

Sorrentino, C. & Halberda (2001). Do multiple proper names indicate multiple individuals? Evidence from children and adults. Poster presented at SRCD, Minneapolis, MN.

### ABSTRACT

Proper names (e.g., “Max”) are assigned to particular individuals and trace their identity through space and time (e.g., personal names trace identity through an individual’s passage from infancy to adulthood). In general, each individual tends to have a unique proper name. This generality may drive individuation in certain circumstances. Here, we present evidence that distinct proper names signal distinct individuals. Preschoolers and adults infer the number of individuals in an opaque box, given only information about the names of the individuals inside (Experiment 2)

### MOTIVATION

- Proper names (e.g., “Max”) are assigned to particular individuals and trace their identity through space and time.
- In general, each individual is assigned only one proper name.
- Preschoolers appear to be sensitive to this property of names and resist attributing more than one proper name to the same individual (Hall & Graham, 1999).
- Preschoolers also resist attributing the same proper name to two different individuals (Hall, 1996).
- But, can proper names themselves give rise to individuation?

### THAT IS:

- Do TWO different proper names signal the presence of TWO distinct individuals?

### And:

- Does ONE proper name heard twice signal just ONE individual?

## EXPERIMENT 1

### Participants

12 adult college students participated in the study for course credit (mean 20 years, range 18 to 36 years)

12 four-year-olds from the NYU Infant Cognition Center database (mean 4;5 years, range 4;0 to 5;2)

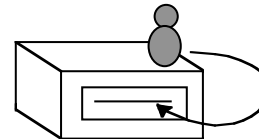
### Materials

An opaque box, 8” wide x 14” long x 5” high

8 pairs of identical farm animals each about 1” wide x 3” long x 2” high

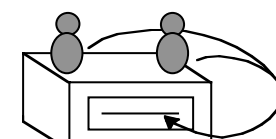
## Spatio-Temporal Trials

### 1 Individual Expected



Experimenter removes one individual from the box, places it on one corner, moves it to the other corner, and then replaces it in the box.

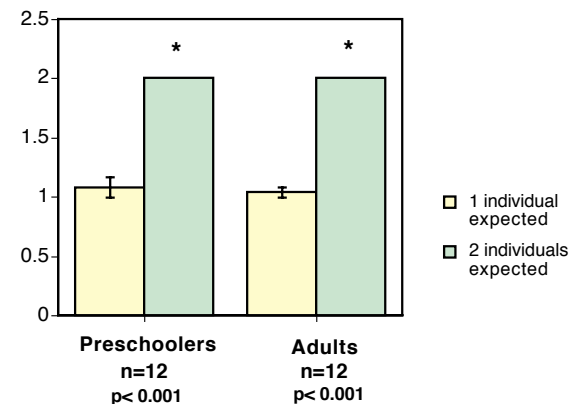
### 2 Individuals Expected



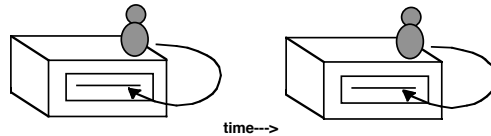
Experimenter removes two individuals from the box, places them on the corners of the box, and then replaces them in the box.

Question: “How many do you think are in the box?”

## Spatio-Temporal Trials



## Proper Name Trials



1 Individual: "This is **ALICE**"

"This is **ALICE**"

2 Individuals: "This is **MARY**"

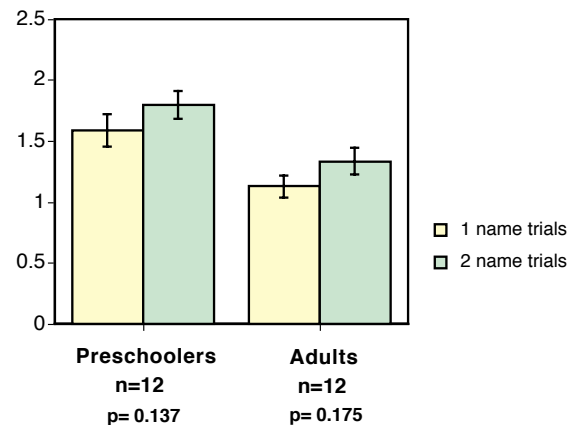
"This is **JESSICA**"

Experimenter removes one individual from the box, names it three times, and then replaces it in the box.

Experimenter removes an identical individual from the box, names it three times, and then replaces it in the box.

Question: "How many do you think are in the box?"

## Proper Name Trials



## Conclusions Experiment 1

1. Adults and preschoolers are able to infer the correct number of individuals in the box on spatio-temporal trials, suggesting that use of an opaque box to assess representations of individuals is not problematic.
2. Overall responses of adults and preschoolers show a trend towards establishing one distinct individual per distinct proper name, but the pattern of responses is not clear.
3. However, the proper name trials are not pragmatically natural: on one name trials, the experimenter reaches in twice, conflicting with the representation of a single individual; on two name trials, the experimenter pulls out one individual at a time, instead of both individuals simultaneously.

## Experiment 2

A more pragmatically natural method

### Participants

6 adult college students participated in the study for course credit (mean 20 years, range 18 to 21 years)

4 four-year-olds from the NYU Infant Cognition Center database (mean 4;4 years, range 4;0 to 4;6)

### Materials

Same box as used in Experiment 1

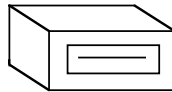
Two experimenters

## Pragmatically Natural Proper Name Trials



Experimenter 1

Experimenter 1 hides some individuals in the box without showing Experimenter 2 or the child.



Experimenter 2

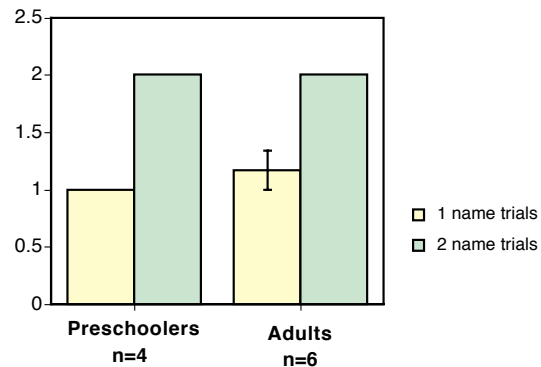
Experimenter 2 peeks into the box and tells the child what he can see.

**1 Individual:** "I see ALICE. I see ALICE. I don't see anybody else."

**2 Individuals:** "I see MARY. I see JESSICA. I don't see anybody else."

**Question:** "How many do you think are in the box?"

## Pragmatically Natural Proper Name Trials



## Preliminary Conclusions Experiment 2

1. When conditions are pragmatically natural, both preschoolers and adults posit one individual for one proper name and two distinct individuals for two distinct proper names.

2. Hearing proper names alone is sufficient for individuation

## Acknowledgement:

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