Atlantic Centre for Creativity

DEEP WINTER SERIES

Playing with Meta-Cognition

Atlantic Centre for Creativity (ACC)

Master's Research Project, OCAD University
Strategic Foresight and Innovation (SFI)
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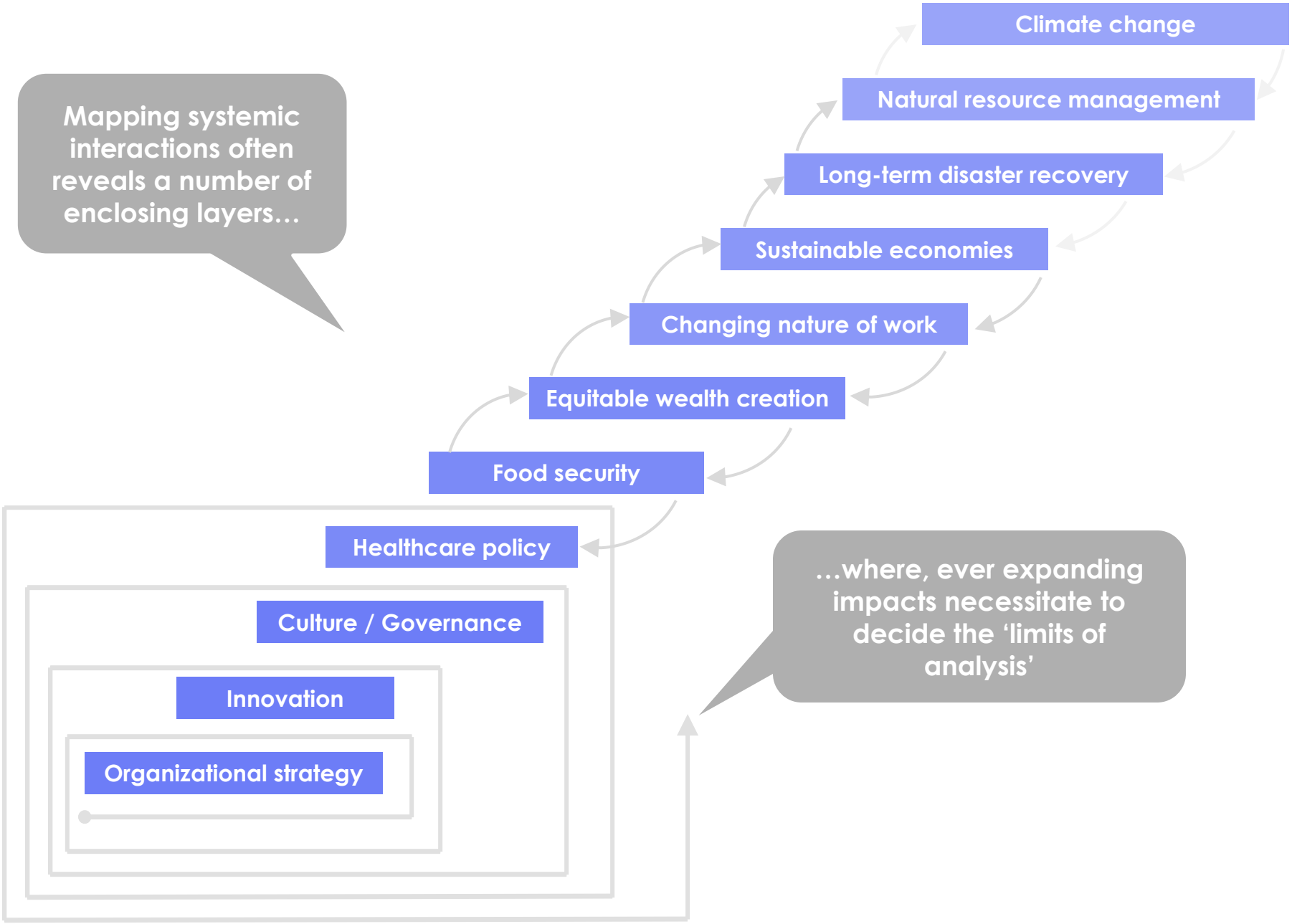
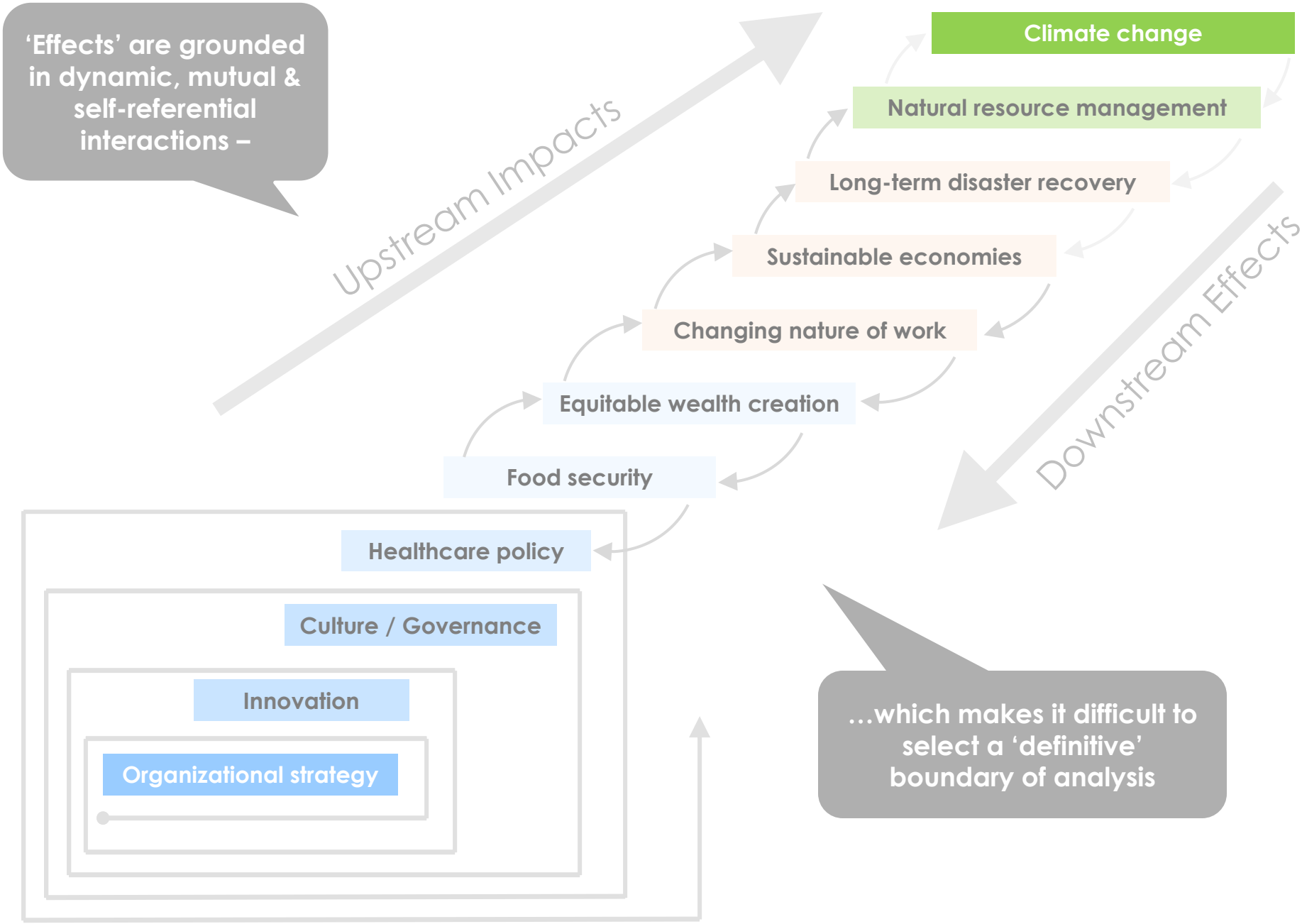
Why meta-cognition and creativity?

