

Phenomenology in design research

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- Phenomenology in (interaction)design research
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How do you know
how long a cord is
if you can't see it?



Phenomenology seeks to understand the world as it is interpreted by and through human consciousness.

It's an attempt to understand the way that human existence is part of the larger world around it.

Phenomenology is a theoretical perspective in the interpretive tradition

Husserl (early 20th century)

- Phenomenology as the science of consciousness, rigorous and systematic study of consciousness as experienced from the first-person point of view

Heidegger

- Phenomenology as an analysis of human existence as 'being-in-the-world', as a pragmatic action-oriented way of being related to our environment...
- “Ready-to-hand” – there to use
- “Present-at-hand” – what I notice if it does work, it breaks down
 - The hammer

Merleau-Ponty

- Added focus on (not just perception but) embodiment and analysis of embodied perception by integrating psychology and neuroscience with phenomenology
- MP put greater emphasis on the role of the body (than Husserl or Heidegger). MP treats the body as the perceiver, the knower, the agent. Intentionality is primarily a motor intentionality. We make sense of the world through our bodily actions, our primary relation to the world, as pragmatic, and as ready-to-hand, is primarily an embodied relation where our hands and motor systems necessarily play an essential role
- *We perceive the world in terms of the possibilities for action that it offers!*

“

For a phenomenologist it makes no sense to speak of perception, cognition and motor action, as if these are quite different activities with some definable boundary between them. This is not how they are lived. We do not perceive the world in front of us, like a picture. We are in it.

(Robertson, 2002)

”

Physical exploration

Close your eyes and have another person press an object into your hand, try to identify what it is.

Still with your eyes closed, try this again, this time use your hands to explore the object.

Phenomenology in (interaction)design (research)

- Phenomenology has direct relevance to design since the *artifacts, tools, and technologies that we make affect the way that we experience our surroundings*
- Gibson and 'affordances'.

Phenomenology in (interaction)design (research)

- Embodiment interactions
- Tangible interactions
- Movement-based interactions

.....

Examples

Title: Augmenting deadlift technique using a sensory artefact to influence perception. A phenomenology and embodied interaction driven exploration of strength exercising and how to use interaction to promote reflection.

- How will a digital artefact that adds feedback to key elements with regards to safe technique of deadlifts as a strength exercise, alter the users' perception of the exercise and as such the learning process, seen through Dreyfus' model of skill acquisition novice to master?

Title: Disassembling repairability: Breakdown-oriented thinking: On accommodating for repair, attachment and longevity through design

- How can the materiality of smartphones affect our ability to repair them?
- How can smartphones be designed to accommodate longer ownership?

Title: Designing for Capabilities A Phenomenological Approach to the Design of Enabling Technologies for Older Adults

- How can the phenomenology of the lived body be used to address capabilities rather than the disabilities in changing bodies?
- How to design for capabilities when working with older adults?
- How can the design outcomes be interpreted and situated within the design space of enabling interaction?

Title: Creating vision-independent representations using a phenomenological approach to tangible and embodied interaction

- How might one create meaningful representations that does not depend upon vision in order to be perceived?

Title: Moving and Making Strange: A Design Methodology for Movement-based Interactive Technologies

- What understandings of human movement are relevant?
- How and in what ways can the experiential nature of the moving body be accessed and understood?
- How and in what ways can the moving body be described and represented?

Title: How it Feels, not Just How it Looks. Towards an Understanding of Kinaesthetic and Proprioceptive Experiences of Interaction with Technology

How can kinaesthetic and proprioceptive experiences as an experiential quality be accounted for in technology design and the study of technology use?

- What terminology and what methods are available in HCI for studying movement, in general and kinaesthetic and proprioceptive experience, in particular? (literature)
- How can the role our kinaesthetic and proprioceptive senses play in experiencing interactions be accessed? (methodological)
- What aspects of kinaesthetic and proprioceptive experiences could be relevant for understanding technology use and interaction design? (theory building)

