Enabling environments, enabling organizations

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Enabling environments, enabling organizations, enabling interventions

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ODAM…

- Development ?

- Organizations ?

Fitting the task to the worker ?

- Should we design systems suited
  - to work as it is defined at a certain point in time ?
  - to workers as they are at a particular moment ?
  - to organizations as they operate here and now ?

- Or should we design for continuous change ?
  - of individuals: setting up situations that allow one to succeed and to learn
  - of organizations: integrating reflective processes that mobilize workers' creativity

Constructive ergonomics

- The core goal of EHF :
  Enabling people and organizations

- Enabling environments : 3 standpoints
  - preventive
  - universal
  - developmental

Preventive standpoint

- An environment
  - not detrimental to the individual
  - preserving future capabilities to act

- A classical aspect of ergonomics actions
  - detection and prevention of risks and hazards

- Suppression of task demands that result
  - in long-term deficiencies
  - in negative psychological effects

Universal standpoint

- An environment
  - taking into account inter-individual differences
    in anthropometry, age, gender, culture …
  - compensating individual deficiencies
    due to aging, illnesses, incapacities …
 - preventing exclusion and unemployment

Developmental standpoint

- An environment that allows people
  - to be efficient
  - to enlarge their possibilities of action
  - to increase their autonomy
  - to develop new skills and knowledge

- A learning environment
  for individuals, for teams, for organizations

Constructive ergonomics

- **Development as a fact**
  - productive activity and constructive activity
  - skill, competence and knowledge of oneself

- **Development as a purpose**
  - designing enabling environments :
    the end goal of ergonomics actions
  - succeed and learn

- **Development as a means**
  - foster processes of development
    throughout the intervention itself
  - HFE as the linchpin of a participatory,
    developmental design process
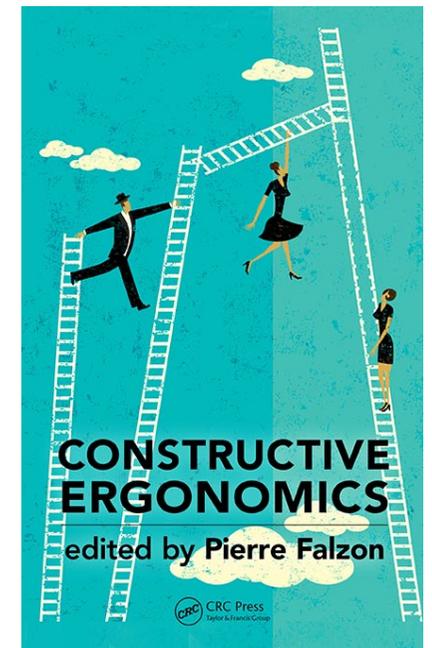
ODAM…

- Development ?

- Organizations ?

Organizations: the classical view

- **Organizations as structures**
  - rules, norms, procedures, processes, …
  - enforced through human supervision and/or technical devices

- **Corollaries**
  - work is determined by the management
  - agents have little leeway

Organizations: the socio-psychological view

- Constant trade-offs between
  - work as prescribed : official rules established by the management
  - work as performed : activity daily designed by agents within the organization

- Causes
  - needs for fulfilling tasks
  - unforeseen events, variability
  - Ineffective prescriptions

Organizations: the socio-psychological view

- **Organizations as "self-designing systems"**
  - permanent process of regulation involving multiple actors defending various interests
  - organizations result from the interaction between their members

- **Corollaries**
  - agents play an important part
  - agents create the organization

The two faces or organizations

- A static, formal face, embodied in rules, prescriptions, procedures, ...

- A dynamic, living face, made of the social dynamics of their members, who permanently redesign the organization

→ Organizations exist both "in the world" and in the interplay of their members

Enabling HFE interventions…

- … should set up dynamics
  - that fosters debates regarding work processes
  - that allows new rules to be designed
  - that results in an enabling organization

  ➔ development as a means of HFE action

Enabling HFE interventions…

- … should target a future situation that allows agents and organizations to change and to learn, e.g. to continuously develop themselves

➔ development as an end goal of HFE action

An example, a methodology

- Example
  - ➔ Re-engineering hospital units

- A development-centered methodology

Re-engineering hospital units

- Very large public hospital

- The issue
  - under-development of outpatient surgery
  - acute economic problem
  - "resistance to change" ?
  - a different role of the patient ?

- Request of the medical management:
  help us overcome the difficulty

- First global analysis

Anne Raspaud, 2014

Initial analysis

- On-site observations of several units
  - one staff member all day long
  - one type of activity
  - a patient during the whole process

- Interviews
  - with staff members at all levels
  - with patients (during the day and later)

Initial analysis

- Results
  - work is structured by inpatient practice
  - perception of patients' wishes is inaccurate
  - views on outpatient surgery are discordant
  - teamwork is inefficient or inexistent

Teamwork ?

