

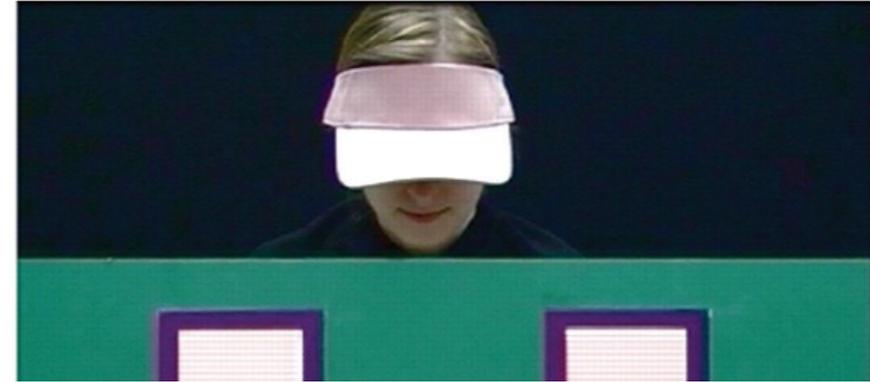
# Infant Theory of Mind: Where are we now?

Victoria Southgate

CBCD 2004



# Theory of Mind in Two-year-olds

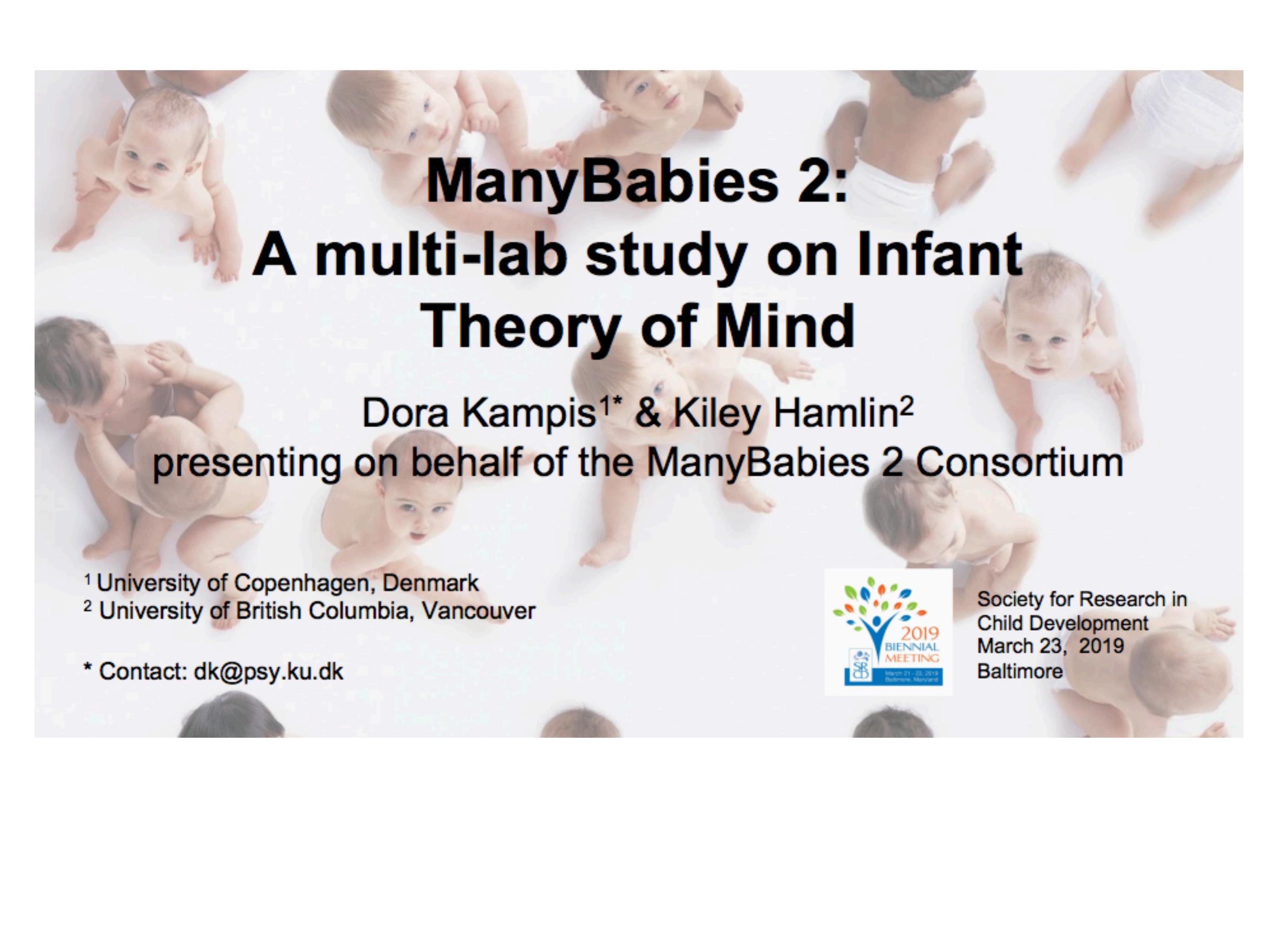


## Action Anticipation Through Action by 2-Year-Olds

Subjects  
Twenty 2-year-olds participated in the experiment

V. Southgate, A. Senju, and G. Csibra





# ManyBabies 2: A multi-lab study on Infant Theory of Mind

Dora Kampis<sup>1\*</sup> & Kiley Hamlin<sup>2</sup>  
presenting on behalf of the ManyBabies 2 Consortium

