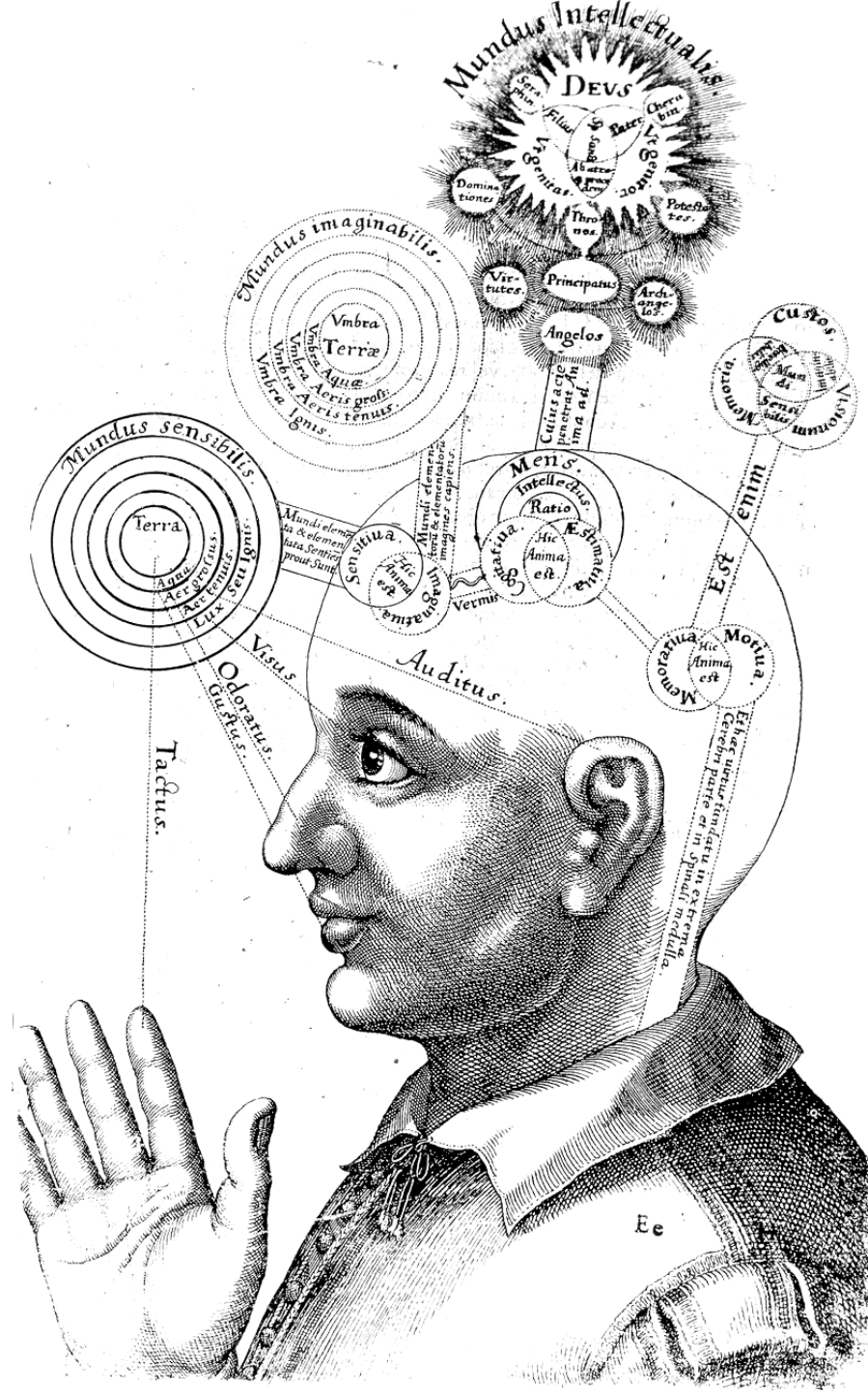


# Aspects of Modeling Human Behavior in Agent-Based Social Simulation – What Can We Learn from the COVID-19 Pandemic?

