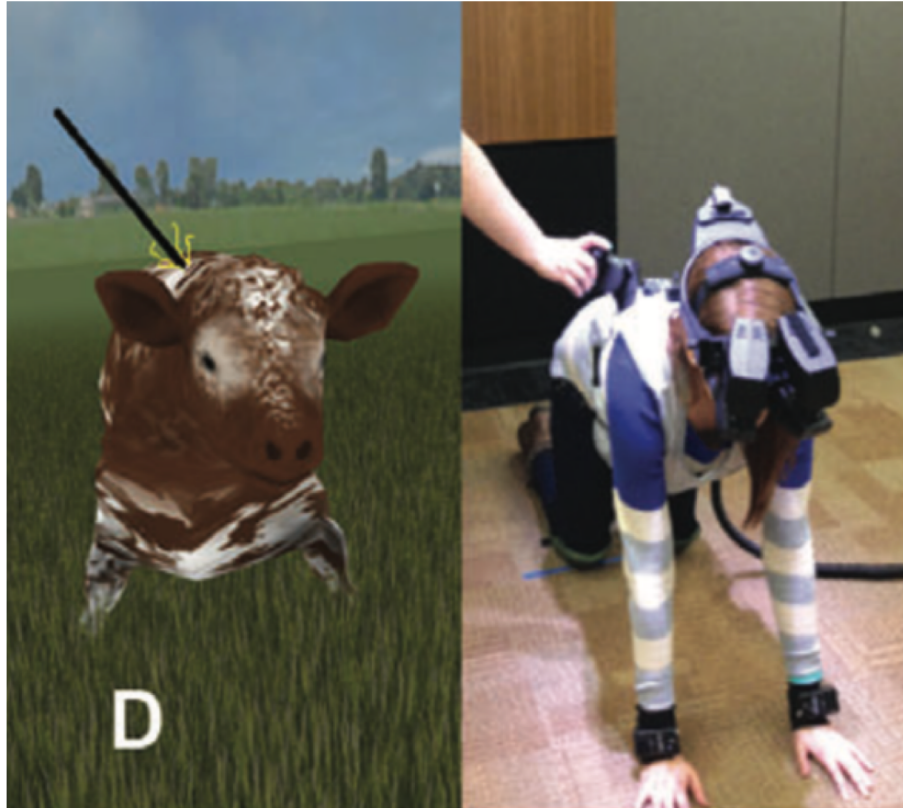




# VR – Emotion – Intention – Behavior ?

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[cgvr.cs.uni-bremen.de](http://cgvr.cs.uni-bremen.de)



VHIL, Stanford

Claim: Experience in virtual reality changes behavior (e.g., towards animals)

In reality: measure only empathy

Our study:



Our findings: empathy does not necessarily translate to behavior change, not even to intended behavior

# Main Goal of the Project

Research question: what kind of virtual environment, and what kind of interaction is needed in order to have a lasting effect on behavior?

Possible factors could be:

Multi-user experience  
(2 users explore the VE together)

Active learning of cause-and-effect relationships (e.g., increased temperature causes deterioration of coral reef)

Interaction with virtual environment

Presence (e.g., by visuo-tactile synchronous stimulation)





# Starting Point for Project

Based on Unreal game engine (using Blueprints and C++)

Possibly based on existing coral reef simulation (but not necessarily)



# Project Tasks

For programmers:

Multiple avatars or live point cloud scans

Optimization for powerwall

Distributed multi-user VR with HMDs

Development of multi-user interaction with VE

Possibly: redirected walking

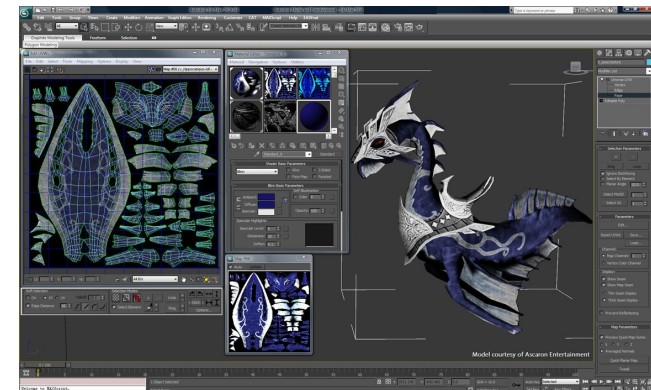
- Design of experiment design, user study, and analysis



For designers & modellers:

3D modelling and animation of realistic avatars, virtual environment, artifacts, etc., using tools like 3DSMax, Blender, Photoshop

Texturing (creating textures, uv mapping, ..)



# Project Infos

**One-semester** project (with regular work in our lab)

**Winter semester** 2018/19

Prerequisites:

A bit of Virtual Reality / computer graphics / 3D knowledge

- E.g., from “Computer Graphics”, “Virtual Reality”, "Advanced Computer Graphics" course

A bit of programming skills in C/C++ or modelling skills

Commitment!

The envisioned project team: mix of CS & DM students

Further info:

Place: MZH 3590, 3rd floor, CGVR lab

Time: April 12 (Thursday), 12:00 (sharp)

Great opportunities for master theses subsequently

# Ready to dive into another world with us?



**Meet us next Thursday  
at MZH 3590, 3rd floor**

G. Zachmann: [zach@cs.uni-bremen.de](mailto:zach@cs.uni-bremen.de)

Rene Weller: [weller@cs.uni-bremen.de](mailto:weller@cs.uni-bremen.de)