UD2021: AALTO, ESPOO, ZOOM

Universal Design and Low-Vision Rehabilitation: The Case for a Holistic Lighting Assessment

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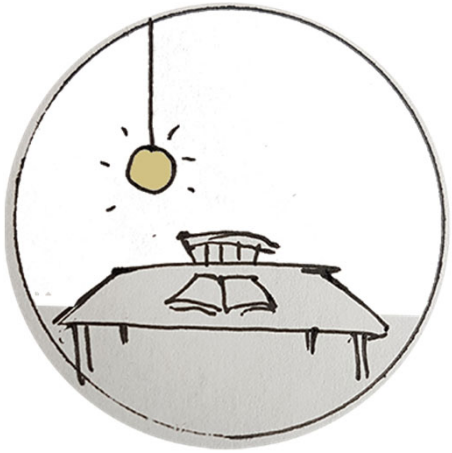
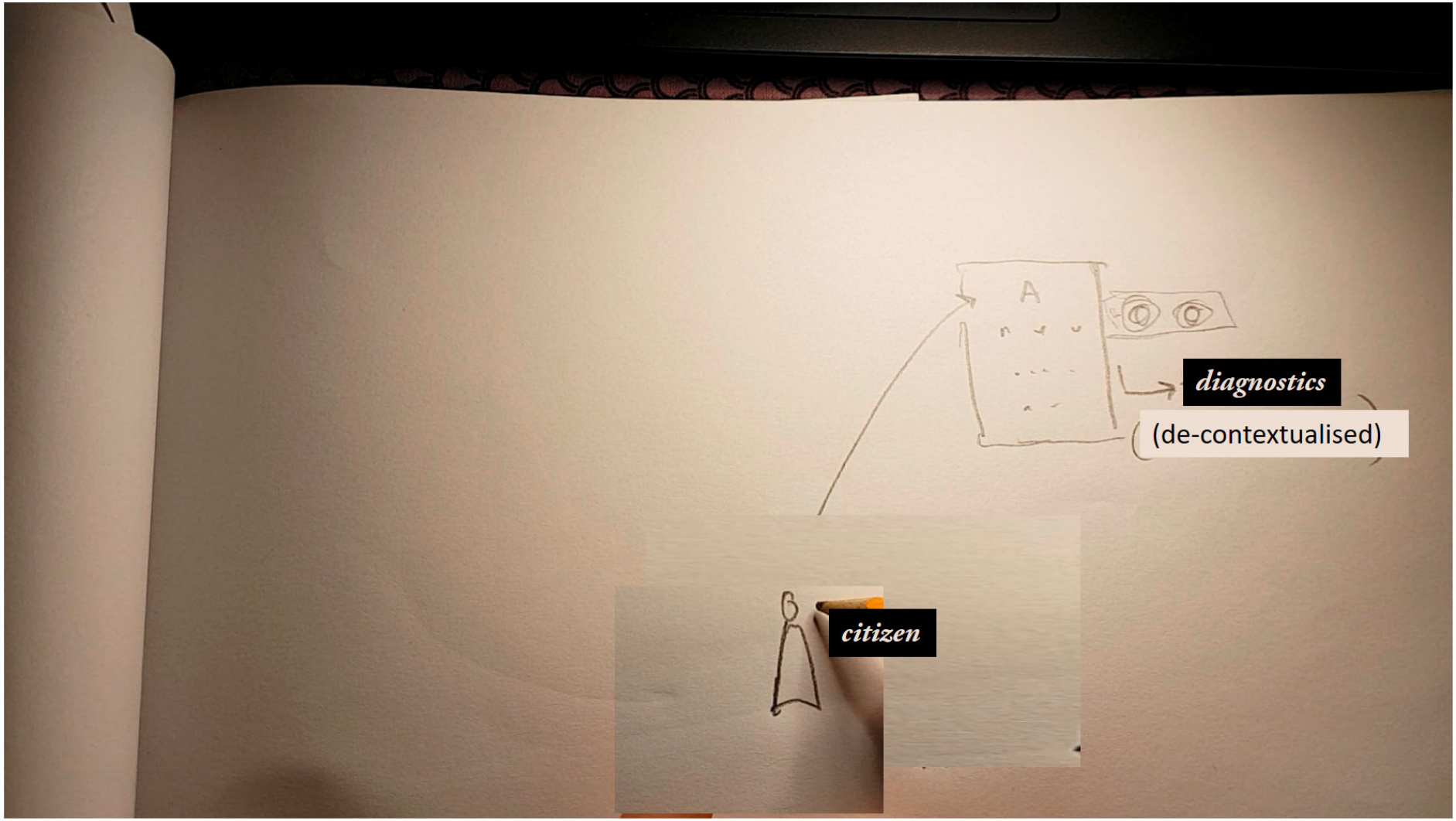
postdoc funded by Velux Fonden

