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DECISION MAKERS, DOERS AND ADVISORS – JOINING FORCES TO ENHANCE UTILITY OF INVESTMENTS

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Governance and the specific context of projects Situations and Conventions

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Objectives

- This brief introduction raises the problematic of understanding and designing governance regimes and frameworks in the context of projects.
- The characteristics of projects contexts such as complexity, uncertainty, ambiguity, influence projects situations which in return have a direct impact on governance regimes with regards to accountability and performance.
- Understanding this impact is a key for designing appropriate governance frameworks.
- I suggest that theory of conventions can provide a useful perspective both for understanding the regimes and designing related frameworks.

Plan

- Projects & Project Management: complexity, uncertainty, ambiguity
- Towards an understanding of the “deep structure”
- “Modelling to understand” that is to do ingeniously! Lemmas and dilemna
- Economy of Convention
- Revisiting the utility of Governance frameworks
- Concluding remarks

Projects & Project Management : complexity, uncertainty, ambiguity

Introducing remarks

- PM seen as bringing some effective ways of dealing with various sets of problems / situations
- But
  - the problem is that most of the tools, techniques, and methods involve a conceptual approach, based on a specific paradigm, which is mostly, in project management, a positivist one
- Need to clarify the foundations of the discipline of project management
- Ashby (1958)
- Complexity, Uncertainty, Ambiguity… and simplicity
- Questioning three basic assumptions

Lacks

- of foundations
  - leading, perhaps, to th
    application of tech
- of clear epister nes
- of a clear pa
  - seems to effective
    under nature of project
    ma amic a fad, where
    h rule, reinforced by a
- lac titioners,
  - ingly reasonable answers, even if

It is often convenient, and lucrative to reinforce accepted belief systems built on many centuries of thinking based on the positivist paradigm

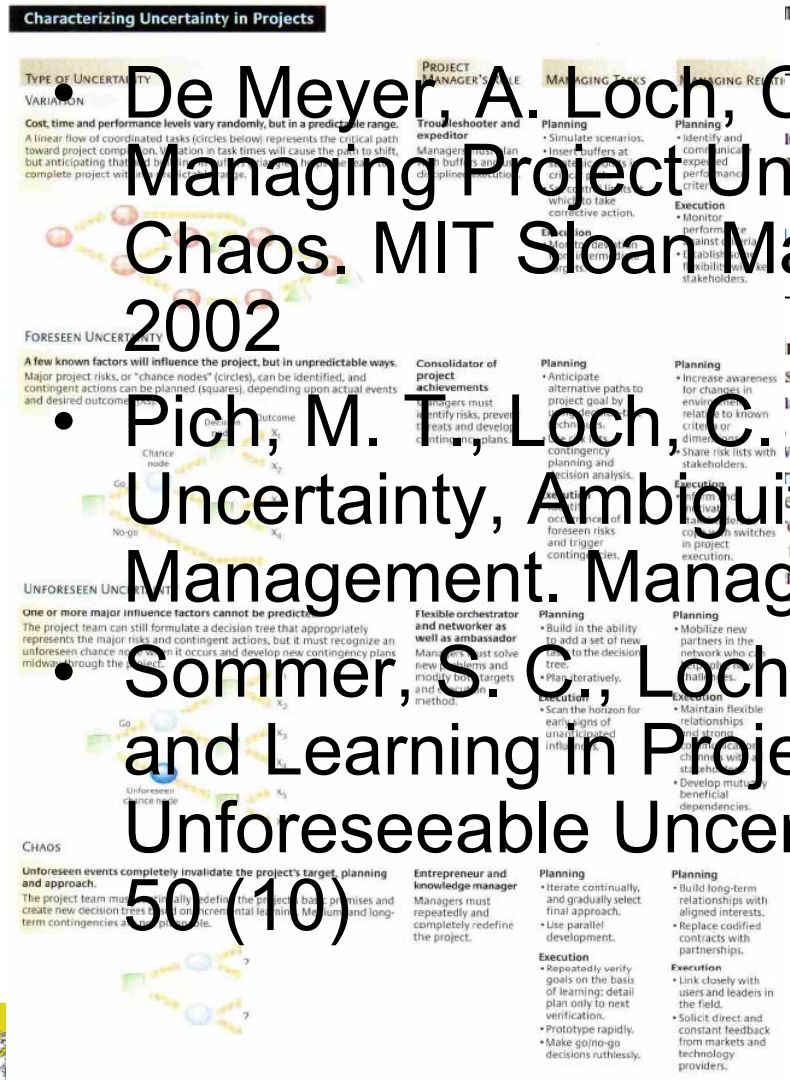
Help!!!

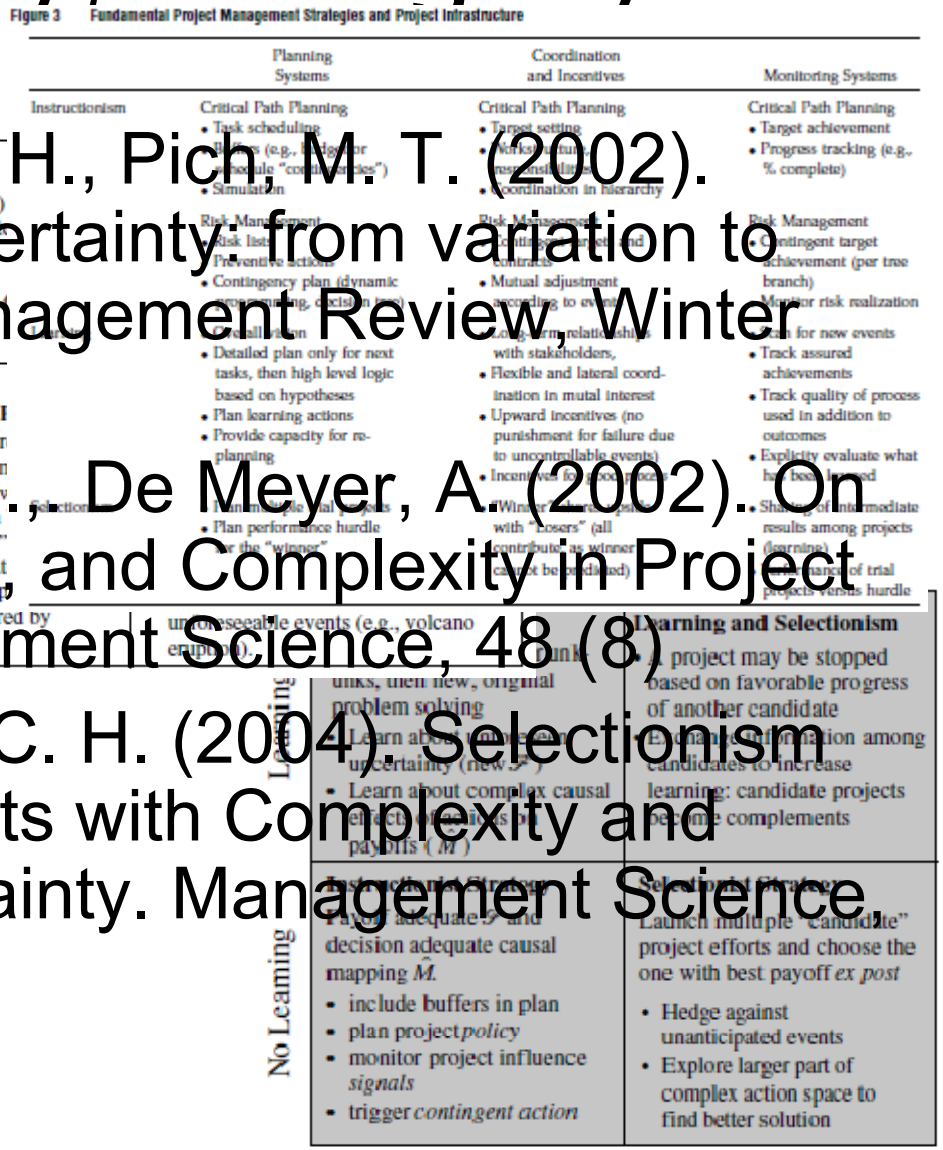
- Ashby (1958) and the law of requisite variety
  - it is well known that to control a complex system with *n* dimensions, you need an *n+1* dimensional system.
  - The available control variety must be equal to or greater than the disturbance variety for control to be possible

… Complexity…

- As part of the key resulting concepts and principles, the following can be mentioned as very pertinent to the topic:
  - The Conant-Ashby Theorem: Every good regulator of a system must have a model of that system. Implication: The principle prompts one to think through and create a model of what you are teaching / managing / guiding.
  - The Darkness Principle: Even though a system is never completely known, it can be managed effectively (black box theory)
  - The Redundancy of Resources Principle: To minimize the effect of disturbances or noise, the system requires backup systems of critical resources (human and machine) in order to maintain stability. Implications: Plan actions before disturbance or noise happen, because they will.

