

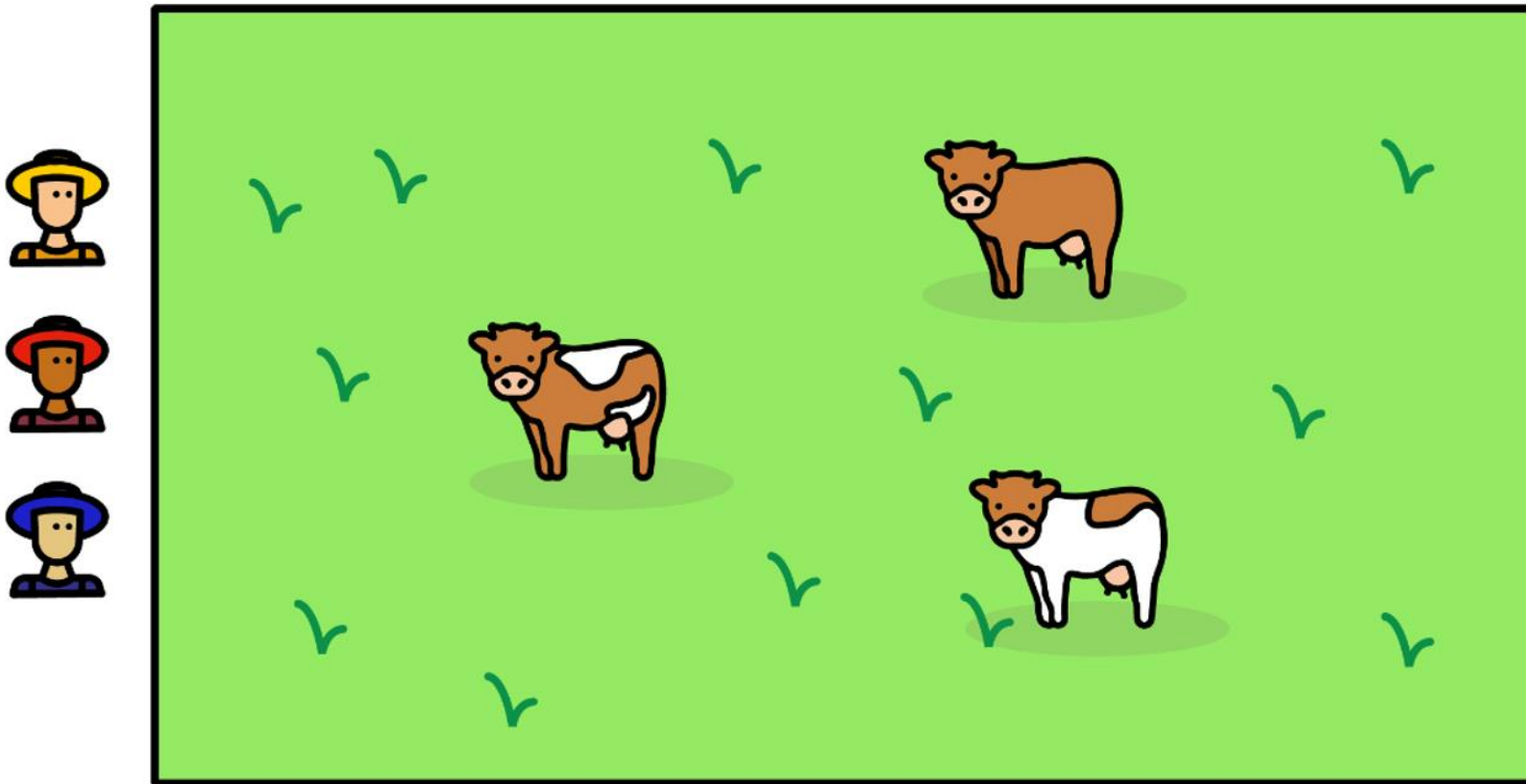
# Norm effects in social dynamics of change