Modern Challenges:

Indefinite Boundaries & Systemic Enclosedness


Mapping systemic interactions often reveals a number of enclosing layers…
Climate change
Natural resource management
Long-term disaster recovery
Sustainable economies
Changing nature of work
Equitable wealth creation
Food security
Healthcare policy
Culture / Governance
Innovation
Organizational strategy
…where, ever expanding impacts necessitate to decide the 'limits of analysis'


'Effects' are grounded in dynamic, mutual & self-referential interactions –
Upstream Impacts
Climate change
Natural resource management
Long-term disaster recovery
Sustainable economies
Changing nature of work
Equitable wealth creation
Food security
Downstream Effects
Healthcare policy
Culture / Governance
Innovation
Organizational strategy
…which makes it difficult to select a 'definitive' boundary of analysis

Diverse perspectives needed to 'frame' the situation –

Which requires collaboration.

* Relates to the concept of 'Requisite Variety' (Ashby, 1956)

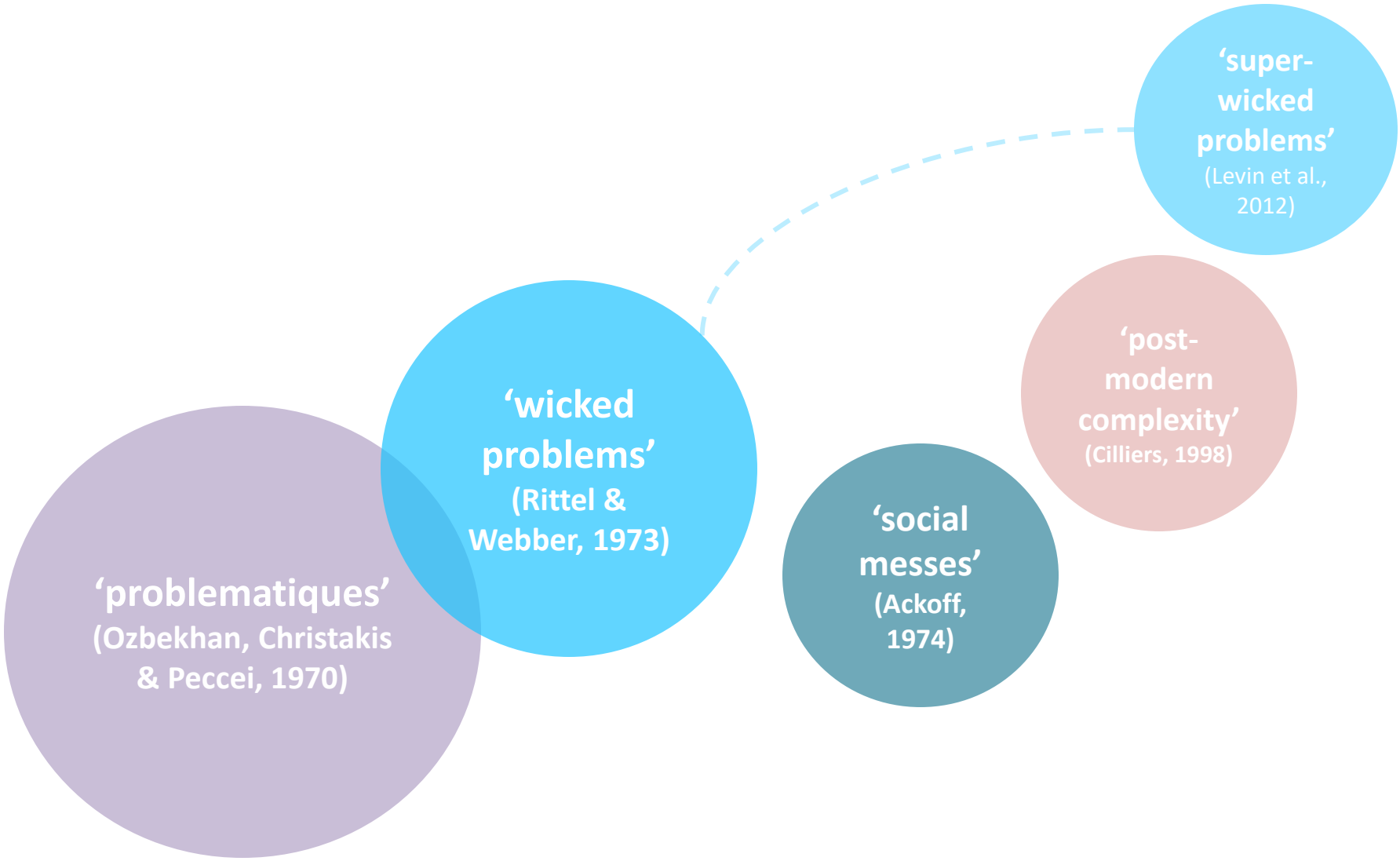
No definitive heuristic exists to negotiate the 'correct' boundary of understanding –

Which leads to conflict over necessary perspectives.

How might we better understand ‘complexity’ –

To help enable collaboration?

Key Theories in Understanding Complexity



‘Social Messes’

