



United Nations
Educational, Scientific and
Cultural Organization

Enlarging the Field of Future Studies: The Emergent Discipline of Anticipation

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In the late 17th Century Anton van Leeuwenhoek discovered bacteria. The microscopes he invented revealed invisible worlds. But it took another two centuries to make sense



The Discipline of Anticipation

Three basic building blocks:

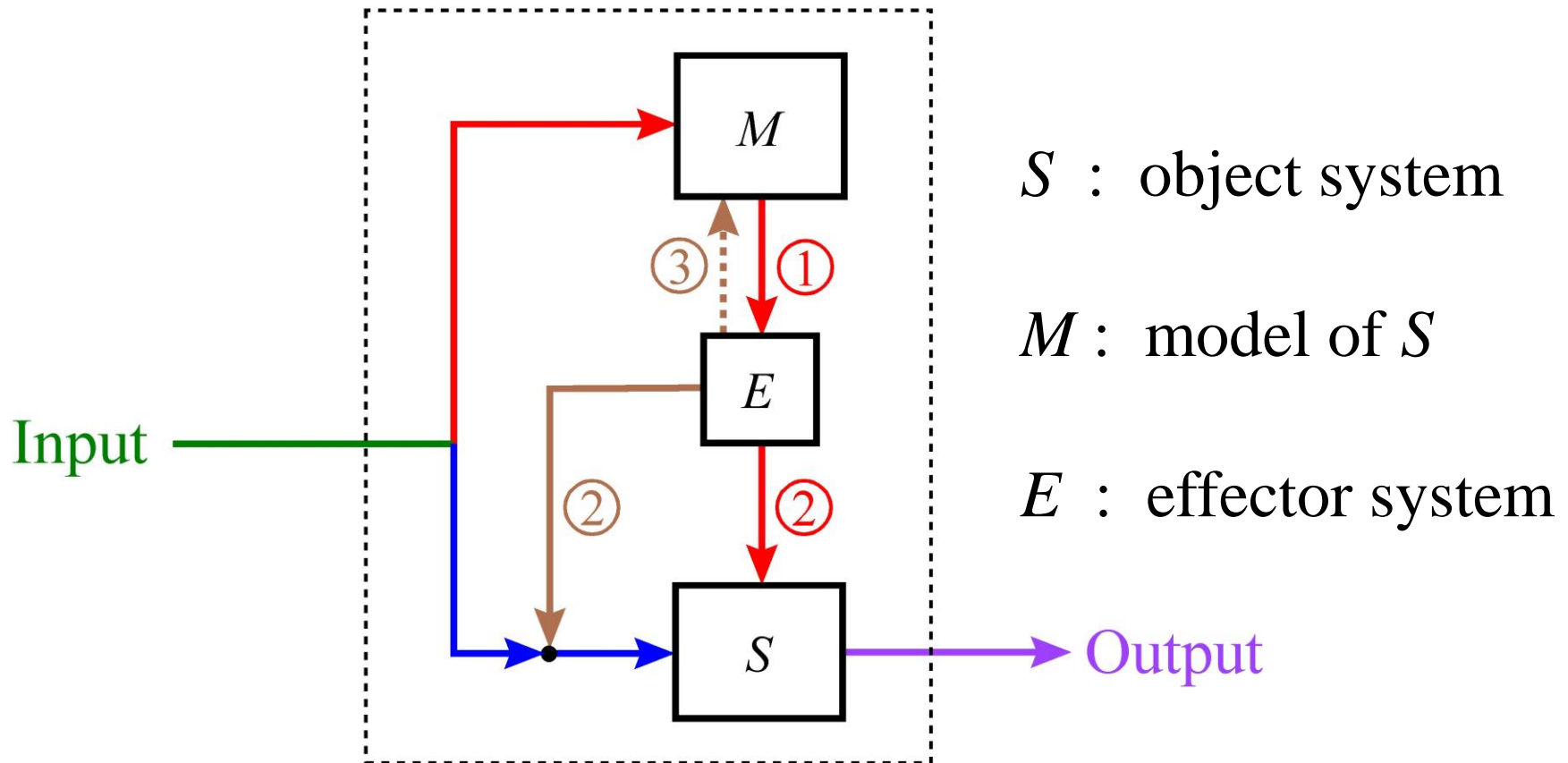
- A. Anticipatory systems** perspective that encompasses both animate and inanimate anticipation – distinguish different models.
- B. Three distinct dimensions** for imagining the future and the different methods that are related to each: contingent, optimized, novel.
- C. Futures literacy knowledge labs:** A learning-by-doing process that uses collective intelligence to discover and invent specific knowledge – action research processes for discovering, reframing and questioning anticipatory assumptions.

