Things Are People Too

Negotiating privacy with voice assistants
An analysis of our relationship to the internet of things

Adrian Demleitner - June 2021

"Nomadic people believed that spirits dwelled in plants, seas and mountains. In today's home, voice assistants laugh in the middle of the night and no-one can say why. Inside our electronic devices, the spirits are at home."

"Nomadic people believed that spirits dwelled in plants, seas and mountains. In today's home, voice assistants laugh in the middle of the night and no-one can say why. Inside our electronic devices, the spirits are at home."

Timo Feldhaus for Space10
Everyday Experiments - Space10 and Ikea

Overview

- Framework
    - Animism
- Findings
    - Uncanny Vally
    - Trust Issues
- Prototyping

Animism

So... About this concept?

Animism

- treating or seeing the other-than-human as a subjects*

- different sources → *why*

- different expression → *how*

* being alive, having agency, consciousness, soul or spirit

Active Expression
succesful integration

Phenomenological Source
perceived as having agency, being alive, etc.

Animism
Mental Model

why

Epistemological Source
qualities attributed through knowledge

how

unable to integrate
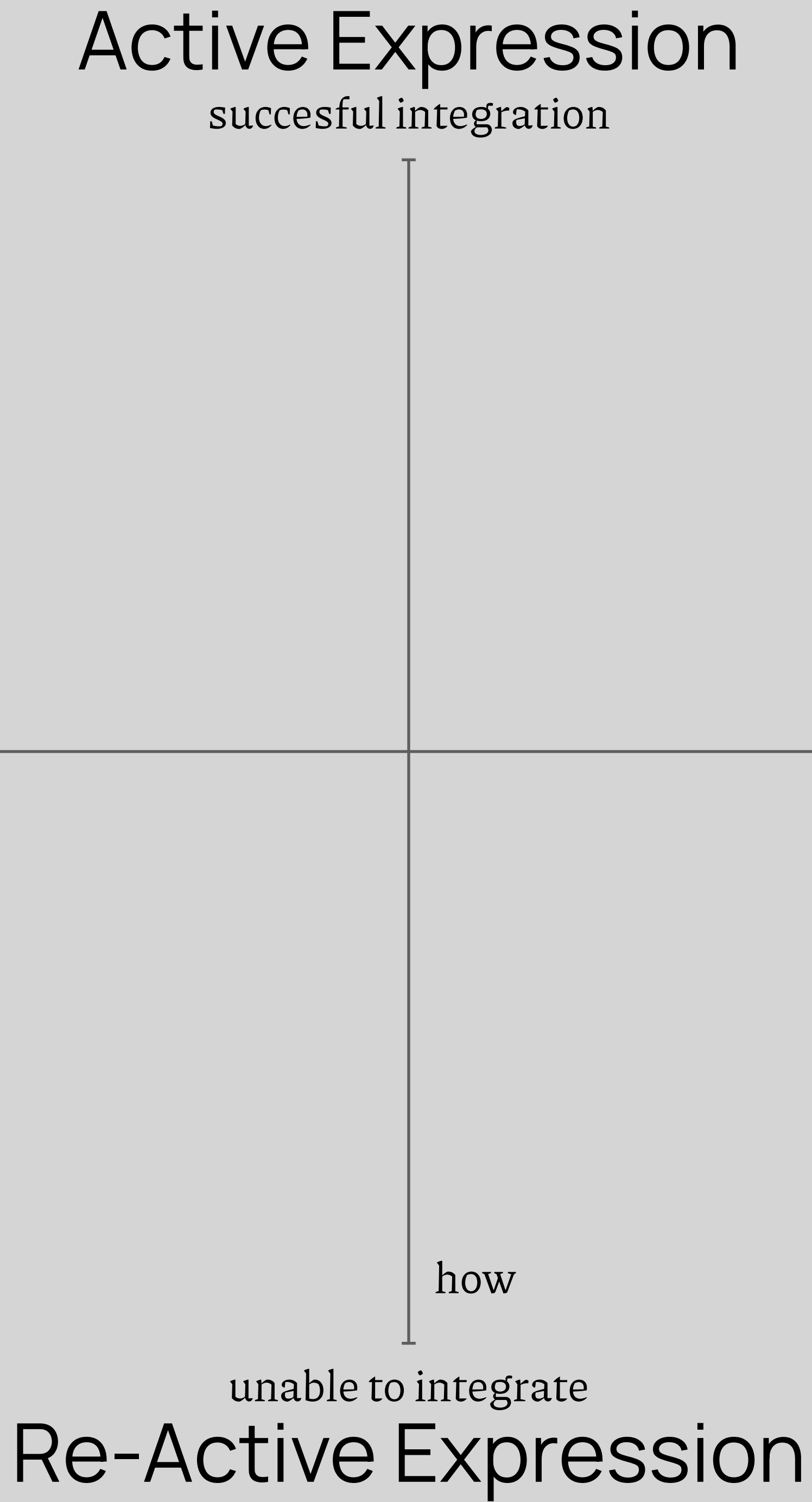Re-Active Expression

Active Expression

succesful integration

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Re-Active Expression

Hari-Kuyo
Festival of Broken Needles

Photos via https://mostlyneedlepoint.com/a-tradition, May 2021

Guth, C. M. E. (2014). Theorizing the Hari Kuyō: The Ritual Disposal of Needles in Early Modern Japan. *Design and Culture*, *6*(2), 169–186. https://doi.org/10.2752/175470814X14031924627068

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Re-Active Expression

Aibo
Robot-Pets ... with Souls

Toshifumi Kitamura/AFP/Getty

Active Expression
succesful integration

Phenomenological
Source

perceived as
having agency,
being alive, etc.