<sup>1</sup> University of Copenhagen, Denmark

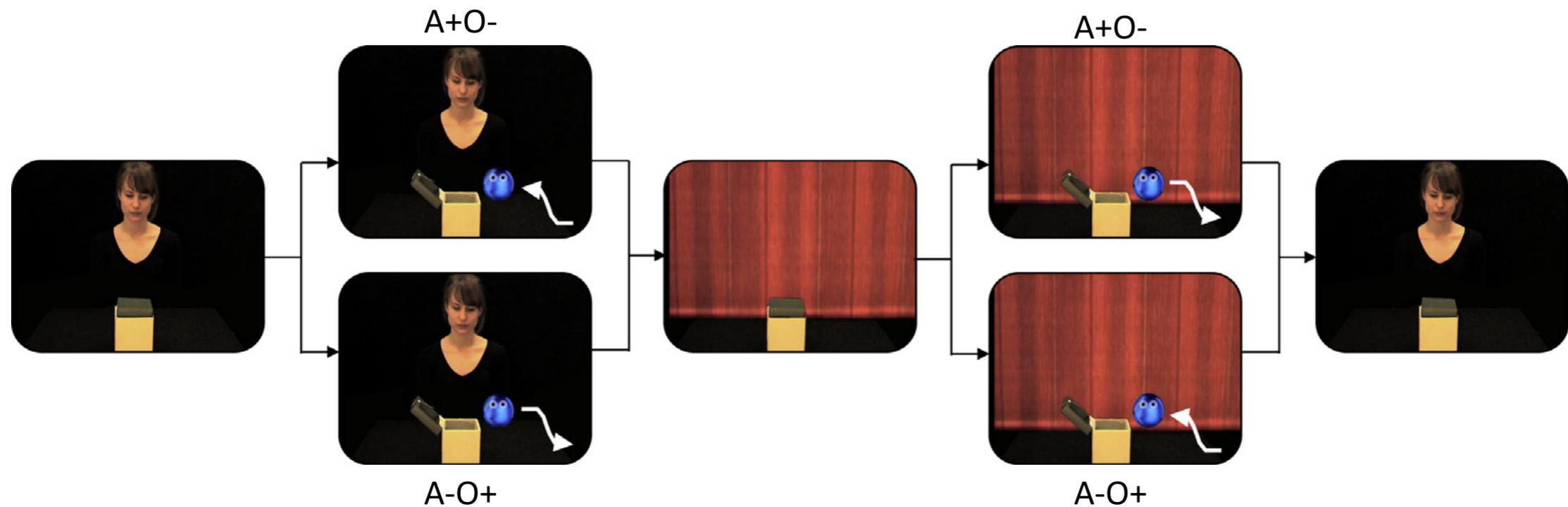
<sup>2</sup> University of British Columbia, Vancouver

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Society for Research in  
Child Development  
March 23, 2019  
Baltimore

Fortunately other paradigms have (so far) faired better

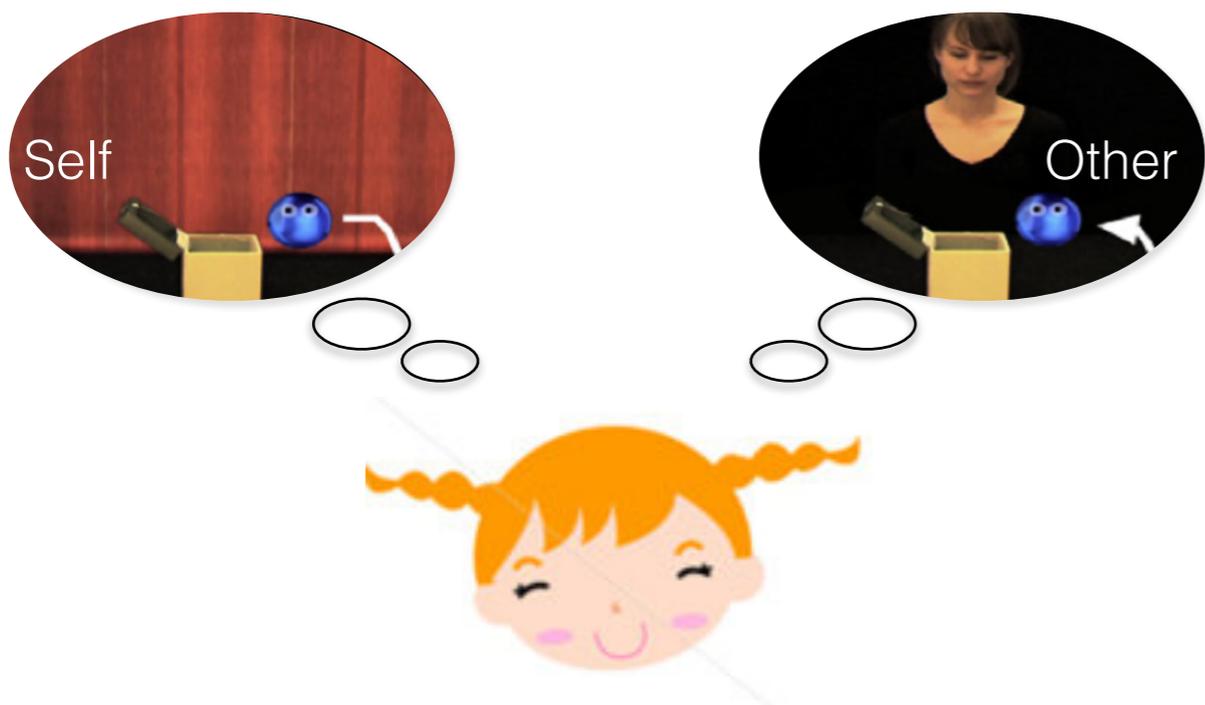


So there is something to explain!