**Marlene Batzke & Andreas Ernst**

Kassel Institute for Sustainability Kick Off Conference

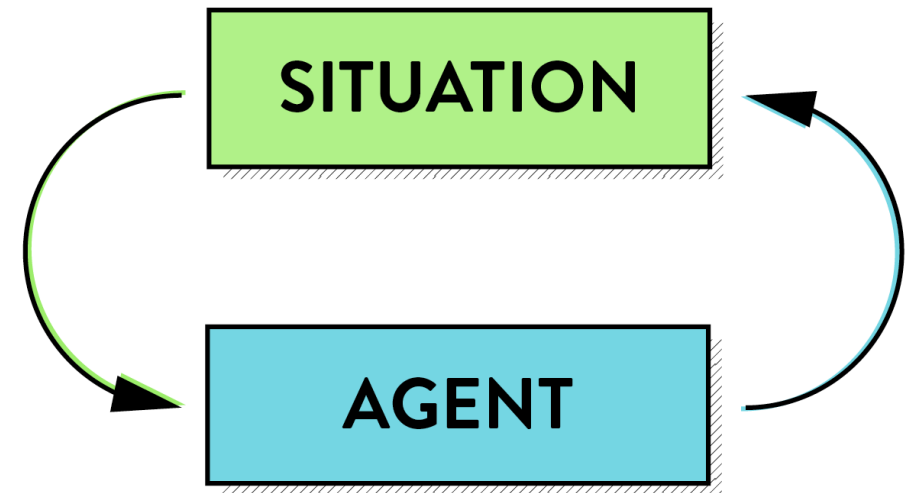
September 14-16, 2022

# Sustaining the environment: A matter of cooperation



## Agent-based simulation

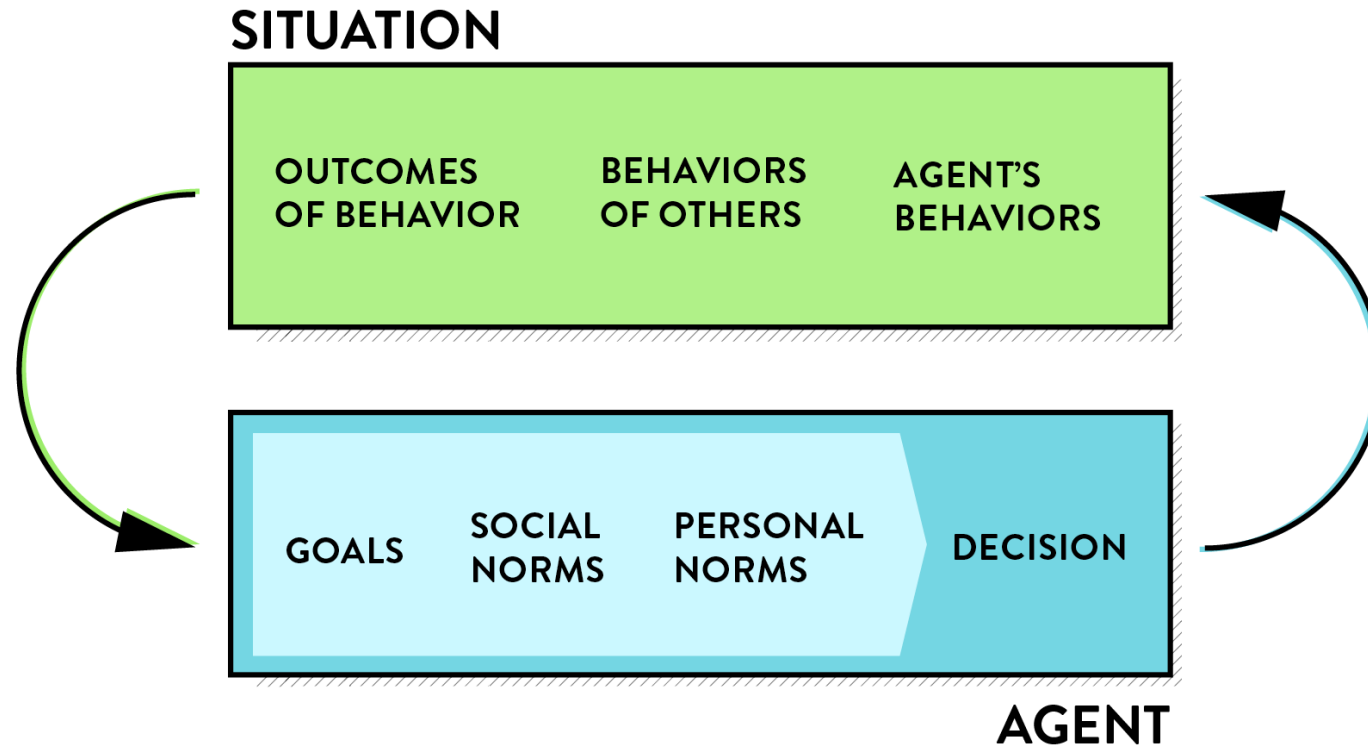
- Simulating behavior of individual agents
  - Heterogeneous agent population
- Studying behavioral dynamics
  - Closing the loop between decision making, behavior and behavioral consequences
- Combination of individual level and system level
  - Study emergent phenomena