why

how
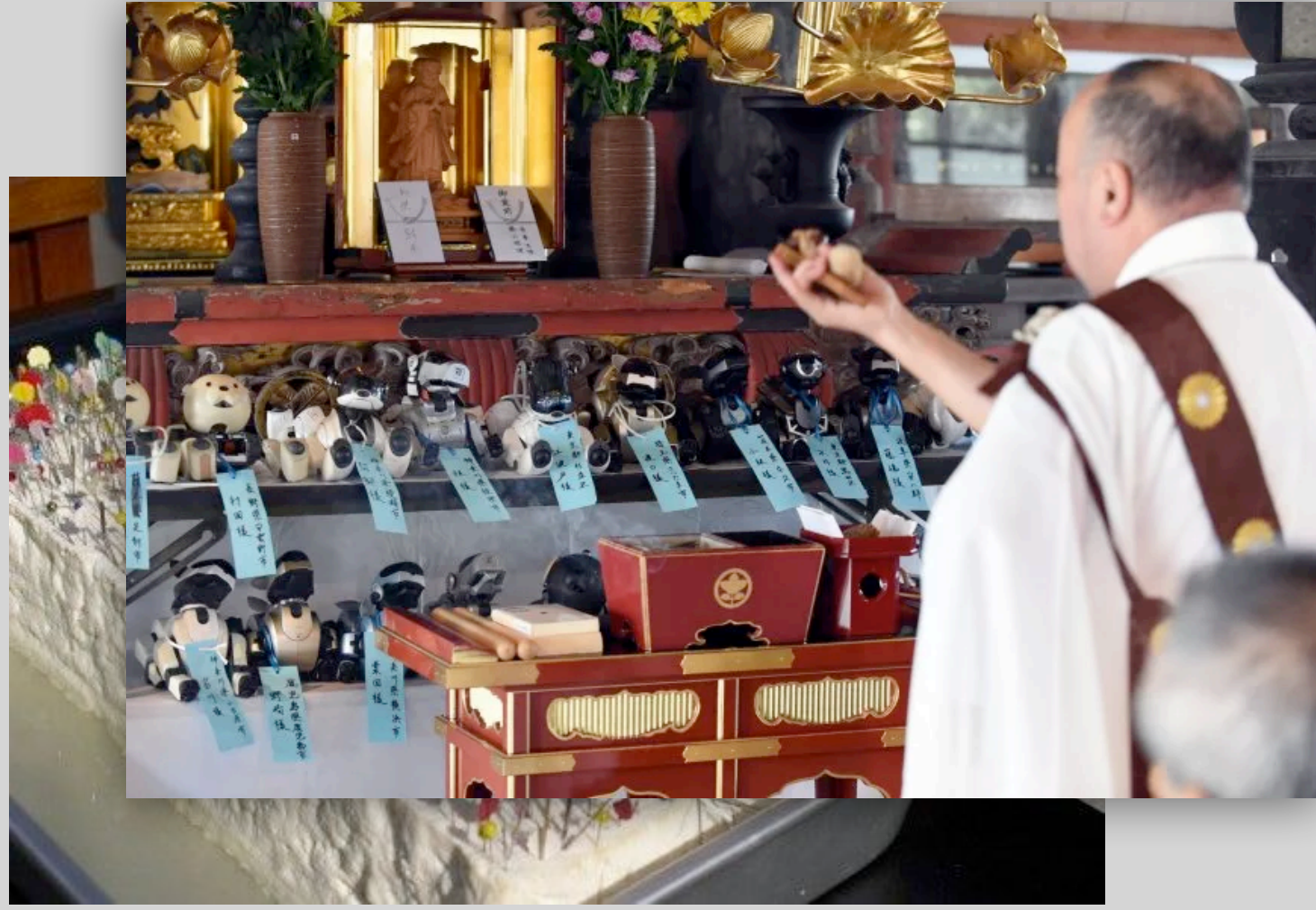
Epistemological
Source

qualities attributed
through knowledge

unable to integrate
Re-Active Expression

Roomba
The Capybara of
Household Electronics

Steve Gorton and Tim Ridley, Alexander Hafemann/Getty Images

Sung, J.-Y., Guo, L., Grinter, R. E., & Christensen, H. I. (2007). "My Roomba Is Rambo": Intimate Home Appliances. In J. Krumm, G. D. Abowd, A. Seneviratne, & T. Strang (Eds.), *UbiComp 2007: Ubiquitous Computing* (pp. 145–162). Springer. https://doi.org/10.1007/978-3-540-74853-3_9

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Framework - Conclusion

Framework - Conclusion

I departed from having animism as a the main subject of research interest.

It became, instead, a framework of analysis to look at our relationship to technology.

Framework - Conclusion

I also added a phenomenological approach to animism to the framework.