A: Bugs Bunny Anticipates





Taking an Anticipatory Systems View



CITY OF THE FUTURE
What will the city of tomorrow be like? Here is the unbreakable glass city of the 21st century. A city of science, of atomic power, of space travel, and of high culture. See page 49 for complete story.

Distinguishing three dimensions of the potential of the present

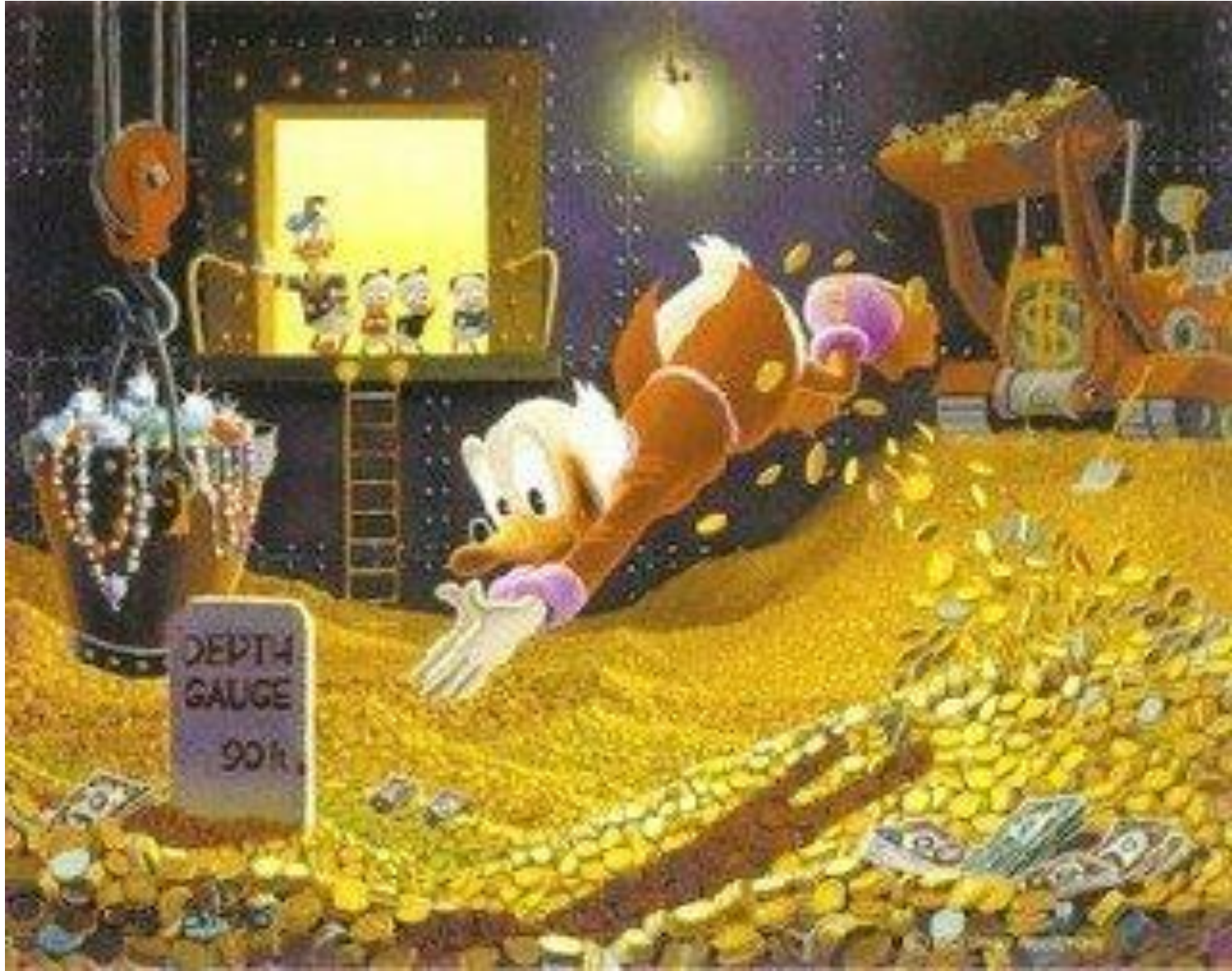


Contingency futures: a tsunami

THE DAY AFTER TOMORROW
WHERE WILL YOU BE?