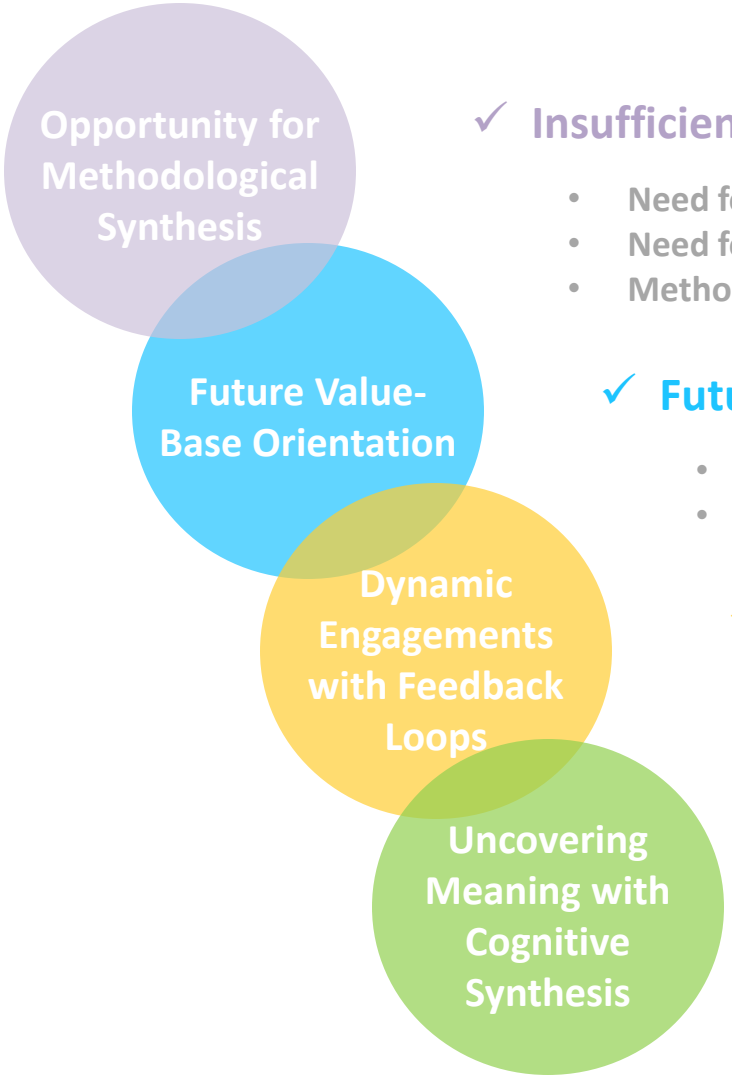
(Ackoff, 1979)

Key Characteristics of ‘Social Messes’

Interrelatedness	✓ **'Messes' consist of many components that are intrinsically interrelated**, combining into a larger whole – where both parts and relationships are critical
Indivisibility	✓ **'Messes' may not be divided into sub-components** – sub-segmentations don’t behave the same way as the larger 'problem mess' whole
Messy Management	✓ **Shift from 'clear resolutions' to 'mess management' strategies** – each potential approach yields a different type of an outcome
Multi-Intervention Points	✓ **Shift from a single 'problem to be solved'** to addressing many intervention points – in order to engage multiple possible states of the system
Multi Cognitive	✓ **Shift from problem-solving approaches to multi-modal cognition** – required to understand and potentially successfully engage 'social messes'.

Conceptual Synthesis:

towards the
"Affordances" of
Complexity



✓ **Insufficiencies of Determinism**

- Need for Deeper Understanding
- Need for Comprehensive Analysis
- Methodological Challenges

✓ **Futurity Differentials**

- Clarify Systemic Characteristics
- Future Value-Base Orientation

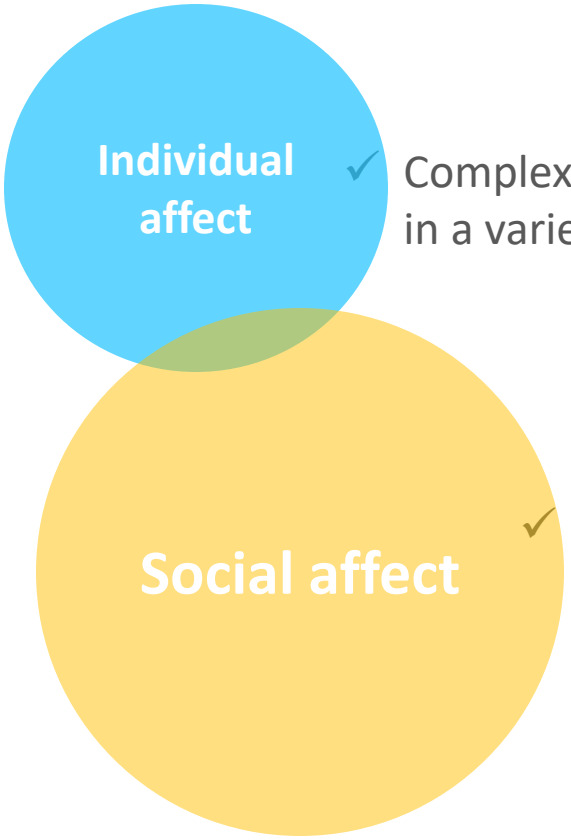
✓ **Dynamic Circularities**

- Shared Value-Base
- Feedback-Based Goals, Means & Objectives Refactoring

✓ **Distributed Meaning**

- Descriptive Conceptual Model
- Levels of Cognition

Complexity as Impacting Pre-Cognitive, Affective Experiences



✓ Complexity **impacts individual at an affective level** in a variety of ways

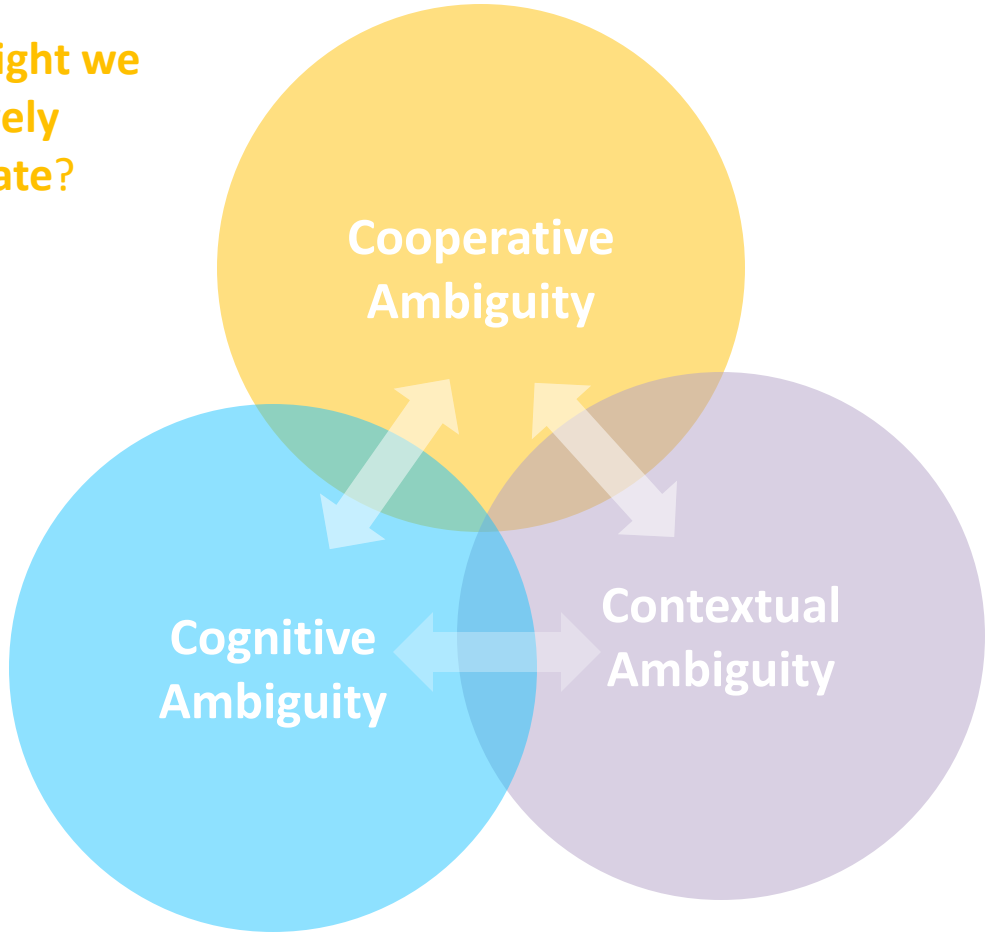
✓ Individual impacts **extend to social activity** experienced at a variety of scales – team, group, organization & community

Conceptual Synthesis:

“Complex Social Challenges”

Complex Social Challenges Complexity as Interacting Ambiguities

How might we effectively cooperate?