Examples

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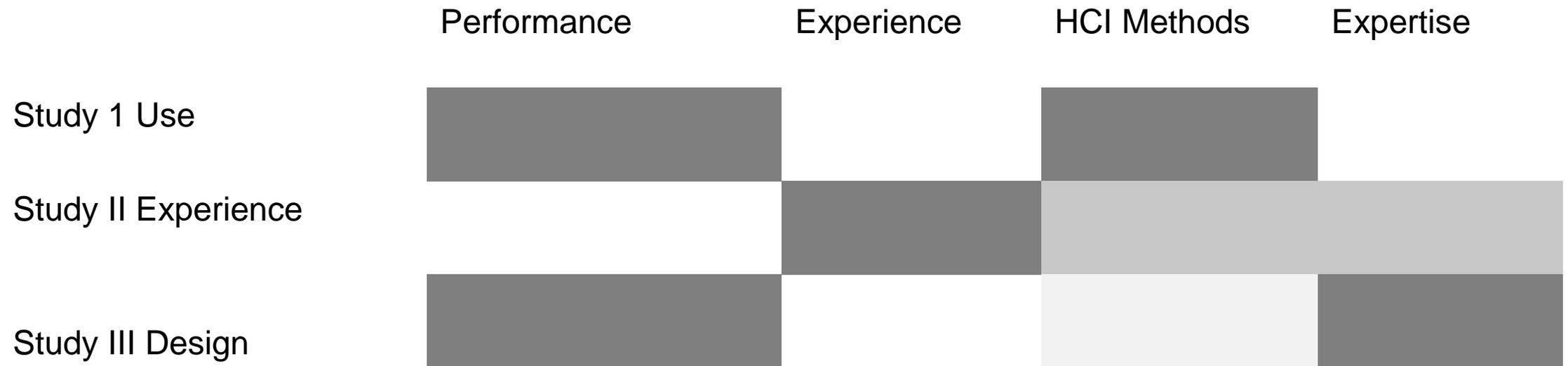
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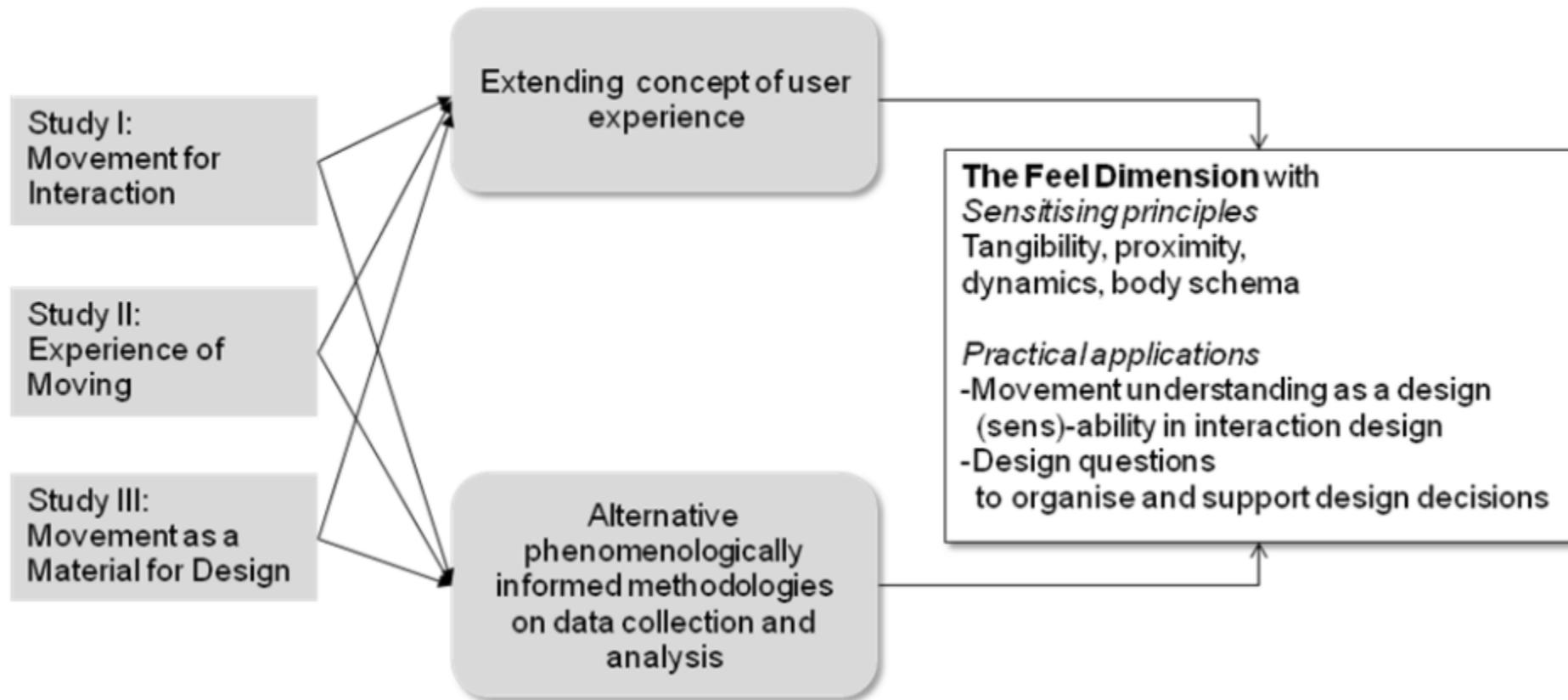
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One of the key elements in professional design ability is assessment, i.e. judging how “good” a design idea is... experiential qualities are concepts that professional designers can use to develop their assessment skills and hence design better products. (Löwgren 2007b, p. 1)