But how best to explain it?

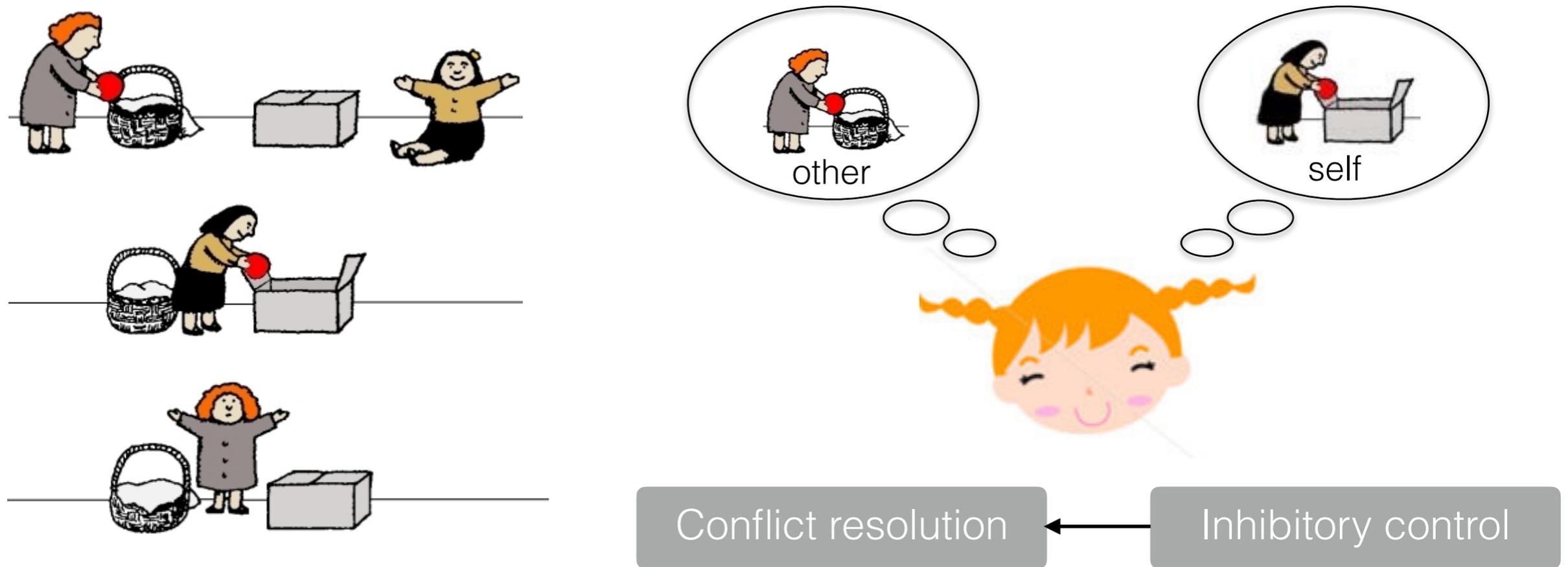
*“Infants realize that others act on the basis of their beliefs and that these beliefs are **representations that may or may not mirror reality** (Onishi & Baillargeon, 2005, Science)*

*“Infants compute others’ beliefs and seem to hold them in mind as **alternative representations of the environment**” (Kovács et al., 2010, Science)*



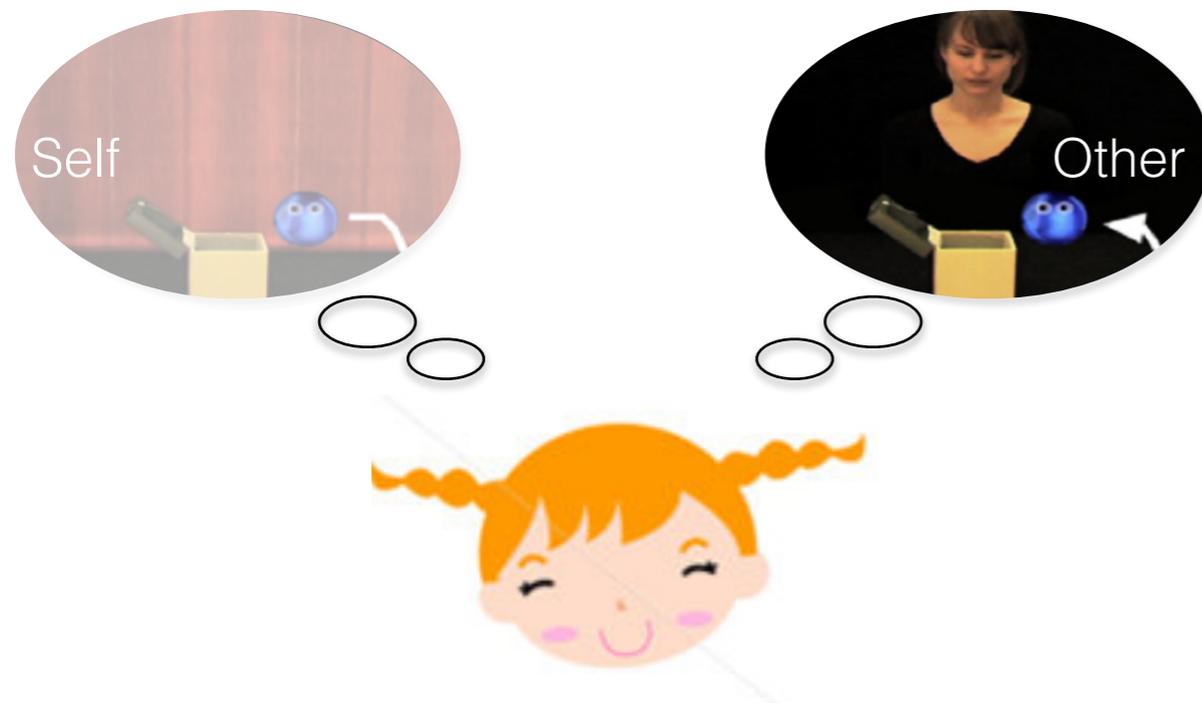
Implies that infants are managing two conflicting representations