Findings

Active Expression

succesful integration

Phenomenological Source

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Epistemological Source

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Re-Active Expression

Active Expression

succesful integration

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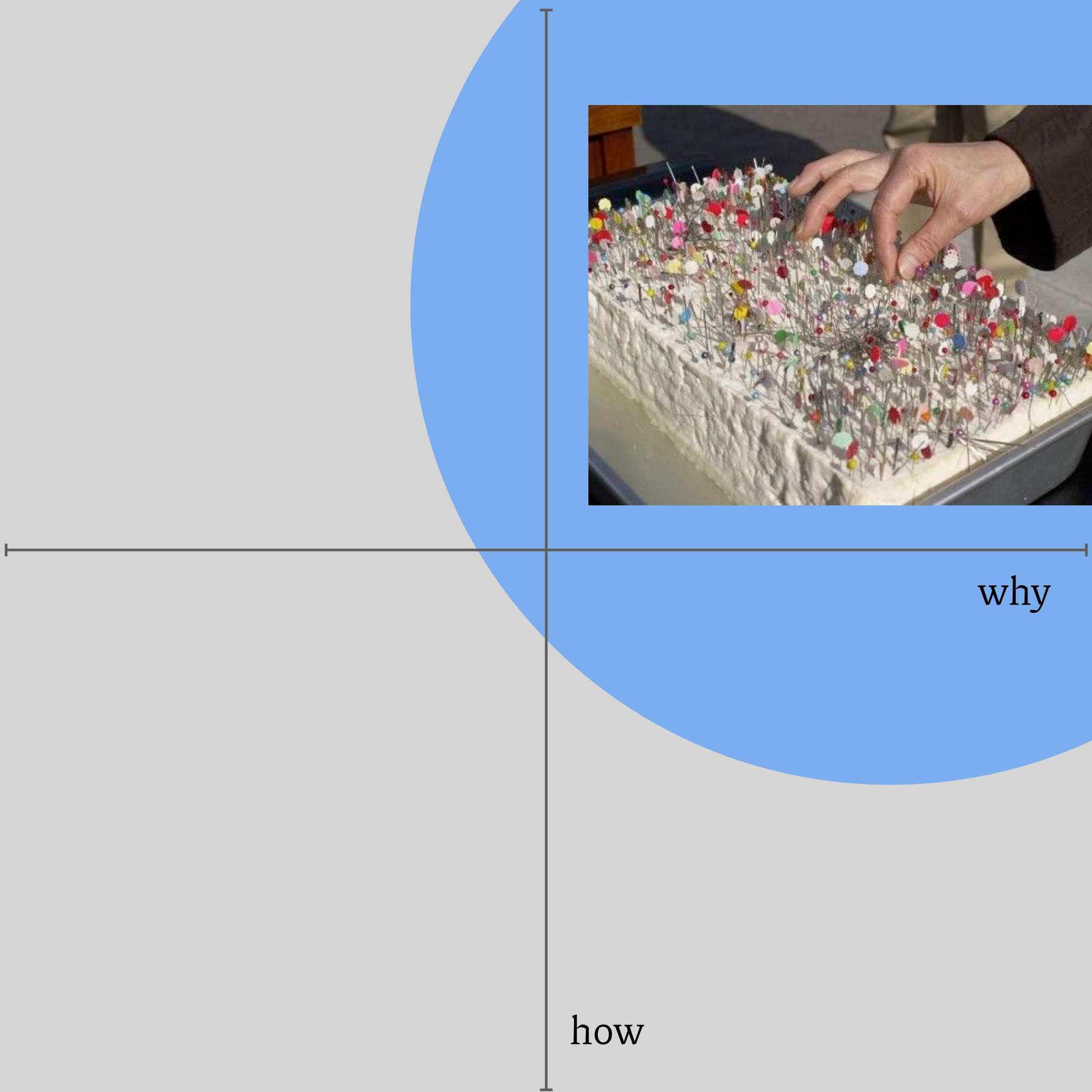
unable to integrate

