

# Seeing vs. Hearing: Comparing Information Acquired Directly with Information Acquired via Testimony

## Background

### Do children learn more easily from what they see or what they hear?

- Until four years of age, most children expect that a ball rolled off an inclined ramp will fall straight down (Kim & Spelke, 1999). In fact, because of acquired forward momentum, the ball will hit the floor some distance from the ramp's edge.
- One might expect that children who have their expectation disconfirmed when they witness the ball's actual trajectory would learn that the ball will not fall straight down.
- Learning about a dynamic event from personal experience, however, can be a challenge because it requires children to attend to the relevant information at just the right moment in time. Blink, and the moment has passed.
- Learning about a dynamic event from testimony may be more efficient because an informant can highlight the relevant information. But this requires the learner to trust what the informant says — which can pose a challenge if it conflicts with what the learner expects spontaneously (e.g., Jaswal, 2010).
- We compared how likely children were to update their expectation about the trajectory of a ball based on personal experience versus testimony.

## Participants

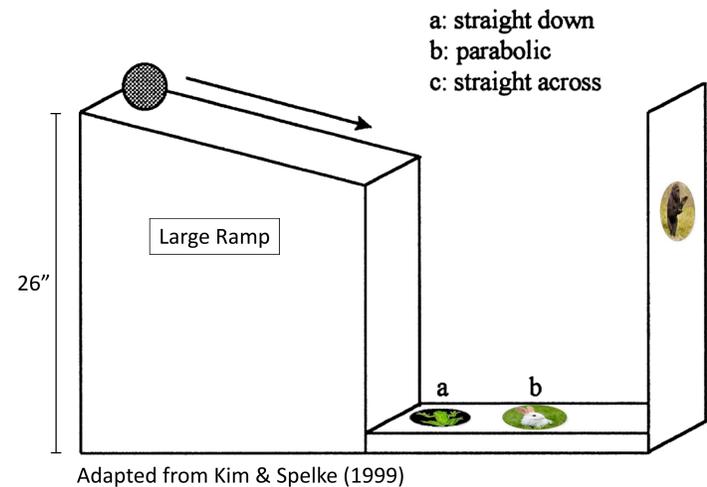
- Witness condition: 36 3-year-olds
- Testimony condition: 36 3-year-olds

### Acknowledgments

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## Procedure

1) Children predicted where the ball would land (correct location was "b").



2)

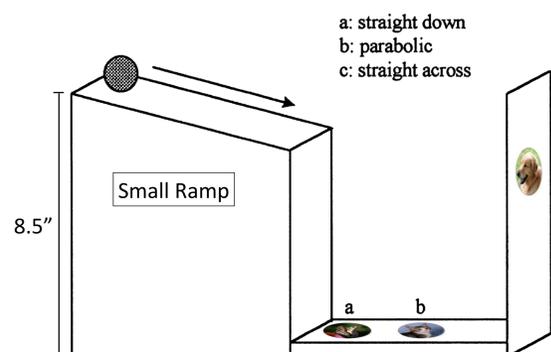
### Witness Condition

Children watched the ball land on the bunny sticker

### Testimony Condition

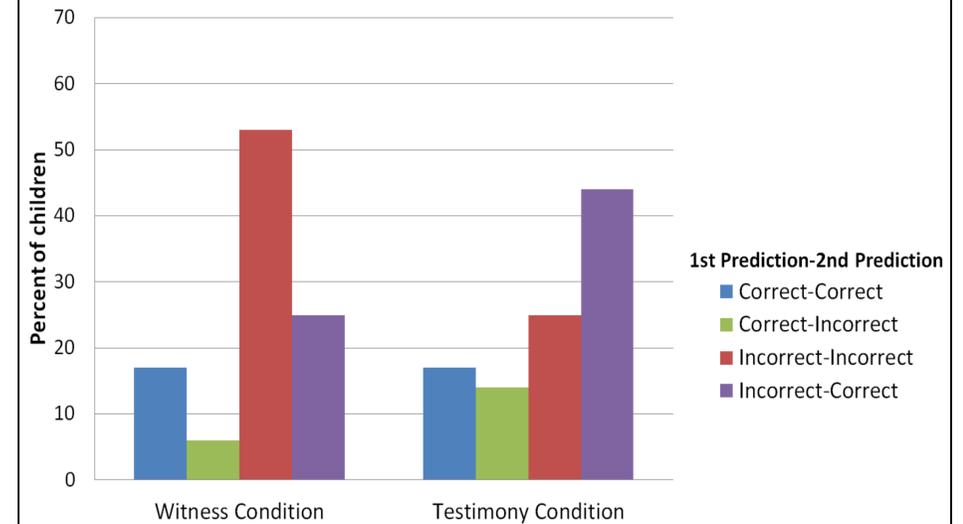
Experimenter said, "It's going to land on the bunny sticker."

3) Children predicted where the ball would land on a smaller ramp.



## Results

### Children's Predictions



- Of the children who were incorrect on their first prediction, more children in the Testimony condition than in the Witness condition were correct on their second prediction.

## Discussion

- Intuitively, hearing about an event seems less compelling than actually seeing it.
- However, in the Testimony condition, children were provided precisely the information they needed to make a correct second prediction.
- The same information was available in the Witness condition, but children had to extract it themselves.
- Children's willingness to trust testimony can sometimes enable them to learn more quickly and efficiently than personal observation.

### References

- Kim, I. K., & Spelke, E. S. (1999). Perception and understanding of effects of gravity and inertia on object motion. *Developmental Science*, 2(3), 339–362.
- Jaswal, V. K. (2010). Believing what you're told: Young children's trust in unexpected testimony about the physical world. *Cognitive Psychology*, 61(3), 248–272.