



# Rationality or Resonance?

## Eight-month-olds Copy Outcomes Rather Than Actions



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### ❖ Rational imitation

(Gergely, Bekkering, & Király, 2002)

- infants selectively copy outcomes
- the most effective action is used
- actions that are more effort, more complex, or less effective are replaced

### ❖ Motor resonance

(Paulus, Hunnius, Vissers, & Bekkering, 2011)

- activation of action plans in the infant's motor repertoire

Infants by 6 months: able to detect goal-directed actions;  
until 12 months: do not demonstrate rational imitation.  
(Woodward, 1998; Zmyj, Daum, & Aschersleben, 2009)

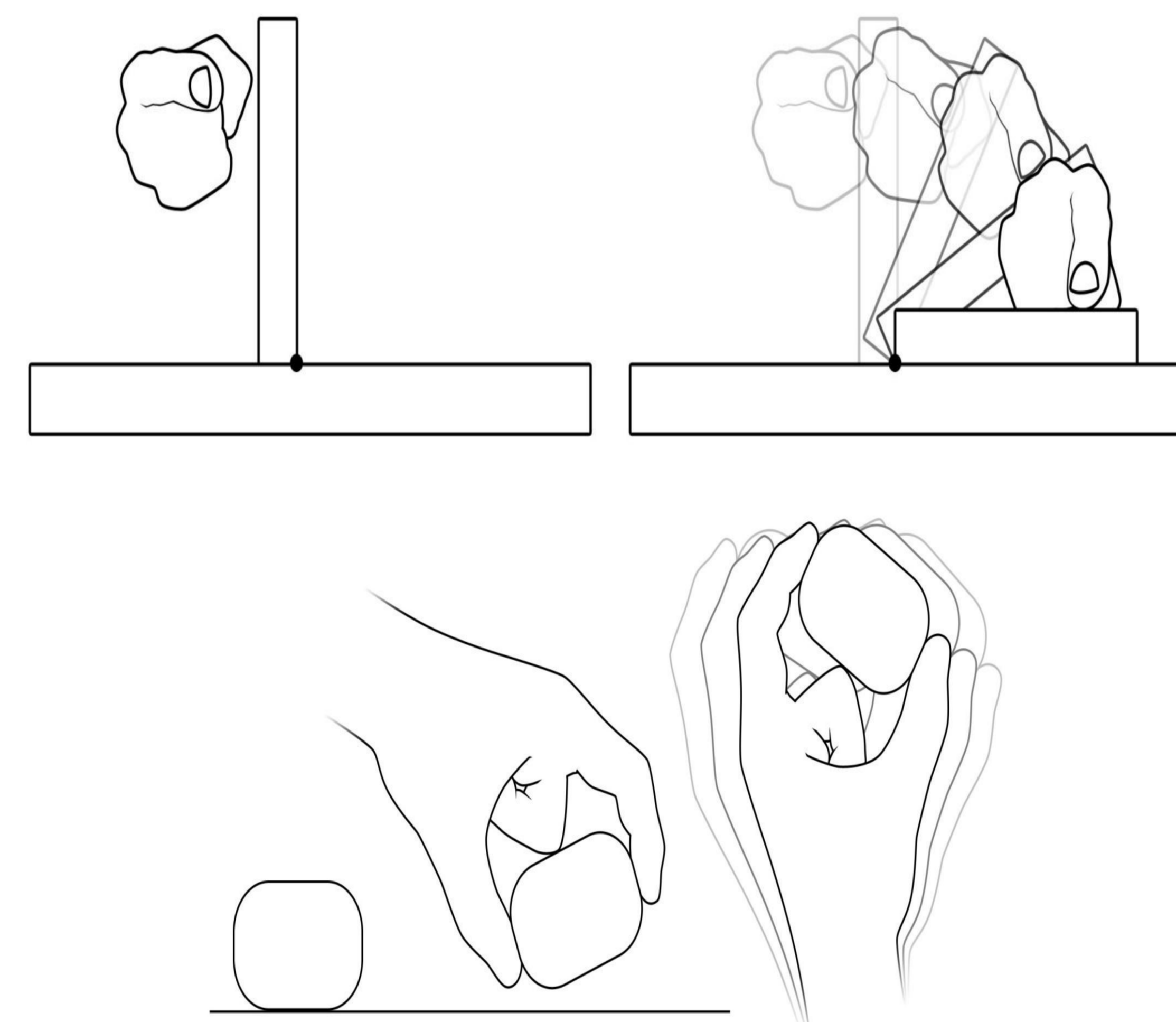


**These proposals suggest that:**  
younger infants copy actions,  
older infants copy outcomes.

### Methods

Paradigm adapted from Meltzoff's (1988) deferred imitation study.