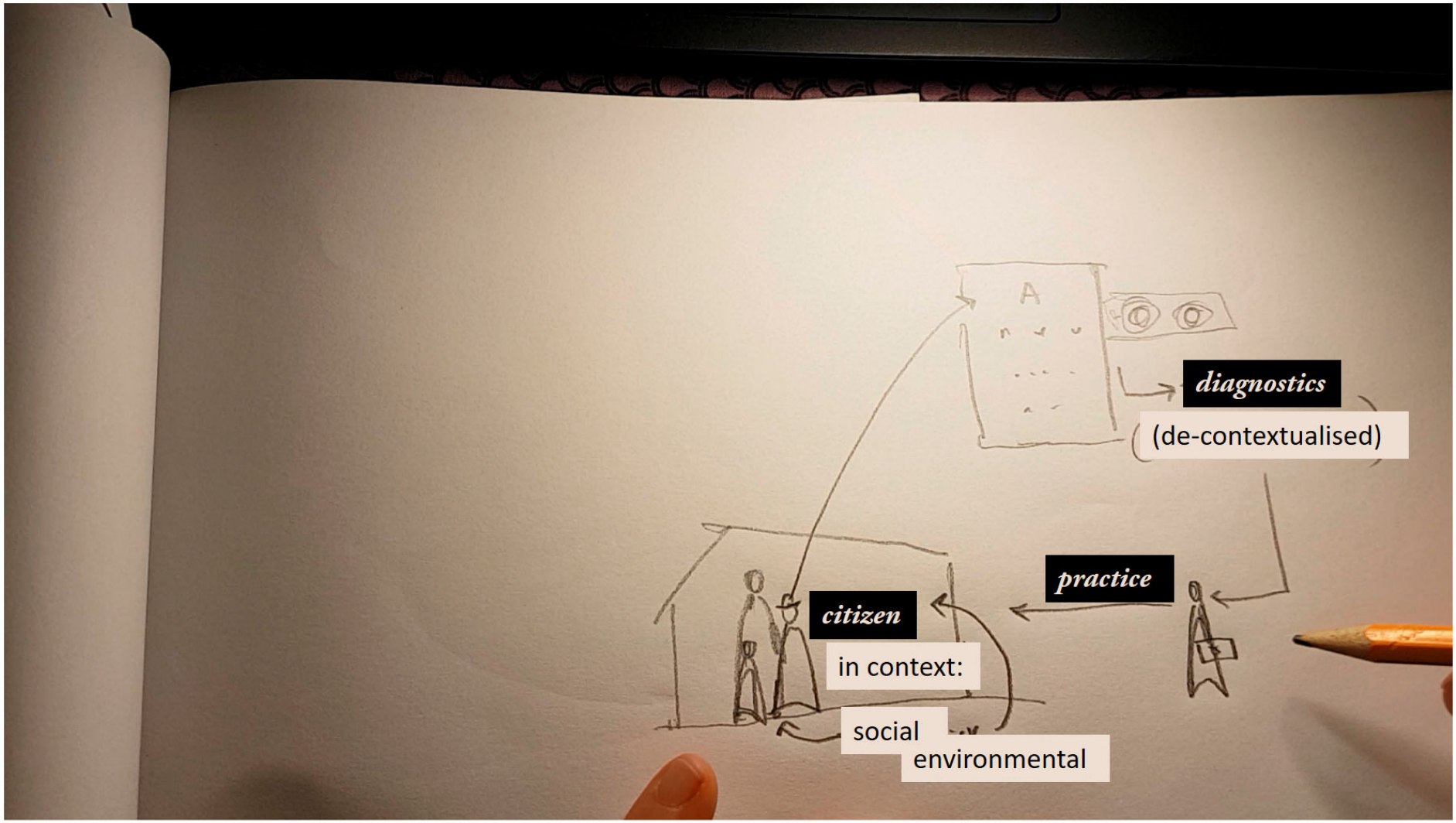
DEPARTMENT OF THE BUILT ENVIRONMENT
AALBORG UNIVERSITY

UD vs rehabilitation

Differences and similarities



