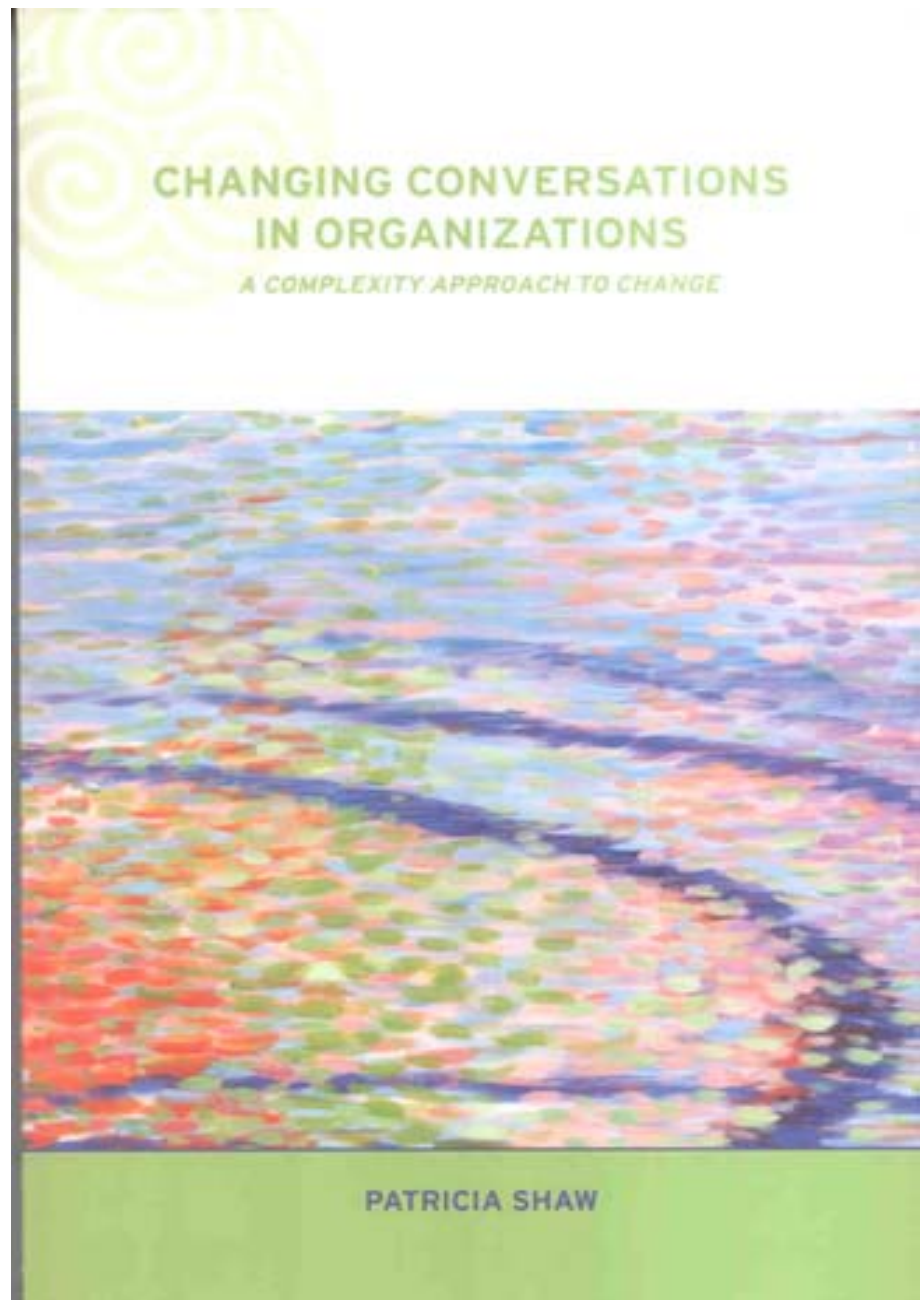
# Success in the process of using SSM requires:

- Surfacing the world views of the participants, and dealing with the consequences
- Acceptance of the ‘cards-on-the-table’ transparency of the process

## Event 2:

### Contribution by Patricia Shaw

‘We are dealing  
with  
*communicative  
action* - Systems  
Thinking means  
engaging in a  
way which takes  
into account that  
kind of process’.



# Patricia Shaw

- *What can we do to help people act with more rigour in the process of sense making?*
- ‘Increasingly when managers describe what they do most of the time, the metaphor is: *“I am constantly stepping out, knowing that my very stepping shifts the ground on which I am walking.”*

# Patricia Shaw

- offers us as practitioners an invitation to find ways of speaking directly to ‘managers’ experience of interdependence and emergence.
- ‘ I have begun to make sense of my work with organisations by talking in terms of a joint inquiry into who we are and what we are doing together in such a way that we pay attention to how continuity and change emerges simultaneously from within the conduct of our sense-making conversations’.