# Relationship between performance on false belief tasks and Executive Functions in children (e.g. Devine & Hughes, 2014)



Infants have poor cognitive control (Diamond, 2003; Thompson-Schill et al., 2009)

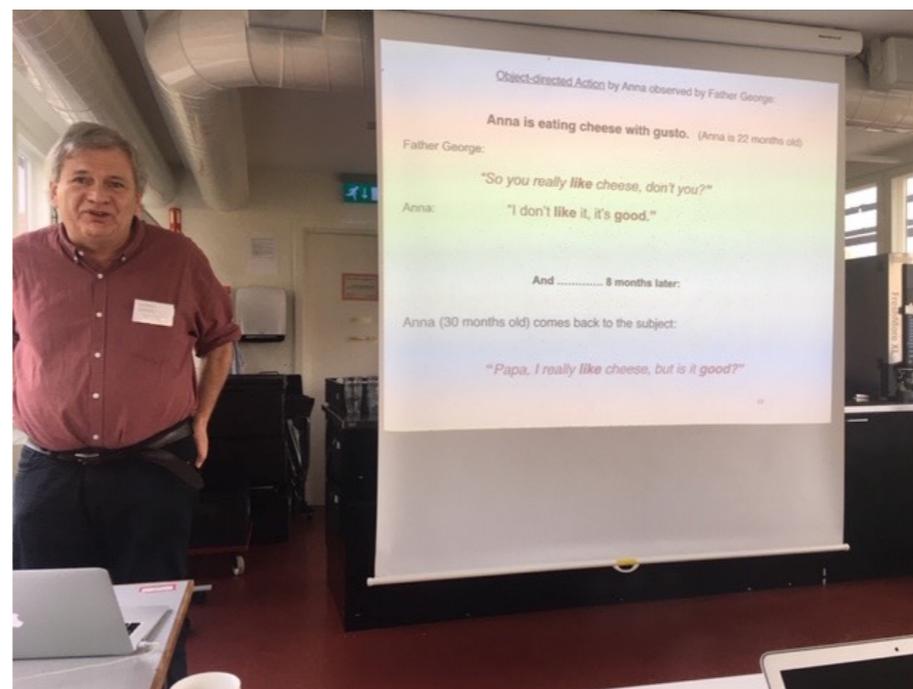
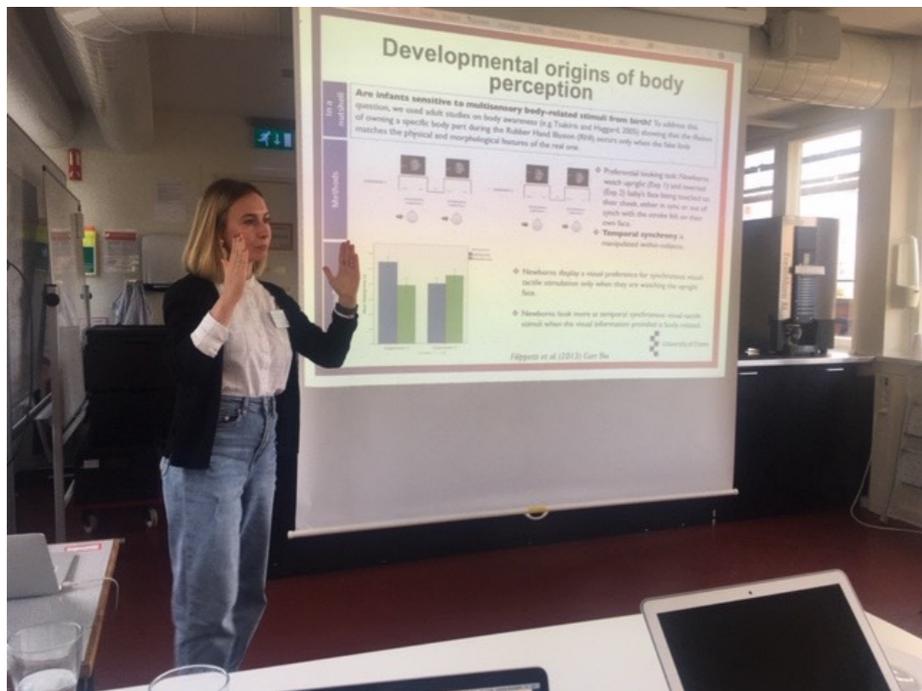
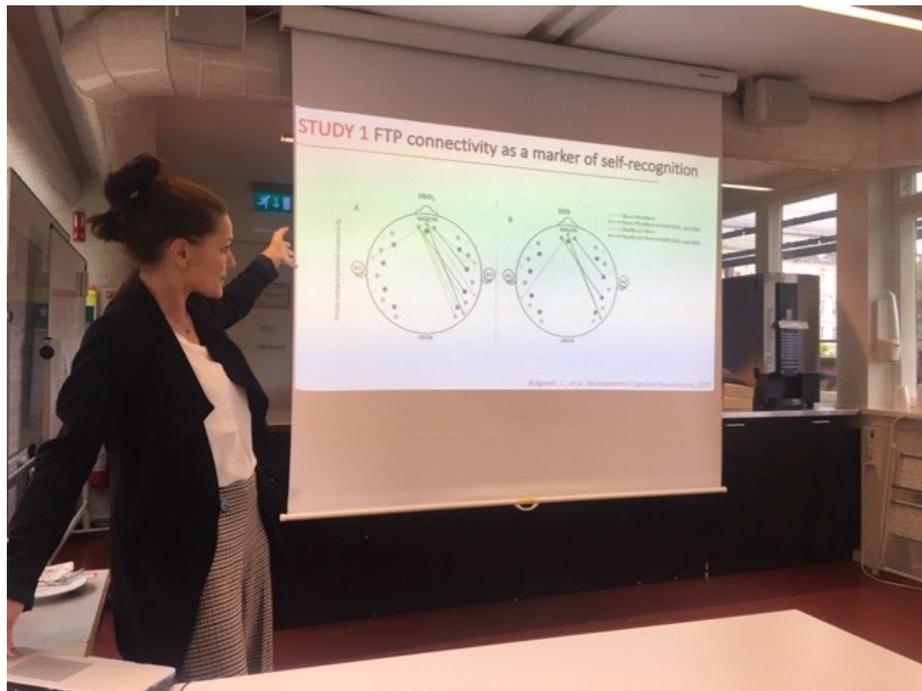
A solution is if one of these perspectives were to exert less influence than the other