IN THEATERS WORLDWIDE MAY 28, 2004

Contingency futures: winning the lottery



Optimization Futures: Chess, Farming, Assembly Line



Assume:

- **Goals**
- **Rules**
- **Resources**

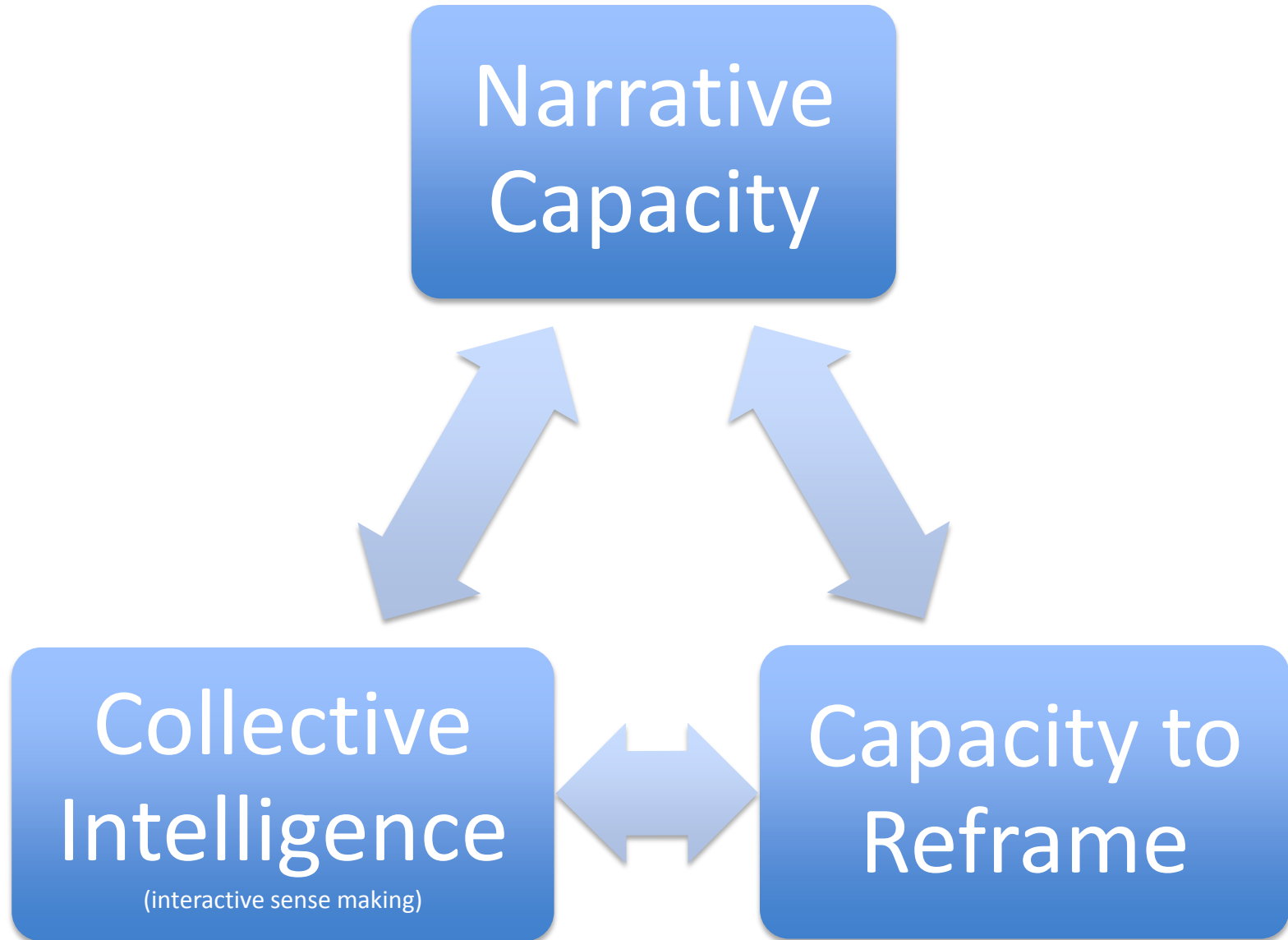


C: Rigorous Imagining



Disciplined design of collective intelligence processes to reveal and invent anticipatory assumptions — specific repetition & difference.