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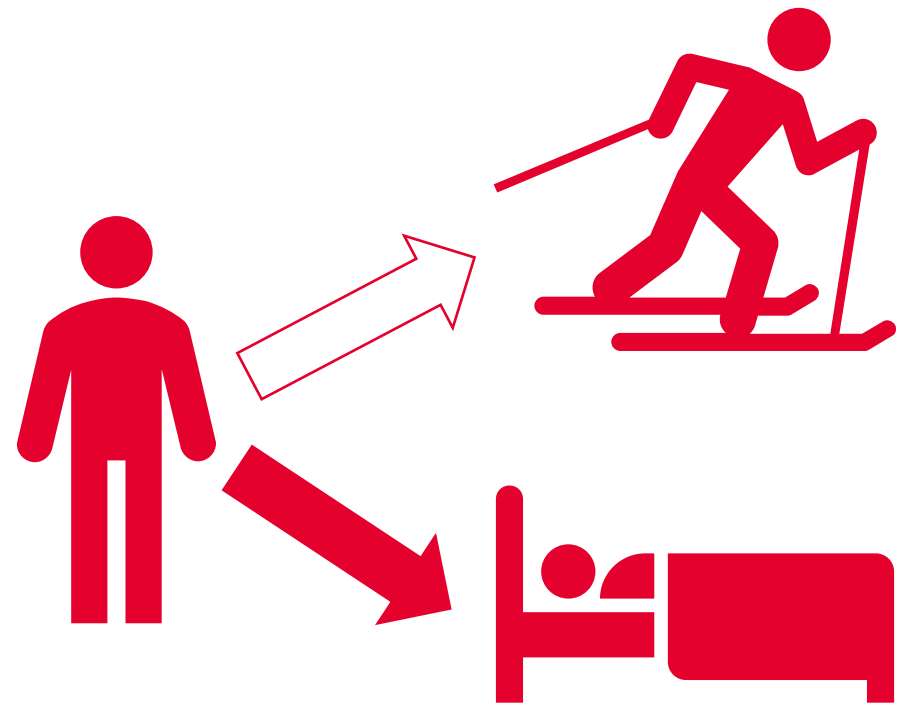
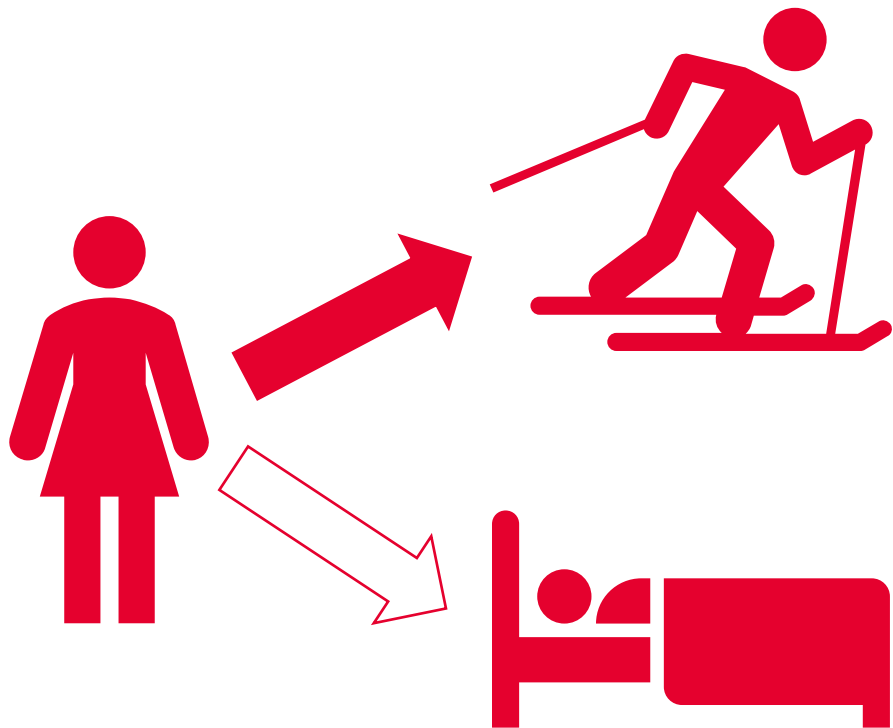