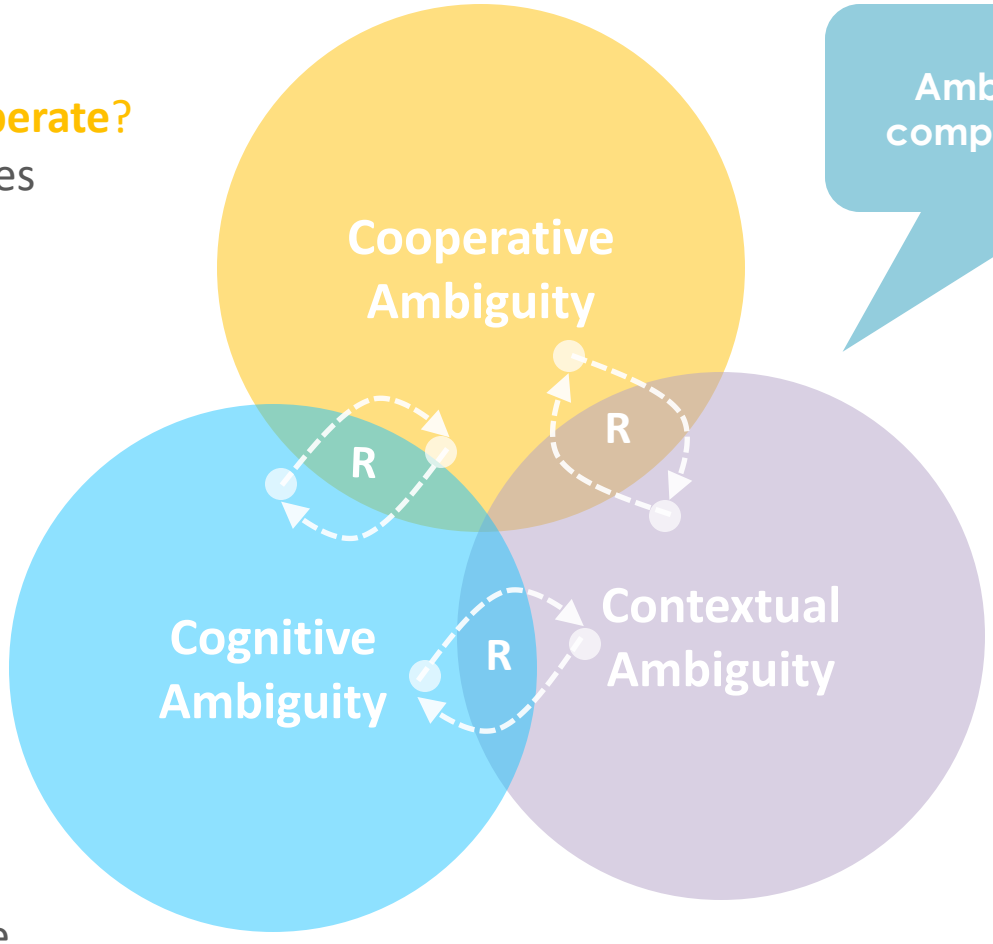


How might we think about it?

What models can describe the environment?

Complex Social Challenges Complexity as Interacting Ambiguities

How might we effectively cooperate?
What approaches might be most appropriate?

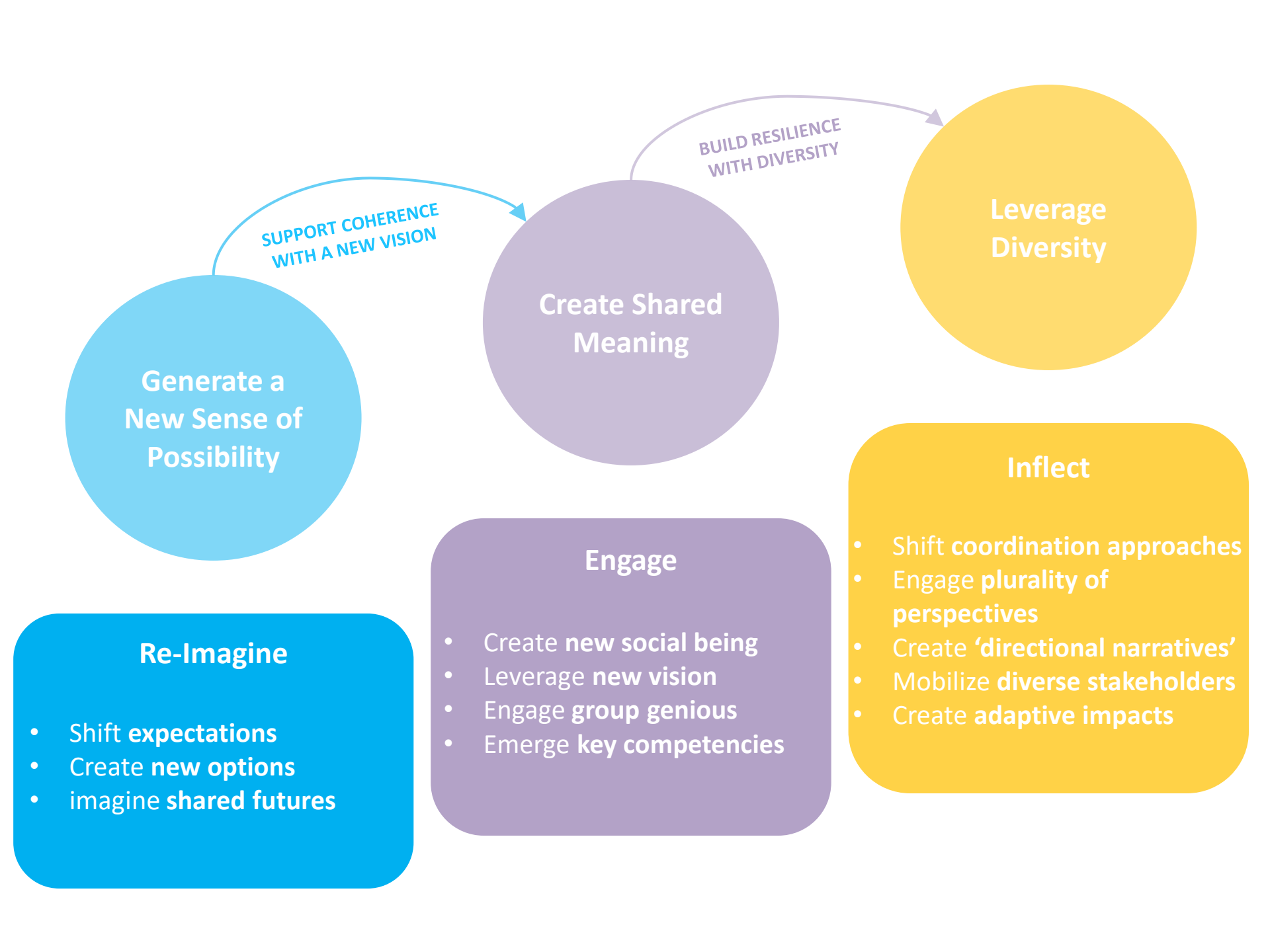


Ambiguities interact & complexify collaboration

How might we think about it?
What modes of cognition might be most appropriate?