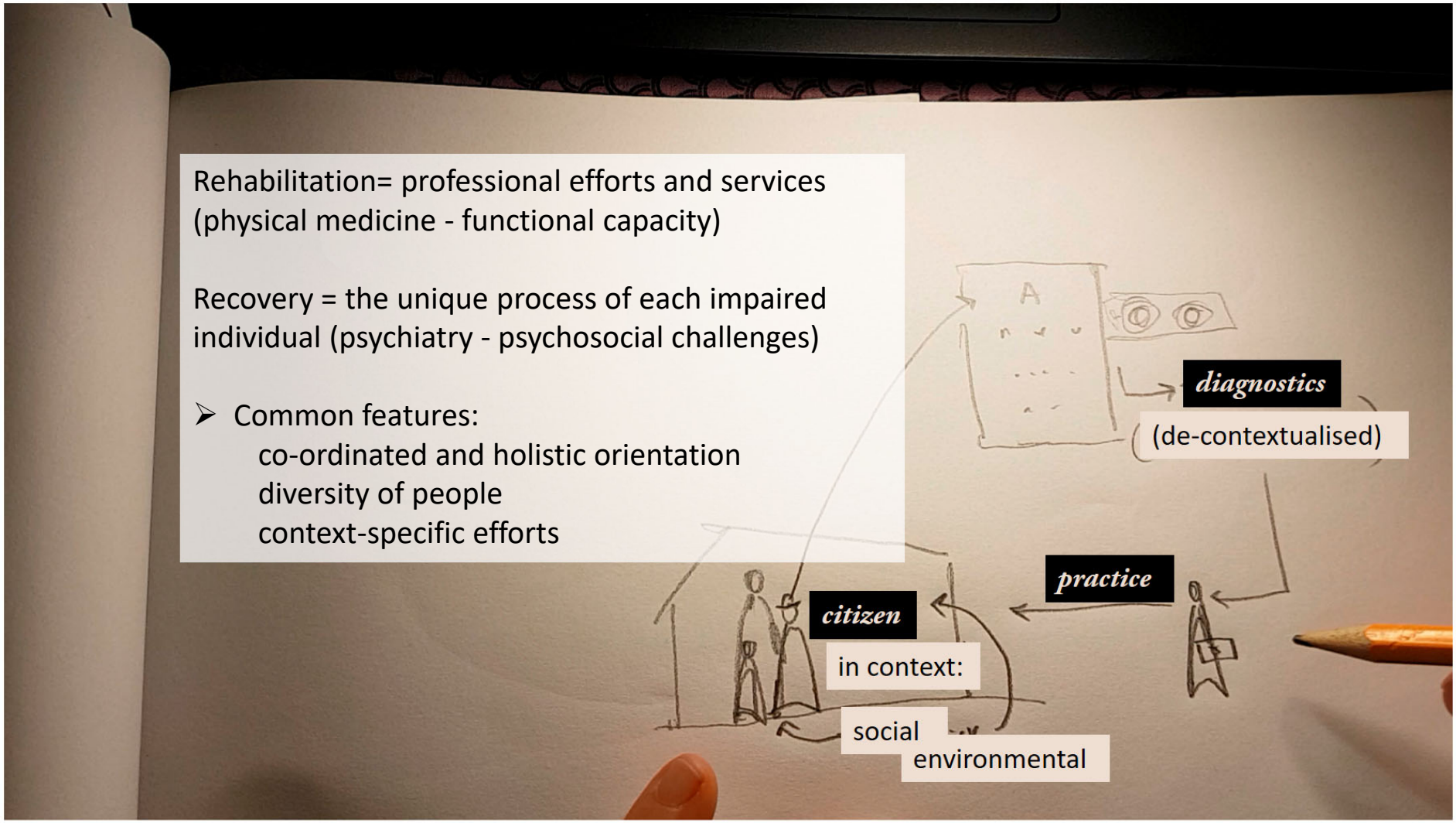

diagnostics
(de-contextualised)
citizen

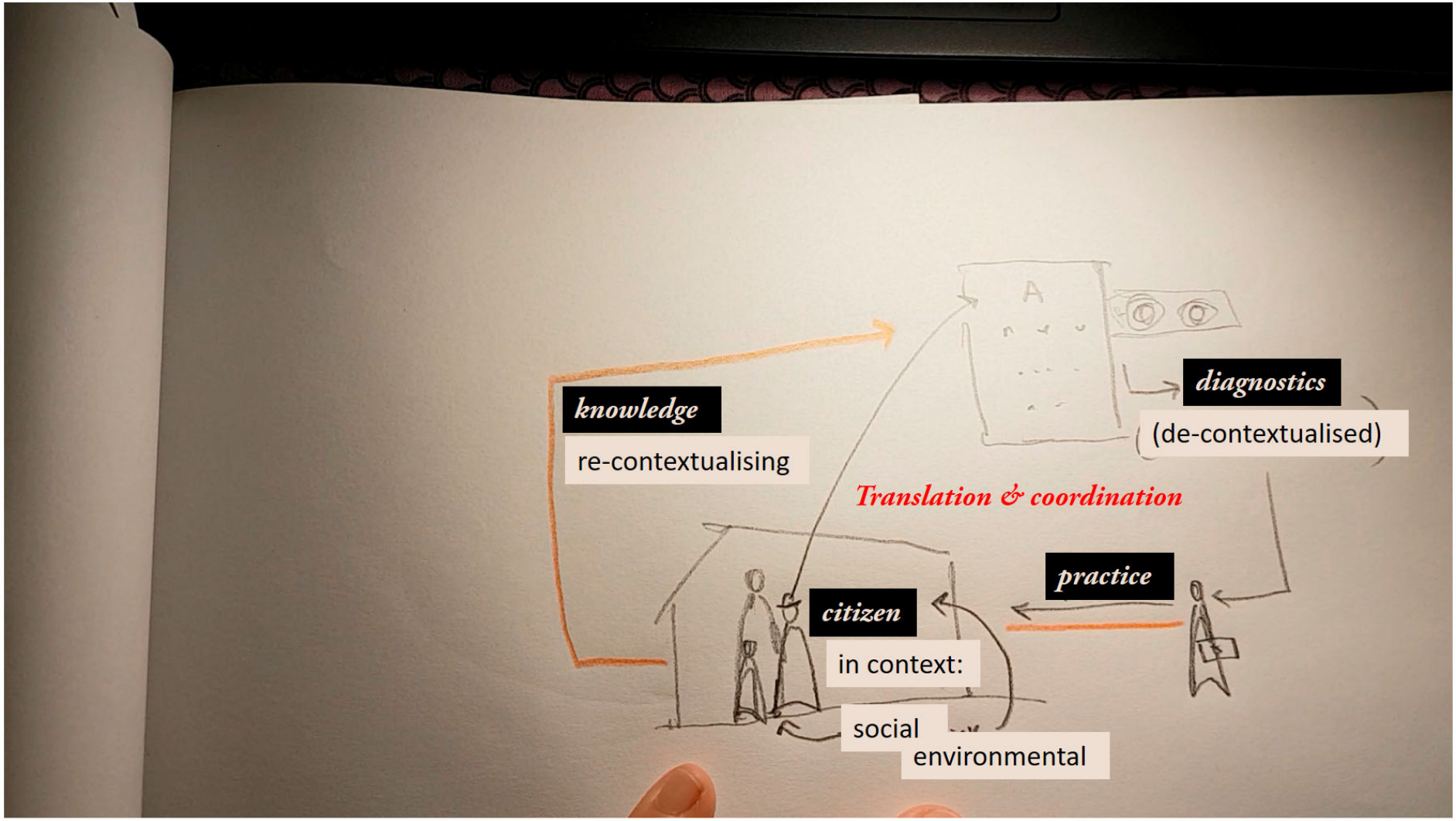

diagnostics
(de-contextualised)
practice
citizen