… Uncertainty, Ambiguity…





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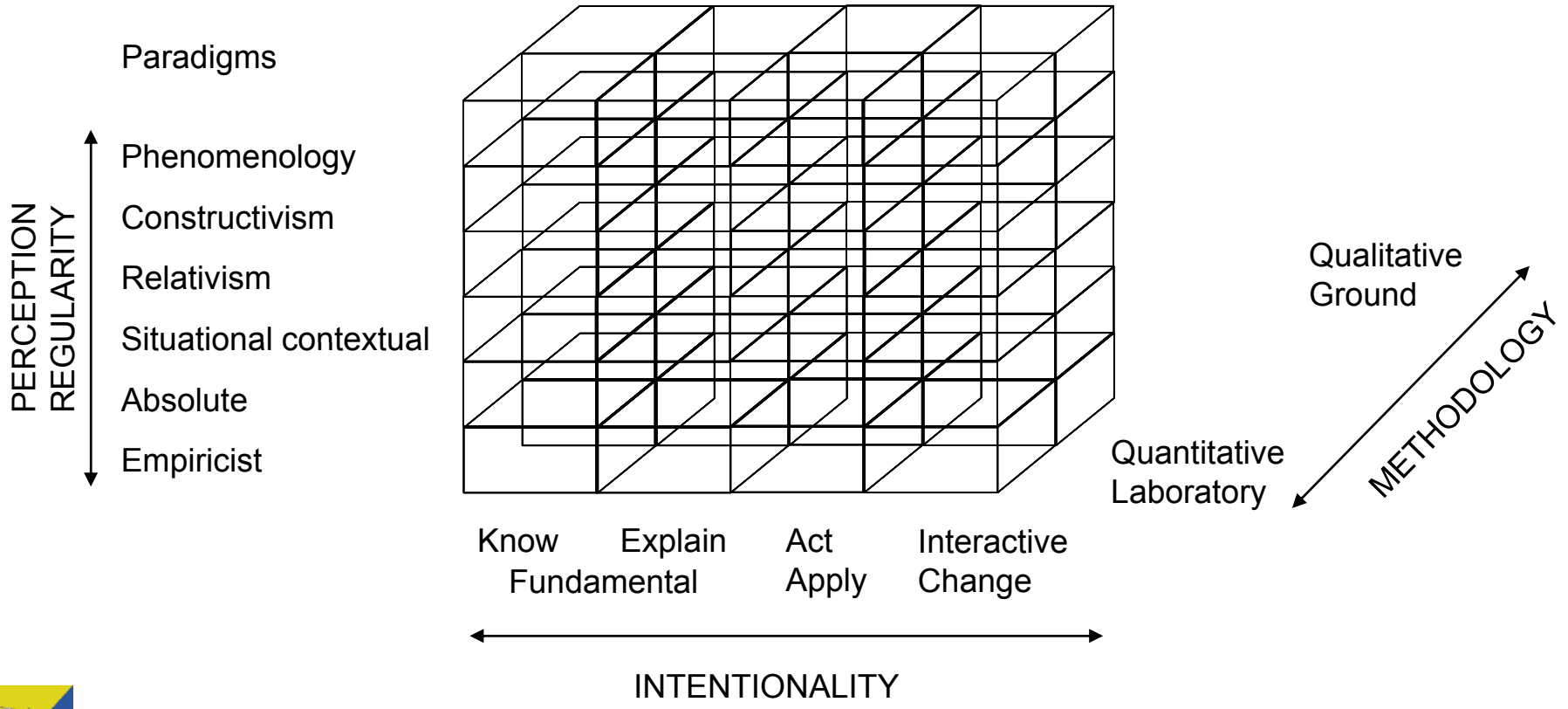
and… Simplicity

- Project management also needs to be simple, as far as its principles are concerned
  - like white light is transformed into multiple colours through a prism, project management applications may be seen as coming from some general principles.
- Project management is a process of naming, of revelation, of creation.
- Project management has a “raison d'être” in itself.

Differentiation in term of research methodologies universal truth vs. intelligibility



Questioning three basic assumptions

- … that pervade the practice and the theory of decision-making and thus the governance of organisations:
  - assumptions of order, (cause – effect relationship and empirical verification)
  - assumption of rational choice (*with a choice between one or more alternatives, human actors will make a "rational" decision based only on minimizing pain or maximizing pleasure)* and
  - assumption of intentional capability (*the acquisition of capability indicates an intention to use that capability)*

Towards an understanding of the “deep structure”

an “Integral” approach

Project, as “place of the Mirror”

where Ideas and tangible world are meeting, where science and opinions are nurturing a fertile dialectic

- Fundamental dialectic
  - Projects, between dreams and steel structures
  - By projects Man builds the Real & Himself
    - Man is the measure of all things (Protagoras) vs. Episteme, Doxa – Ideas are the Real (Plato)

Alchemy

- Polysemic nature of the concept of "project"
- Two underlying visions
- Tensions & Paradoxes
- Be-Have
- An open space
- An alternate epistemological perspective: PM: both a Science and Art
- Salvation is in the resolution of opposition!

Polysemic nature of the concept of “project”

- **Instrumental perspective**
  - "a project is a temporary endeavour undertaken to create a unique product or service" (PMBOK® Guide 2000)
- **Cognitive perspective**
  - "an endeavour in which human, material and financial resources are organized in a novel way, to undertake a unique scope of work, of given specification, within constraints of cost and time, so as to achieve beneficial change defined by quantitative and qualitative objectives." (Turner, 1993)
- **Political perspective**
  - "a project is a whole of actions limited in time and space, inserted in, and in interaction with a politico-socio-economic environment, aimed at and tended towards a goal progressively redefined by the dialectic between the thought (the project plan) and the reality" (Declerck et al, 1983, 1997)

Two underlying visions

- Positivist:
  - –On the one hand, the development of Project Management was constantly marked by the constitution of codes of practice & standards evolving according to two plans: people plan, and process of management plan
    - The underlying vision being a positivist one according to which experiences and practice lead to standards and rules, standards and rules lead to theories, which lead to paradigms and are used as the basis for codes of practice and bodies of knowledge
- Constructivist
  - –On the other hand, the management of projects within the ecosystem project/firm/context implies a systemic vision,
    - "an 'intelligent' action, 'ingenium', this mental faculty which makes possible to connect in a fast, suitable and happy way separate things" (Giambattista Vico,1708 IN Lemoigne,1995).
    - Thus, the evolution in project management and its structuring characteristics suggest a constructivist vision

Tensions & Paradoxes

- These two visions appear to be consubstantial with the concept of management of projects underlining the "tensions and paradoxes in project management."
- Tensions…
  - Boutinet (1997) shows that the figure of the project can now constitute a suitable reference in the management of organizations, as through them, it is possible to create and to innovate by using several parameters which they organize in a paradoxical way. The positive effect of such a vision prevents project management from a totalitarian 'technicist' project approach and over- simplification of the project environment.
- … and paradoxes
  - The increasing complexity in our environment has decreased opportunities to use traditional logic and added relevance to the paradox that enables us to think through the 'fuzzy', uncertain and even the strangeness of our intentions (i.e. the heuristic framework of our projects).

How the field Be-Have…
to Be or not to Be? To Be and not to Have!

- Have
  - The field of knowledge of project management is composed of a quantitative aspect (Have), dependent upon the positivist paradigm in which people have few degrees of freedom as witnessed in operational research in network optimisation, cost engineering, statistical methods, bodies of knowledge, application of standards, best practices, and code of ethics.
- Be
  - A second aspect of the field of knowledge of project management is qualitative (Be) and dependent upon the constructivist paradigm in which people have many degrees of freedom such as in organisational design, learning, knowledge management, change management, systemic approaches, contextualisation of the life-cycle, and meta-rules.