Each of the two objects presented were paired with a specific action.



For the **wooden object** the experimenter performed a **pointing action** to reach the **outcome**: make the vertical part touch the horizontal one.

For the **plastic egg** the experimenter used a **pincer grip** to hold the egg and reach the **outcome**: shake it to make it sound.

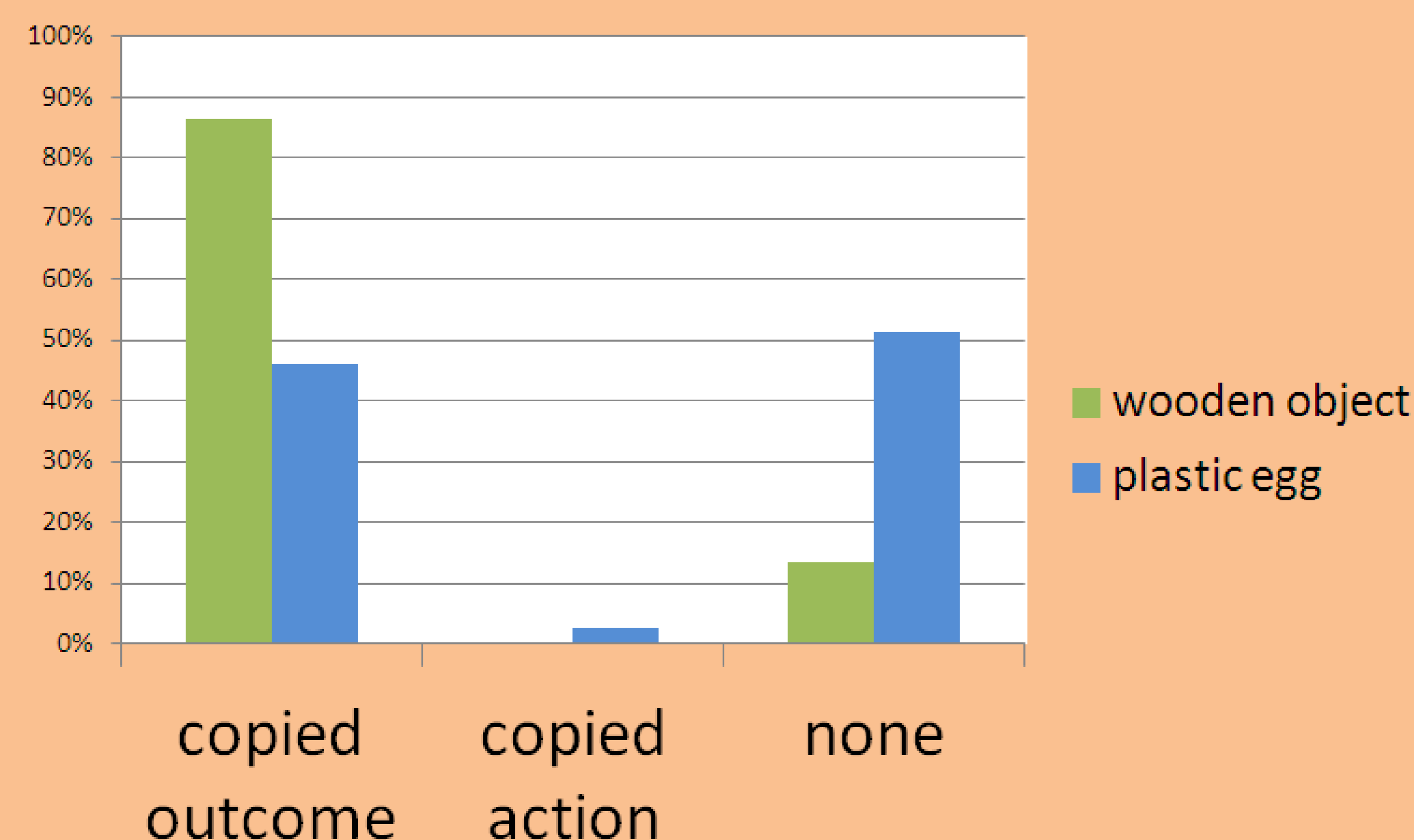
**Coding definitions**  
sensitive to different types of infants' actions:

	Plastic egg	Wooden object
Same action as experimenter	Pincer grip	Pointing push
Easier action	Partial pincer grip With thumb and 2 other fingers	Controlled grasp Bringing the vertical part all the way down
Very easy action	Palmar grasp	Palmar push
Outcome	Shaking	Vertical part down

### Results

#### What did they copy?

**8-month-olds copy the outcome more often than the specific action**



**Even if the actions performed by the experimenter were part of the infants' motor repertoire, they used a much simpler version**

#### Which action did they use to copy the outcome?