in context:
social
environmental

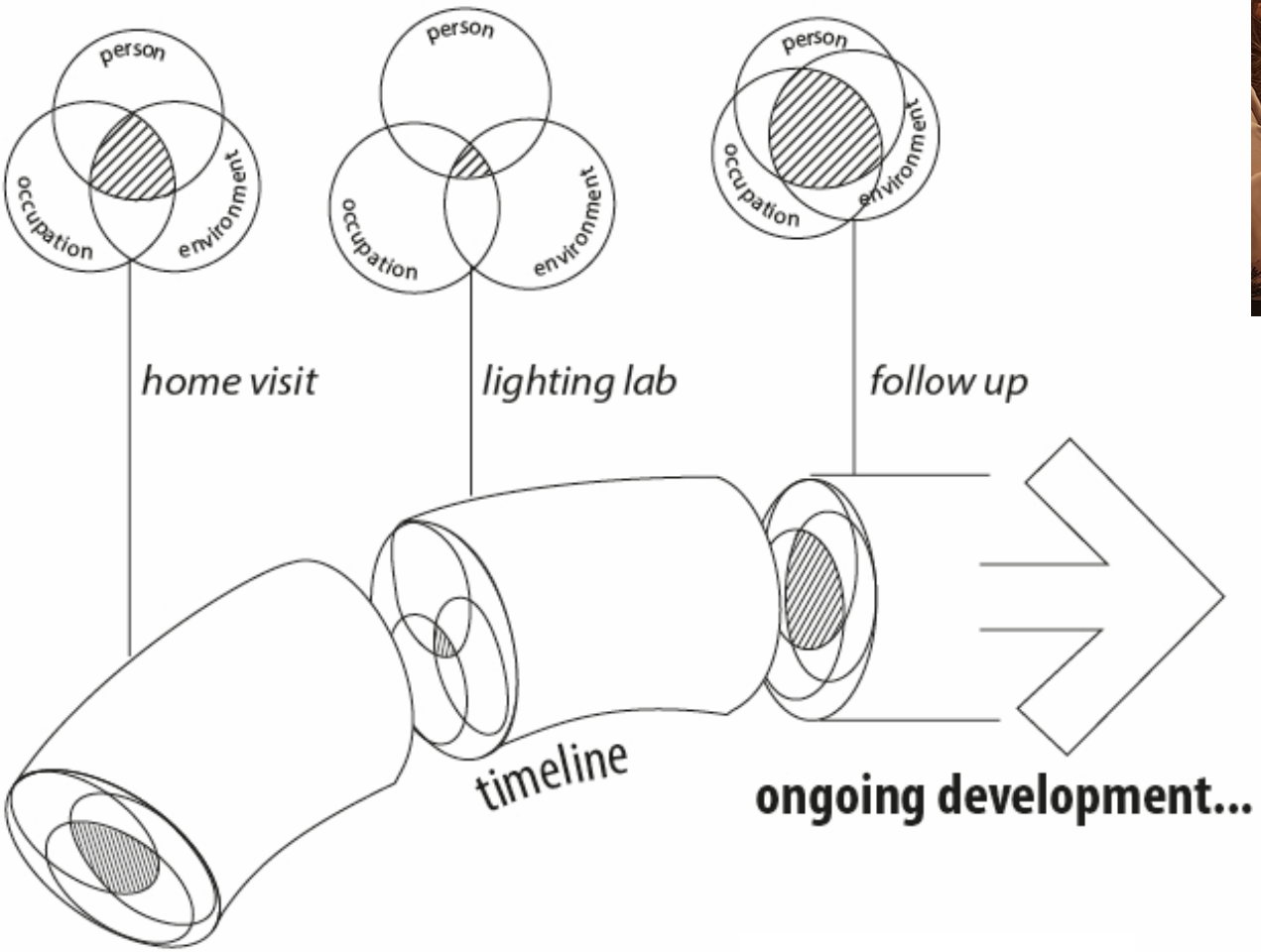
Rehabilitation= professional efforts and services (physical medicine - functional capacity)

