OR64: OR FOR A BETTER WORLD TOGETHER
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A Framework for Systems Thinking Practice

Dr Natalie Clewley, Dr Tim Forsyth
natalie.clewley@cranfield.ac.uk, tim.forsyth@cranfield.ac.uk

Dr Lorraine Dodd, Jeremy Hilton
l.dodd@cranfield.ac.uk, j.c.hilton@cranfield.ac.uk

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Our Perspective

Systems research is conducted in an environment with often *competing influences* on how research problems are *defined and investigated*, against a background of *personal preferences* and a multitude of *external pressures*.



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Rationale for Framework

No specific paradigm:

- Systems thinking as a domain of research, study and practice does not have its own specific paradigm with its own assumptions, laws of agreement of its variegated problem and inconsistencies.

Philosophical perspectives are not incommensurable:

- They may be considered inclusive and provide the opportunity for mixing theoretical perspectives to attain explanation and understanding of phenomenon.

Generation of knowledge:

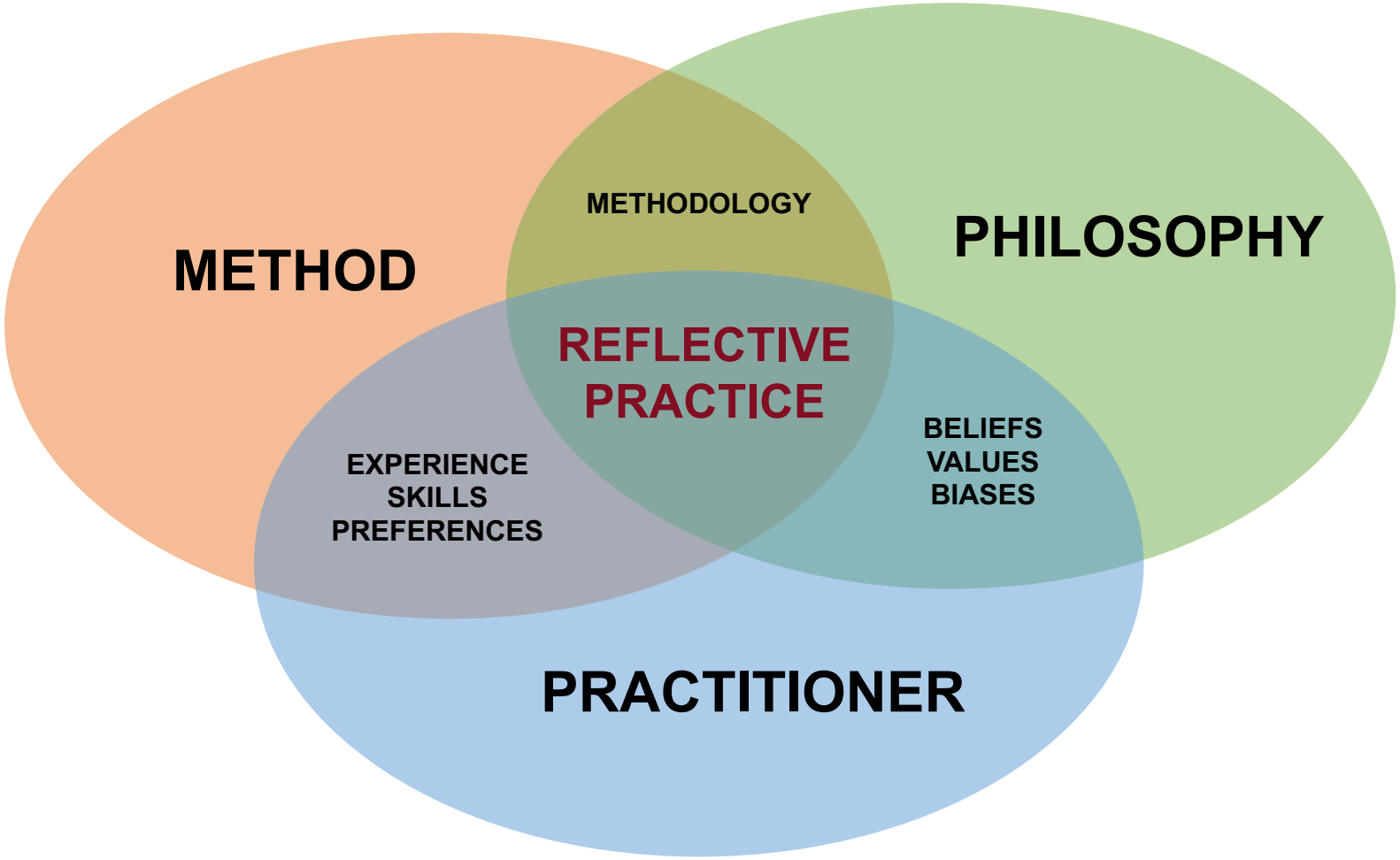
- Identifying and linking philosophical assumptions with contextual phenomena facilitates explicit statements to be made about the extent to which results are meaningful, trustworthy and generalisable.