# Aim of the Study:

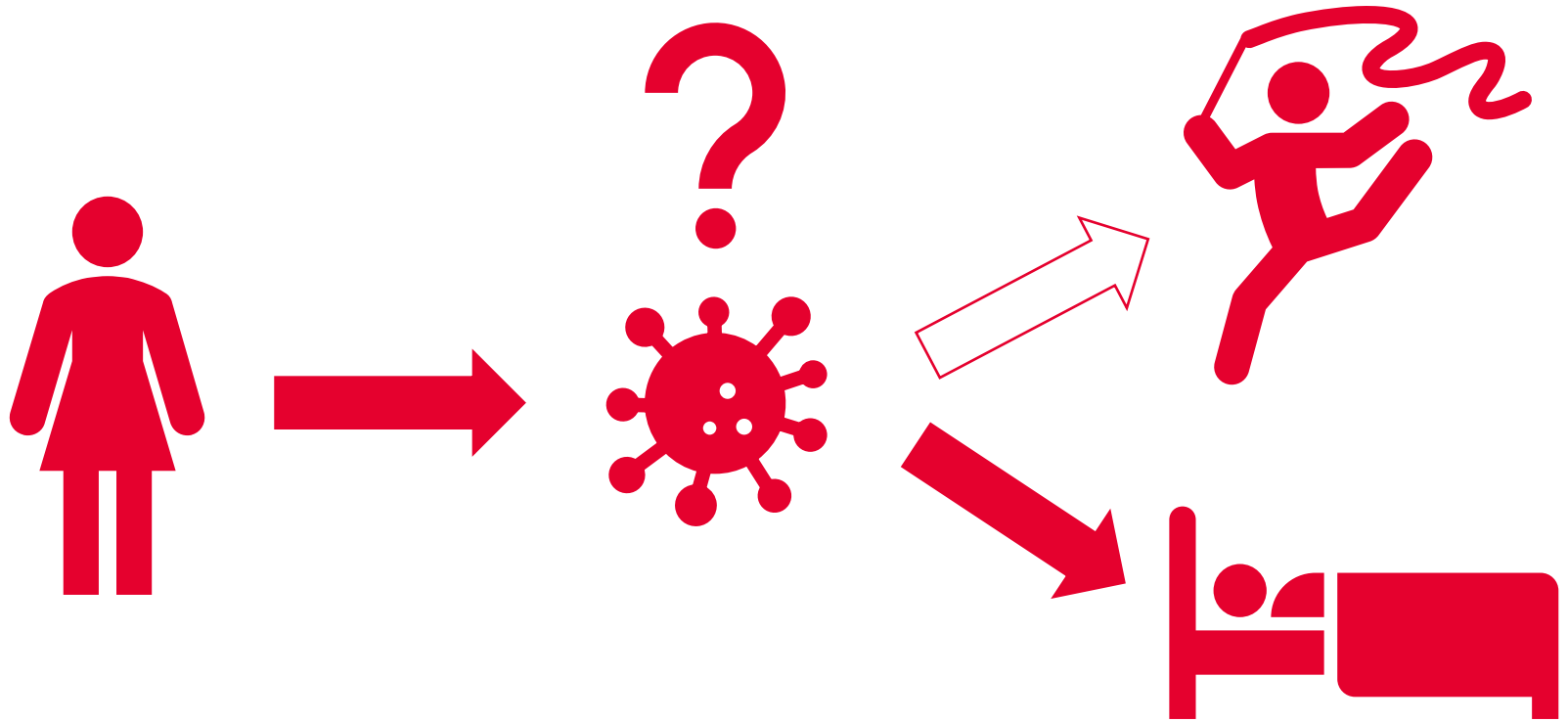
- Identify aspects of agent behavior relevant for simulating the behavior of humans.
- Use these to review human behavior in ABSS models developed in the early stages of the COVID-19 pandemic, in order to understand the current capabilities of ABSS during crises.