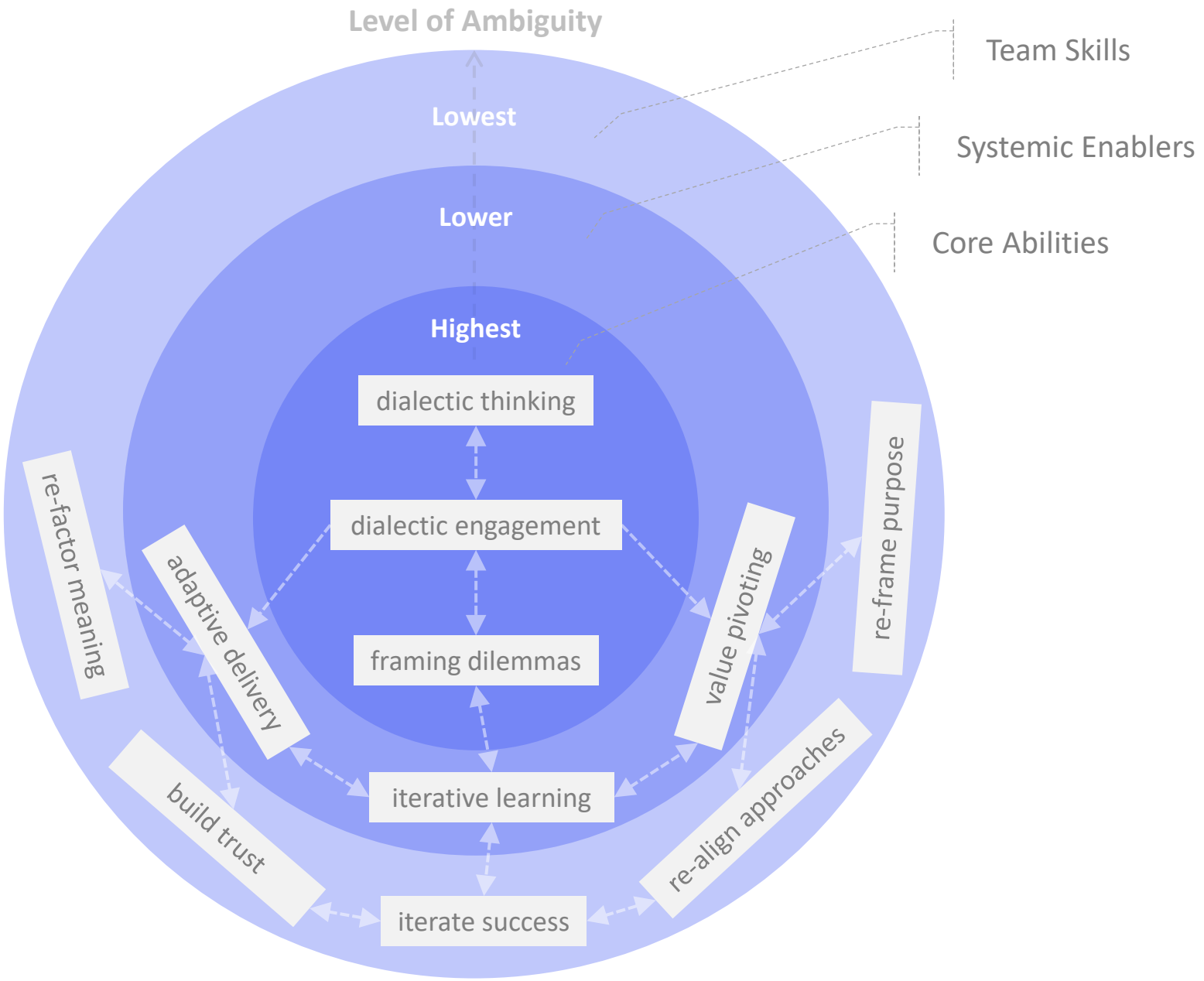
What models can describe the environment?
What might be most fitting?

Collaborative Model for Complex Social Challenges


SUPPORT COHERENCE WITH A NEW VISION
BUILD RESILIENCE WITH DIVERSITY
Generate a New Sense of Possibility
Create Shared Meaning
Leverage Diversity
Re-Imagine
Shift expectations
Create new options
imagine shared futures
Engage
Create new social being
Leverage new vision
Engage group genious
Emerge key competencies
Inflect
Shift coordination approaches
Engage plurality of perspectives
Create 'directional narratives'
Mobilize diverse stakeholders
Create adaptive impacts

