

Imitation and Social Learning in Preschoolers

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Background

- Imitation is an important learning tool, particularly relevant for the spread of cultural behaviors.
- Previous research has shown that very young children are apt imitators, but there is developmental trajectory in the goals of imitation. Younger children tend to imitate in order to gain functional knowledge, only imitating “rational” or relevant actions. But older children tend to imitate with a social goal, to be “like others,” imitating even irrational/irrelevant actions.
- But all previous studies have only used one modeler. Since the spread of cultural behavior happens in groups, we are interested in exploring how similarities and differences *within* a group affect imitation behavior.

Question

Does group diversity affect imitative learning?

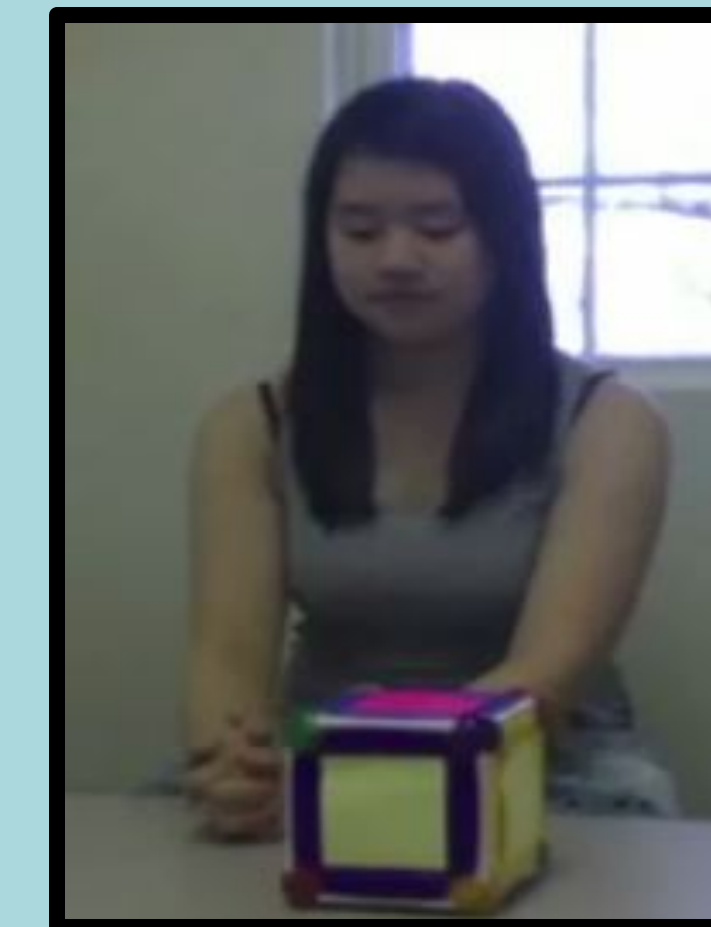
Specifically, from what kind of group are preschoolers more likely to imitate *irrelevant* actions: homogeneous or heterogeneous?

Study Design

- Participants: Twenty four 3- to 6-year-olds (12 boys, 12 girls, mean age = 4.7 years).
- Two between-subject conditions:
Homogenous and Heterogeneous
Homogenous = 2 same race and gender actors (either 2 Caucasian males or 2 African-American females).
Heterogeneous = 2 different race and gender actors (1 African-American female, 1 Caucasian male).
- Children in both conditions first saw an actor perform a functional relevant action followed by 2 actors (homogeneous or heterogeneous) performing irrelevant actions.
- After seeing the video, children played with the music box. We recorded which of the actions they imitated: the relevant or the irrelevant ones?

Procedure

In both conditions, children first watched a video of 1 actor performing the relevant action 3 times.



Pressed the pink button to make music (x 3)

Then, children watched a video of 2 actors (homogeneous or heterogeneous) modeling the irrelevant action 3 times.

Homogeneous



Knocked 3 times, then pressed the pink button to make music (x 3)