# 7 Aspects:

# Attribute Dependence



# State Dependence



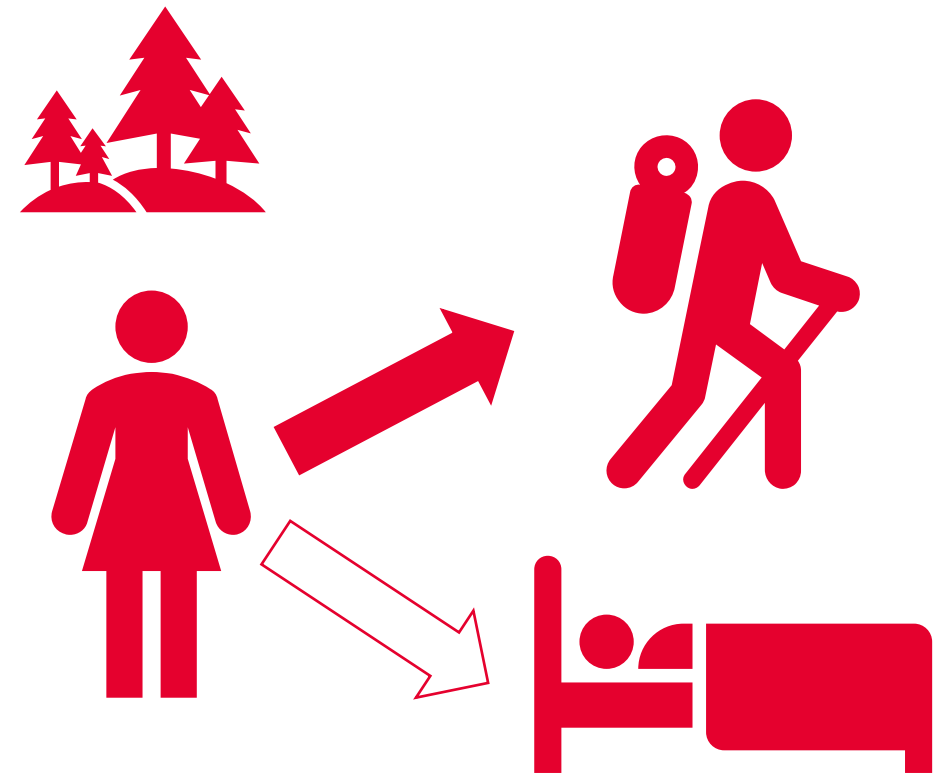
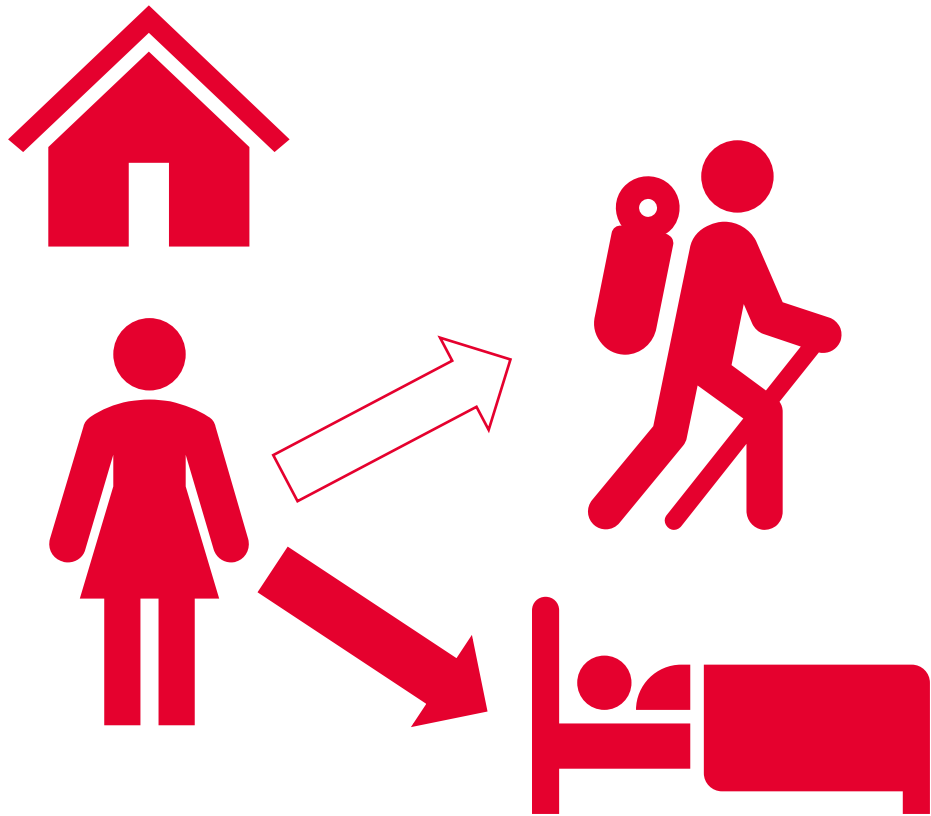
# Uncertainty Dependence