An open space

- The 'demiurgic' characteristic of project management involves seeing this field as an open space, without 'having' (Have) but rather with **a raison d'être** (Be), because of the construction of “Real” by projects.
- This could be considered a fundamental explanation of the pre-paradigmatic nature of this field (Kuhn, 1970): the dominant paradigm, source of well established theory(ies) is NOT to find:
  - **the deep nature of Project Management implies this paradox of being built on moving paradigms reflecting the diversity of the Creation process by Itself.**

An alternate epistemological perspective – PM Science & Art

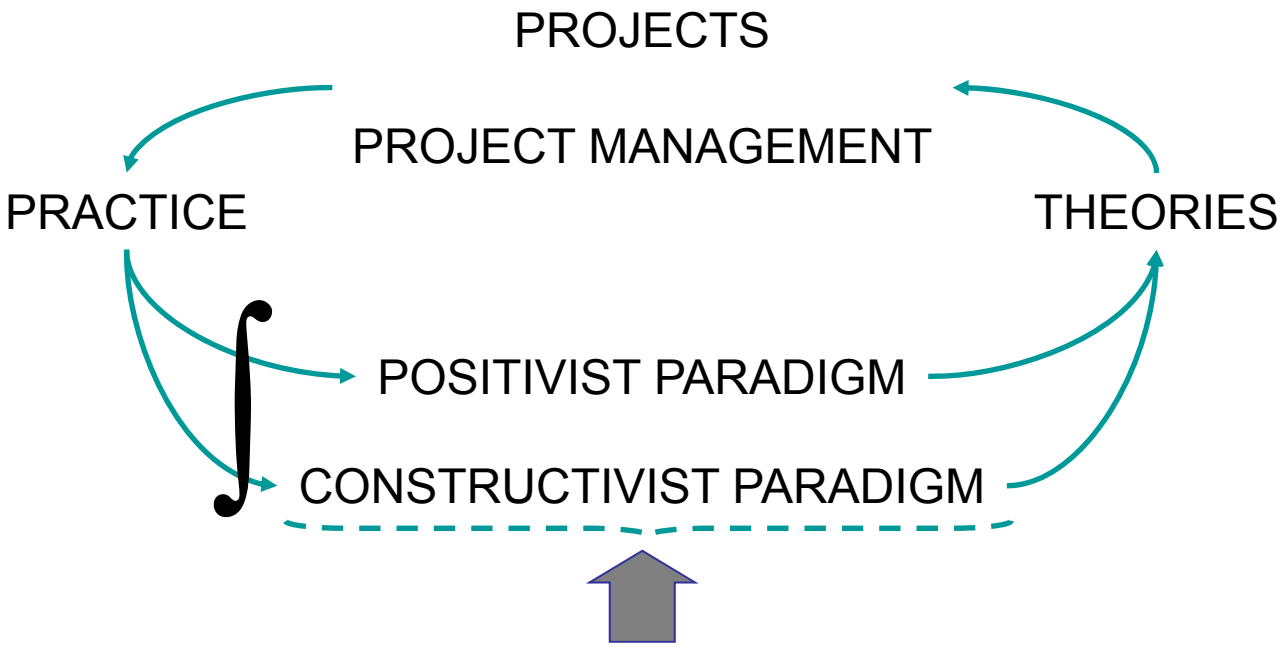
- After Polanyi (1958), I propose an alternative epistemological perspective both to positivism and constructivism.
- I have no intention to separate personal judgment from scientific method.
- I argue that, especially in project management, knowledge creation and production has to integrate both classical scientific aspects and “fuzzy” or symbolic aspects.
  - *the Positivist epistemology (materialist – quantitative – Have): "the relation of Science to Art may be summed up in a brief expression: from Science comes Prevision, from Prevision comes action". (Comte, 1896, p 43.)*
  - *the Constructivist epistemology (immaterialist – qualitative – Be), with two hypotheses of reference as underlined by Lemoigne (1995): the phenomenological hypothesis and the teleological hypothesis*

Salvation is in the resolution of opposition!

- The former considerations of this text forward a vision for project management that is one of an integral function, the knowledge field consisting of differential elements, each of them well defined.
- When considered as a whole, the function becomes a transition to the limit. In the light of this analogy to mathematics, the result of such an integral is both quantitatively and qualitatively more than the sum of its parts.

  – In other words, it can be called a system effect: parts A, B and C forming a system S in which the components keep some of their properties and potential performances, lose others and develop some entirely new performances (Legay, 1996).

Salvation is in the resolution of opposition!



- Polysemic nature of the concept of “project”
- Two underlying visions
- Tensions & Paradoxes
- Project Management: an open space
- Be-Have
- An alternate epistemological perspective

PM as a complex field

Challenging
- Assumption of order
- Assumption of rational choice
- Assumption of intentional capability

PM needs to be a complex field

“Modelling to Understand” that is to do ingeniously!

Lemmas and dilemmas in a situational perspective

So what?

- How to cope with these various complex management situations?
  - Acting in complex situations involves “Modelling to understand” that is to do ingeniously. (Le Moigne, 2003)

Acting & Learning

- According to a complexity and systemic perspective acting and learning are inseparable.
  - This involves:
    - having information,
    - tacit or explicit knowledge, as well as
    - understanding of the context, the different parameters and variables, their interaction and conditions of change.
- Thus, we can consider that there is a systemic and dynamic link between mission, management of program & project, information, knowledge, learning and understanding in a given context and under given conditions.

Meta-modelling ground

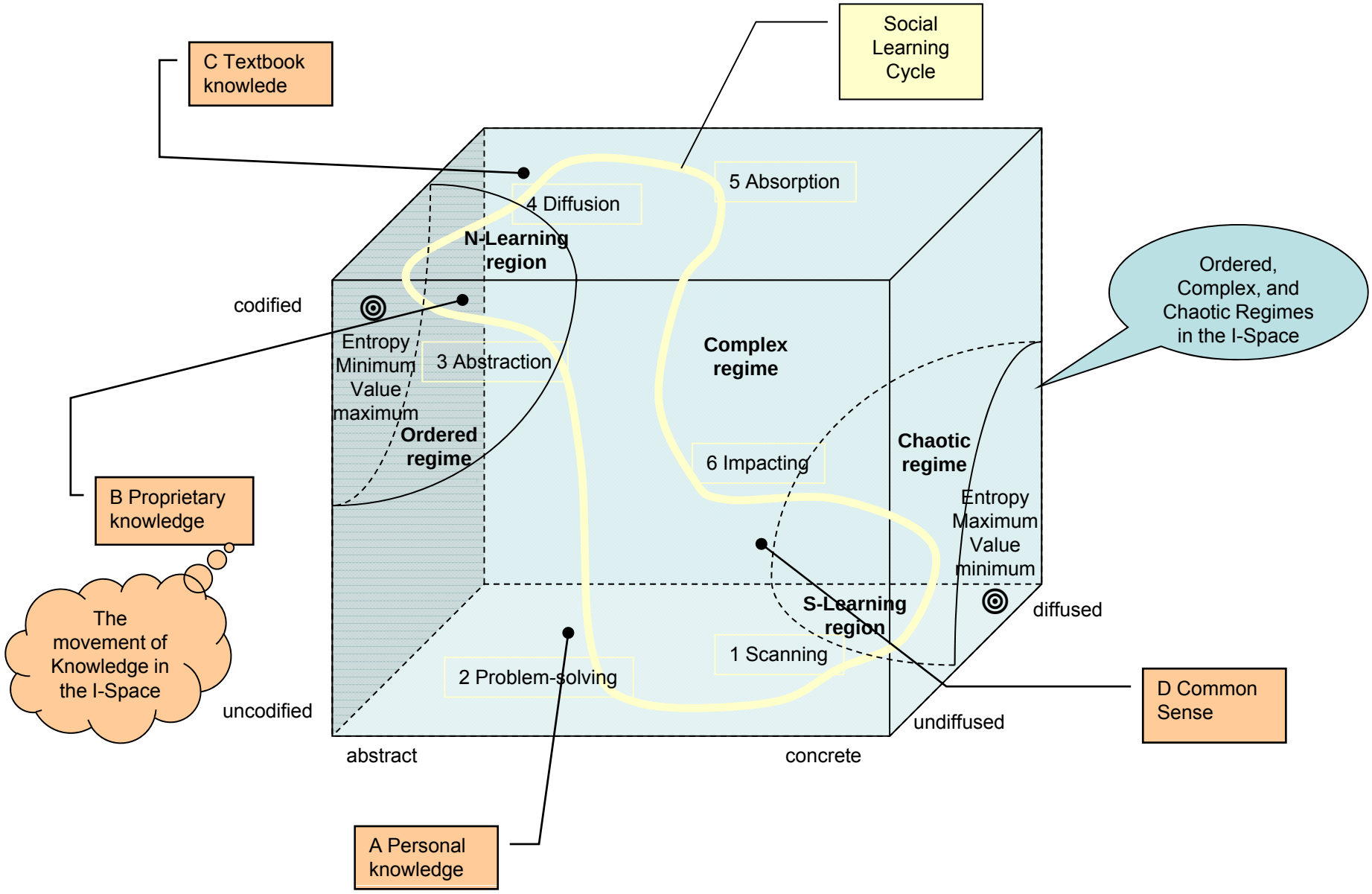
- This meta-modelling approach is well grounded in sound theoretical organisational frameworks. With a project management perspective, we can say the meta-method is about designing a contextual structure that…