Know-labs: the microscope of the 21st Century



Using the learning curve to deploy collective intelligence

—

the generic know-lab

- Level 1 futures literacy
 - Temporal awareness, values, expectations – feeling the future, discovering ignorance
- Level 2 futures literacy
 - Rigorous imagining – reframing – preparation, teleology **and** novelty (liberated from prep & teleology)
- Level 3 futures literacy

Scientific
discovery as the
learning curve of
constructing
narrative

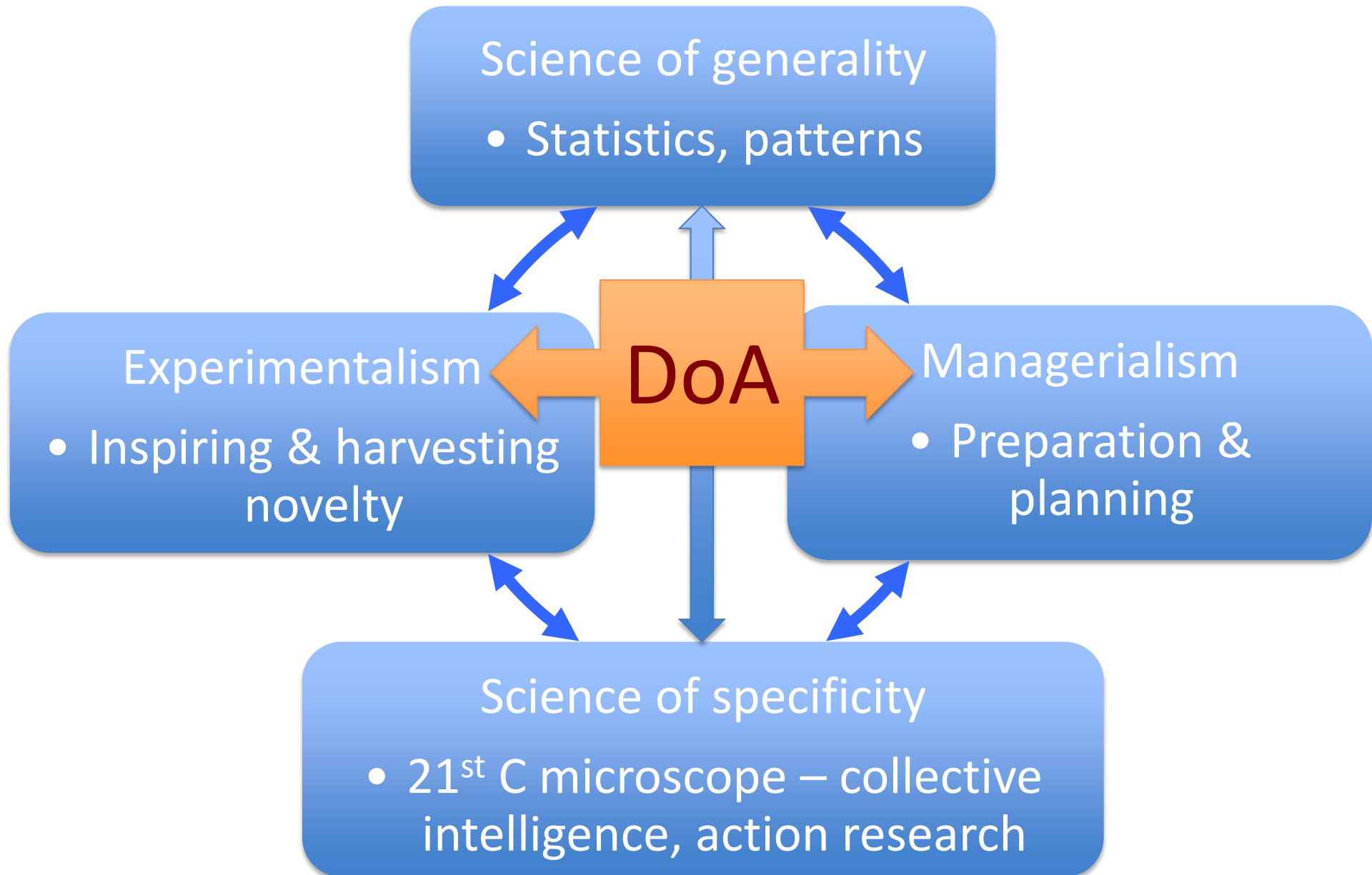
Learning to
Learn -
Reframing

New Questions

Tacit to explicit



The value-added of the DoA



DoA: Walking on two legs

Reframing human agency:

1. General: How we pursue a better future – balancing planning & improvisation (towards a capacity to be less biased towards choices promising path dependency);
2. Appreciating and making sense of specificity and heterarchy – the capacity



Transformation

“Society is now at a stage in history in which one pulse is ending and another beginning. The immense destruction that a new pulse signals is both frightening and creative. It raises fundamental questions about transformation. The only way to approach such a period, in which uncertainty is very large and one cannot predict what the future holds, is not to predict, but to experiment and act inventively and exuberantly via diverse adventures in living.”