Maybe infants don't remember their own perspective?

**Hypothesis**  **erc**

Infants can take others' perspectives because they don't have a competing representation of their own perspective



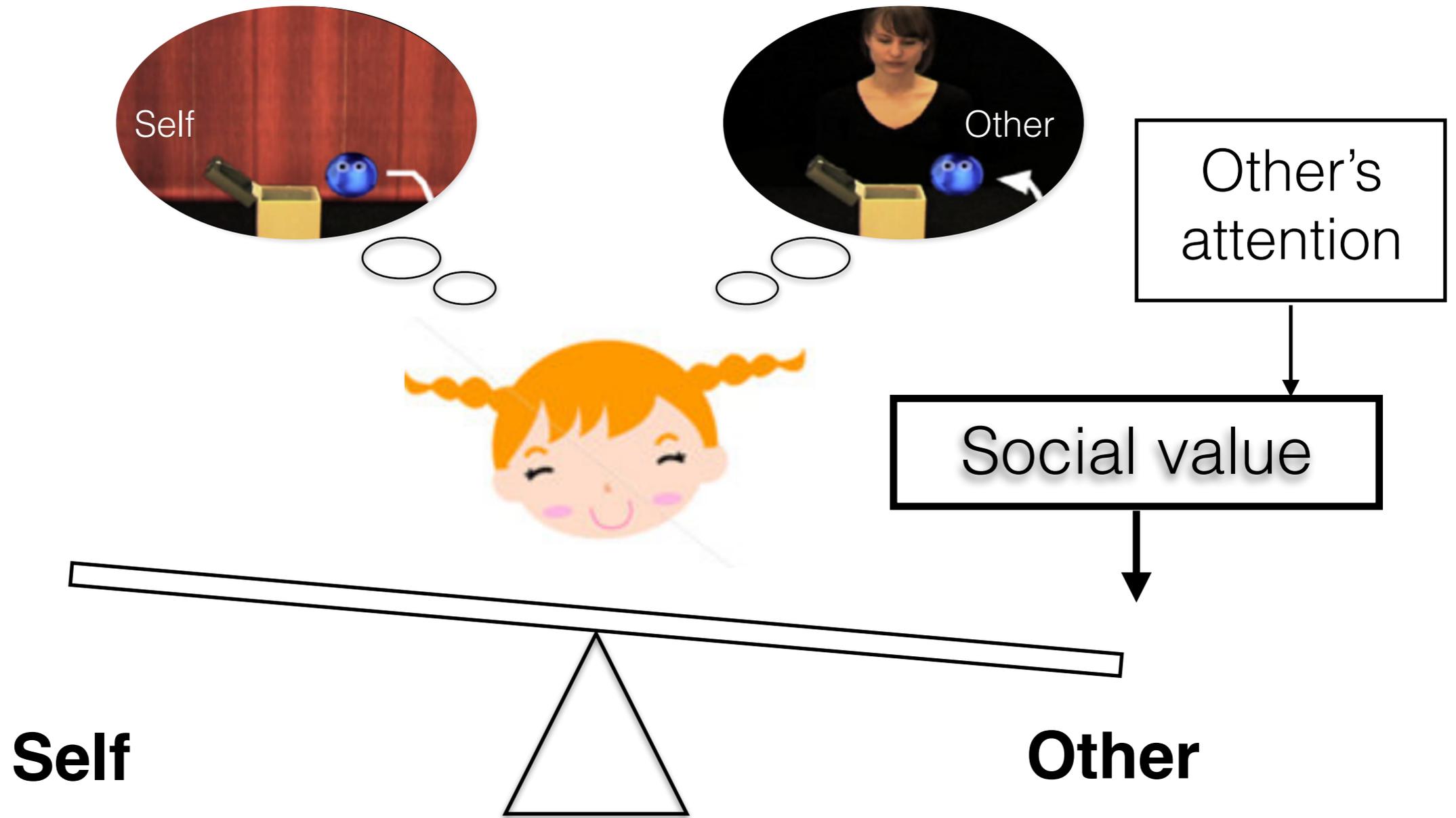
# Altercentric hypothesis

Perspective taking in infancy is facilitated by two features of early cognition:

