



THE UNIVERSITY OF HULL



## CRITICAL SYSTEMS THINKING AND ITS CONTRIBUTION TO 21<sup>ST</sup> CENTURY MANAGEMENT PRACTICE

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- The development of applied systems thinking
- The nature of critical systems thinking (CST)
- CST and theoretical critique : the case of knowledge management
- CST as practical critique : the case of systems thinking in housing
- What can CST contribute?



# The development of applied systems thinking I

INCREASING DIVERGENCE OF VALUES →

UNITARY

PLURALIST

COERCIVE

INCREASING COMPLEXITY ↓

SIMPLE

COMPLEX

HARD  
SYSTEMS  
THINKING

SOFT  
SYSTEMS  
THINKING

EMANCIPATORY  
SYSTEMS  
THINKING

SYSTEM DYNAMICS  
ORGANIZATIONAL CYBERNETICS  
COMPLEXITY THEORY

POSTMODERN  
SYSTEMS  
THINKING



# The development of applied systems thinking II

## Metaphors:

- machine
- organism
- brain
- culture
- political system
- etc

## Paradigms:

- functionalist (positivist and structuralist)
- interpretive
- emancipatory
- postmodern



# The nature of critical systems thinking (CST) I

- Holistic
  - \* 'whole system'
  - \* multiple perceptions
- Critique
  - \* theoretical level (Boulding)
  - \* boundary (Churchman, Ulrich, Midgley)
  - \* social scientific



# The nature of critical systems thinking (CST) II

- pluralism
  - \* multi-theoretical
  - \* multi-methodological
  - \* multi-method
- improvement
  - \* efficiency
  - \* efficacy
  - \* effectiveness
  - \* elegance
  - \* empowerment
  - \* emancipation
  - \* exception
  - \* emotion





## CST and theoretical critique : the case of knowledge management I

- KM and the machine metaphor
- KM and the organism metaphor
- KM and the social-systemic metaphor
- KM and the coercive system metaphor
- KM and the carnival metaphor



## CST and theoretical critique: the case of knowledge management II

- clarity about theoretical assumptions
- identification of strengths and weaknesses
- enriching the field
- link between theory and practice
- pluralist approach to intervention





## CST and practical critique : the case of systems thinking in housing I

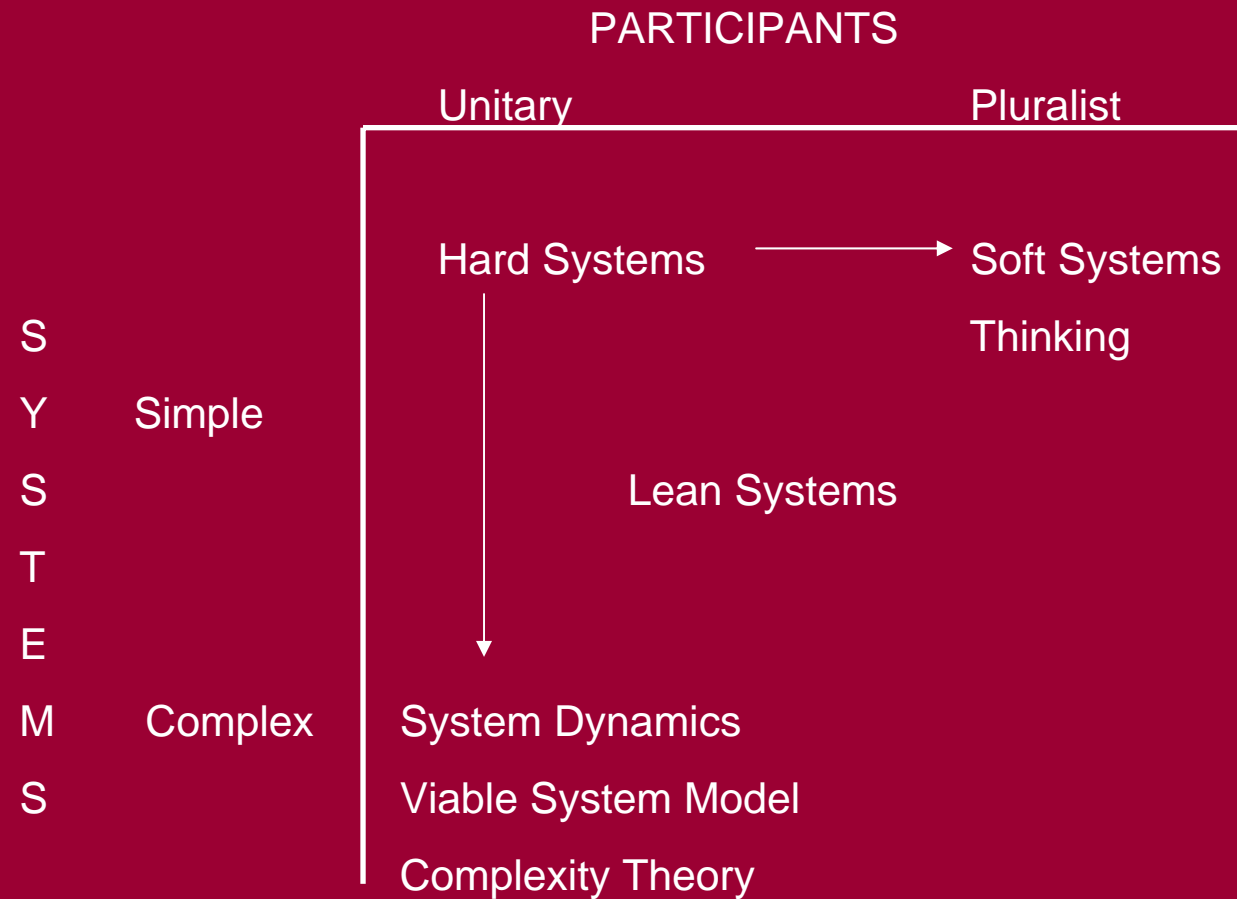
### Vanguard's 'Lean Systems'

- whole system (customer) perspective
- interdependence of parts
- design against demand
- minimum 'command and control'
- encourages individual and organisational learning
- evaluates according to whole system performance





# CST and practical critique : the case of systems thinking in housing II



# What can CST contribute?

- improving goal-seeking and viability
- exploring purposes and achieving mutual understanding
- ensuring fairness
- promoting diversity