## *My main reflections:*

- even Peter Checkland's systems practice is a silent practice except to the extent that he writes about it as part of his academic practice;
  - greater differentiation of modes of practice?
- both Peter and Patricia have an espoused commitment to inquiry (as a process)
- *How, if at all, do an inquiry conducted from a complexity perspective (Patricia) and a systemic perspective (Peter) differ (if at all)?*

# **Event 3: Systems Practice for Managing Complexity: Experiencing some of the diversity of systems thinking and practice in action**

- The workshop in May 2001 left us with a strong message - the need for practical applications of systems approaches. The April workshop was a day of systems practice and application, working in groups on the following topics:
  - Self-organisation in a NHS Trust (Patrick Hoverstadt)
  - Information systems (Sue Holwell)
  - Meeting special needs (Gerald Midgely)
  - Understanding sustainability (Simon Bell)
  - Organised crime and the formal systems model (Trevor Pearce).

# **Event 4: Wisdom in Management with Pille Bunnell**

- This workshop provided the conceptual basis for seeing how what has traditionally been called “wisdom” takes place as a systemic and dynamic process which is fundamentally present in all humans, and can be cultivated.
- The questions of what constitutes living, what is cognition, how it has expanded along lineages of living systems, and how humans became intelligent, languaging beings, all ground an explanation of what constitutes knowledge, understanding and wisdom.

# **‘Wisdom in Management’ with Pille Bunnell**

- Considering the above, it becomes possible to see under what circumstances wisdom flourishes, and hence begin to consider what is important to conserve in all management concerns, whether these have to do with people, institutions, or ecosystems.

# **Event 5: Building capacity for Public Sector reform: a workshop - January 2003 London**

- One of the issues to emerge from the other events was the extent to which systems practice is a silent practice – particularly in terms of the communication between external consultant and client.
- This event took another look at this same issue – but this time from the perspective of systems practitioners operating inside their own organisation, focussing on the extent to which Systems thinking and practice might become a generic skill for managing.

# Background to event 5

- Builds on an earlier workshop: Why do attempts to improve public services so often fail ? (Do they?)
  - Context partly set by Geoff Mulgan
  - Systems ‘out there’ or ‘formulated’ by someone in response to appreciation of a situation
  - ‘Systems Failure’: publication by Jake Chapman for DEMOS;
  - ‘perverse targets’ - modernisation agenda
  - recent failures in ‘integration’ and ‘joined-up’ government - e.g. transport; the child support agency

***Building Capacity  
for Public Sector  
Reform (SPMC  
Event ?)***

**Andy Humphreys  
Director of Performance  
& Service Delivery**

**CENTREX**  
DEVELOPING POLICING EXCELLENCE



## Total Systems Intervention

### Implementation Phase – [VSM diagnosis]

- A lack of co-ordination & control
- Audit information was restricted
- Feedback was poor/non-existent
- Chief Officer interference was evident at lower levels of the system
- There was no developmental or filter function for Chief Officers



## Learning Lessons



- Even with the absence of overtly explaining ‘metaphors’ the ‘jargon used created barriers
- The ‘choice’ phase of TSI and the ‘system of systems methodology’ was of limited value
- There was a distortion affect of bringing the project clients and the stakeholders together

## Learning Lessons



- **Systems thinking was only ever surfaced with the review team**
- **Lack of personal academic review created a vulnerability**
- **Concept ownership is critical**

## **Change management ‘failure’ factors**

- **‘Quick Fix’ approaches**
- **Putting the wrong thing right!**
- **A lack of a systems approach**
- **Imposition of change**
- **Poor communication**
- **Lack of completion of change programme**

Steve Clark (independent management consultant working for public sector organisations, particularly the NHS

‘The Needs of Change’



‘The significant problems we face cannot be solved at the same level of thinking we were at when we created them’ - attributed to Einstein

# Event 6: Applying Systems Thinking to Public Services: GPs on the Line.

- Over the next five years Richard Granger, IT Director of the NHS, will be spending **£12 billion of public funds** on various IT projects with the aim of improving the service offered by the NHS.
- Granger has the task of achieving 50% coverage by 2005 (The Economist, 19th October, 2002). Given the history of failure in major IT projects (e.g. the passport system, air traffic control and London Ambulance) and the pressure Granger is under to show evidence of success before the next General Election, what are the chances of another IT failure?

# Medium term deadlines – by 2005

- Broadband access to every clinician & support staff in the NHS
- Access and authentication available for all NHS staff, implementation of National NHS Directory Service
  - National Bookings Service, implemented
- National Prescriptions service, 50% implemented
- All PCTs, NHS Trusts actively implementing elements of Electronic Patient Records
- Full National Health Record Service implemented
- Long term - Finished by 2010 ??