- 1) Socially-cued events receive preferential encoding
- 2) Infants lack self-representation that would otherwise lead to a competing representation of the event from the self-perspective

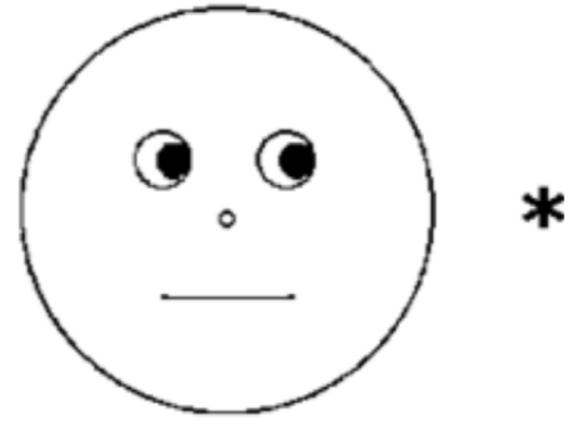
Social cognition is a balance between self and other, and **different factors** can alter this balance

# Perspective conflict

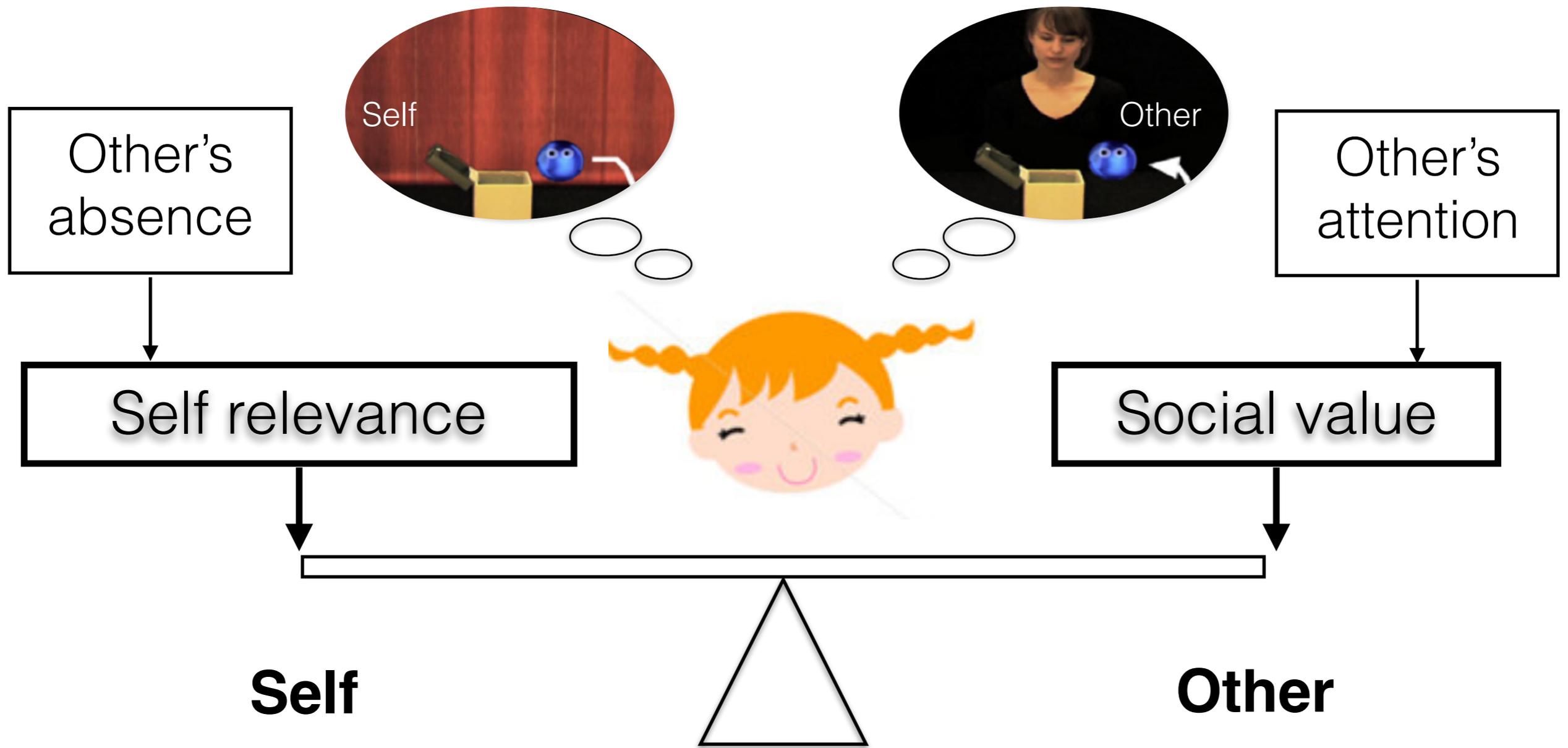


# Social value

Others' attention enhances our memory for the targets of their attention (Gregory & Jackson, 2017; Reid et al., 2004)