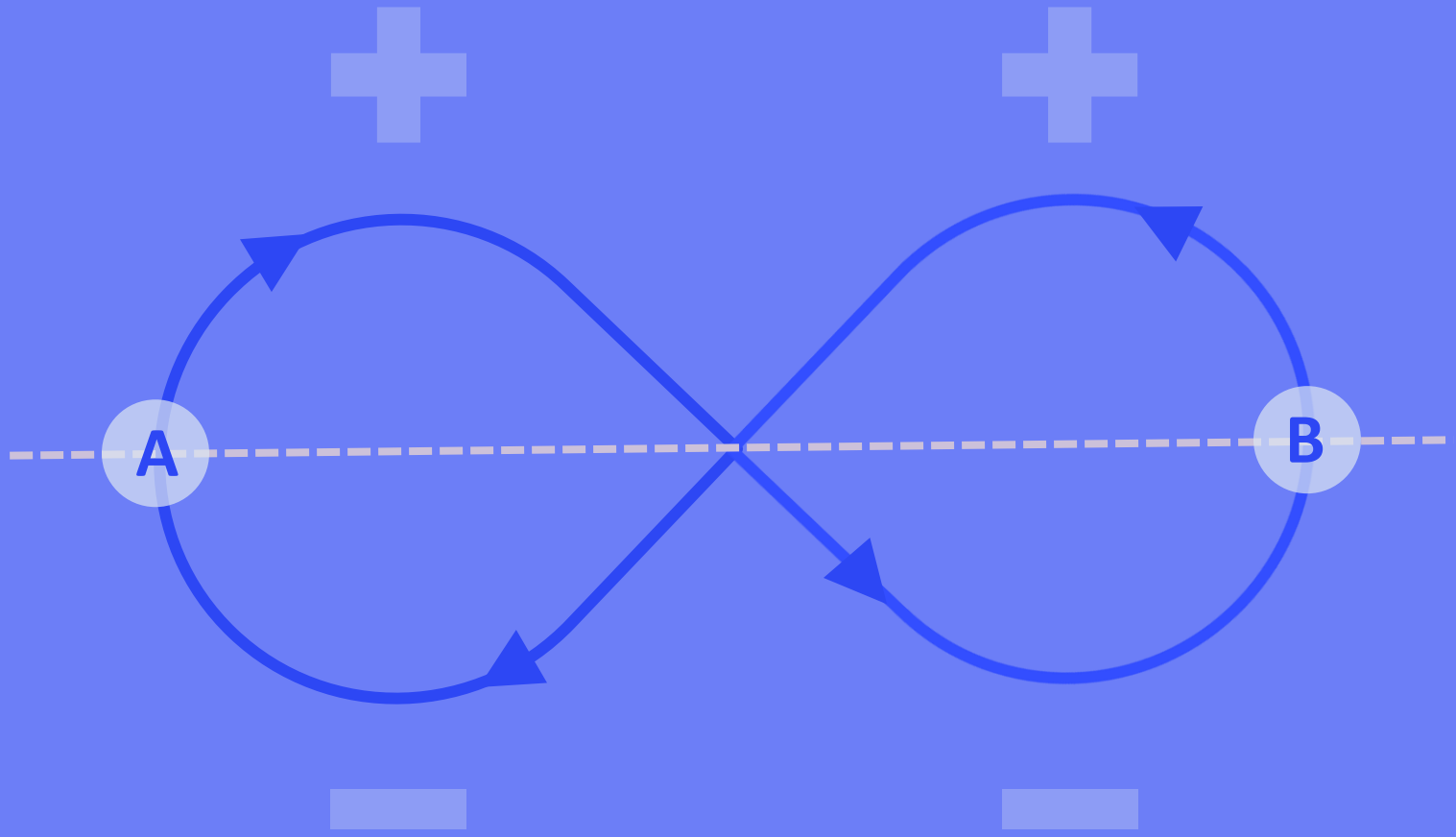
Enabling Change
with
Meta-Cognition

Meta-Cognition Model



Practicing Meta-Cognition: Thinking Dialectically with Polarities

'Polarity' – *Dynamic Movement Between Contrasting, Yet Complementary States*



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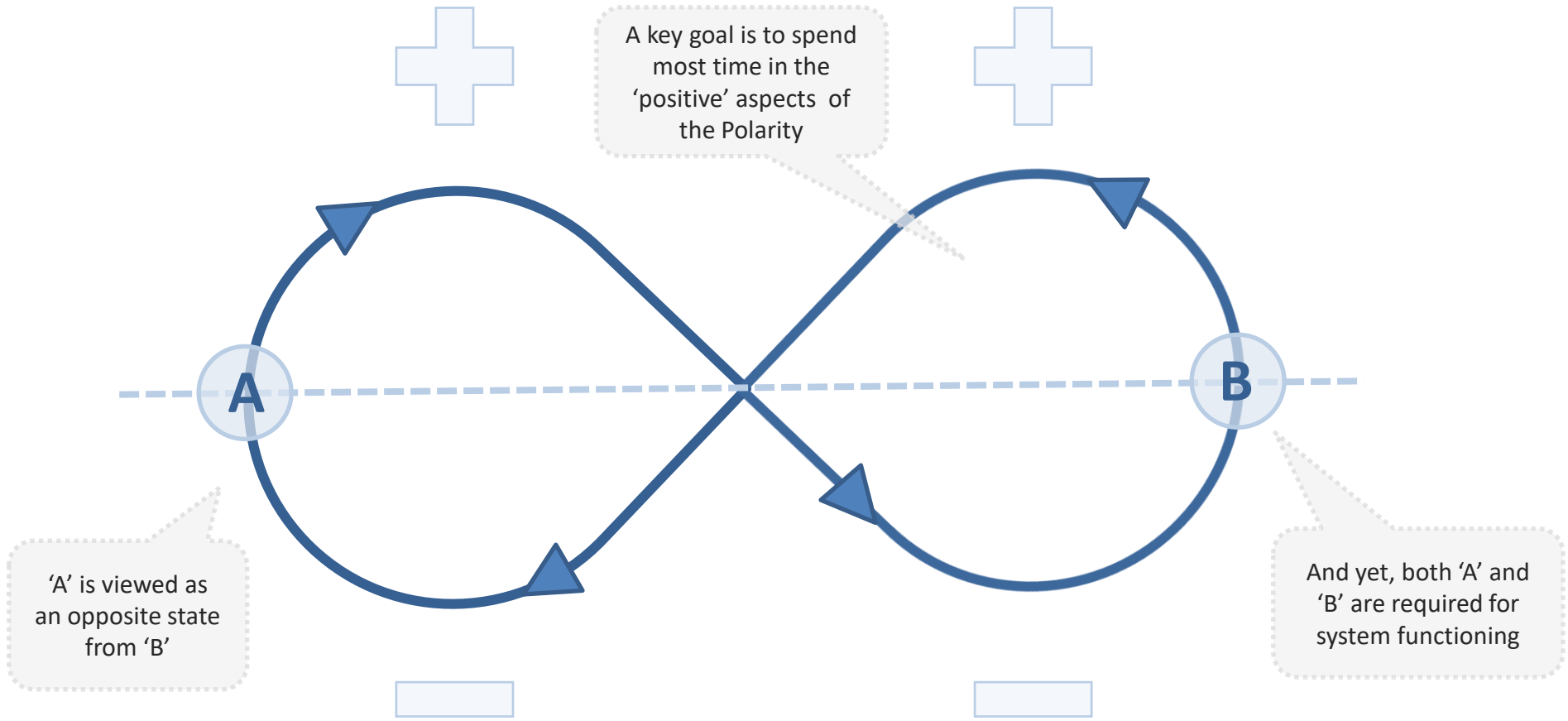

