

# Person-Environment-Activity Research Laboratory

Nick Tyler, Director

Barbara Pizzileo, Strategic Partnerships Manager

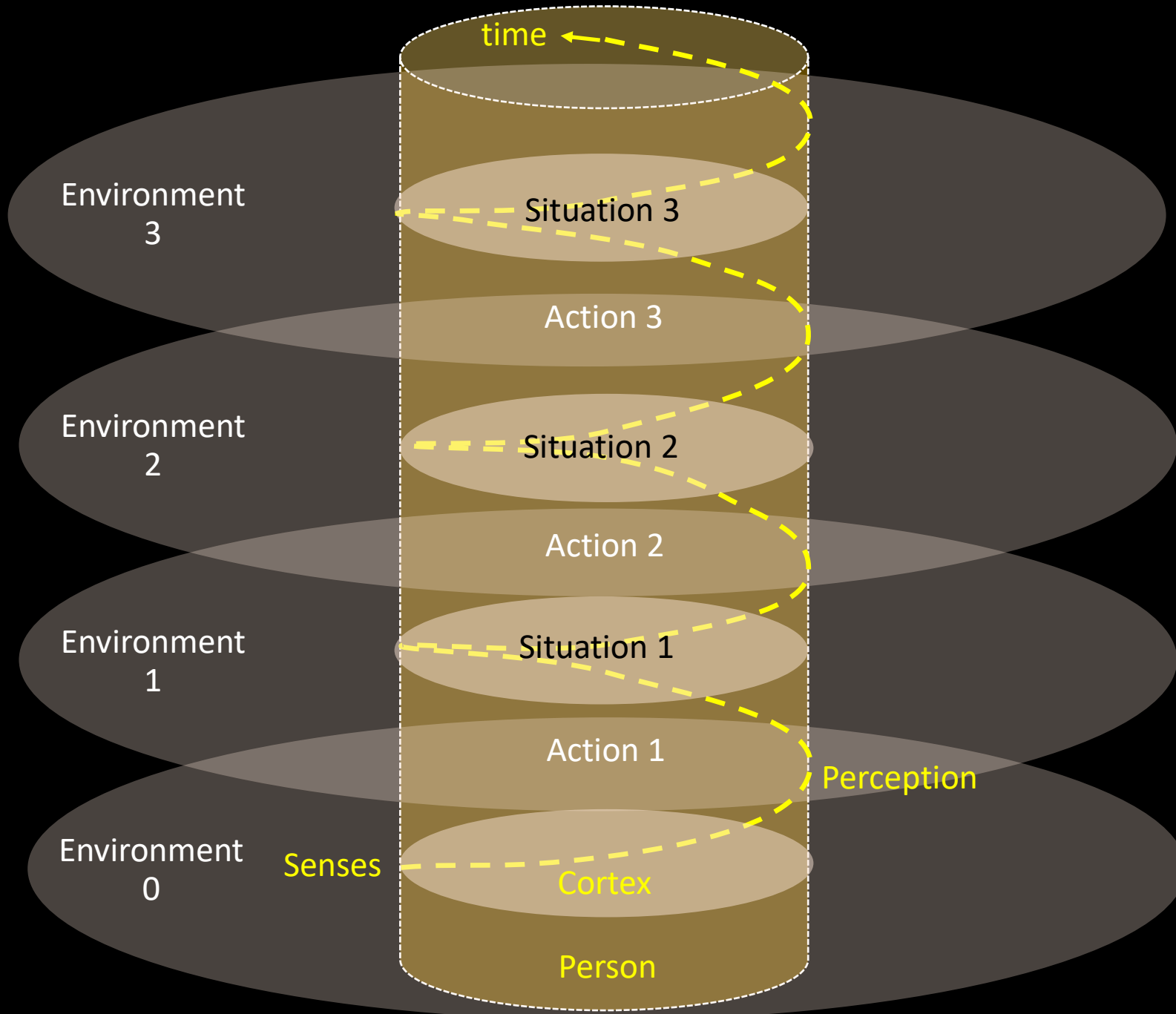
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# PEARL Research philosophy



- All we know about an environment arrives via our senses
- We process this information in parallel to create a perception of the environment
- We act on the basis of that perception
- The environment adapts according to our actions



The pathway from Environment to Neuron and back drives the design of the environment

# PEARL creates environments ...



- Lighting – simulate anywhere on the planet at any time
- Sound – simulate 4D dynamic soundscapes
- Physical/touch – simulate life-size environments
- Smell – simulate multiple and blended olfactory environments
- All at the same time



... then tests them with people



- So we can sense the responses:
  - Physically
  - Physiologically
  - Neurologically
  - Psychologically
  - Individually or in Groups
  - Interactions between people
  - Interactions between things
- To create human-centred design for people and planet

# PEARL-CAVE tests environmental conditions



- Temperature/humidity
- Building-within-a-building
- Test interior spaces under different ventilation regimes
- Pathogen transmission and viability inside interior spaces
- Interior-exterior interactions
- Dynamic bus testing under different environmental conditions

# PEARL – where ideas come together



- **Contacts:**
- **Director:**
- Nick Tyler (n.tyler@ucl.ac.uk)
  
- **Strategic Partnerships Manager:**
- Barbara Pizzileo (b.pizzileo@ucl.ac.uk)
  
- [www.ucl.ac.uk/pearl](http://www.ucl.ac.uk/pearl); [www.pearl.place](http://www.pearl.place)