Provides a privileged place…

- for individuals, project managers and stakeholders to act and learn and such learning in project environment needs to integrate the two perspectives, as there is a need for a blend of creative or exploratory learning and application or exploitative learning (Boisot, 1998, p. 116).
- Having in mind the need for efficiency and effectiveness, a project team acts as a temporary dissipative structure (Declerck, R., Debourse, & Declerck, J., 1997, p. 207), generating first entropy (that is knowledge) creating knowledge with many degrees of freedom, then applying it (entropy reduction by reduction of complexity, Boisot, 1998, p. 67-68) in the former stage of a project.

N vs. S-Learning

- Model grounded on an information perspective and Complexity science, a set of theories describing how complex adaptive systems work (Boisot, 1998 / SLC)


C Textbook knowlede
Social Learning Cycle
4 Diffusion
5 Absorption
N-Learning region
codified
Entropy Minimum Value maximum
3 Abstraction
Complex regime
Ordered regime
Ordered, Complex, and Chaotic Regimes in the I-Space
6 Impacting
Chaotic regime
B Proprietary knowledge
Entropy Maximum Value minimum
S-Learning region
diffused
The movement of Knowledge in the I-Space
1 Scanning
2 Problem-solving
D Common Sense
uncodified
undiffused
abstract
concrete
A Personal knowledge

Facilitates this praxis

- …through a specific meta-method, one of the underlying paradigms being that there is a co-evolution between the subject/actor and his or her environment.
- This involves inseparability between the subject and the object in this observation-action process.
- This observation-action is related to an epistemo-praxeologic cognition through an observational chain (perception of what is true or wrong – epistemological subjectivity), a decision chain (decision made founded or unfounded – pragmatical subjectivity), and an effect chain (action fulfilled feasible or unfeasible – praxeological subjectivity).
- This epistemo-praxiologic cognition involves both partial subjectivity AND partial objectivity, congruent with our previous alternative epistemological position.

Praxeological epistemology

- One of the key understandings in project management is that learning and practice are integrated into praxis – praxeological approach (see above the notion of "ingenium").
- Learning and acting are integrated in praxis
- Study of those aspects of human action that can be grasped a priori; it is concerned with the conceptual analysis and logical implications of preference, choice, means-end schemes, and so forth (Menger, Von Mises)

Enables to generate

- …a specific convention (configuration of order) and some kind of stability to cope with uncertainty and ambiguity in a given project's complex situation.
- The meta-method helps to create a coherent or dissonant framework of symbols, promoting dynamic management practices which are creating adequate initial conditions for decision-making (and thus performance), and transparency (and thus accountability) while being conscious of rational voids.

Meta Method: the roots

N vs S-Learning
model grounded on an information perspective and Complexity science, a set of theories describing how complex adaptive systems work (Boisot, 1998)

Epistemo praxeology
Learning and acting are integrated in praxis
Study of those aspects of human action that can be grasped a priori; it is concerned with the conceptual analysis and logical implications of preference, choice, means-end schemes, and so forth
(Menger, Von Mises)

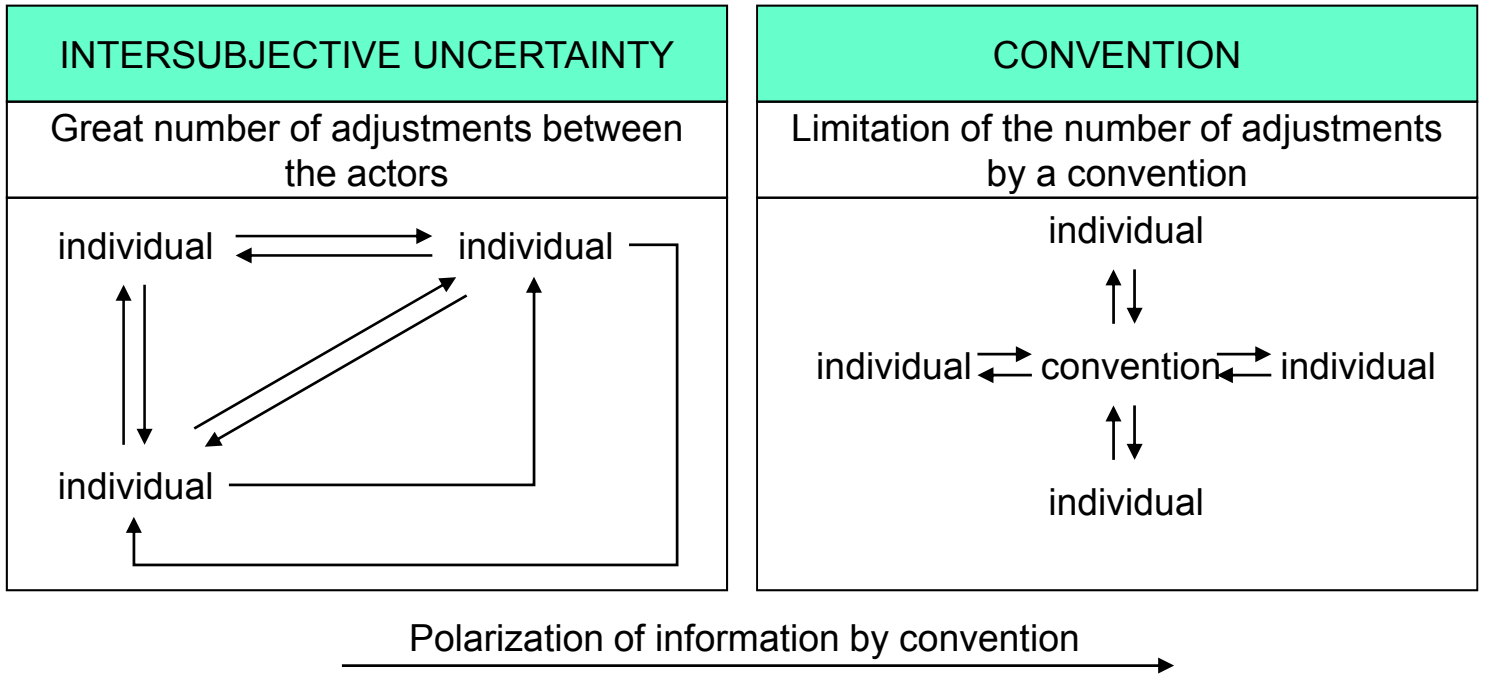
Theory of Convention
Uncertainty & Ambiguity
Rationalization & Process of justification
Rational Voids (non justified beliefs)
Convention is an archetype or "structure" in Levi-Strauss' definition, that is to say, "a set of formal relationships among the elements in a symbolic system which can be modelled"
(Levi-Strauss, 1971, 1974).