- A team is not a set of individuals

- A team is characterized by
  - a group jointly involved in a task
  - a shared language
  - shared rules of "quality work"
  - a shared will to respect these rules

*"the presence of all in the activity of each,
the presence of each in the activity of all"*

A. Nascimento, 2009

Decisions

- Setting up of a steering committee

- A participatory HFE intervention on 2 units

- Setting up of a working group

A development-centered methodology

- **Phase 1:**
  Work analysis, with particular focus on
  - contradictions, difficulties, obstacles…
    characteristic, significant situations
  - spontaneous attempts to improve the situation
    (inventions, violations, added practices, …)
    ➔ processes of "re-design in use"
      of the organization
  - field experiment re. decision-making

A development-centered methodology

- Phase 2:
  Collective design of practices

  – for establishing a shared frame of reference

  – for designing the future

Phase 2 :
Collective design of practices

Establishing a shared frame of reference

Synthesis and decision on focus

Collective design of the future situation
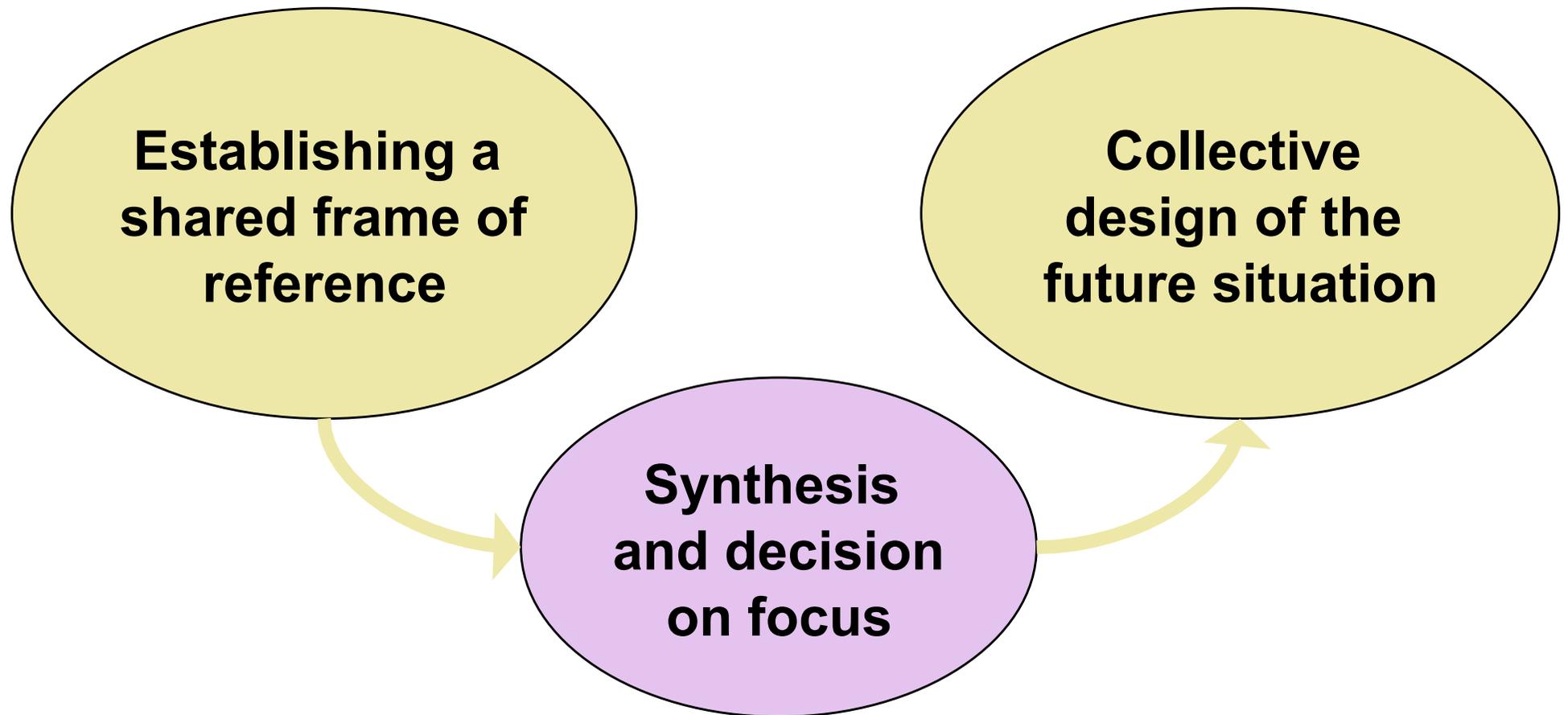
Establishing
a shared frame of reference

- **Step 1 (in subgroups)**
  - 3 questions : what do we need for acting ? how do we proceed ? what is the output ?