# Perspective conflict



# Social value

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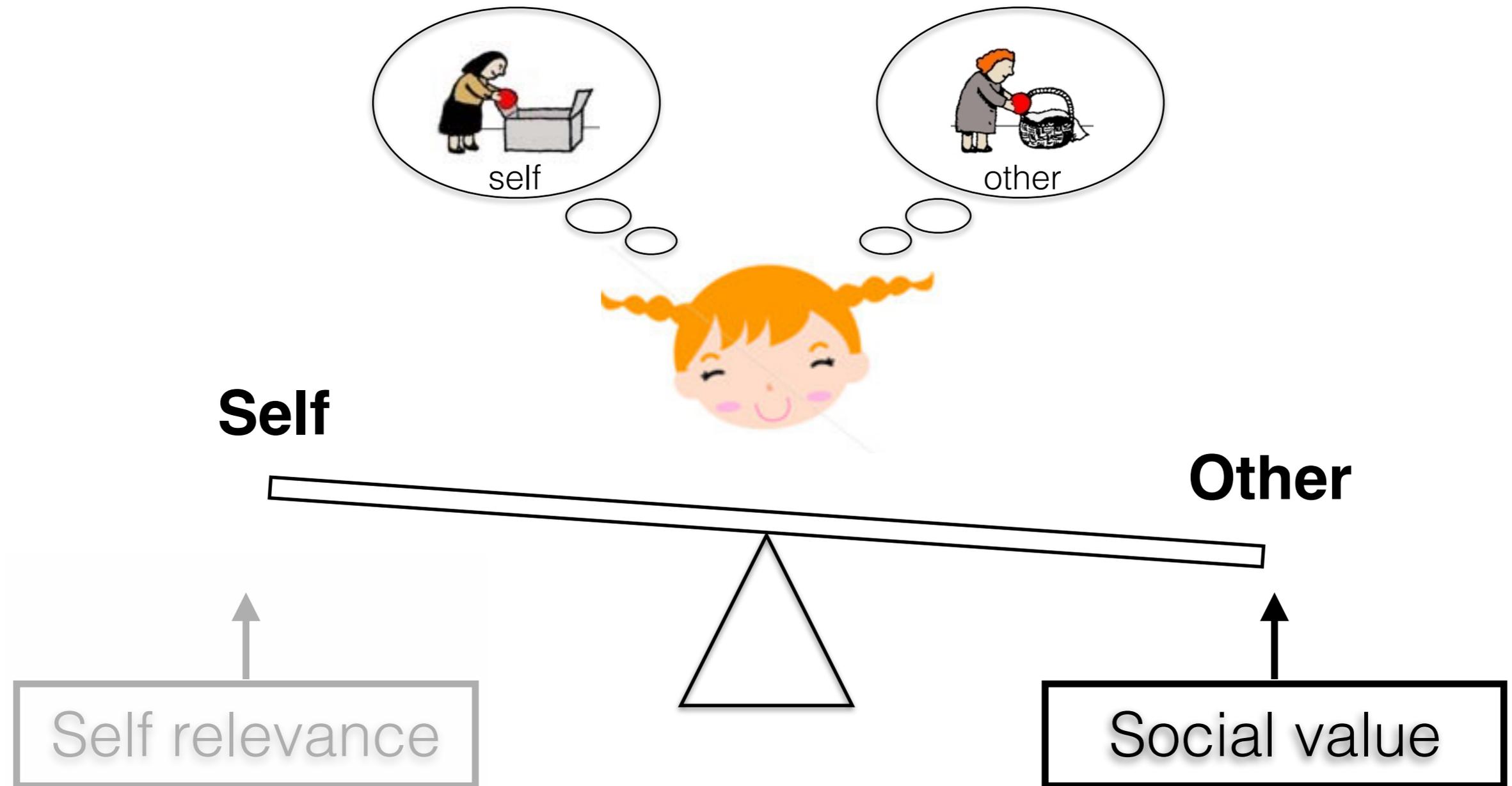


# Self-relevance

Perception and memory are facilitated for events and items that are perceived as self-relevant (Sui & Humphreys, 2015)

→ In adults, the presence of both of these influences create a perspective conflict