Economy of Conventions

From “balance” to “equilibrium”

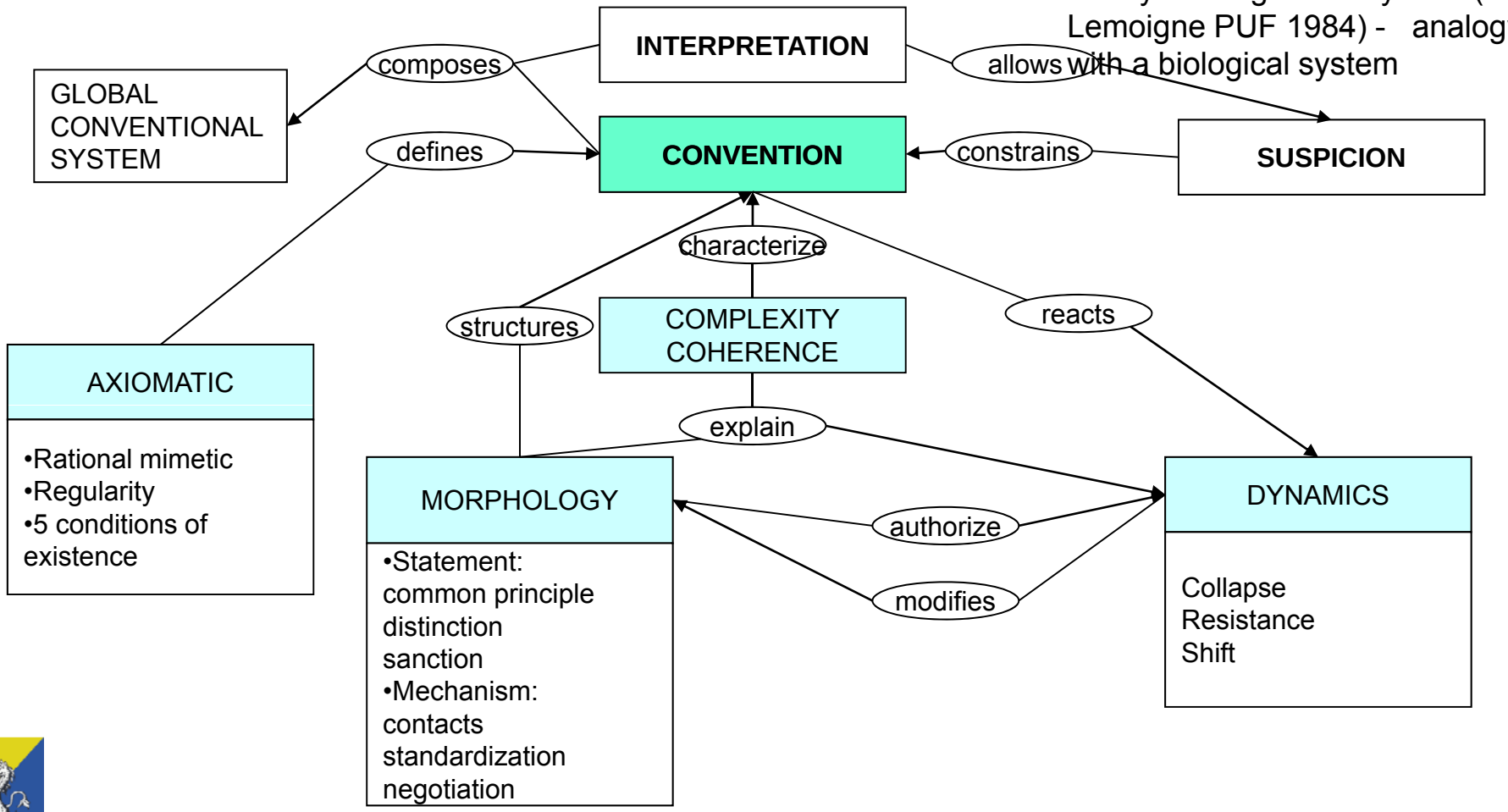
From market exchange to human relations

Economic convention like Information System

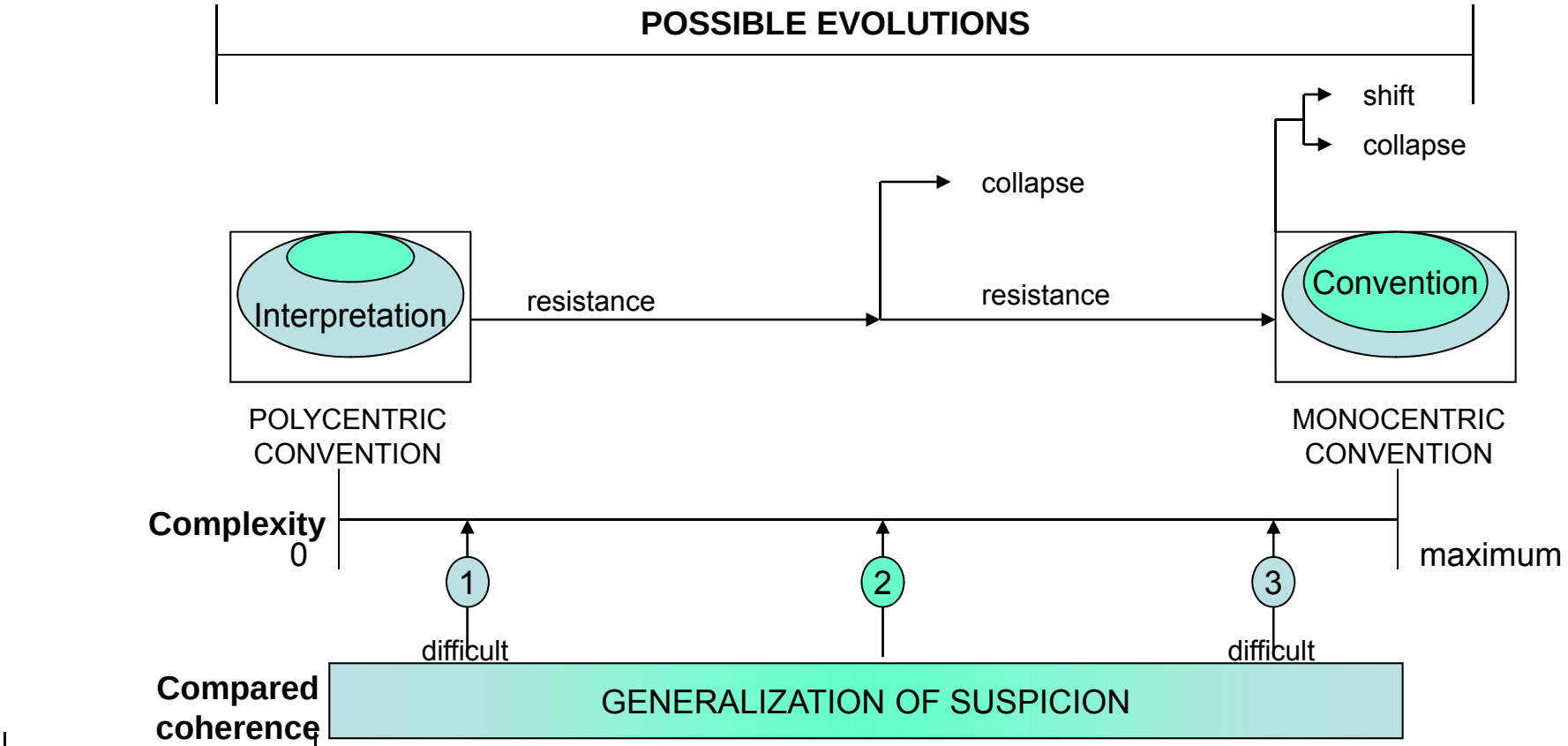


Synthesis of the theory of conventions

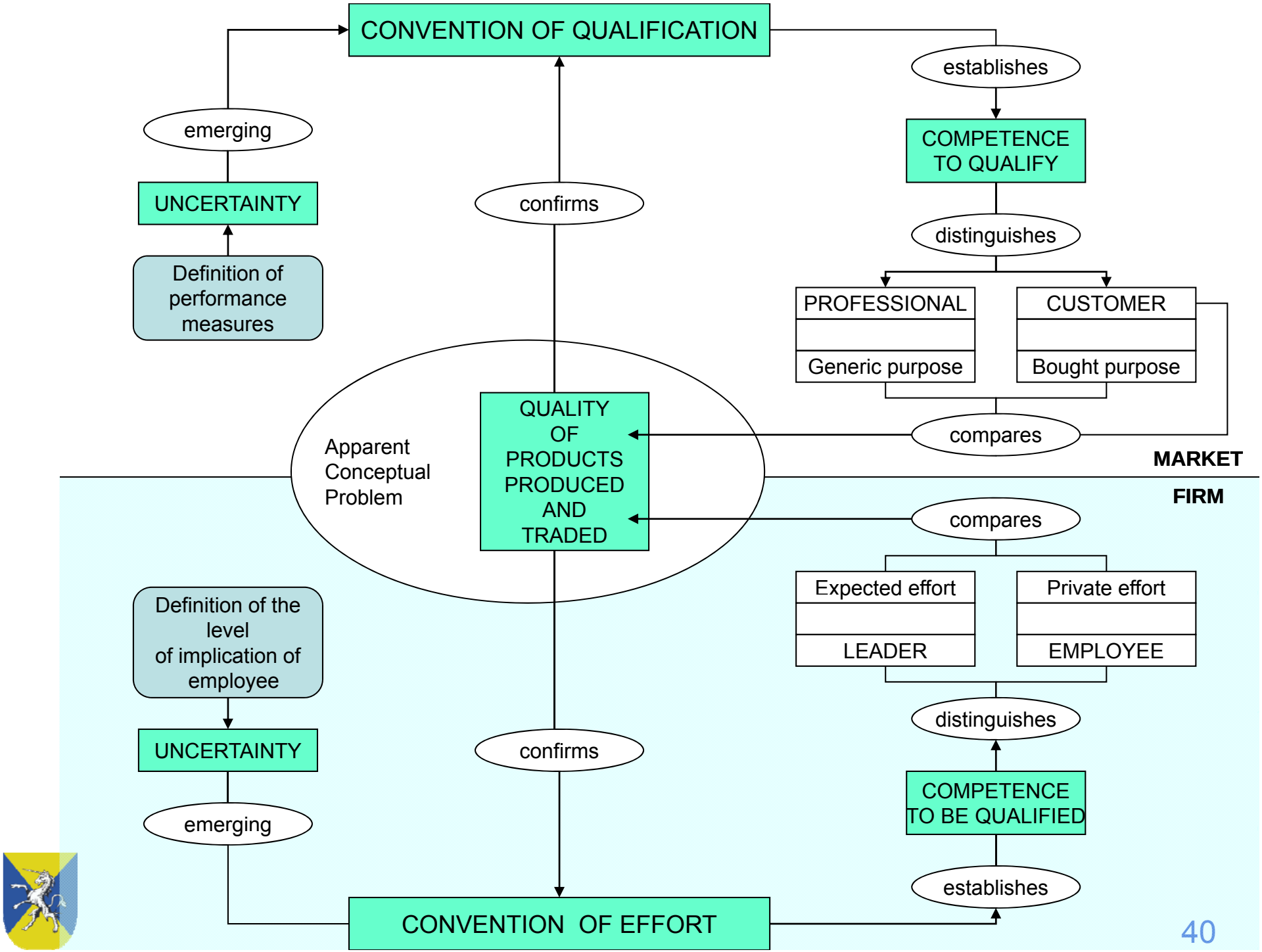
Economic convention like information system: it is possible to apply to it the results of the theory of the general system (cf Lemoigne PUF 1984) - analogy with a biological system

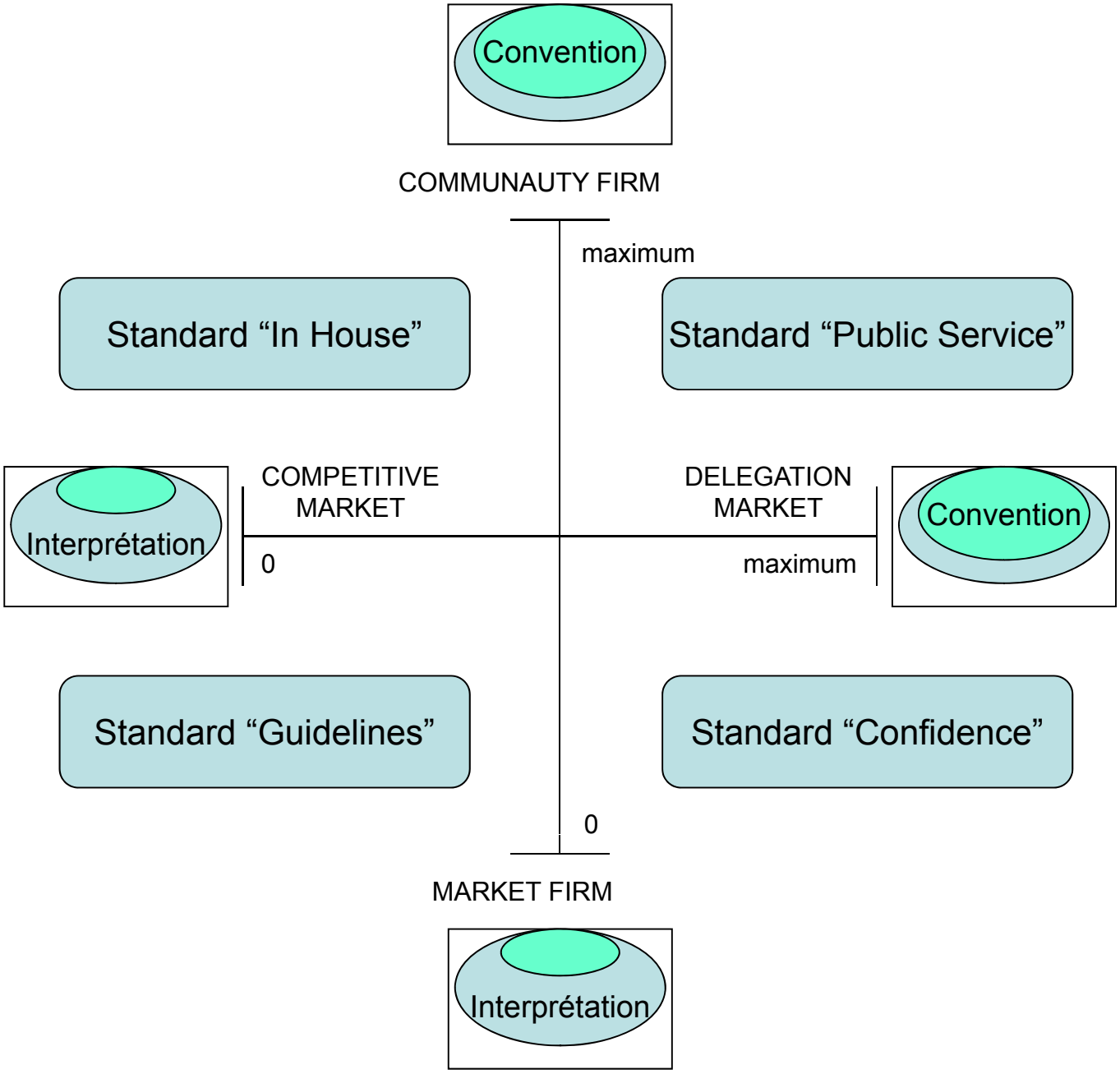


Dynamics of conventions



2 initial conditions:
What is the relative coherence of suspicion compared to convention?
What is the complexity of the convention?


CONVENTION OF QUALIFICATION
establishes
COMPETENCE TO QUALIFY
distinguishes
PROFESSIONAL
Generic purpose
CUSTOMER
Bought purpose
compares
MARKET
FIRM
emerging
UNCERTAINTY
Definition of performance measures
confirms
Apparent Conceptual Problem
QUALITY OF PRODUCTS PRODUCED AND TRADED
compares
Expected effort
LEADER
Private effort
EMPLOYEE
distinguishes
COMPETENCE TO BE QUALIFIED
establishes
Definition of the level of implication of employee
UNCERTAINTY
emerging
confirms
CONVENTION OF EFFORT


Convention
COMMUNAUTY FIRM
maximum
Standard “In House”
Standard “Public Service”
Interprétation
COMPETITIVE MARKET
0
DELEGATION MARKET
maximum
Convention
Standard “Guidelines”
Standard “Confidence”
0
MARKET FIRM
Interprétation

Theory of Convention

- Uncertainty & Ambiguity
- Rationalization & Process of justification
- Rational Voids (non justified beliefs)
- Convention is an archetype or "structure" in Levi-Strauss' definition, that is to say, "a set of formal relationships among the elements in a symbolic system which can be modelled" (Levi-Strauss, 1971, 1974).

Meta-method as “convention generator”

- This notion of situation is crucial to understand the dynamics of conventions.
- Conventions are stable but not static patterns.
- Within any convention, conformism allows individuals to escape the perils of uncertainty.