# The rationale for today's event

- The imperative for systems practice that we felt existed when we proposed the network has not diminished - it has grown!
- We have evidence of systems practice making a difference
- What seems to be at the conceptual core of the issues that have arisen in the network?

# Joined-up government has failed under New Labour!

- The reality is that, after five years of effort and with a budget now topping £400m a year, despite relentlessly hard work from some 5,000 dedicated people on the ground, there is an alarming shortage of effective treatment and no sign of a reduction in demand for drugs.
- Richard Elliott describes an organisation which is being managed to death, where centralised direction has mutated into systematic suffocation.
  - Nick Davies, Guardian

# Critics of 'joined-up' thinking

- More work needs to be done on the processes, structures and vehicles of partnership working. Too often a partnership is just a bunch of people from different organisations who just happen to be present in the same room, giving the impression of ***dancing together while actually standing still.***
- We need to develop methods which tap the potential and synergy of "joined up organisations" and these are likely to be based on network rather than traditional hierarchical structures. Community involvement must be given its place in these developing networks. Delivery should be the main criterion for thought and action.

# Critics of ‘joined-up’ thinking

- Genetic engineering is an attempt to deal with the problems of intensive agriculture rather than a move towards developing good husbandry. The government talks of joined up thinking in its approach to current policies on housing, social welfare etc. however, there seems little joined up thinking in the case of agriculture and food quality since the policies and the technology are focused on the symptoms rather than the causes.
  - Patrick Holden in Grassroots.

# Geoff Mulgan's claims: four fundamental limits on the use of systems ideas in public policy.

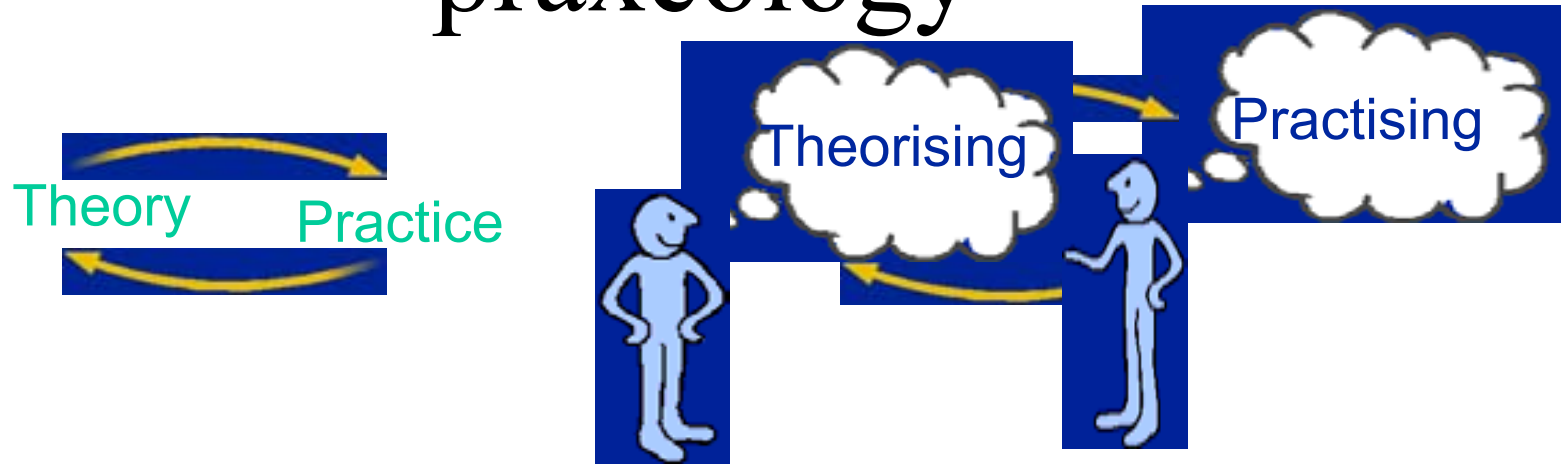
- Time: Many policies have to be made in real time, they are driven by events.
- Accountability: The over simple notion that there are single cause-effect relationships and that policies can be successful or fail makes it easier to call people to account.
- The limits on the ability of institutions to think. Policy frameworks simplify reality. In order to get policies implemented it is necessary to send simple messages...
- Unreliability of data and information.

# Rationale for today

- Is the failure of the ‘third way’ and its associated focus on ‘joined-up government for the want of a viable ‘praxiology’?
- Are the ways` in which communication and control are understood at the core?
- Is an analysis of power part of the systems practitioner’s repertoire?
- Do we lack a way of *being systemic* at the same time as *being ethical*?



# Systems practice - a praxeology



- A praxeology is that branch of knowledge that deals with practical activity and human conduct, the science of efficient action