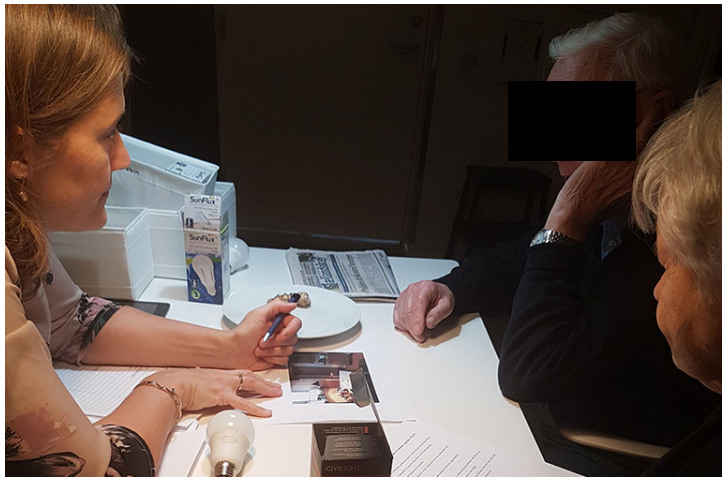
Recovery = the unique process of each impaired individual (psychiatry - psychosocial challenges)

- Common features:
  - co-ordinated and holistic orientation
  - diversity of people
  - context-specific efforts



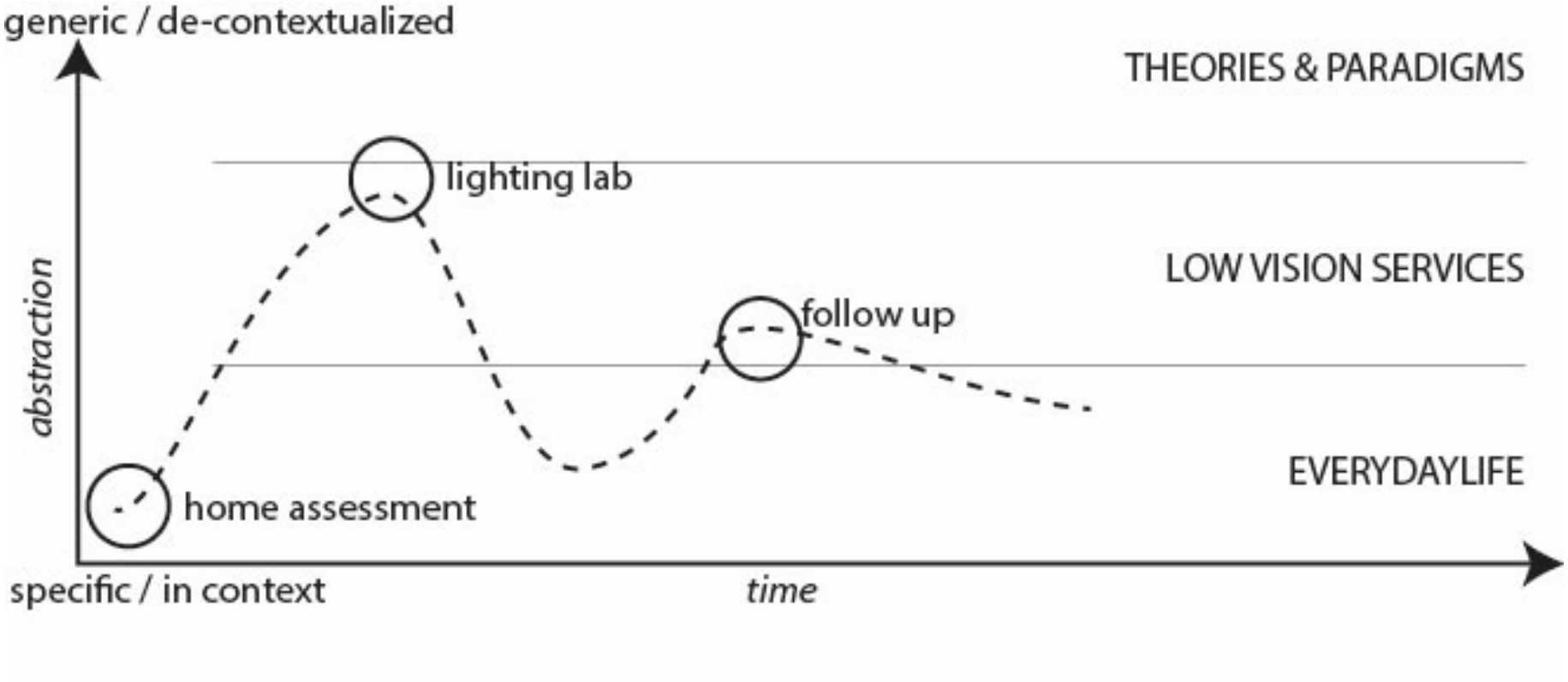

knowledge
re-contextualising
diagnostics
(de-contextualised)
Translation & coordination
practice
citizen
in context:
social
environmental