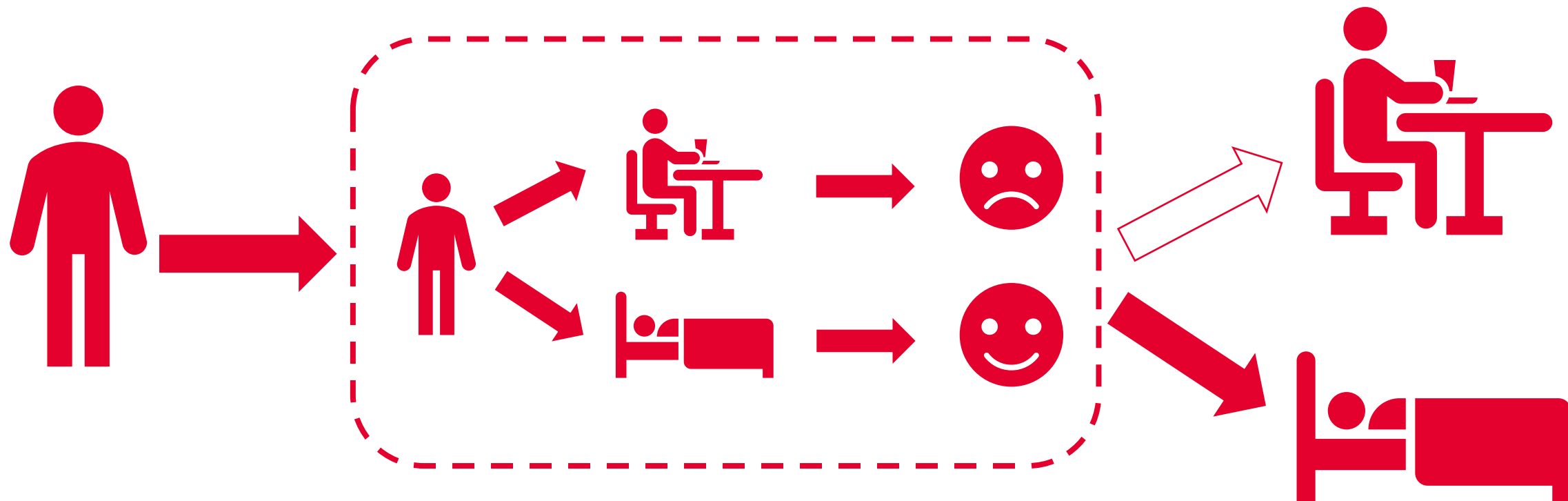


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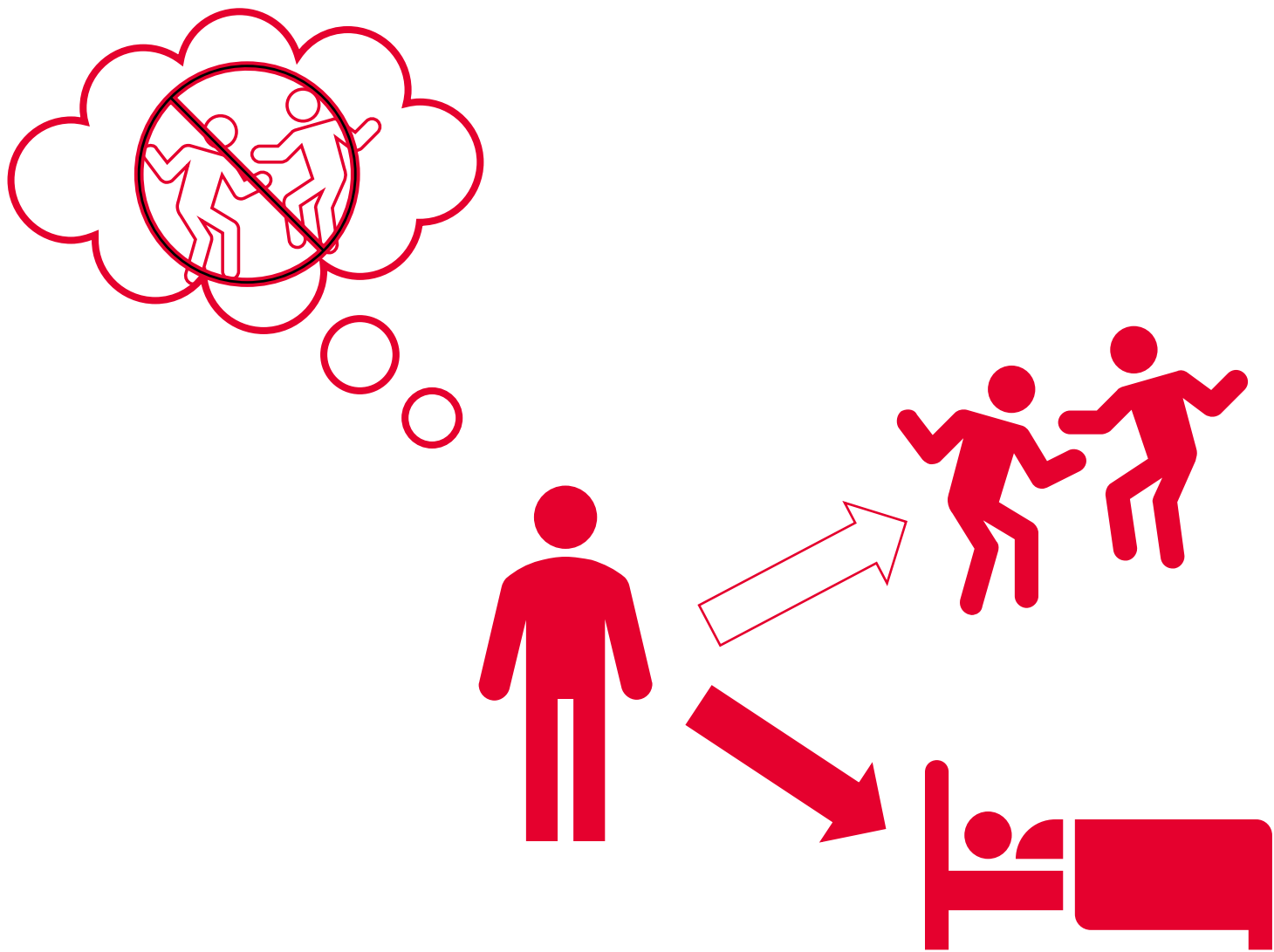
# Context Dependence