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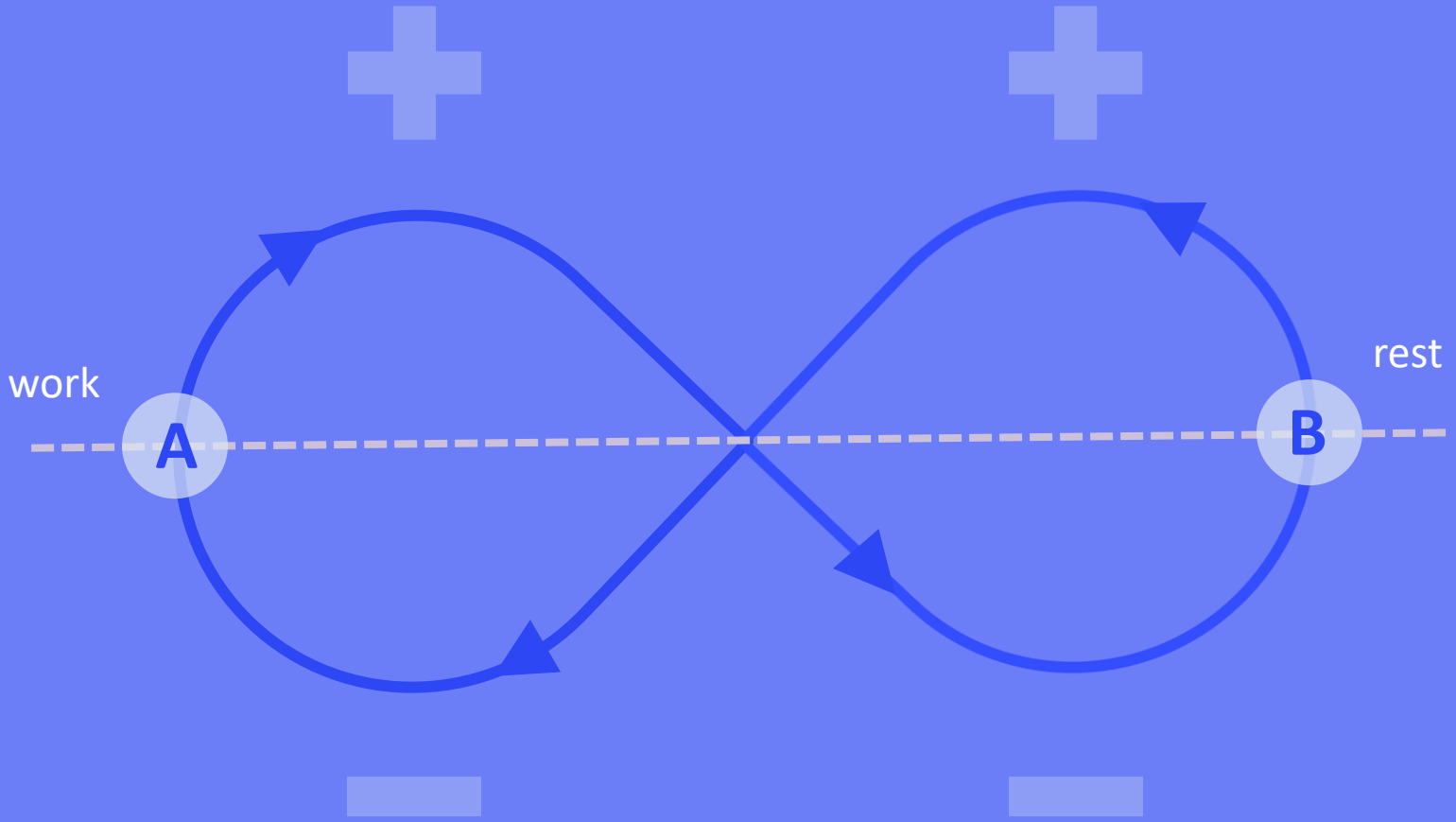
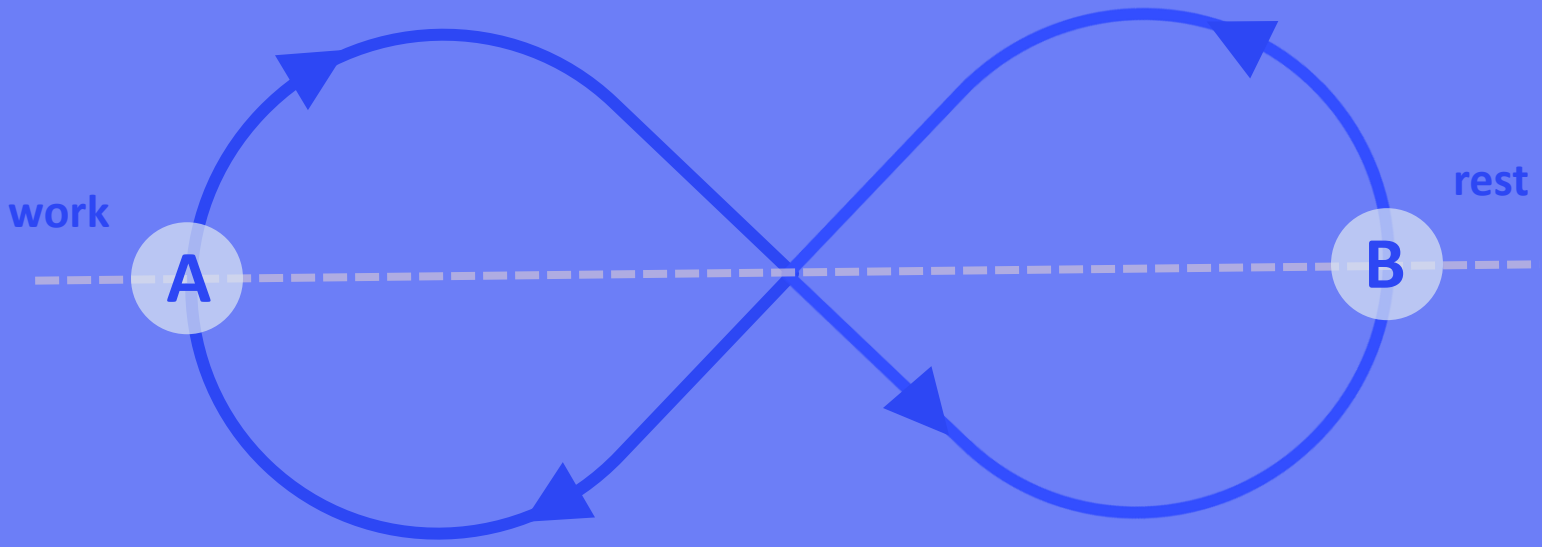


'Polarity' – *Dynamic Movement Between Contrasting, Yet Complementary States*

- Feel accomplished
- Recognized
- Rewarded
- Making a difference

- Feel rested
- Time w. loved ones
- Ready for challenges
- Inspired / unexpected