- **Step 2 (whole group)**
  - sharing results of step 1
  - cartography of actual practice: *how do we proceed for real ?*
  - goal : a shared representation of reality

Establishing
a shared frame of reference

- **Role of the HFE specialist**
  - Socratic dialogue : why ? how ? ...
  - challenger : brings characteristic situations identified in field observations

- **Outputs**
  - shared representation of present work
  - better understanding of each agent's constraints and role
 - enhanced credibility of the HFE specialist

Phase 2 :
Collective design of practices

Establishing a shared frame of reference

Synthesis and decision on focus

Collective design of the future situation
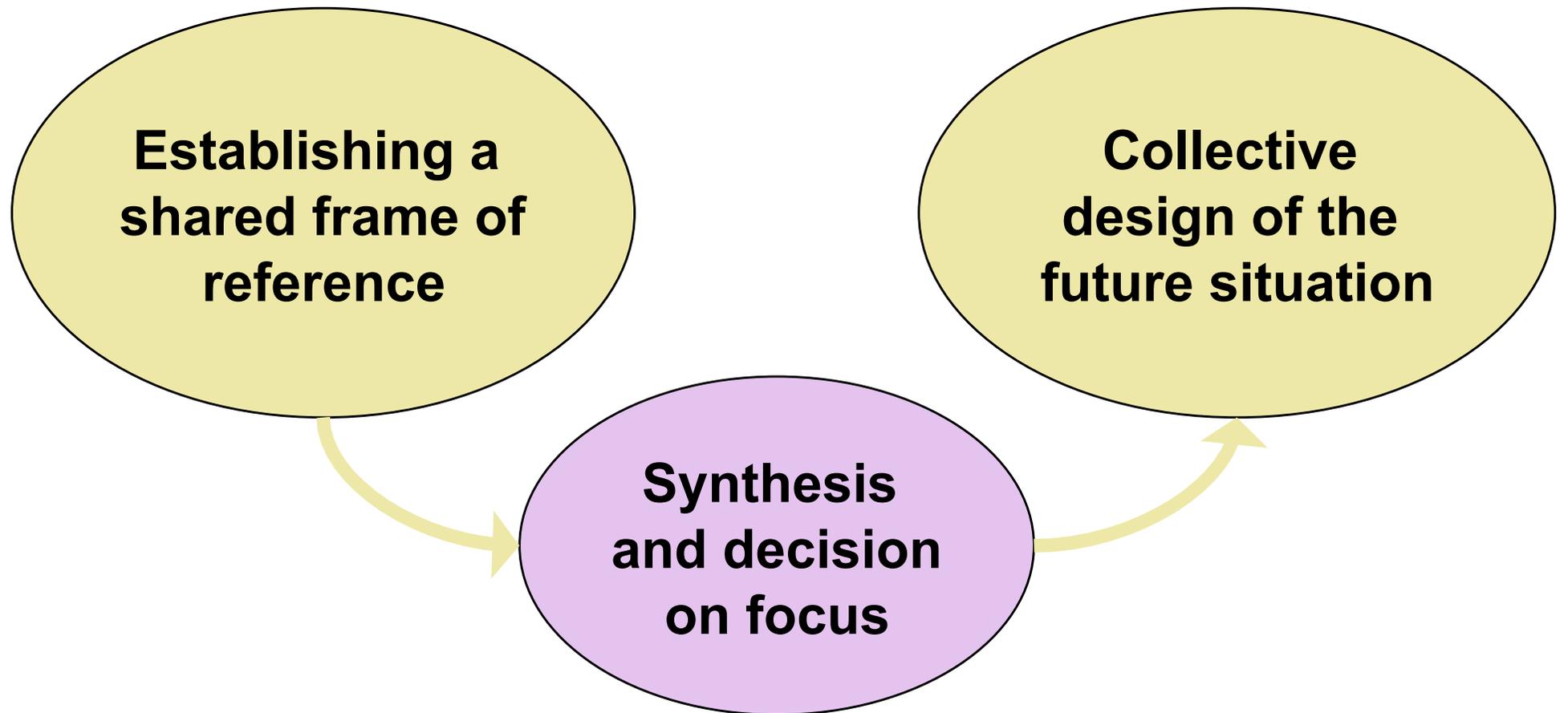
Synthesis and decision

- Synthesis (by the HFE specialist)
  - cartography and first suggestions
  - directions for next step
    gain time, enhance patient participation, better inform the patient

- Decision of the group
  - agreement on cartography
  - decision to focus on *"gaining time or at least avoid losing time"*