Re-Active Expression
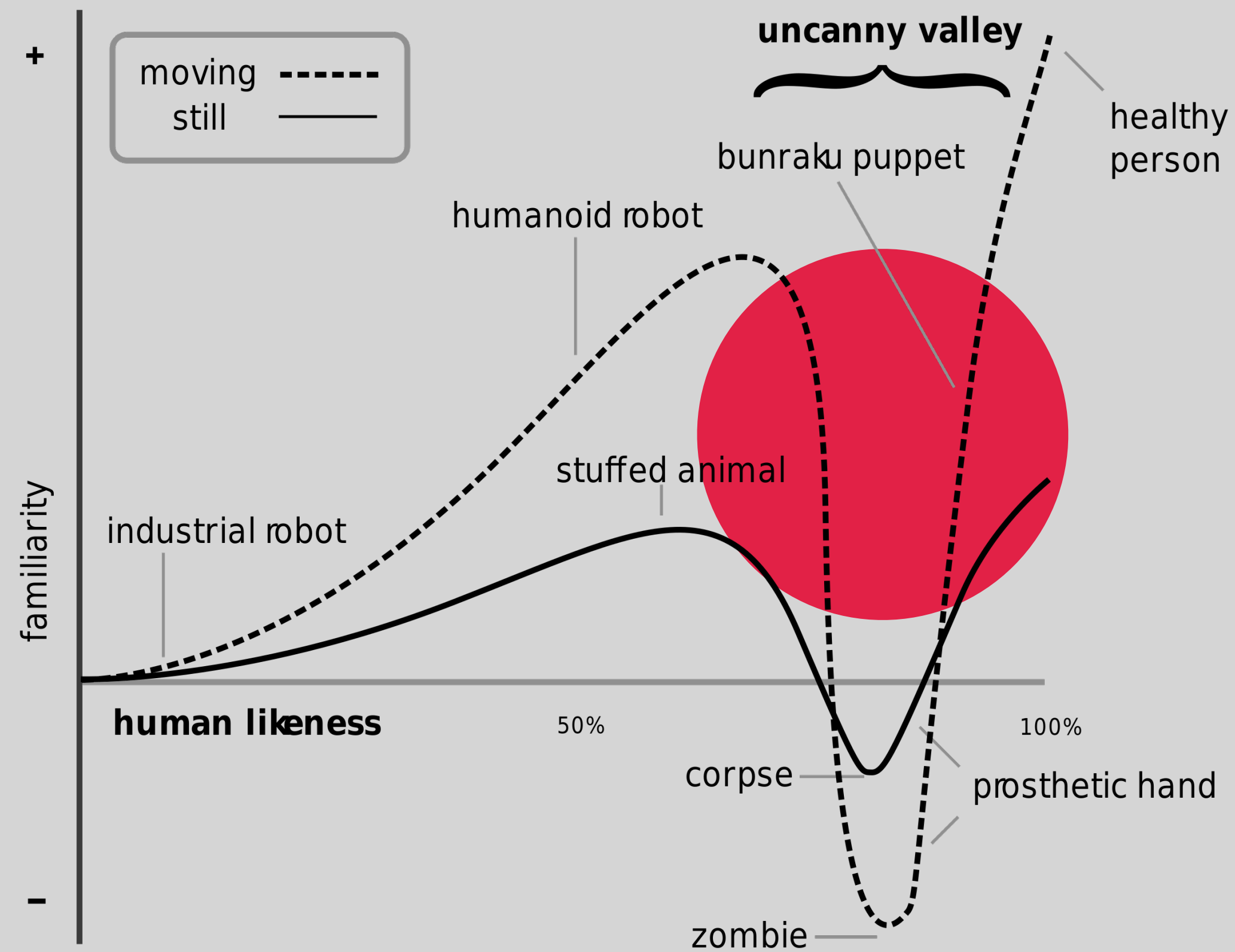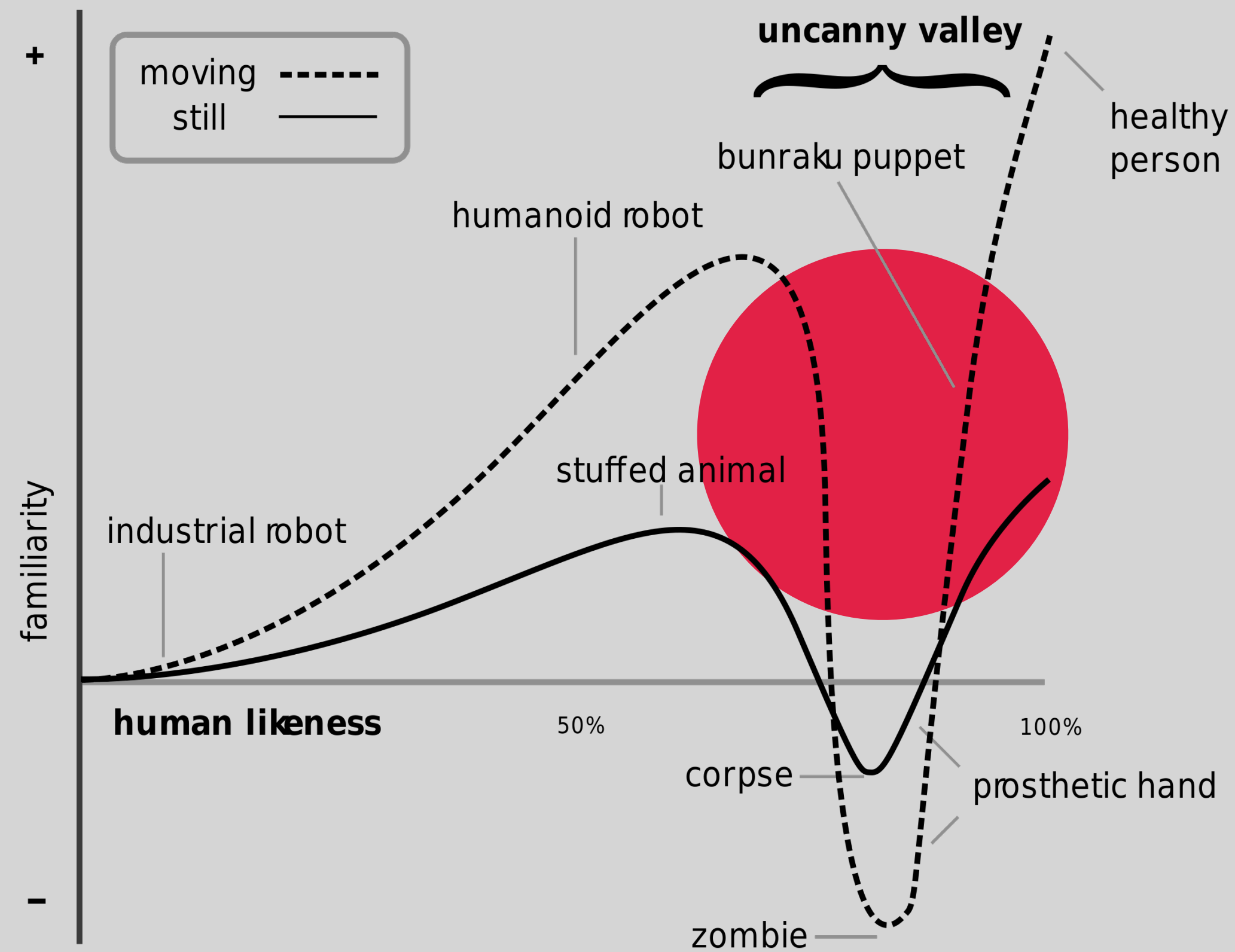
Uncanny Valley

Contrasting feelings

Findings
Uncanny Valley

Findings
Uncanny Valley

"[...] it seems the closer these smart objects get to human behavior, the more they trigger contrasting feelings."

- Jean-Marc Buchert

Findings
Uncanny Valley

Human Voice versus Non-Human expressions

- activity without interaction

- uncanny communication

- ghostly presence

Findings

Uncanny Valley

Human V

- activity

- uncanny

- ghostly

Trust Issues

Privacy, Intimacy, Consent

Findings
Trust Issues

- Privacy

- Intimacy

- Consent

Findings
Trust Issues

- Privacy

- Intimacy

- Consent

"Yeah, just some creepy little alien in the shadows, lurking, waiting to be used. It's a bit of a poor slave actually."