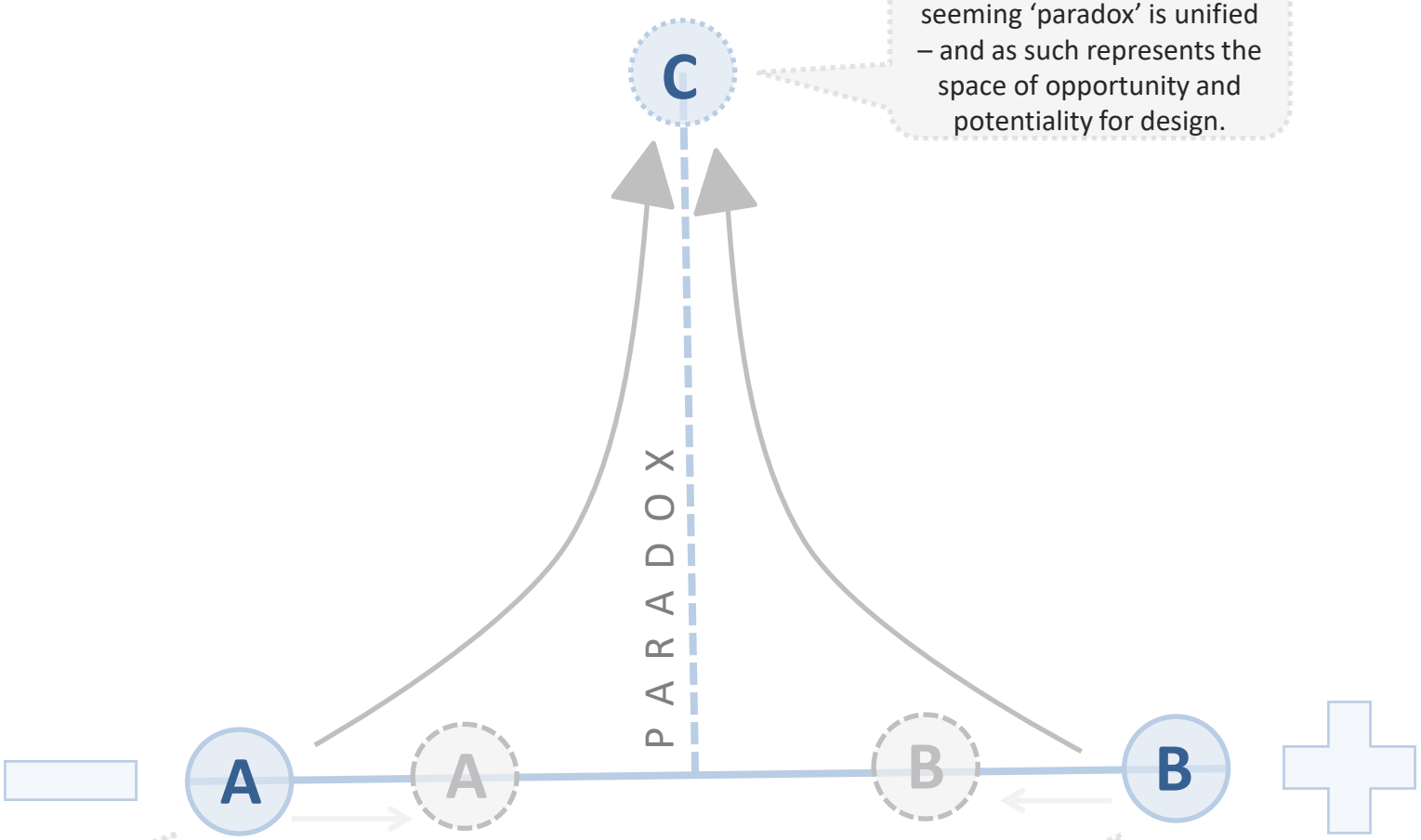


- Feel burnt-out
- Too much work
- Disrupted work-life balance
- Low attention to own needs

- Too much rest
- Need for meaning
- Feel unchallenged
- Not enough happening

Linoit Exercise: Meta-Cognition w. Polarities

'Dialectic' – *Tension Between Seemingly Incompatible States*



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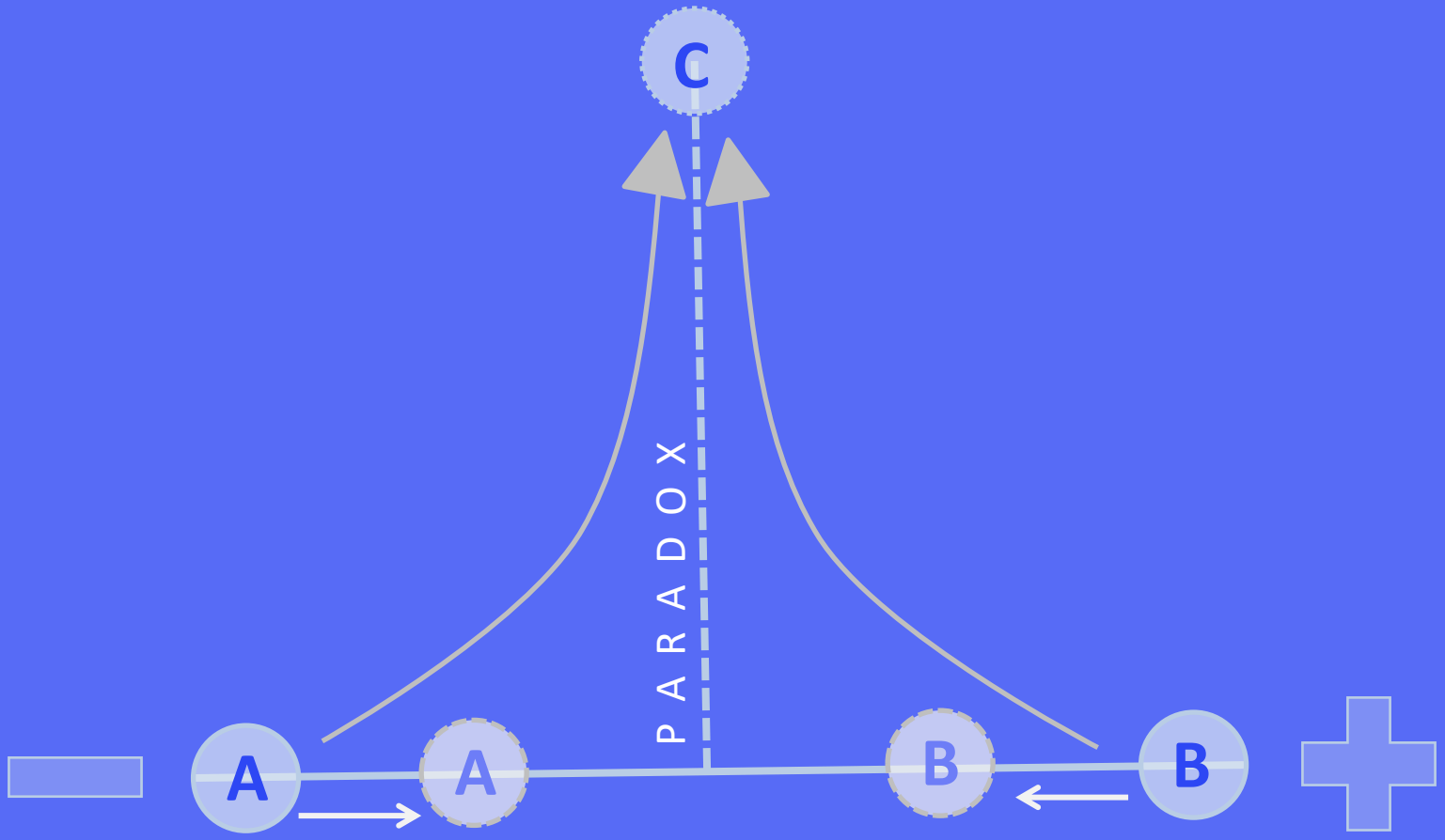

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Thank you!

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Master's Thesis

Team Collaboration Competencies for Complex Social Challenges (Matic, 2017)

http://openresearch.ocadu.ca/id/eprint/1990/