Problem contexts, stakeholders and systems researchers:

- Facilitates a conversation to differentiate between approaches to select and craft general systems methods into bespoke applications.

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Framework of Systems Thinking Practice

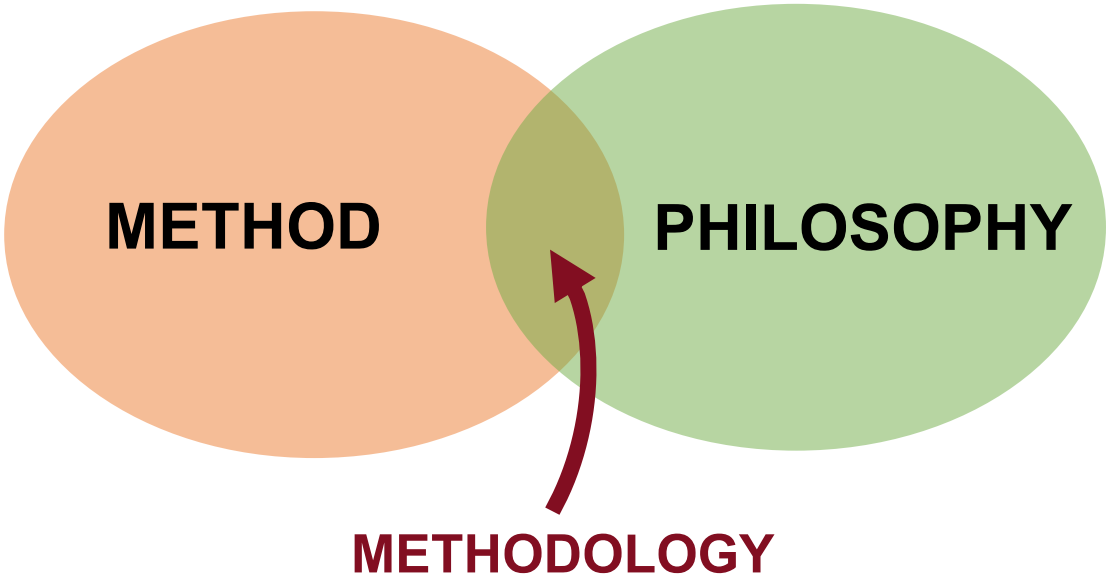


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METHOD vs PHILOSOPHY

In terms of '**METHOD**', we as practitioners should take a method agnostic, multi-perspective approach to Systems Thinking Practice, bringing with us a diverse 'bag of methods' to bear on any complex problematical situation (e.g. SSM, VSM, SD, CSH, Concept Maps, Context Diagrams, Pig Model, Scenario Planning…).

In terms of '**PHILOSOPHY**', we as practitioners should have a strong theoretical underpinning for the tools and methods (e.g. Churchman, Ulrich, Kant, Kahneman, Checkland, Wilson, Ashby, Beer, Senge, Stroh, Meadows, Migley, Pawson…).



The intersection of Philosophy and Method result in a methodology that links the 'whats' and 'hows' (Checkland, 1993:163).