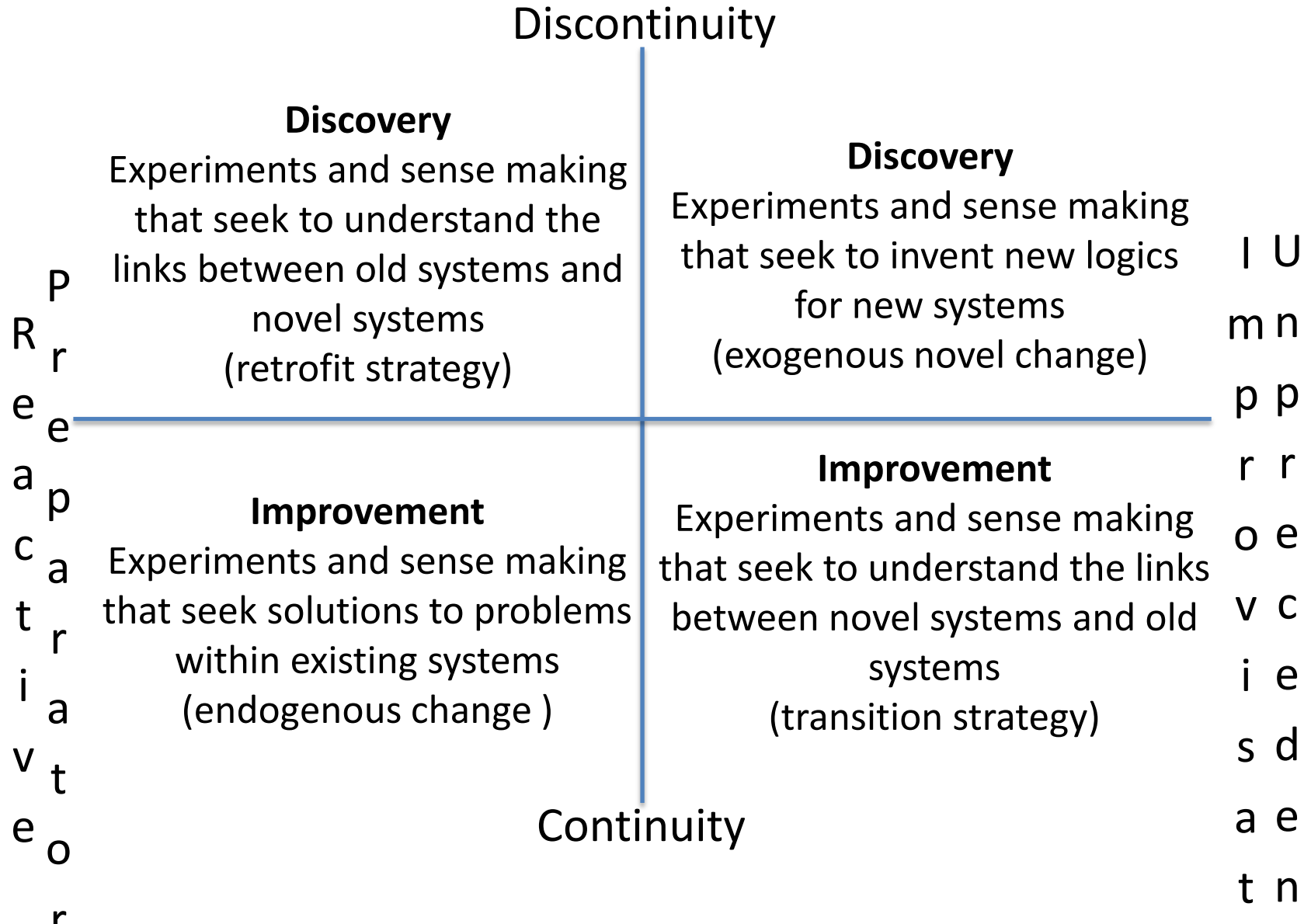
C.S. “Buzz” Hollings, “Coping with Transformational Change”, Options, IIASA, Summer 2010

How to make sense of the way we use the imaginary future

Anticipation is not choice, but choice is anticipation – locating the specialization of the DoA in the identification of the full range of anticipatory assumptions (at different levels) – what and why to choose (exploring/inventing the liminal by being able to use different anticipatory systems to

What are we trying to do?

The challenge of making sense of experiments



How we see the world matters
it manages complexity.



Thank you
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