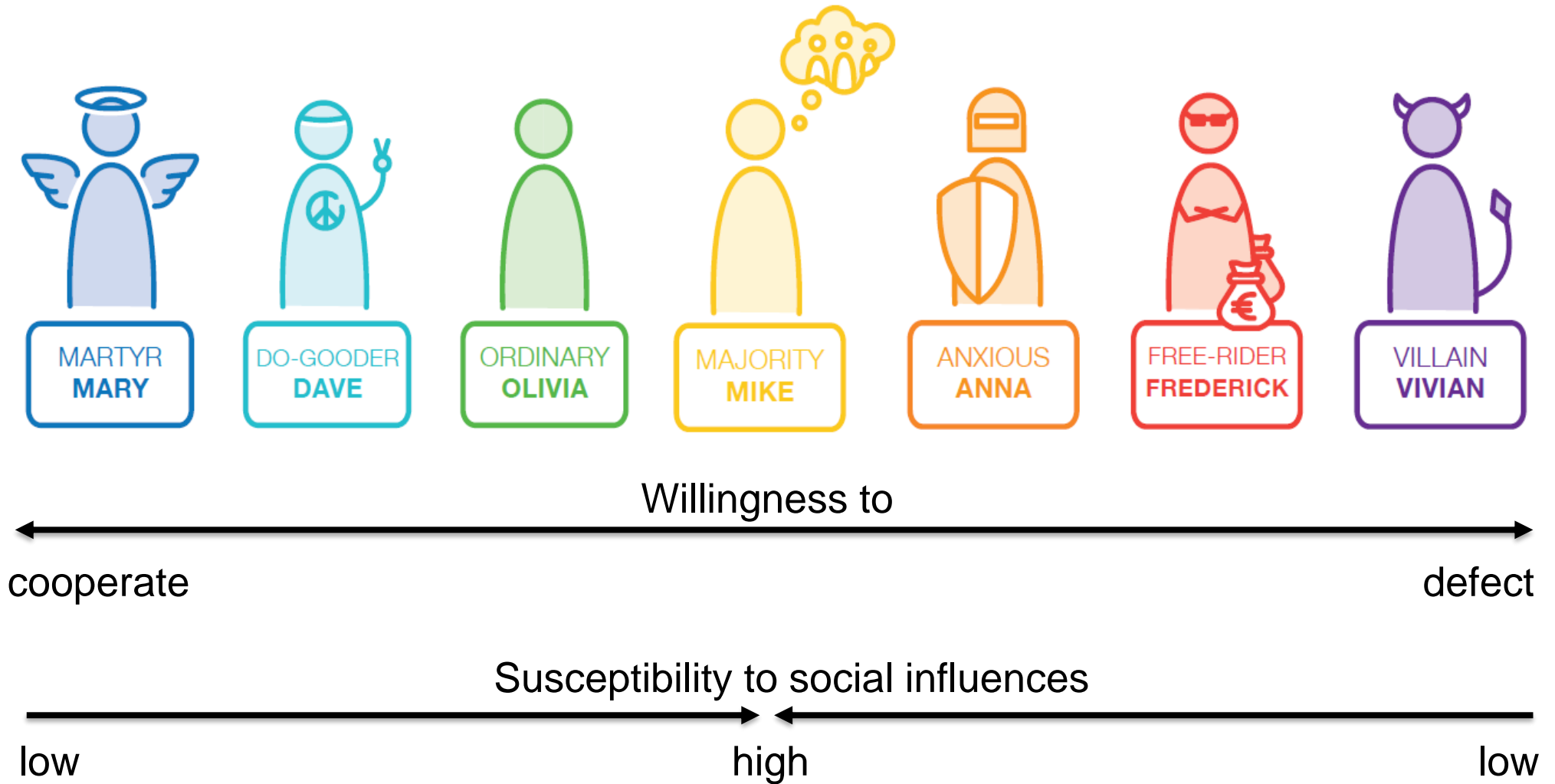
# **THE AGENT-BASED *DINO* MODEL –** *DYNAMICS OF INTERNALIZATION AND DISSEMINATION OF NORMS*