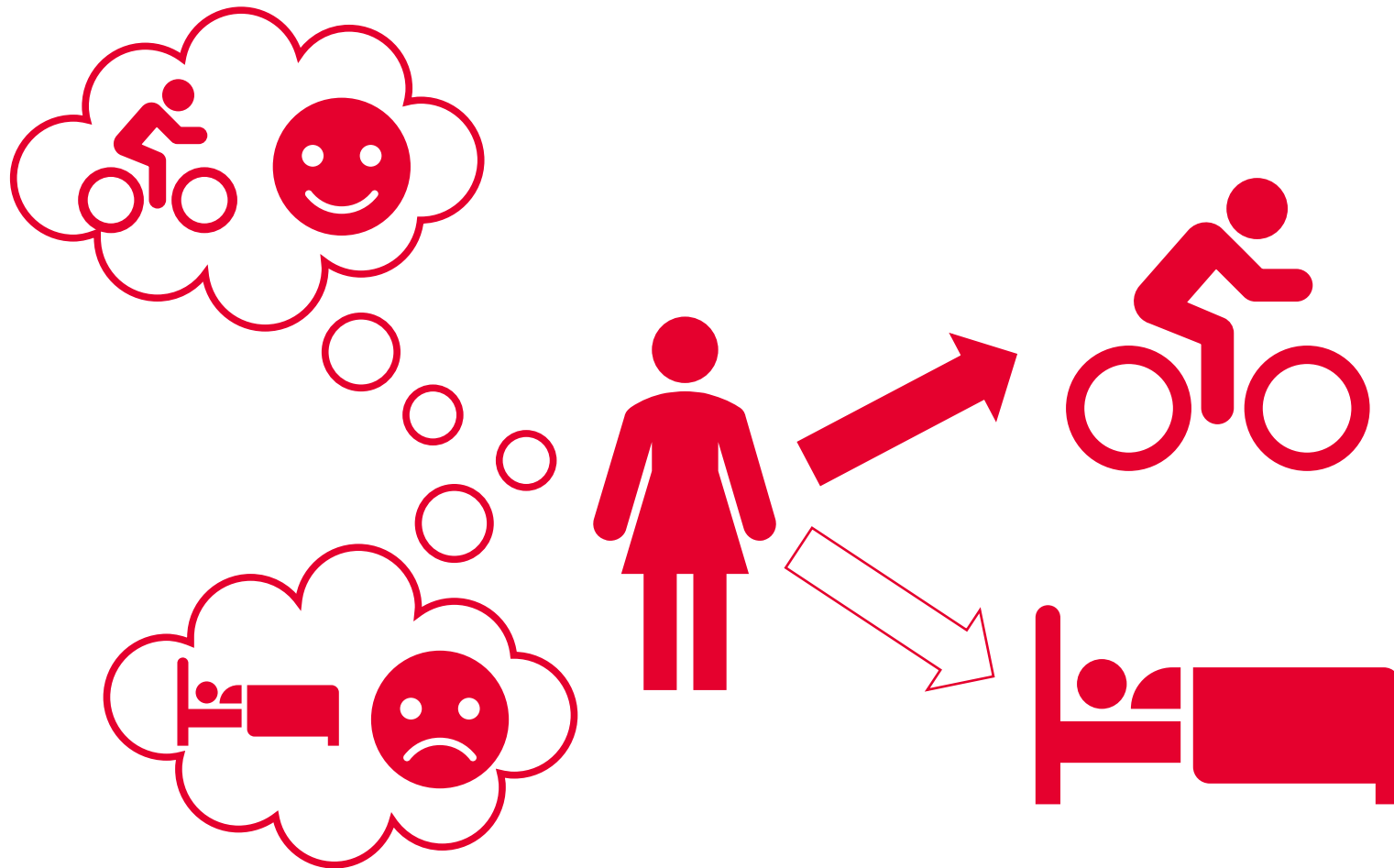


# Deliberation

# Norm Compliance

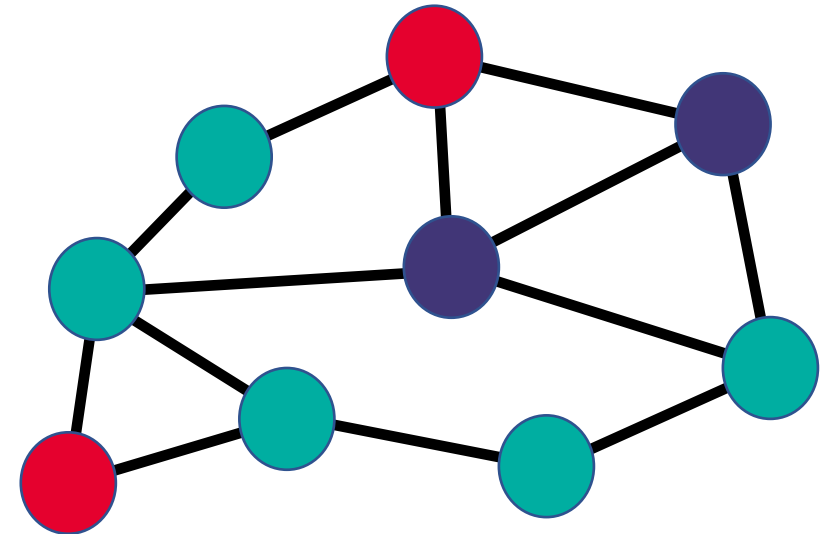
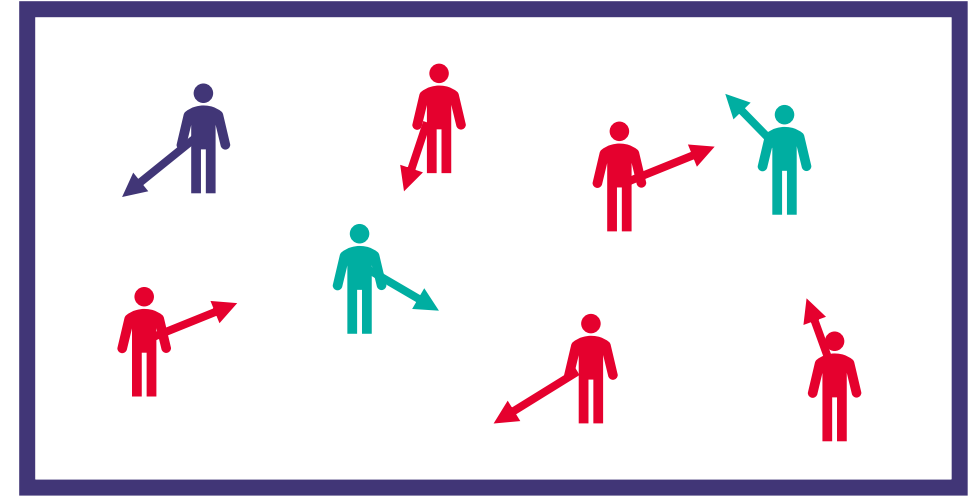


# Learning

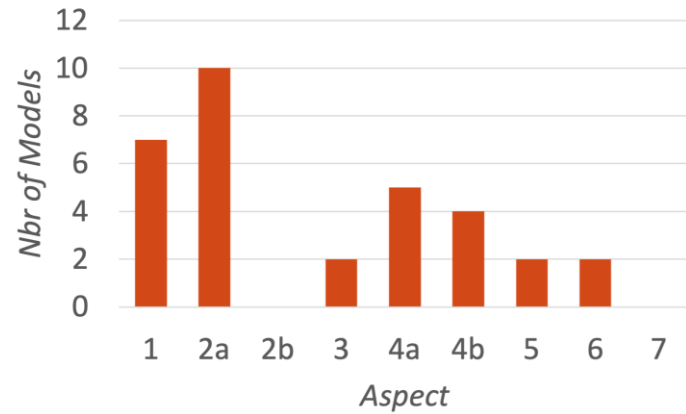


# Review

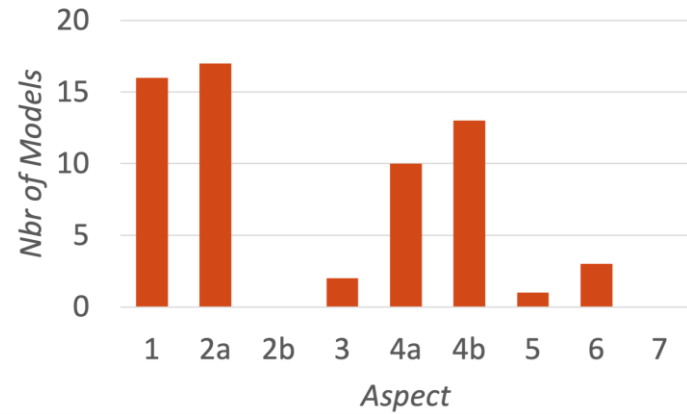
- Previous study: 126 ABSS models, pre October 1st 2020.
- Excluded models with very simple behavior.
- Left with 30 models.