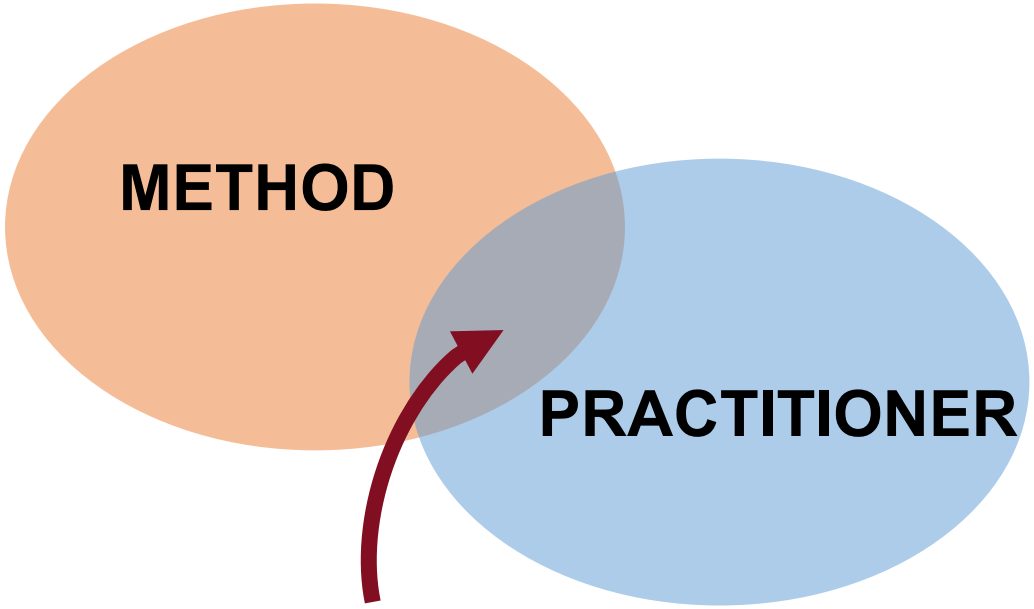
Awareness of methods applied in the correct/valid context, such that we as practitioners can make informed and reasoned choices for implementation.

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METHOD vs PRACTITIONER

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In terms of '**PRACTITIONER**', we as practitioners should bridge the gap between the practitioner and academic boundary.



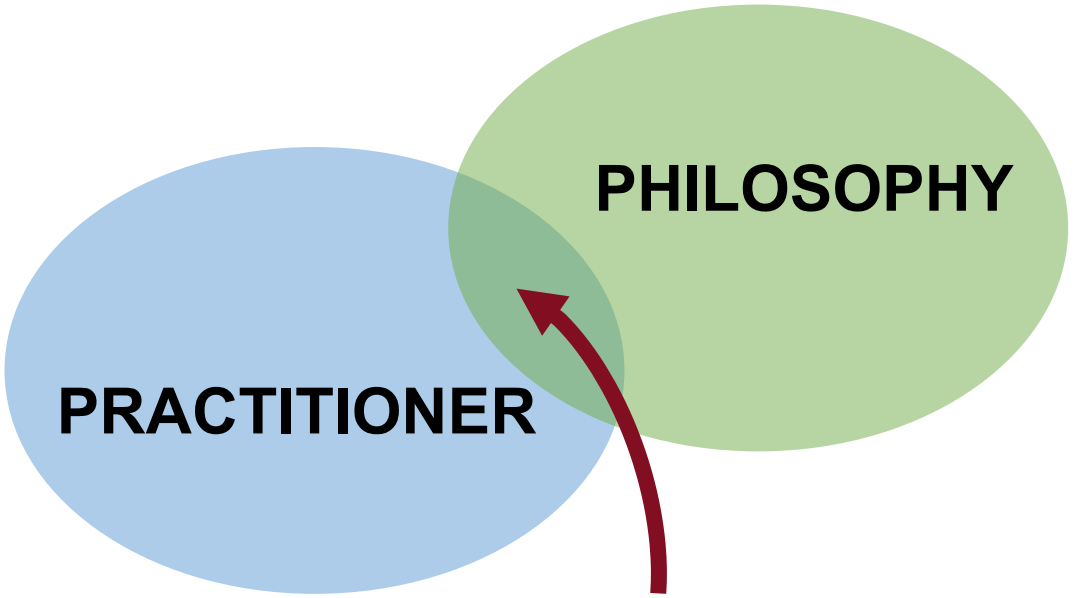
At the intersection between Method and Practitioner, when considering problematical situations, the practitioner must balance the selection of methods in conjunction with their previous experience, skills and preference for individual tools in such a way as to be mindful of the confirmation bias.