Participant j5mwdx

Findings

Voice assistants can be perceived
as animated entities by their users.

Findings

But, the users of voice assistants miss a proper vocabulary to deal with the other-than-human presence, especially in case of errors, and generally have a hard time bonding with voice assistants.

Findings

Users are also unable to deal with issues of trust and can assert only little control over the negotiation of these important aspects.

Prototyping

Active Expression

succesful integration

Phenomenological Source

perceived as having agency, being alive, etc.

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Re-Active Expression
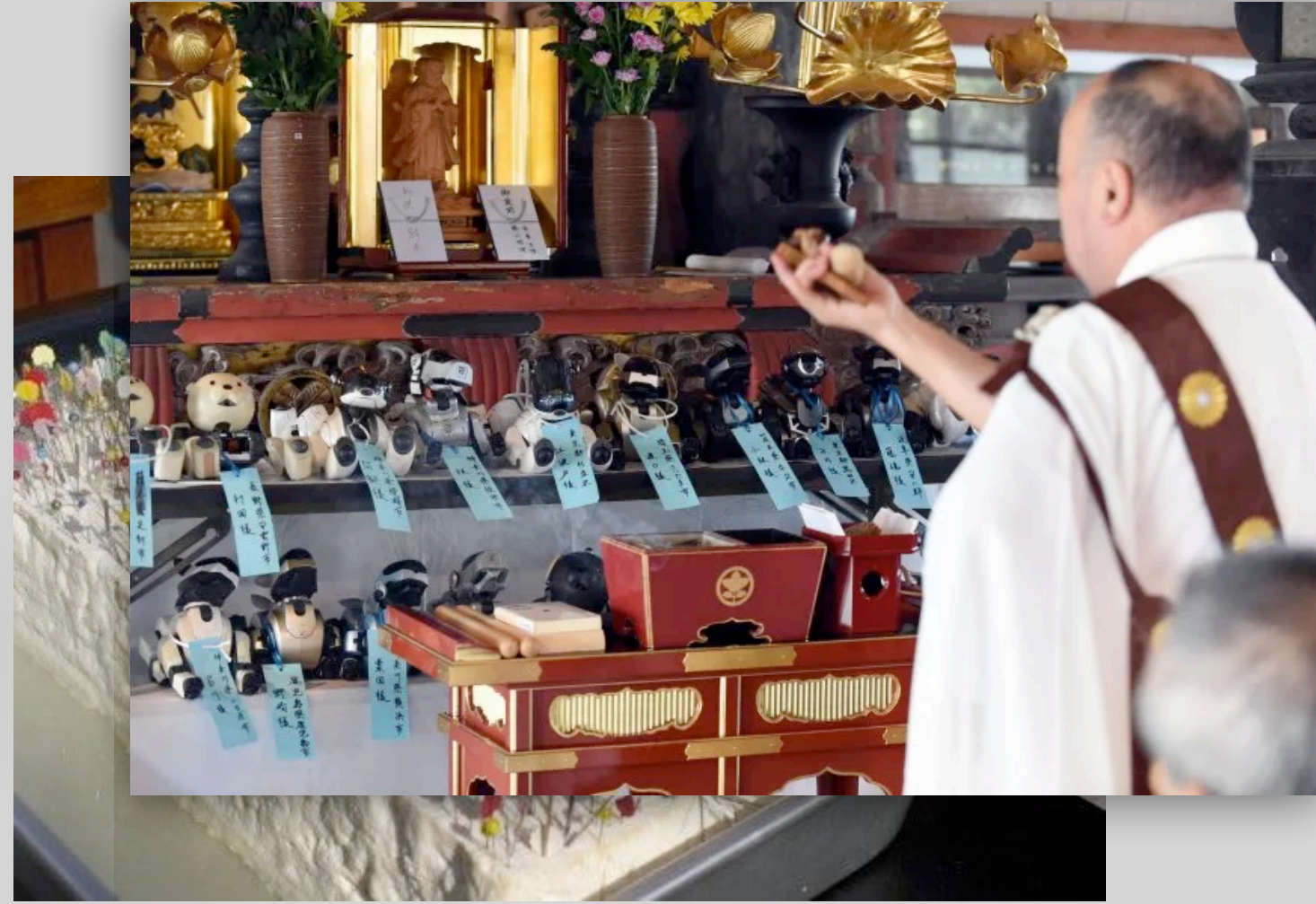
Prototyping Approach

- Jonathan Chapman's *Emotionally Durable Design*

- Betti Marenko's *Animistic Design Perspective*
    - Agency, Uncertainty, Embodiment, Ecology

Relationships

Narratives

Identity

Conversations

Conciousness

Imagination

Integrity

Materiality

Evolvability

Jonathan Chapman's
Emotionally Durable
Design Nine Framework

Agency

Milieu

Ecology

Betti Marenko's
Neo-Animism in Design

Animistic design: how
to reimagine digital
interaction between
the human and the
nonhuman

When toys
come to life.

Open Source
Technologies

Accountability

Embodiment

Uncertainty

Ambiguity

Support

My Roomba is
Rambo

Prototyping Approach

- Physical Aspect

    - Embodiment and Ecology

- Virtual Aspect

    - Agency and Uncertainty

- Basics

    - Transparency and Accountability

Physical - Embodiment and Ecology

Stronger physical presence and interaction

- Touch, Proximity Sensing, Visual Feedback

- Feedback through other IoT devices, Embedded in Home

Hypothetical example: *Beacon Thing*

Physical - EmbEcology

Stronger physical pretion

- Touch, Proximity Sensing

- Feedback through other IoHome

Hypothetical exampl

Virtual - Agency and Uncertainty

- Other-than-human persona

  - Forster acceptance of *messy* technology

  - Initiate curiousness and play

Hypothetical example: *Voice ~~assistant~~ companion/pet*

Humphry, J., & Chesher, C. (2020). Preparing for smart voice assistants: Cultural histories and media innovations. *New Media & Society*, 146144482092367. https://doi.org/10.1177/1461444820923679

Virtual - Agency and Uncertainty

- Other-than-human persona

  - Forster acceptance of *messy* technology

  - Initiate curiousness and play

Hypothetical example: *Voice ~~assistant~~* ᶜ

Basics

- Transparency and Accountability

  - Transparency through open-source

  - Accountability through documentation

  - No unnecessary data hoarding or tracking

The Future?