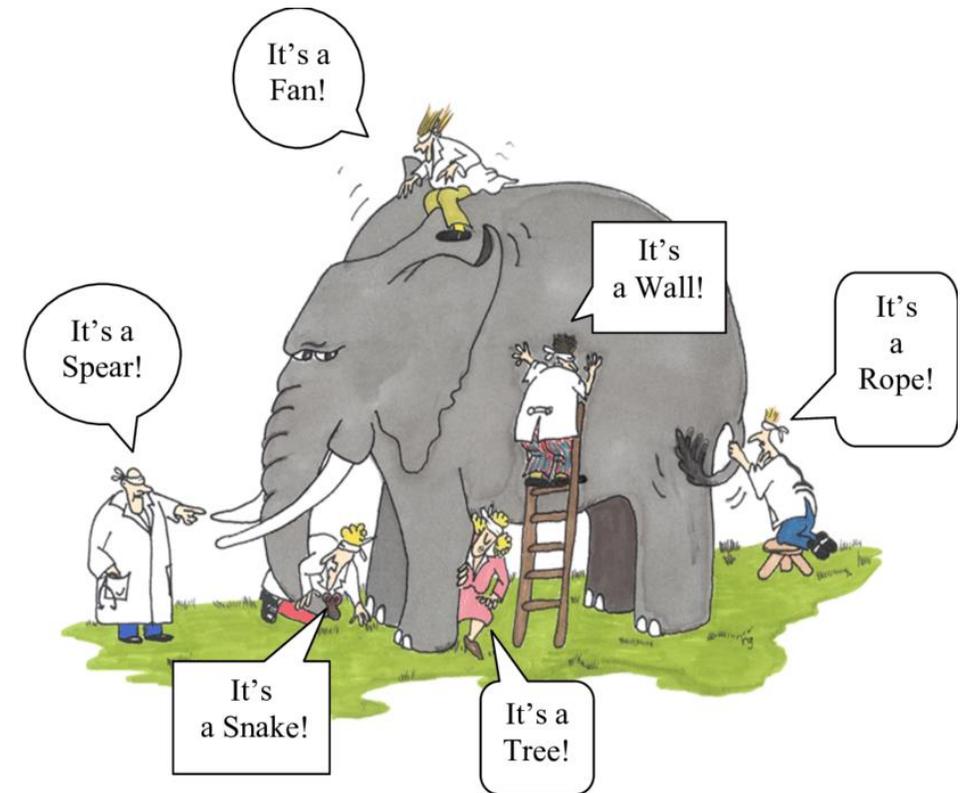


Locating it

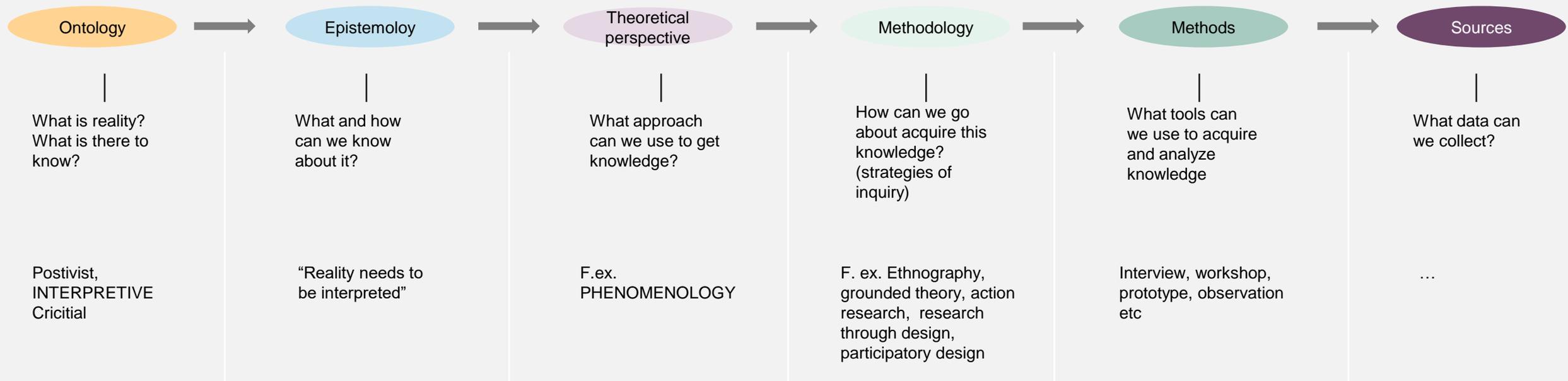
Paradigms, methodologies and methods

Researcher's reflexivity

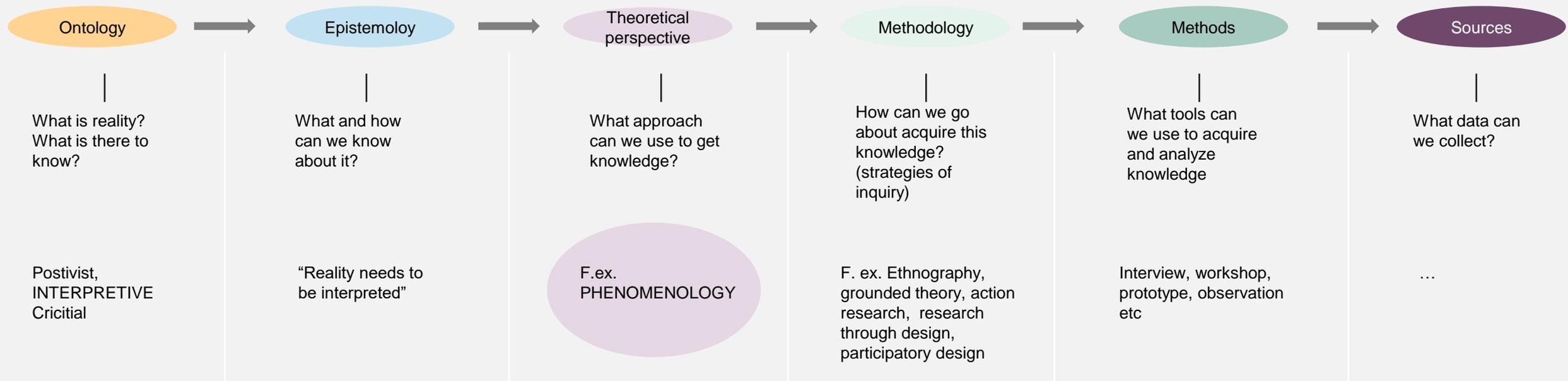
- Positivist paradigm
 - We will see the same if we use proper methods for data collection and analysis
- Interpretive and critical paradigms
 - Knowledge about how people make sense of and experience the world can only be accessed through representation (language and share meaning). Your previous experience will influence how you interpret what you encounter. How you appear to the informant will influence how they relate to you as a researcher



Paradigms, methodologies and methods



Paradigms, methodologies and methods



The theory of the body is already a theory of perception. (Merleau-Ponty 1962, p. 235)

If the body had been easier to understand, nobody would have thought that we had a mind. (Rorty 1979, p. 239)

If one truly likes to design for movement-based interaction, one has to be an expert in movement, not just theoretically, by imagination or on paper, but by doing and experiencing while designing. (Hummels et al. 2007, p. 677)

Embodiment as a paradigm or methodological orientation requires that the body be understood as the existential ground of culture-not as an object that is "good to think," but as a subject that is "necessary to be." (Csordas 1993, p. 135, quotations in original)

The ethnographer enters the field with an open mind, not an empty head. (Fetterman 1989, p. 1) and, we might add, with an experienced body (Stoller 1997, p.43).



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Questions?