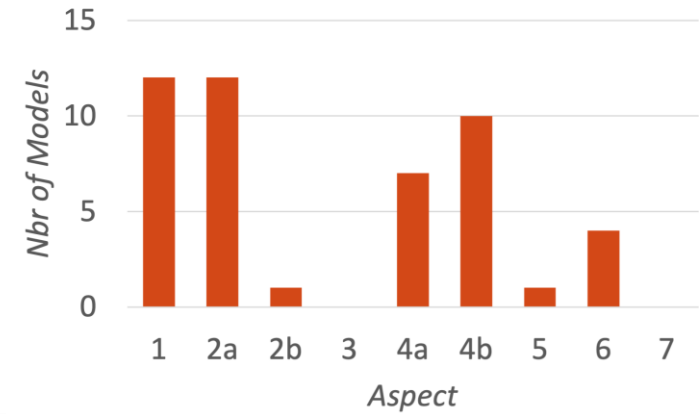
### Lockdown



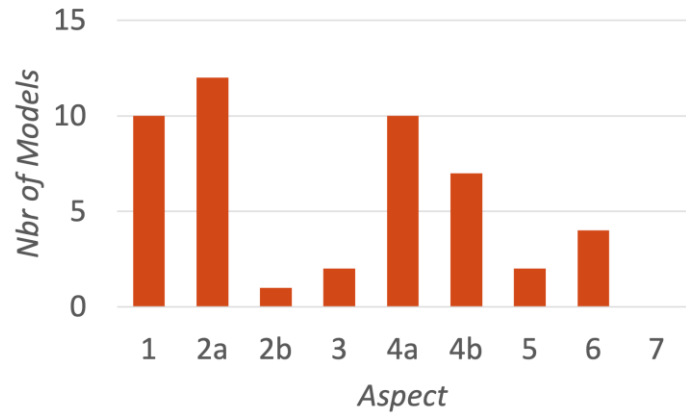
### Quarantine



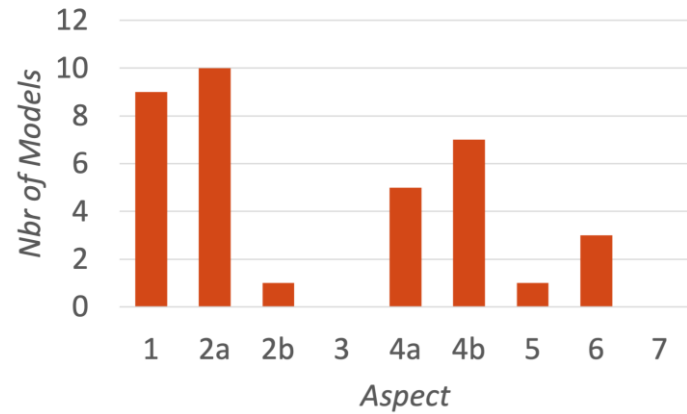
### Social Distancing



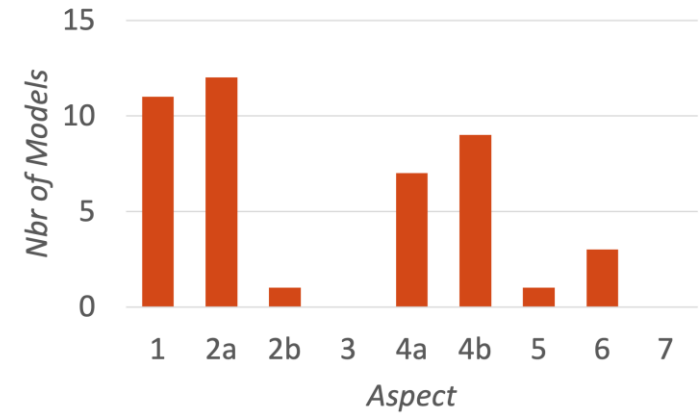
### Testing



### Schools



### Workplaces



# Less common aspects:

- Affective dependence: 1 model.
- Other diseases: 3 models.
- Deliberation: 3 models.
- Intervention compliance: 7 models.
- Learning: 0 models.

Why is this  
an issue?

# 1: Tools for (rapid) behavior modelling

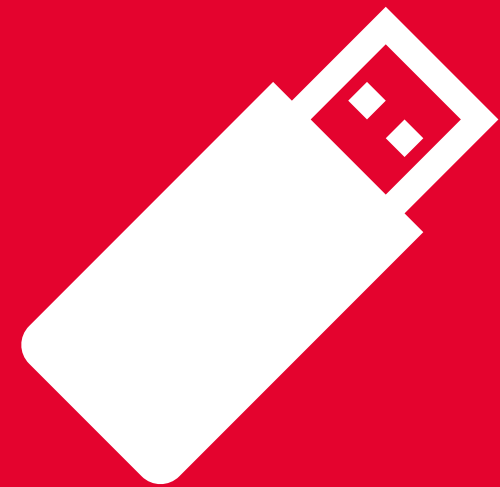




## 2: Model reusability

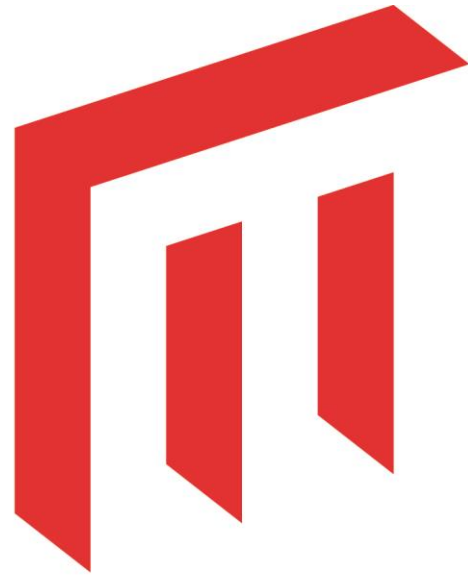


### 3: Readily available data for behavior modelling





Thank you!



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