Meta-method as “convention generator”

- Conventions are never completely isolated. If indeed an alternative provides a more coherent set of symbols, the individual can spontaneously escape ambiguity and potential uncertainty by behaving according to this one.
- The more numerous the symbolic signals received by an individual, the higher the probability of finding dissonant signals, and thus to be "attracted" by another convention. Learning plays an ambiguous role in this matter.

Meta-method as “convention generator”

- No one individual can change a whole convention, but that everyone, by acting on it and within it locally, contributes to its evolution. This gives precision to the role and the limit of managerial action in organisations.
- Convention highlights in particular the important task of symbolic management. This allows us to better understand that management practices can also be a way of creating coherence, or creating gaps between the hidden and the visible, which leads to dissonance.
- In practice, the use of a conventionalist framework leads us to understand organisational situations rather than organisations as an abstract and static whole

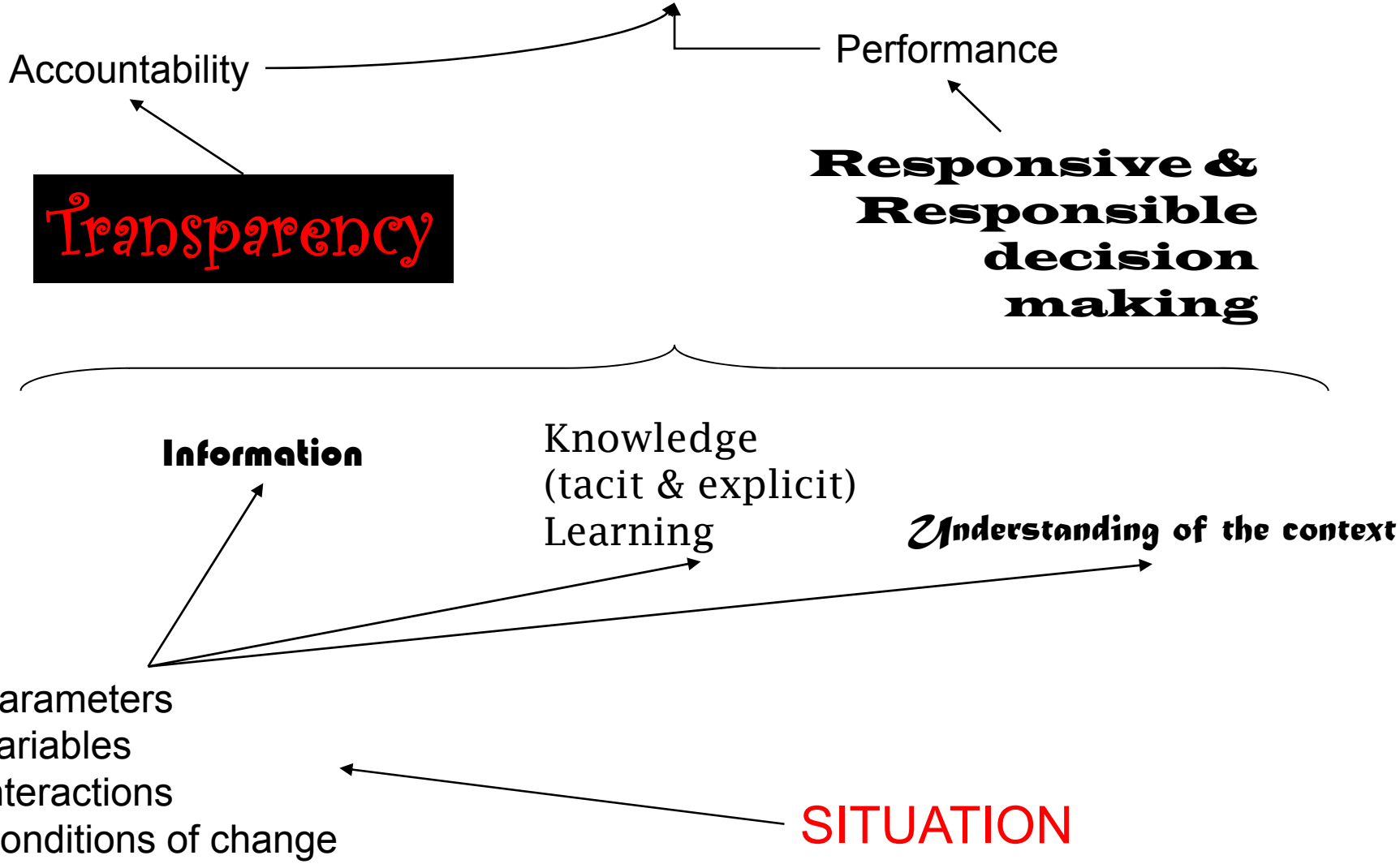
Revisiting the utility of Governance frameworks

The “Theory of Convention” way…

Utility?

- Etymology: Middle English *utilite,* from Middle French *utilité,* from Latin *utilitat, utilitas,* from *utilis* useful, from *uti* to use
  1 : fitness for some purpose or worth to some end
  2 : something useful or designed for use
  3 a : **PUBLIC UTILITY** **b** (1) **:** a service (as light, power, or water) provided by a public utility (2) **:** equipment or a piece of equipment to provide such service or a comparable service
  4 : a program or routine designed to perform or facilitate especially routine operations (as copying files or editing text) on a computer