*Batzke & Ernst, 2022*

# A norm-based dynamic model of decision making



# Seven agent types



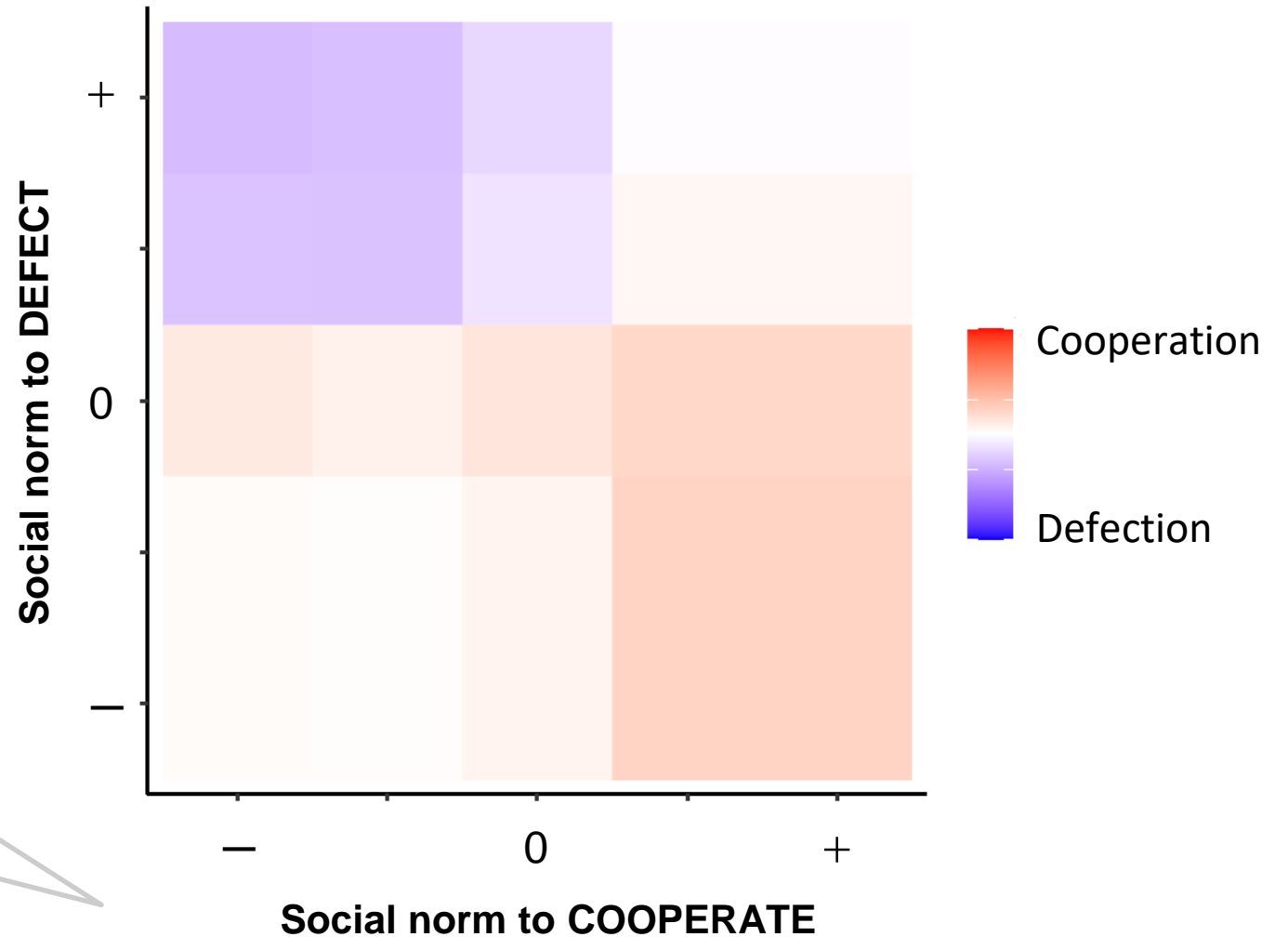
*„Everyone should leave the  
car in the garage and take  
the bike.“*