Translate
Coordinate
Communicate

Illustration from Øien, T. B. (2021). Housing and low-vision rehabilitation – across theories, practices and everyday settings. *Proceedings of the 4th International Conference on Architecture, Research, Care and Health*. Manuscript in press.



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Levels of abstraction

1. acknowledging the multiple understandings of light; situated and individual knowledge, user as expert in everyday social and physical context. By relating the issues to activities and not to the *disability/ pathologies* address *affordances/abilities*
2. collaboration and problem-solving, contextual knowledge translated and operationalized by adding new knowledge in the intervention = *learning & change process*
3. creating new evidence in the pilot study - measuring performance and visual acuity before and after the intervention (VFQ-39, COPM, Groffman, D15)

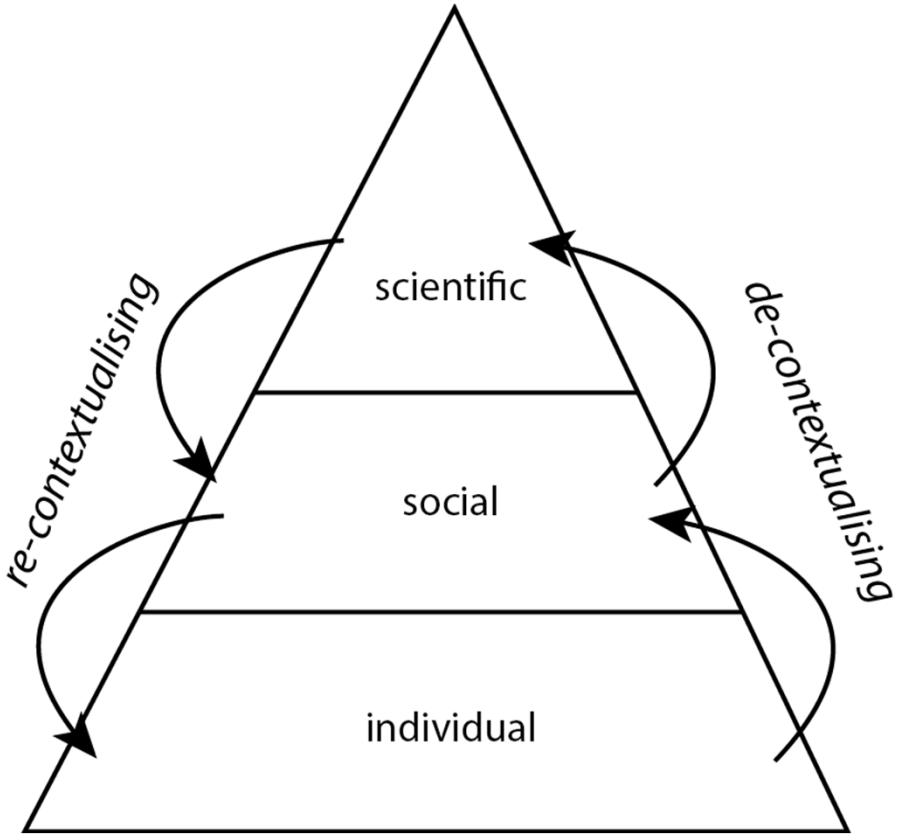

Illustration from Øien, T. B., (2021). On dwelling in the cold and dark Nordic: Two contemporary issues in housing, *Proceedings 2020 NAF/NAAR Symposium: Northerness*. Manuscript submitted for publication.