The Future...

Thank you 🎉

https://thgie.ch

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Hypothesis

Animism can aid in the development of emotional durable design.

How could we use that potential in designing our relationships to consumer electronics?

Research Design

- Swiss Participants

- Voice Assistants

- Emotional Durable Design

- Weak Signals

"*Waste* could be seen as nothing more than a symptom of a *failed relationship*."
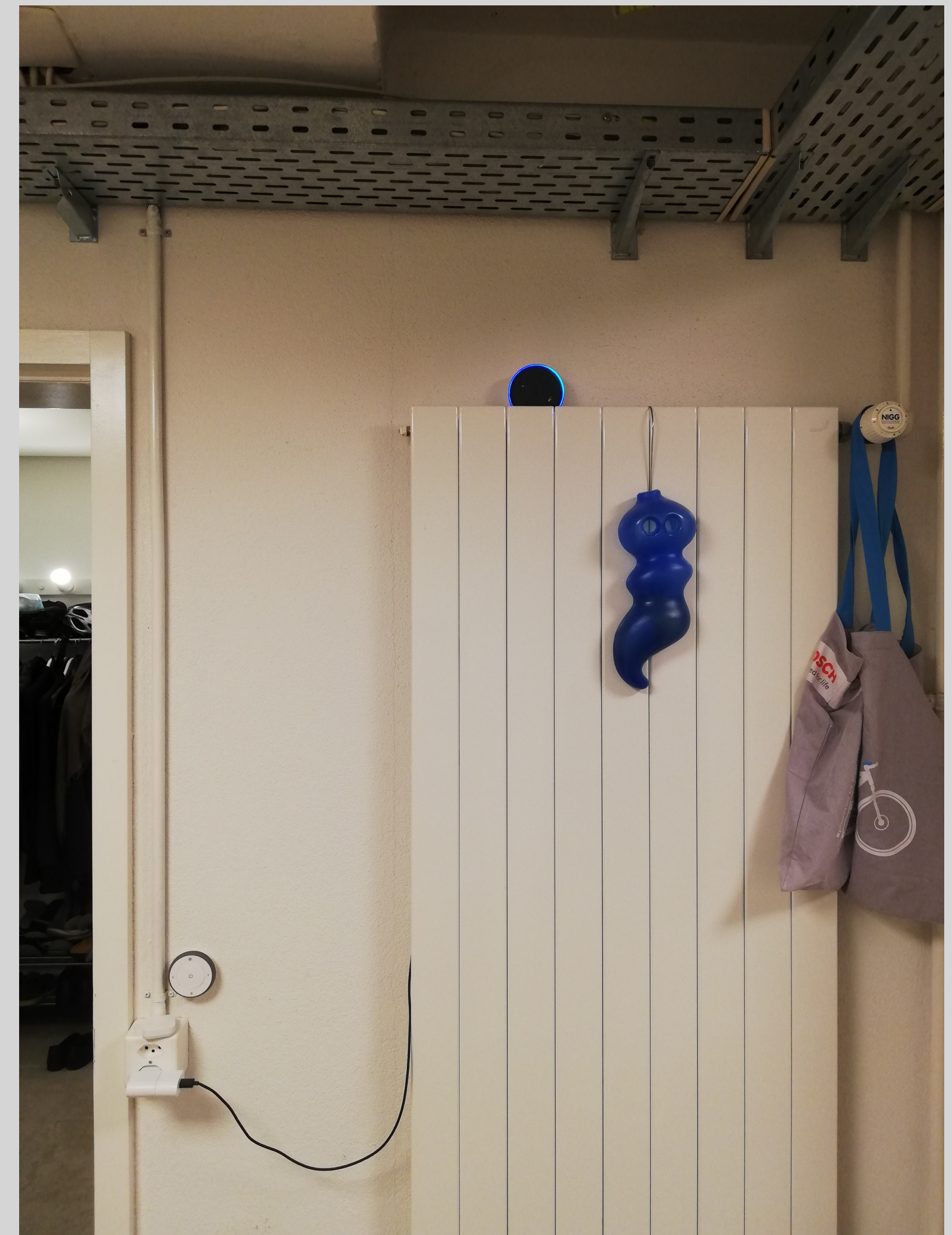
- Jonathan Chapman