Phase 2 :
Collective design of practices

Establishing a shared frame of reference

Synthesis and decision on focus

Collective design of the future situation
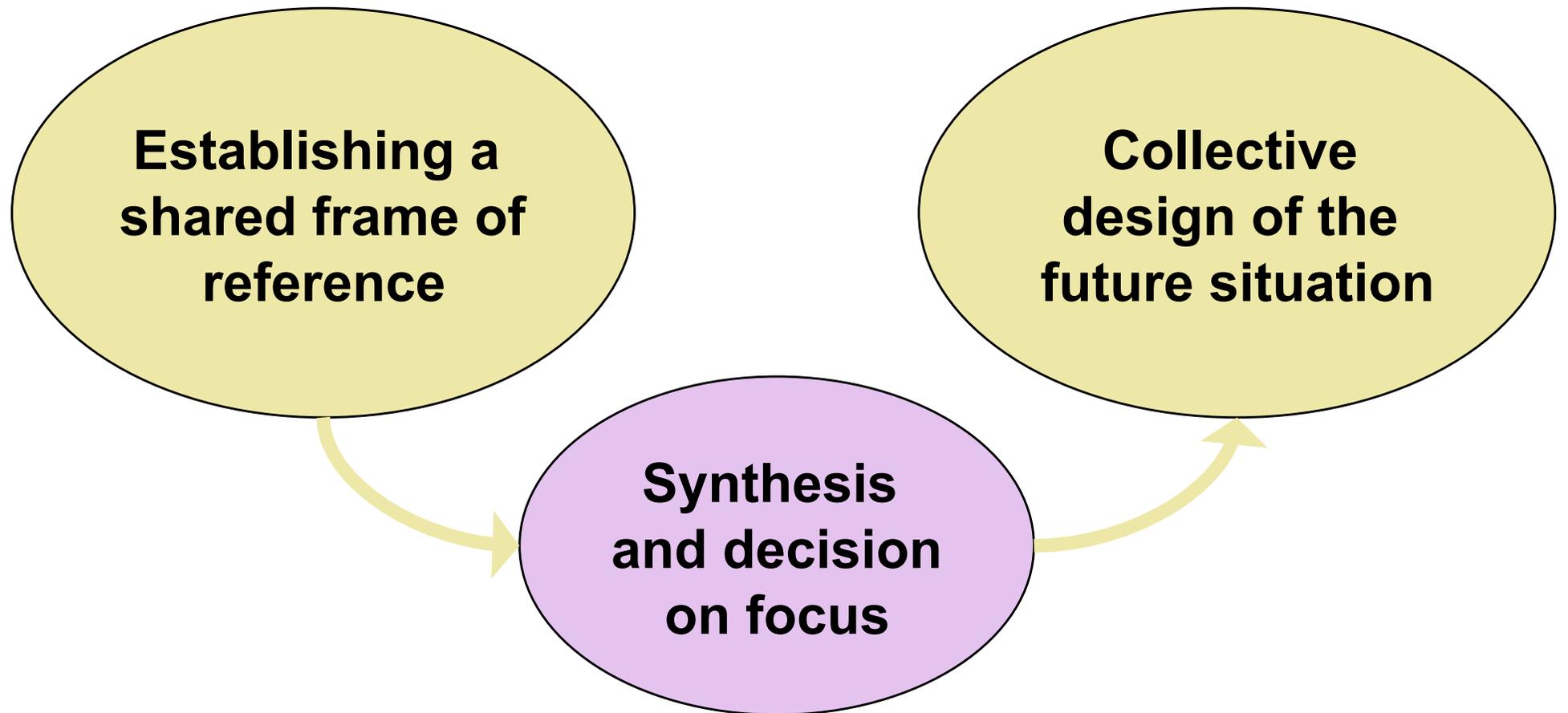
Collective design of the future situation

- 3 sub-groups, 5 people each, ≠ statutes

- Task
  - pick one or several steps of the cartography
  - design potential improvements
  - explain and justify them

Collective design
of the future situation

- 15 steps to be improved are identified
  23 proposals are made and discussed

- Outputs of the discussion
  – proposal agreed upon

  – proposal agreed upon with fine-tuning

  – goal of the proposal agreed upon, but not
    the proposal itself
      → group design of a new proposal

Collective design
of the future situation

● Role of the HFE specialist

– helping the formalization of proposals

– recalling past discussions and arguments

– situating solutions within the overall context

– enlarging the scope of solutions

– bringing ideas from the outside world

– pointing out the consequences of the solutions in terms of agents' workload

➔ *The HFE specialist is not simply a group leader!*
He/she brings in HFE knowledge and task knowledge

The craft of the HFE specialist
From regular to enabling interventions

- From an expert status
  - goal : propose new processes, new rules, etc.
  - basis: expert knowledge & task analysis
  - → designer of "organized work"

- … to an enabling, constructive status
  - goal: foster a continuous process of organizational design
  - basis: task analysis & participatory expertise
  - → promoter of "organizing work"