Heterogeneous

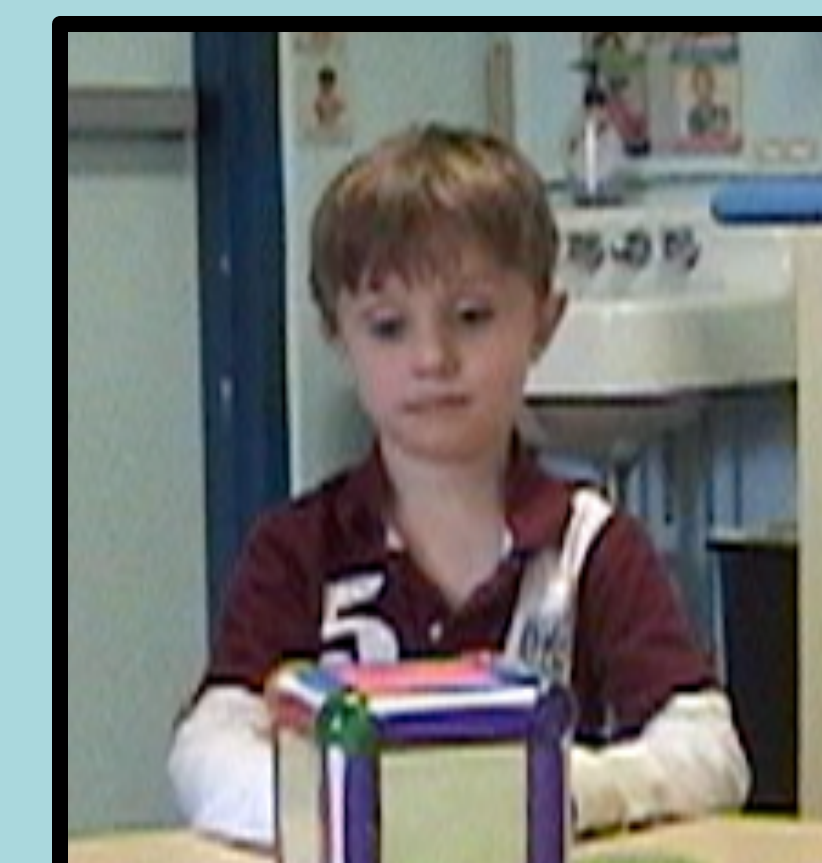


OR



Test (same in both conditions):

Now it's your turn!

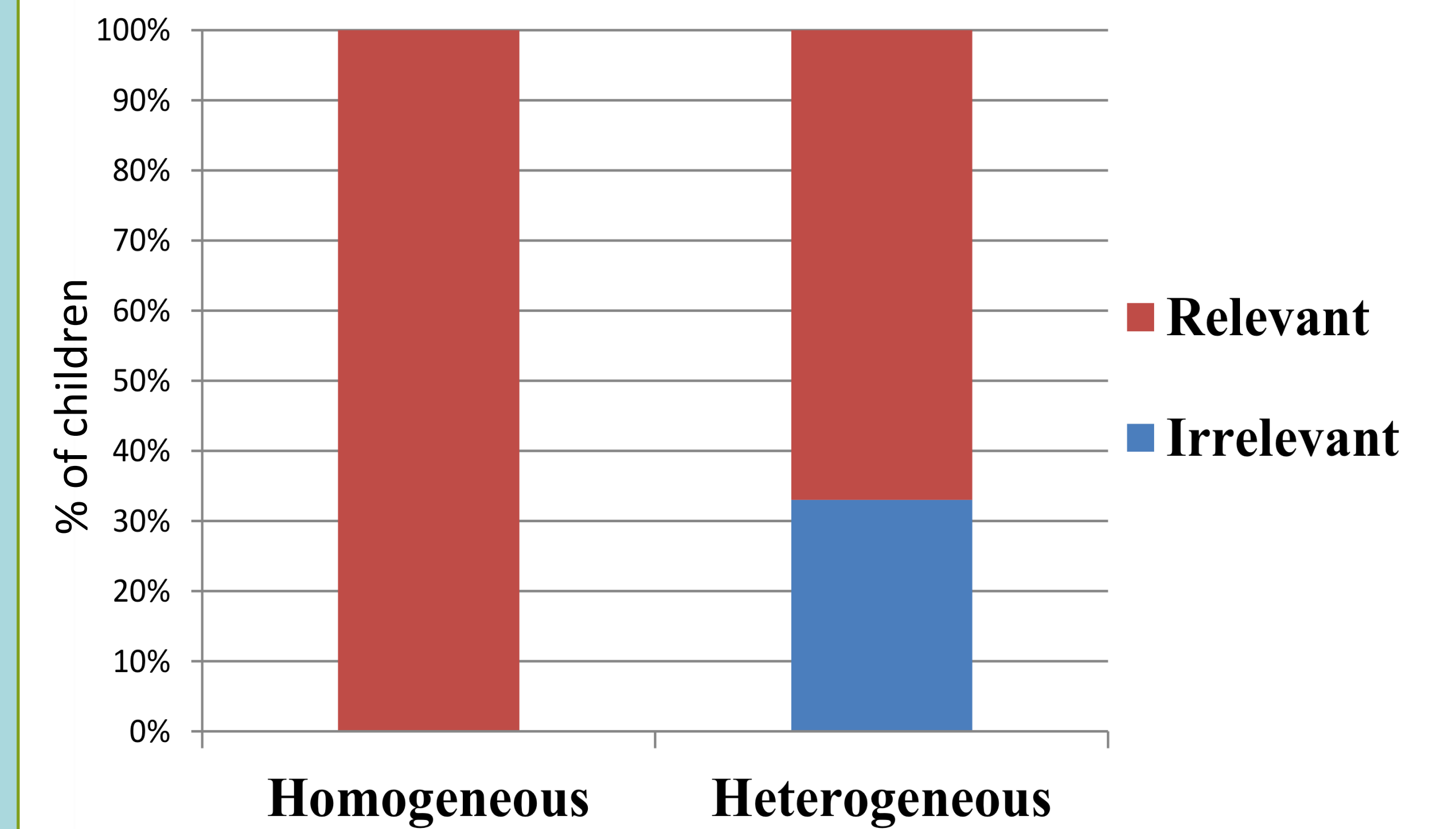


Memory questions:

“Do you remember what you saw in the video?”
“Can you show me what my friends did?”