# Why infants might be different

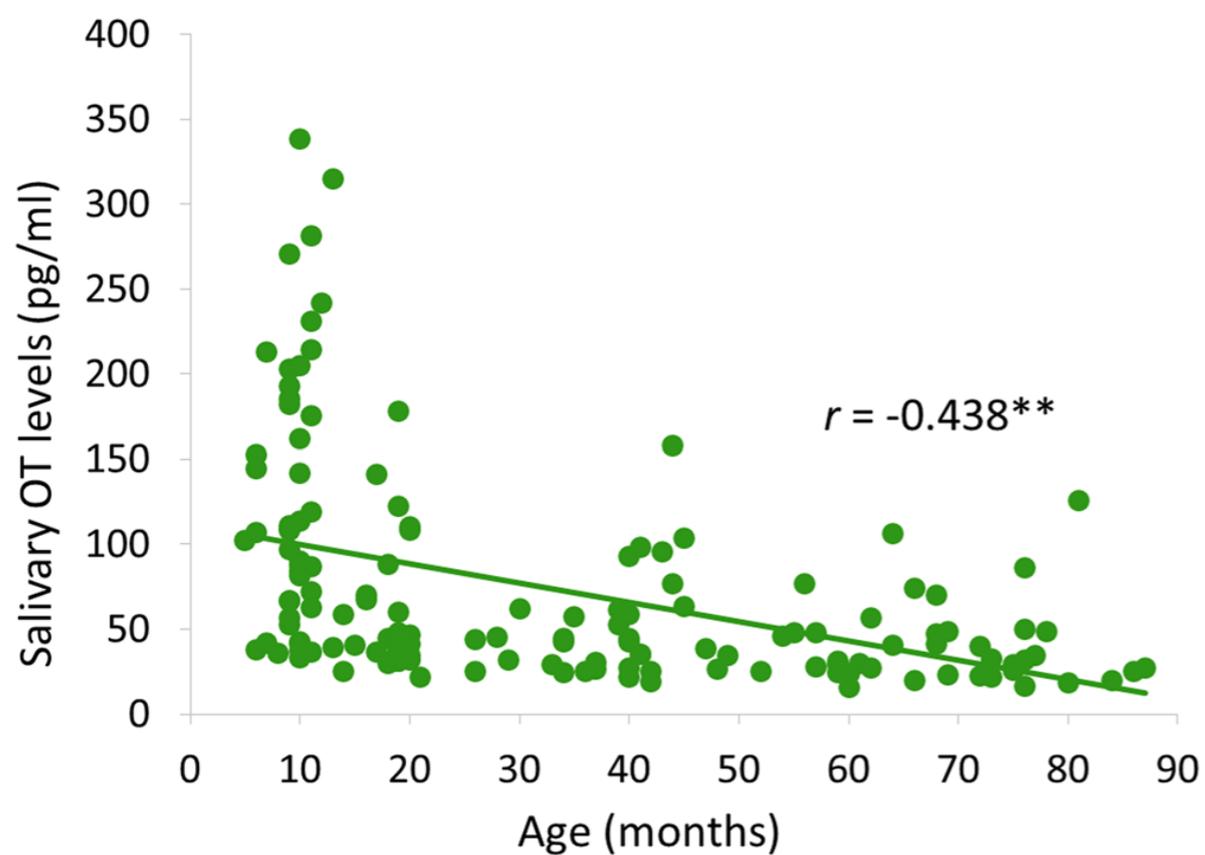


A bias towards the focus of others' attention, unimpeded by conflict, may be beneficial for babies

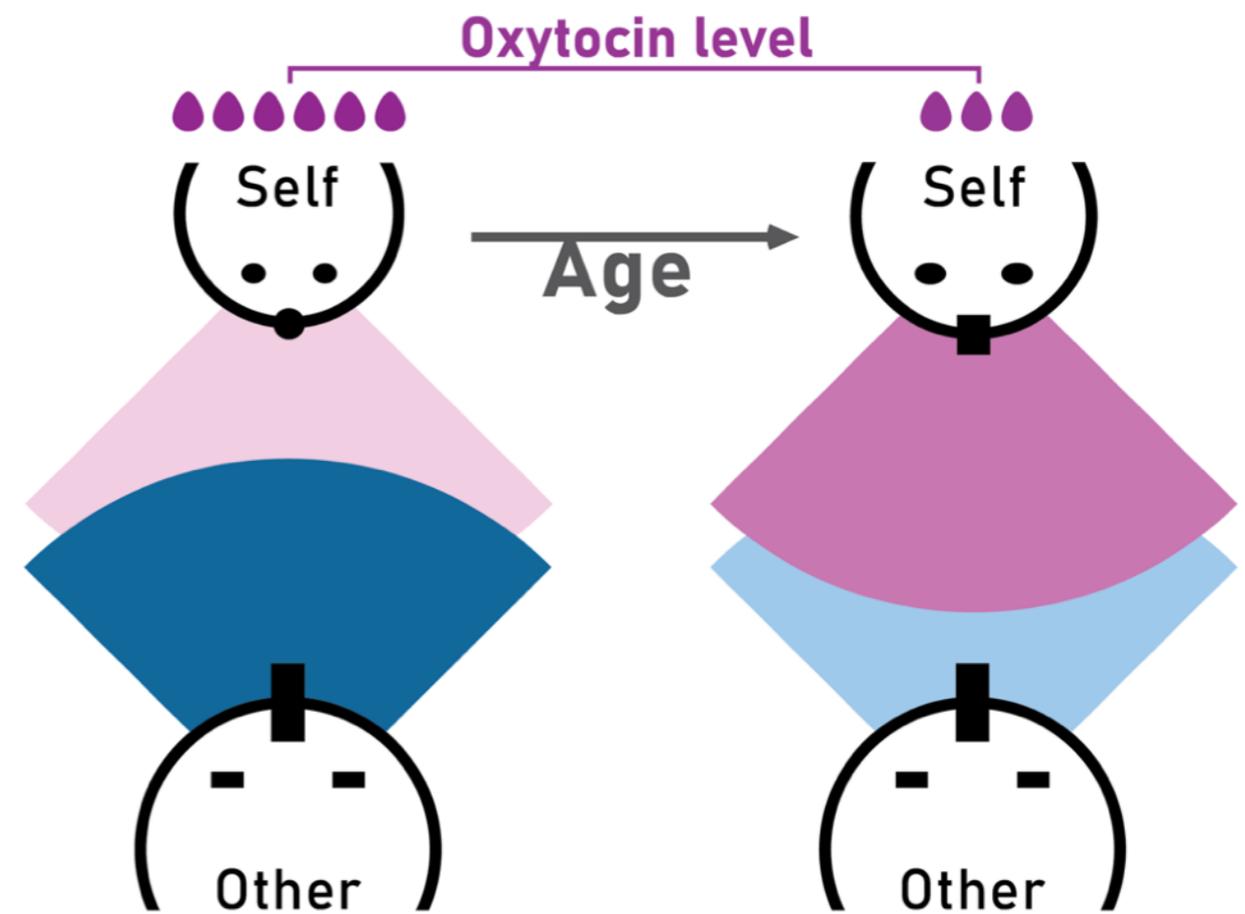
# Oxytocin and altercentrism

Exogenous OT enhances altercentrism in adults

Could levels of OT in infancy provide the right conditions to foster this proposed altercentric bias?



*Nishizato, Fujisawa, Kosaka & Tomoda, 2017*



# Changing one's mind

My views on what infants are doing on our tasks has changed

Developmental change is exciting!

Generating theories is as important as generating data