

## TODAY'S RESEARCH IN Living Laboratory®

### Does imitating an adult's actions limit children's spontaneous exploration during play?

*It is no surprise that children learn quickly by watching others, but previous research has shown that children are also good at spontaneously generating their own evidence during play. This study asks: how do children's desires to imitate a teacher affect their ability to learn on their own during play?*

Children, aged 4-5 years old, play with a novel toy in order to figure out how it works. In one condition, the researcher demonstrates one of the causal actions of the toy. In another condition, children receive no demonstration. In both conditions, children are given one minute to play with the toy on their own.



After playing, children are asked to demonstrate the different causal properties of the toy. We predict that children in the "no demonstration" condition will discover most of the causal properties of the toy on their own. However, we predict children in the "demonstration" condition are likely to imitate only the action demonstrated, and will be less likely to discover the other properties of the object.

**This research may help us better understand when demonstration and imitation can help children learn, and when children might be better off exploring on their own.**

*This research was conducted at the Museum of Science, Boston. The research was supported by a James H. Ferry and a McDonnell Foundation Collaborative Initiative Causal Learning grant to Laura Schulz, Primary Investigator at the Early Childhood Cognition Lab at MIT: [web.mit.edu/eccl](http://web.mit.edu/eccl).*



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## ACTIVITIES TO TRY IN THE DISCOVERY CENTER:

### Infant Causal Learning

Let your infant explore our sea-themed *Causal Learning* exhibit. Try touching one of the pads a few times while your baby observes, and then allow your baby to play on his/her own. Does your infant touch only the pad that you touched, or do they also try the other pads? If you now touch a different pad, does your infant imitate this new action?



### Create a Circuit!

Use the *Electricity* exhibit on the second floor of the Discovery Center to create a circuit with your child. Can your child connect the pieces to make a light bulb glow brightly, a motor spin, or a buzzer beep? Does your child try to imitate what s/he sees others do, or prefer to explore on his/her own? If you show your child one possible circuit, can they then figure out how to make a different circuit?



## ACTIVITIES TO TRY AT HOME:

### Explore a New Toy

Introduce your child to a toy s/he has never seen before and observe how many different ways s/he uses this toy. After allowing him/her to explore the toy independently, show your child a new way of playing with the toy. Does your child imitate your actions, or continue to play with the toy in other ways?



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