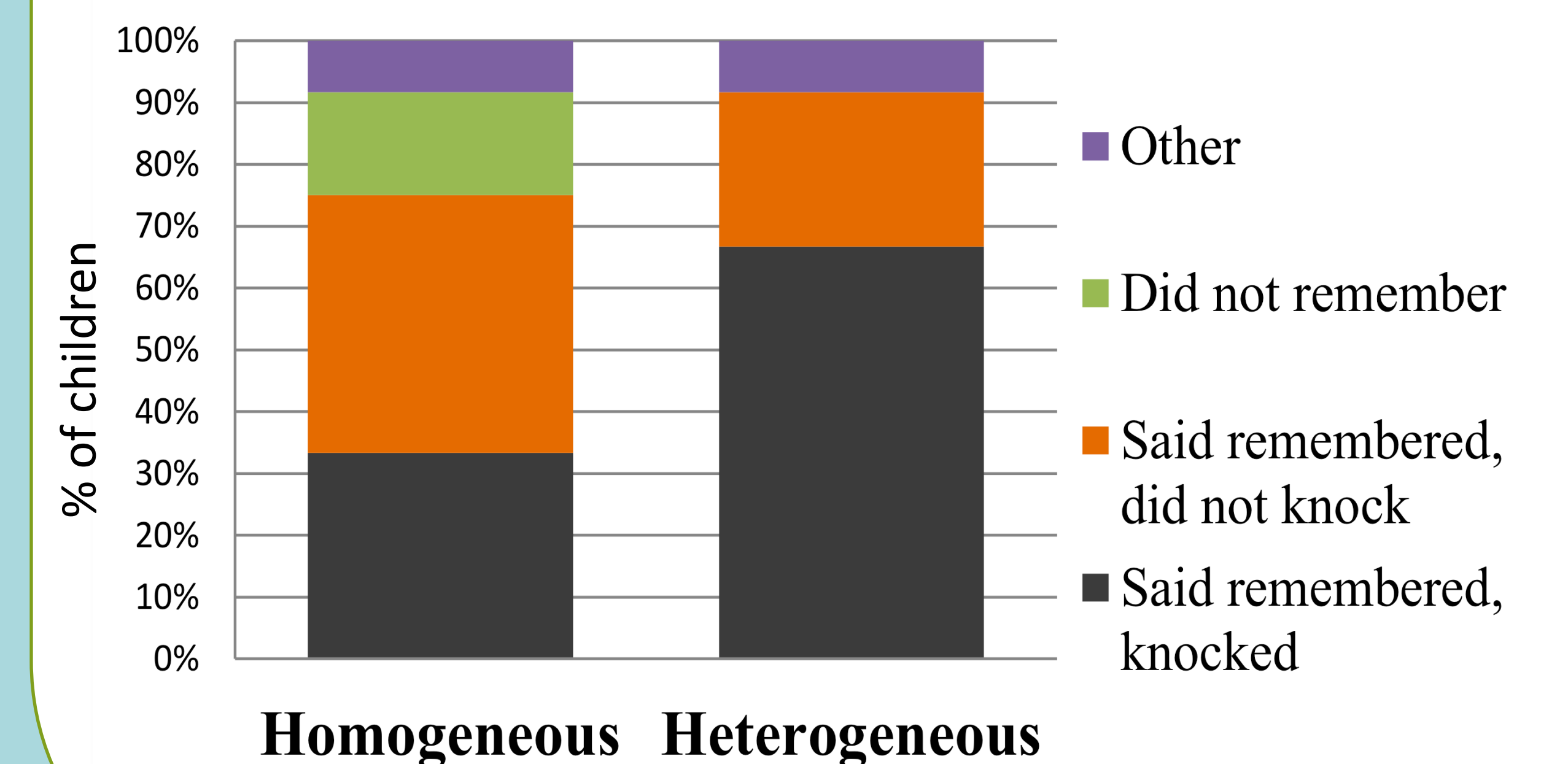
Results

Imitation Actions



33% of children in the Heterogeneous condition imitated the irrelevant action, while 0 children in the Homogenous condition did so, $\chi^2(1, 24) = 4.80, p = .03$.

Memory by Condition



Summary

- Four-year-olds are not blind imitators: they preferred to relevant functional actions than irrelevant ones.
- However, the likelihood of imitating irrelevant actions is **higher** if children had observed a **diverse** group modelled this action.
- Unwillingness to imitate irrelevant behavior is probably not due to a lack of memory about the irrelevant action.