Out of Sight But Not Out of Mind: Babies Transfer Learning from Pictures to Real Objects by 9 Months

Picturing Objects in Infancy
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Babies begin to learn about the connection between pictures and real-life objects early on. A new study has found that by 9 months, babies can learn about an object from a picture of it and can transfer that learning to the real object when they come across it.

The study, by researchers at Royal Holloway, University of London and the University of South Carolina, appears in *Child Development*, the journal of the Society for Research in Child Development.

“The study should interest any parent or caregiver who has ever read a picture book with an infant,” says Jeanne L. Shinskey, lecturer of psychology at Royal Holloway, University of London, and adjunct assistant professor of psychology at the University of South Carolina, who led the study. “For parents and educators, these findings suggest that well before their first birthdays and their first words, babies are capable of learning about the real world indirectly from picture books, at least those that have very realistic images like photographs.”

The researchers familiarized about 30 British, predominantly White 8- and 9-month-olds from middle-income homes with a life-sized photo of a toy for about a minute. Half the babies saw color photos and half saw black-and-white photos. Next, the babies were placed before the toy in the picture and a different toy, and researchers watched to see which one the babies reached for first. In one condition, the researchers tested infants’ simple object recognition for the target toy by keeping both objects visible (drawing infants’ attention to the toys and then placing the toys inside clear containers); in another condition, they tested infants’ ability to create a continued mental idea of the target toy by hiding both toys from view (drawing infants’ attention to the toys and then placing the toys inside opaque containers).

When the toys were visible in clear containers, babies reached for the other toy (not the one that had been in the picture), suggesting that they recognized the pictured toy and found it less interesting than the new toy because the novelty of the old toy had worn off. But when the toys were hidden in opaque containers, babies showed the opposite preference: They reached more often for the toy that had been in the photo than for the new toy, suggesting that they had formed a continued mental idea of the toy in the photo. Babies who saw black-and-white photos reacted the same way as babies who saw color photos.

The findings show that one brief exposure to a picture of a toy affects infants’ actions with the actual toy by
the time they reach 9 months old. The findings also show that experience with a picture of something can strengthen babies’ ideas of an object so they can maintain it after the object disappears—out of sight is not out of mind. And the study shows that by 9 months, babies can transfer learning from black-and-white pictures to objects.

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