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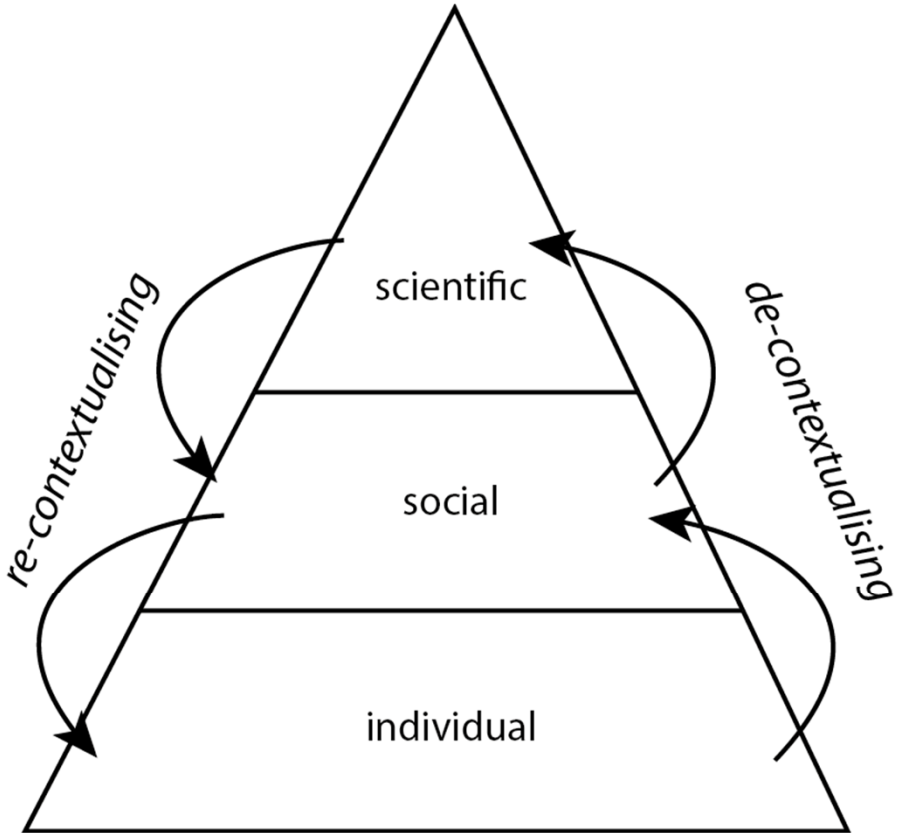
    - Postdoc: exploring & discussing their approach, what the technologies “does”, the role of contextual, embedded and embodied knowledge (not measured), their role (translating & coordinating), and their technological frames (PEO model)



UNIVERSAL DESIGN & REHABILITATION

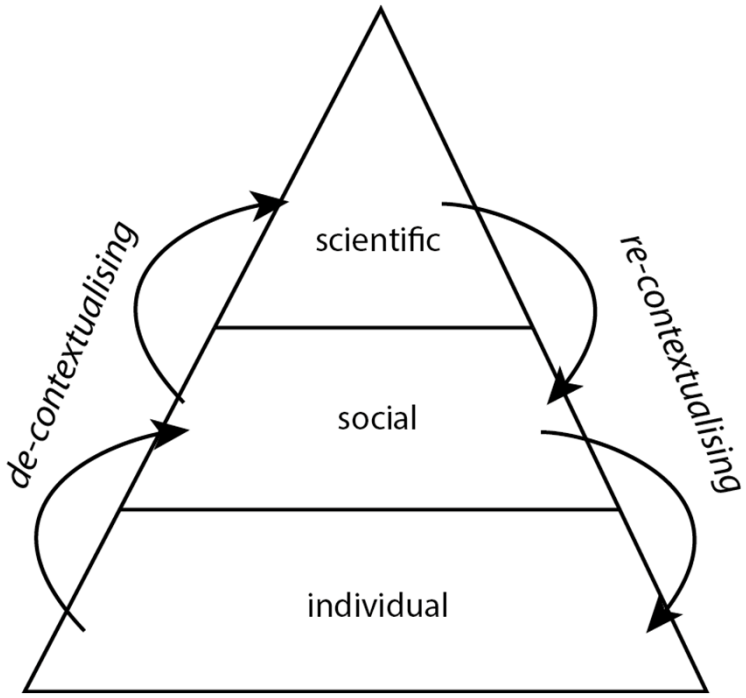
Lessons to learn?

REHABILITATION

- main focus at 1st and 2nd loa
- tailored and individual solutions and periods of weeks or months

Regarding light:

- Multiple understandings of light
- user knowledge is operationalised
- Impact of the intervention is measured: linking light to performance measures and quality of life.



UNIVERSAL DESIGN

- practitioners and theorists largely operate at 2nd and 3rd loa
- range of users and across generations

Regarding light:

- parameters by large seen as quantifiable aspects: lighting is to be “bright and adjustable” to meet *all users*
- user knowledge not operationalised
- impact unknown

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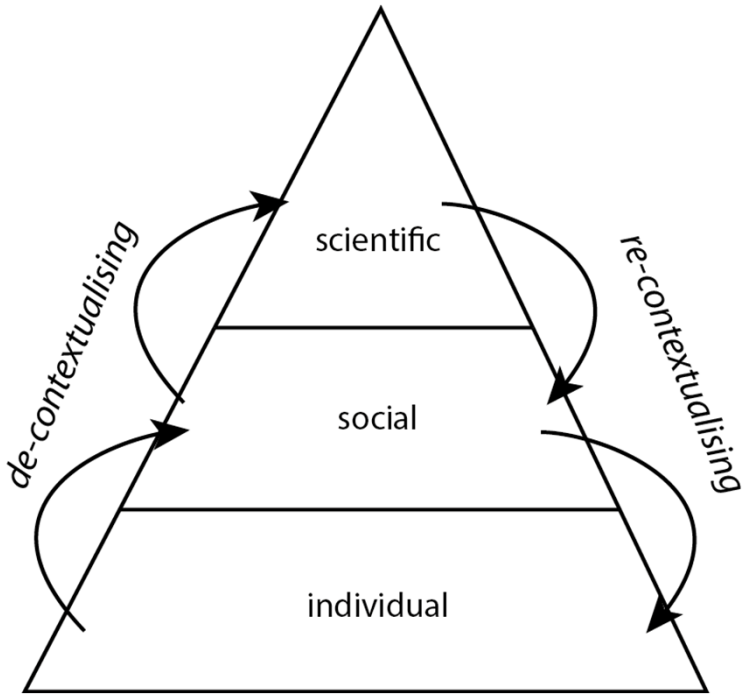

