

# **Me, Myself & My Avatars (or remapping the homunculus)**



**A Virtual Reality Experience by PRESS [ST]ART**

This Virtual Reality Experience deals with the meaning of avatars in virtual reality and wants to explore the chances and limits that lie in their use. It is centrally concerned with the extensibility and mutability of the homunculus, a mapping located in the neurocortex of the movements and sensations experienced by the body. This mapping is not only biased because the regions of the body with more nerve endings or connections in the brain are mapped larger than those that are less sensitive. But it has also long been known to be variable.

This ability of the human brain is what Lanier et al. call "homuncular flexibility". Not only does it allow us to identify with an avatar's body in virtual reality in the first place, but the homunculus can furthermore adapt bodies that differ significantly from the human form. For example, one can learn to handle a third arm or a tail surprisingly quickly.

These relationships are explored in our project using today's technical means and made tangible through implementation in the Unity game engine. Based on the research results of Lanier et al., three different playable non-human avatars were developed for this purpose: one with additional limbs, one consisting of multiple bodies, and one to control the environment.



## Team PRESS [ST]ART

Lena Biresch (Experience Design & Programming)

Tore Nobiling (3D Art)

Nico Parisius (Puppetry & Programming)

## Technical Rider

- Free play area (at least 2.5 m x 2.5 m)
- VR-capable computer
- HTC Vive Pro2 Fullkit
- 3 additional trackers for feet and hips
- 2 tripods (for the lighthouses)
- Supervising person trained by the artists  
(or presence of the artists)

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