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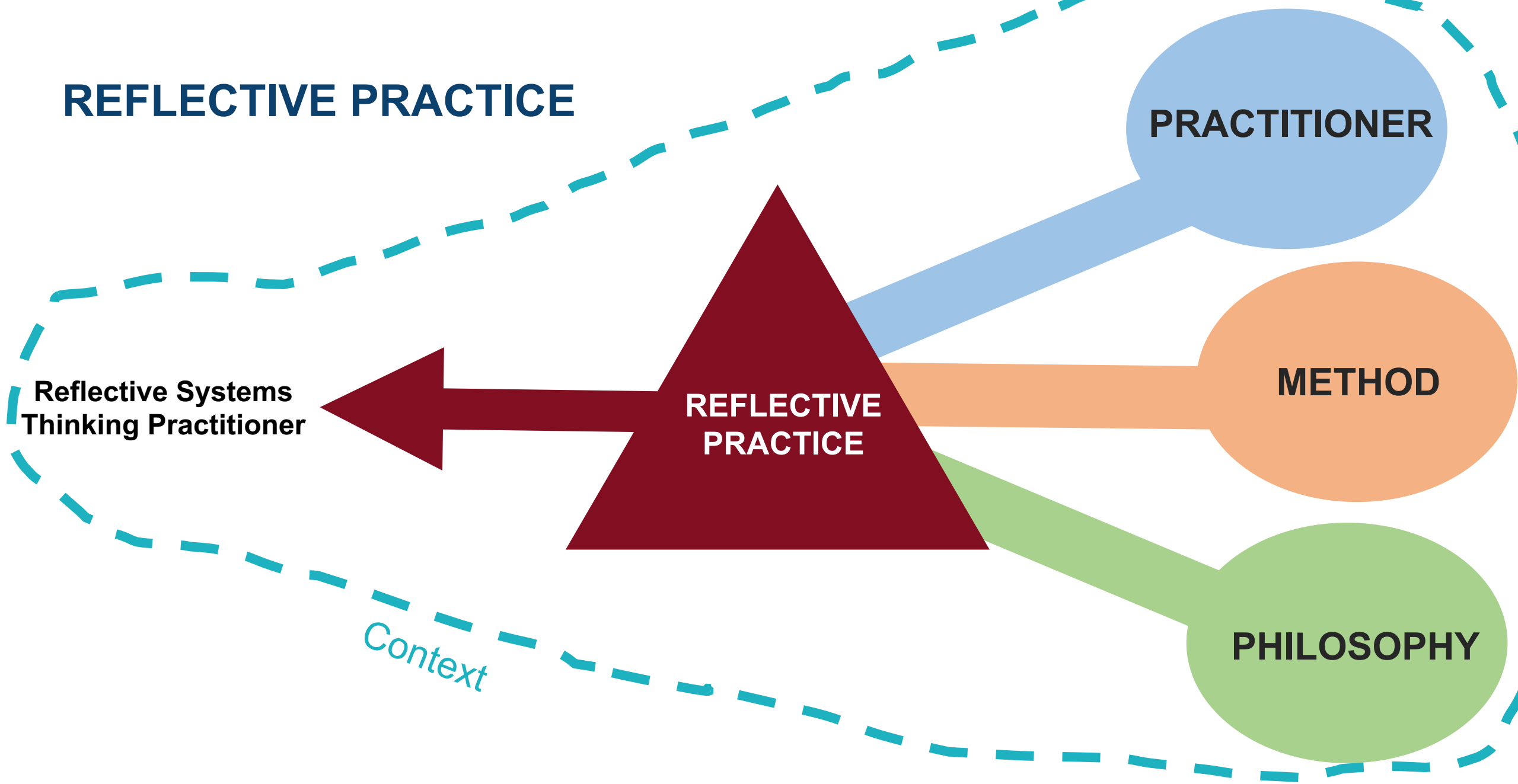


BELIEFS, VALUES AND BIASES

The intersection between Practitioner and Philosophy is grounded in the lower levels of the Iceberg Model (Hall, 1976) where the practitioner should be mindful (and potentially surface) any personal beliefs and values in the form of unconscious biases that may inhibit our appreciation of other perspectives.

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REFLECTIVE PRACTICE



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Going Forward

We have applied this to:

- Research in Public Health, Defence and Security, Organisational Resilience and Charitable Organisations;
- Teaching students and Systems Thinking Practice Apprentices, who are a new generation of systems thinking practitioners who will go on to be active, contributing members to the OR community.

Going forward our intention is to gather a series of case studies in order to generate a set of evidence-based principles to support systems thinking practitioners engaging with complex situations within OR.

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A framework for systems thinking practice

Clewley, Natalie; Forsyth, Tim; Dodd, Lorraine; Hilton, Jeremy

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