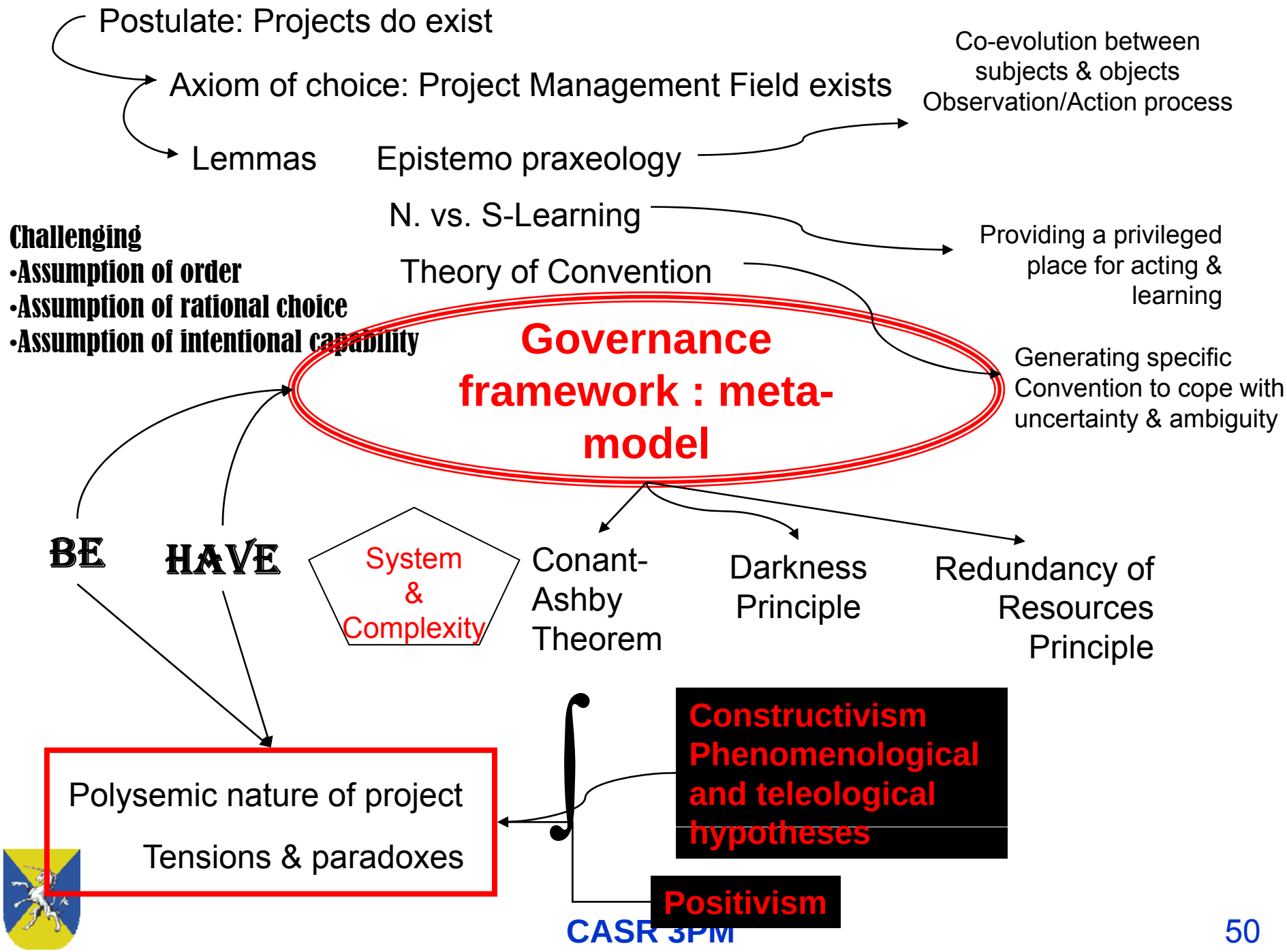
Governance

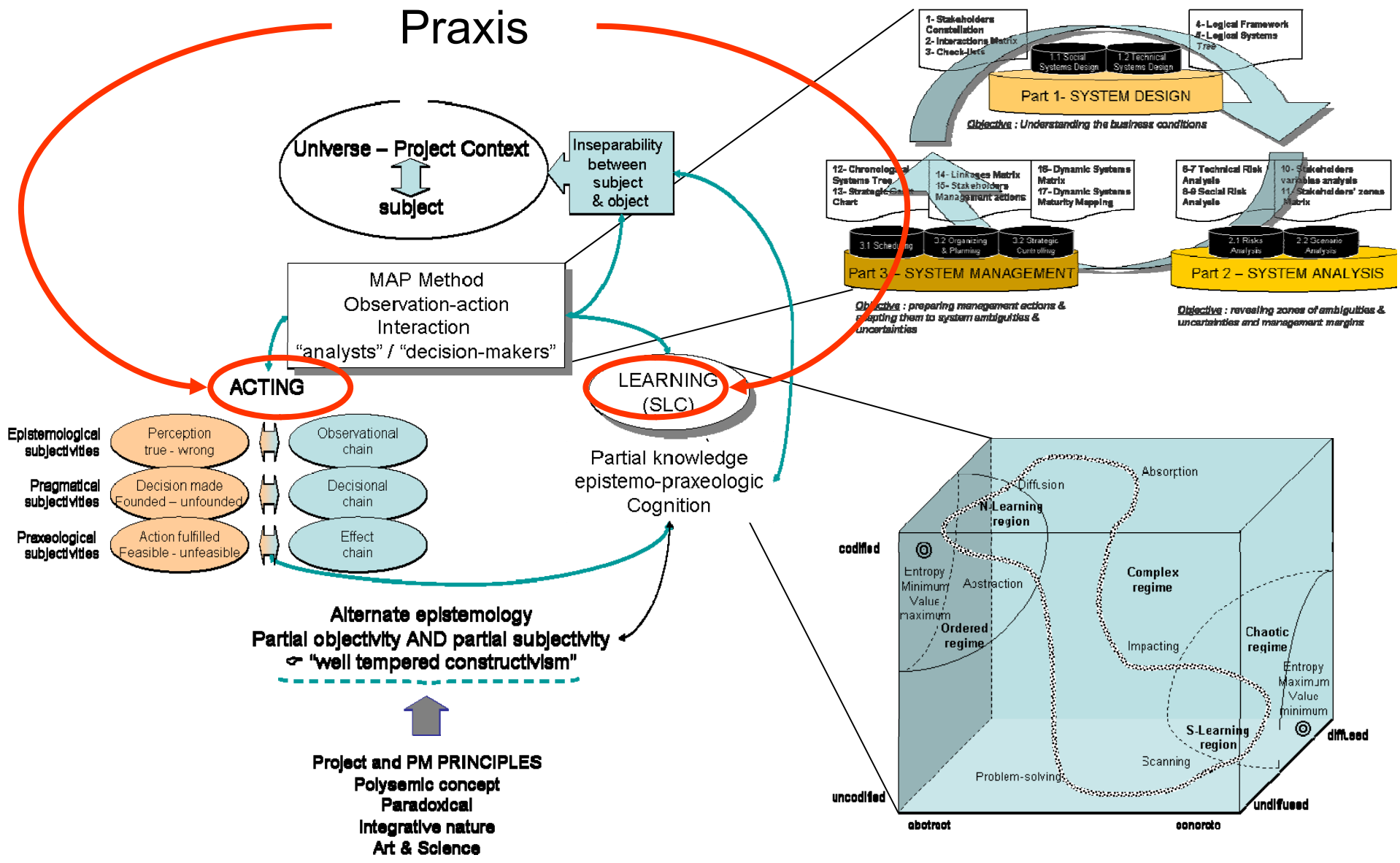

Accountability
Performance
Transparency
Responsive & Responsible decision making
Information
Knowledge (tacit & explicit) Learning
Understanding of the context
Parameters
Variables
Interactions
Conditions of change
SITUATION

Conventions & Governing Systems

- Contractualism
  - Contracts
  - Information as a flow between autonomous individuals, independent from them
  - Transparency means: the information flow is made available to each actor
  - Uncertainty
  - Distinction between individuals and information
  - Rationality of agents
  - Autonomy of agents

- Conventionalism
  - Actors behaviors
  - Interpretation of information
  - Information as a screen not as a flow
  - Uncertainty on rules of game (not just on decisions to make)
  - Individuals and information are imbricated (convention = rules system for the actors)
  - Best practices are socially constructed by agents. They not coming from “out there”
  - Rational mimetic
  - Agents preference & choice according to utility
  - Game theory (Von Neumann, Nash) > agent behaviors , not just exchange of products and services
  - Contract source of “equilibrium” (Nash)


Postulate: Projects do exist
Axiom of choice: Project Management Field exists
Lemmas
Epistemo praxeology
Co-evolution between subjects & objects Observation/Action process
N. vs. S-Learning
Theory of Convention
Providing a privileged place for acting & learning
Challenging
•Assumption of order
•Assumption of rational choice
•Assumption of intentional capability
Governance framework : meta-model
Generating specific Convention to cope with uncertainty & ambiguity
BE
HAVE
System & Complexity
Conant-Ashby Theorem
Darkness Principle
Redundancy of Resources Principle
Polysemic nature of project
Tensions & paradoxes
Constructivism Phenomenological and teleological hypotheses
Positivism


Praxis
Universe – Project Context
subject
Inseparability between subject & object
MAP Method
Observation-action
Interaction
"analysts" / "decision-makers"
ACTING
LEARNING (SLC)
Epistemological subjectivities
Perception true - wrong
Observational chain
Pragmatical subjectivities
Decision made Founded – unfounded
Decisional chain
Praxeological subjectivities
Action fulfilled Feasible - unfeasible
Effect chain
Partial knowledge epistemo-praxeologic Cognition
Alternate epistemology
Partial objectivity AND partial subjectivity
☞ "well tempered constructivism"
Project and PM PRINCIPLES
Polysemic concept
Paradoxical
Integrative nature
Art & Science
1- Stakeholders Constellation
2- Interactions Matrix
3- Check-lists
4- Logical Framework
4- Logical Systems Tree
1.1 Social Systems Design
1.2 Technical Systems Design
Part 1- SYSTEM DESIGN
Objective : Understanding the business conditions
12- Chronological Systems Tree
13- Strategic Chart
14- Linkages Matrix
15- Stakeholders Management actions
16- Dynamic Systems Matrix
17- Dynamic Systems Maturity Mapping
3.1 Scheduling
3.2 Organizing & Planning
3.3 Strategic Controlling
Part 3 – SYSTEM MANAGEMENT
Objective : preparing management actions & adapting them to system ambiguities & uncertainties
6-7 Technical Risk Analysis
8-9 Social Risk Analysis
10- Stakeholders variables analysis
11- Stakeholders' zones Matrix
2.1 Risks Analysis
2.2 Scenario Analysis
Part 2 – SYSTEM ANALYSIS
Objective : revealing zones of ambiguities & uncertainties and management margins
codified
uncodified
abstract
concrete
undiffused
diffused
Absorption
Diffusion
N-Learning region
Entropy Minimum Value maximum
Abstraction
Ordered regime
Complex regime
Impacting
Chaotic regime
Entropy Maximum Value minimum
S-Learning region
Scanning
Problem-solving

Concluding remarks

A need for a plurality of perspectives and "an 'intelligent' action, 'ingenium', this mental faculty which makes possible to connect in a fast, suitable and happy way separate things" (Giambattista Vico,1708 IN Lemoigne,1995).