Weak Signals

- Speculative/Future Design

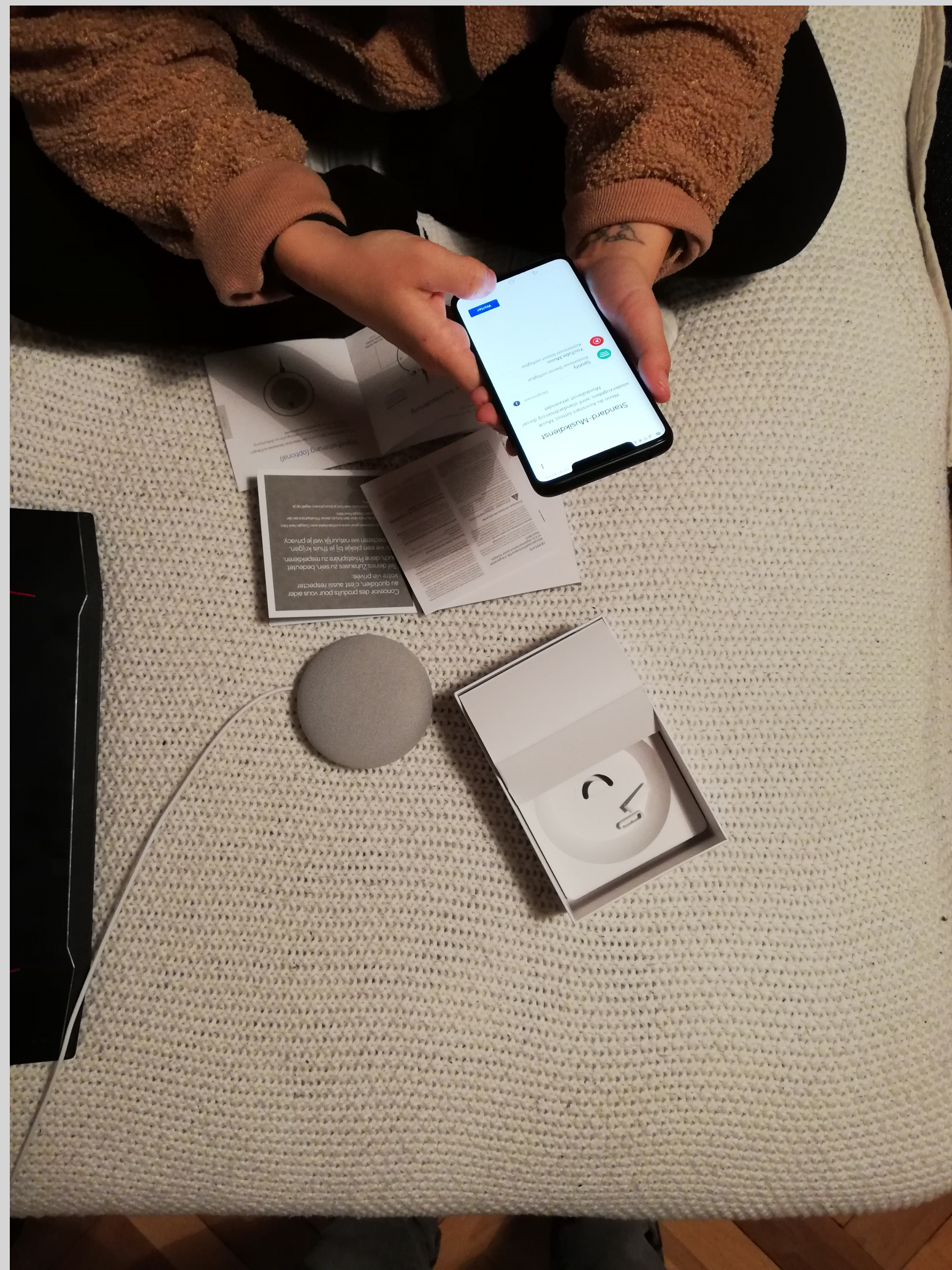- Like Micro Trends

Data Collection

Data Collection, Observation and Interviews

Data Collection, User Journeys

Data Collection, Netnography

- user experience reports

- brand utopias through advertisement

- hacked and customised devices

Data Coll
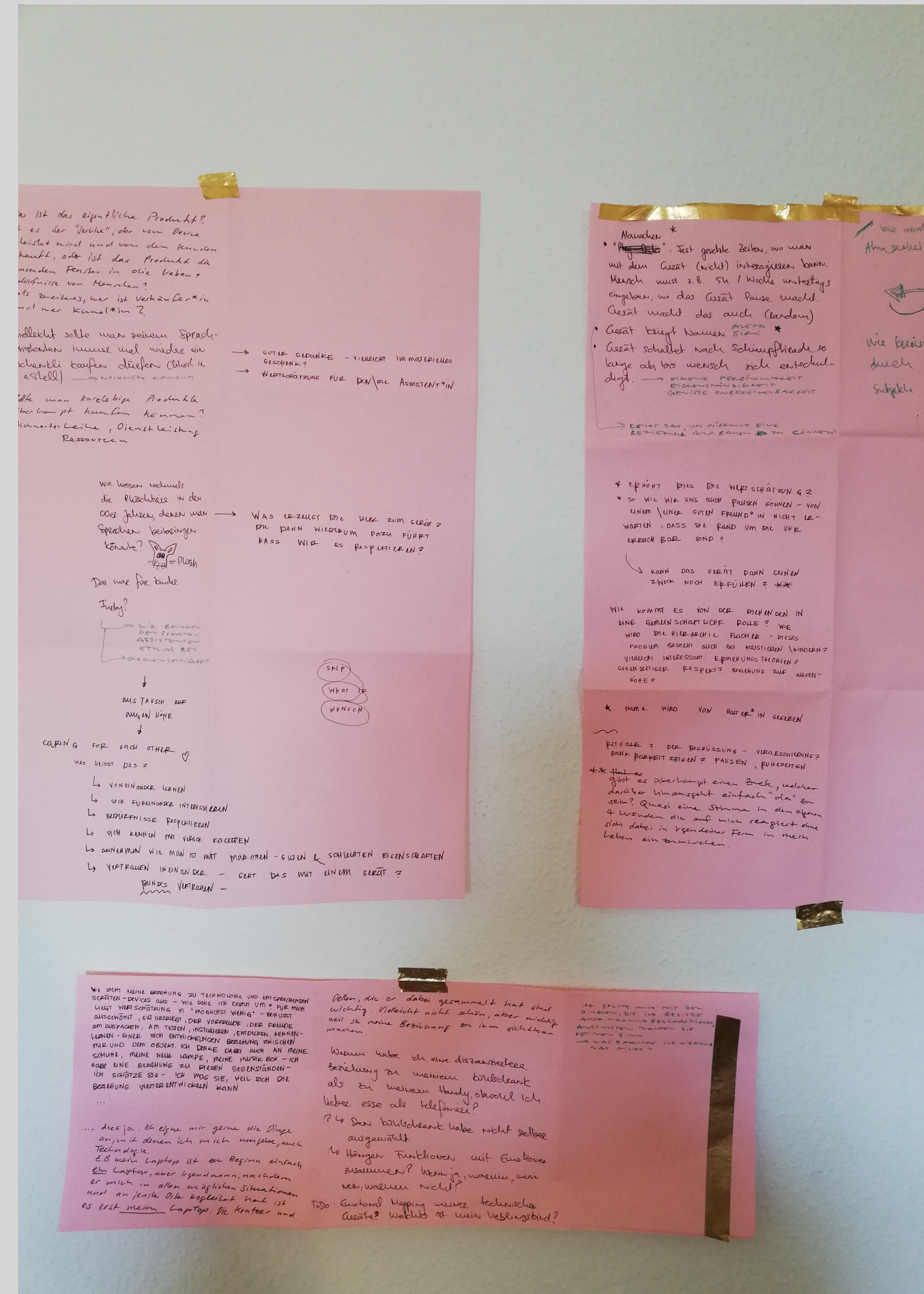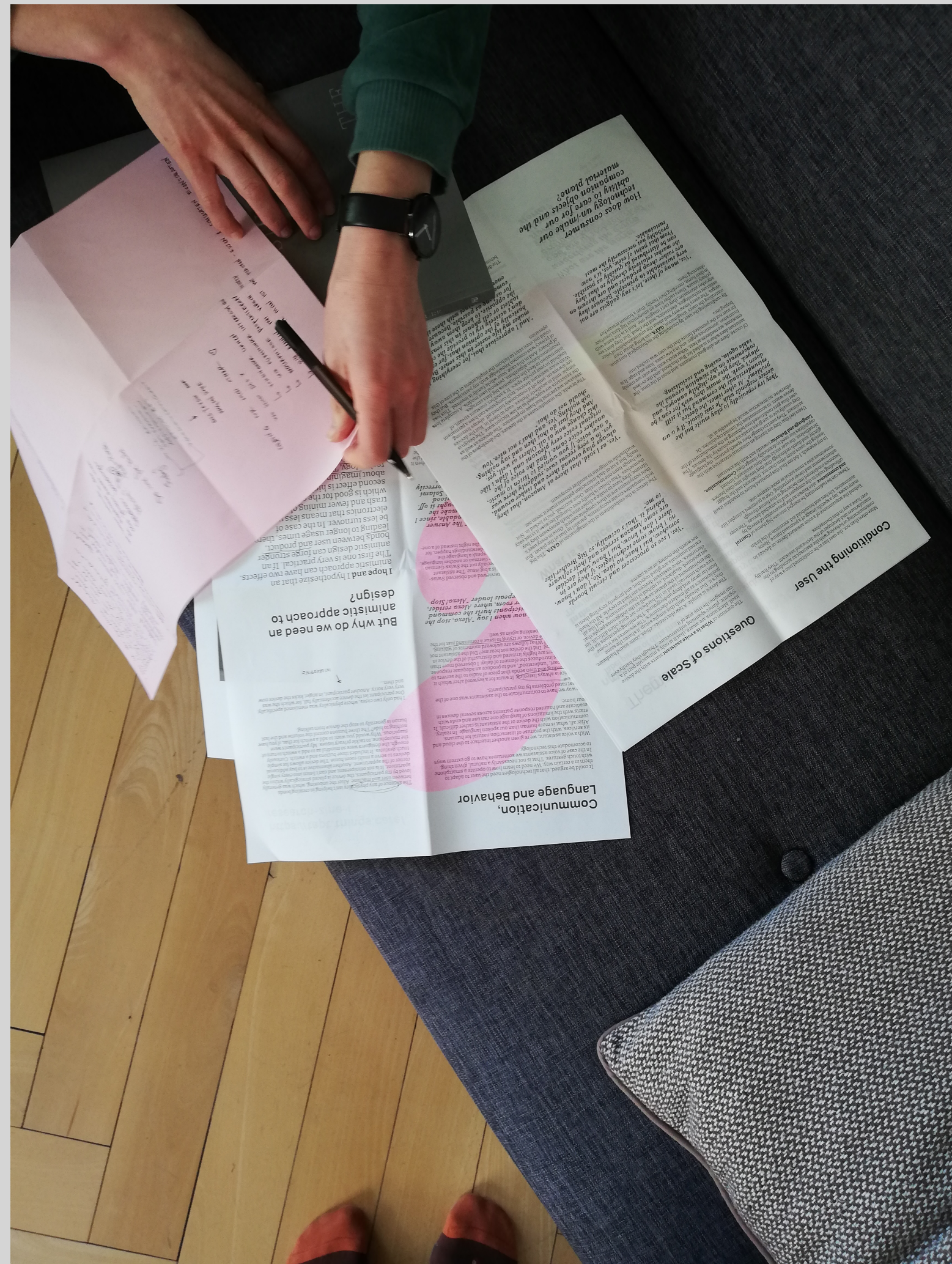
- user experie

- brand utopi

- hacked and

Data Collec...

- user experience

- brand utopias t

- hacked and cus

Data Collection, Expert Workshop

Thematic Analysis

Thematic Analysis
reflexive approach after Brown and Clarke

- Classical qualitative data analysis; coding

- Themes don't emerge, they are actively created

- Trail of Truth through reflexive journal