LEARNINGS from UD

Accumulate knowledge from across individual cases - also on the contextual knowledge

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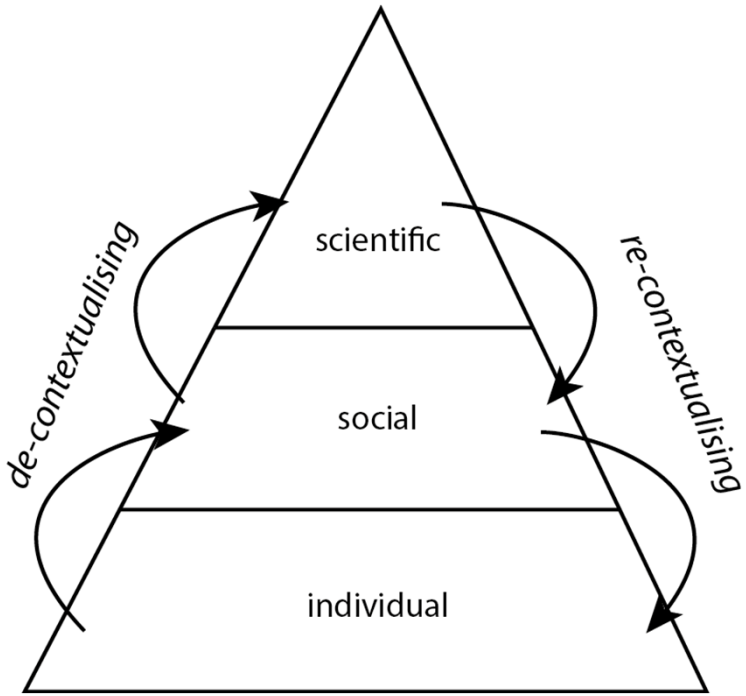

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LEARNINGS FROM REHABILITATION

Operationalize and explore user perspectives on level 1

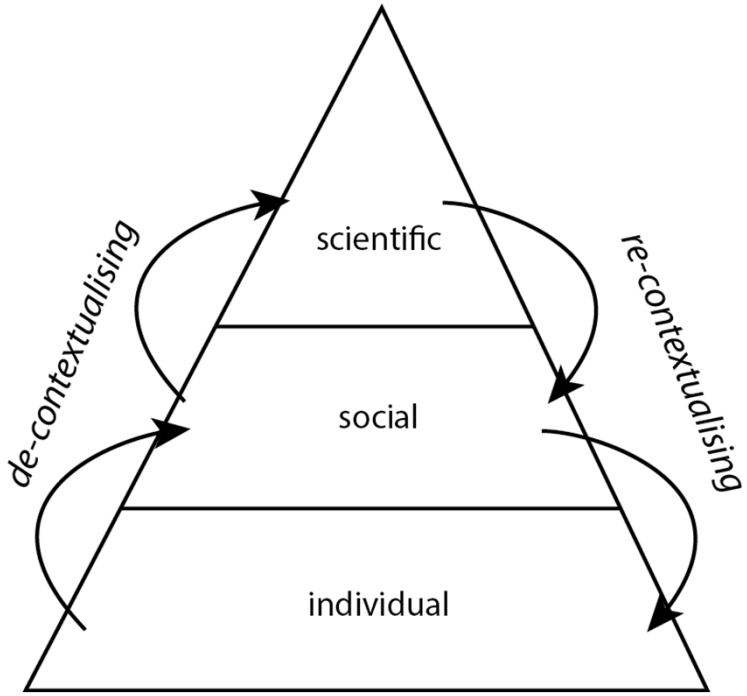
Assess the effect & impact of the built environment

LEARNINGS FROM THE POSTDOC

PEO + POE+ UDE+ ICF all acknowledge the physical and social context of the human environment interaction.

The ANT approach helps us to see human and nonhuman actors in professional *and* nonprofessional networks and how these are interrelated – and connected across the different levels of abstractions.

Translations between levels could be seen as a common challenge or mission, as the effort to Stage for collaboration and learning across these loa- to coordinate between people and professionals, but also as in the postdoc the interdisciplinary collaboration.



Light - a disabling *and* enabling feature, which can be modified quite easily.
Even small changes can cause huge effects, to visual acuity but perhaps even more important to the ability to recognize the affordances and abilities in the human-environment relationship.

BUILD