## **SIMULATION RESULTS: EFFECTS OF NORM CHANGE**

# Social norm change

→ small behavioral effects

*„Most people think it is [in]appropriate to take the BIKE to work.“*

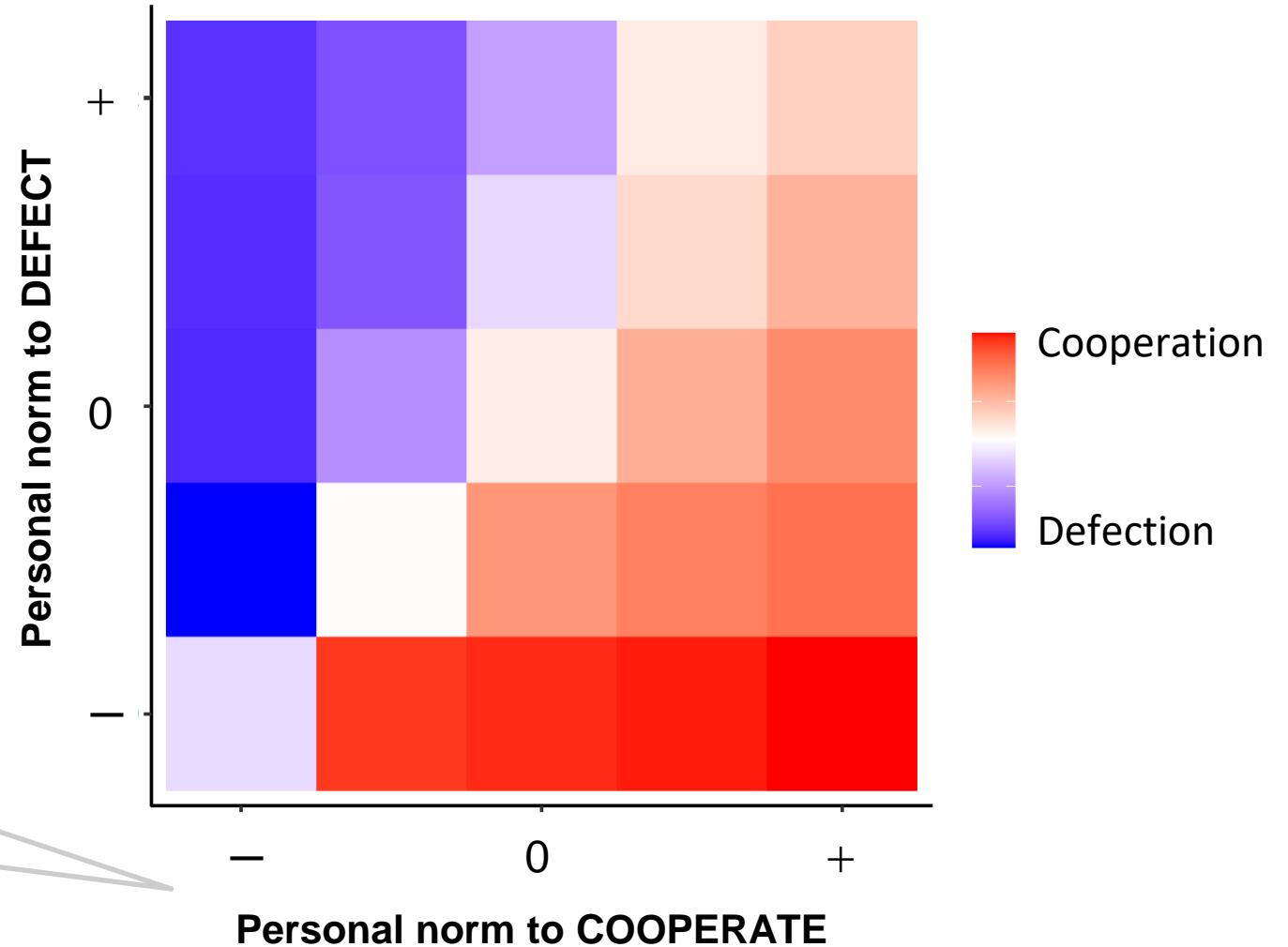




# Personal norm change

→ rejection of behavior-dissonant norm strongly effects norm-consistent behavior

*„I think it is [in]appropriate to take the BIKE to work.“*



## Conclusions

- social norms may promote cooperation
- even stronger effects: personal norm change
  - reducing intra-personal conflicts between personal norms
  - especially: rejecting a behavior-dissonant personal norm

**THANK YOU  
FOR LISTENING!**

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