The good, the bad and the baby (w/ video)

March 29 2011, By Miles O' Brien and Jon Baime

Plastic nesting cups, blocks and Legos are more than mere playthings for babies--they are powerful tools in developing an understanding of spatial concepts, according to Marianella Casasola, an associate professor of human development at Cornell University. Credit: Photos.com

Babies know when their diapers are clean or dirty, or when their tummies are empty or full. All you have to do is ask any sleep-deprived parent. But can babies tell when someone is acting good or bad? With the help of some creative puppetry, Yale University psychologist Karen Wynn is proving they can.

Wynn runs the Infant Cognition Lab at Yale University in New Haven, Conn. With help from the National Science Foundation (NSF), she studies the roots of morality, addressing such questions as: what makes us cooperative and altruistic individuals, even from a very young age?

"Babies are oriented towards pro-social individuals. They prefer

interacting with a pro-social individual over an anti-social individual," she explains.

Weekdays are often busy at the lab, with babies and their parents coming and going on the hour as scheduled. On the day we visit, Wynn demonstrates how the noon appointment, a 19-month-old named Sara, can easily distinguish a puppet's good behavior from bad behavior.

Sara is subjected to one puppet show starring a helpful, well-behaved doggy puppet displaying pro-social behavior, and then to another show starring a misbehaving doggy puppet. The shows are actually clever experiments devised by Wynn and her team to observe the reaction of toddlers to the good and bad puppets.

"We have a puppet who is trying to open a box; he sees a nice toy inside of it. It's a Plexiglas box he's just trying to open--he can't lift [the] lid. Then another puppet comes along and helps him open the lid so he can get to the toy inside; so that's the helpful puppet," explains Wynn.

Then Sara is exposed to the second show, but this time the puppet that is trying to open the box is exposed to a different doggy puppet, with a very different outcome.

"Next, he's again trying to open up the box," continues Wynn. "And, a different puppet comes along and jumps on top of the box lid, slamming it shut and dashing his hopes of getting in there."

Sara watches each show a number of times. Now it's time for the plot twist that a 19-month old can appreciate. After the shows, a researcher brings out both doggy puppets to within Sara's reach, and each puppet has a plastic treat in a bowl placed in front of them.

The researcher then introduces a third puppet that also wants a treat, and

Sara must decide which doggy must give up its treat to the new puppet: the nice doggy that opened the box or the mean doggy that jumped on top of the box. Wynn says a majority of the time, toddler's choices "are pretty clear, they will take the treat from the cad who was rude enough to slam the lid on the puppet."

Wynn says there is evidence that distinguishing between good and bad behavior starts even younger. For example, three-month-old Addisyn participates in an experiment for infants. She watches a different show. She bears witness to a kitty cat puppet playing ball with two bunny puppets. When they're done with their little game, one bunny returns the ball, while the other just takes it and goes away.

After the show, Addisyn, like 80 to 90 percent of the infants Wynn tests, spends more time paying attention to the "good" bunny that returned the ball. When Wynn first started testing infants she was surprised. "We weren't necessarily expecting to find responses as strong as we have found at such young ages," she says.

"In their first year, young infants appear to like others who reward good behavior and punish bad behavior, and in their second year, they themselves reward and punish deserving individuals appropriately," Wynn explains. "It shows that young infants have the capacity to assess others by their social behavior."

Wynn suspects these capacities and inclinations are universal and unlearned biological adaptations that make the cooperative social structure of human society possible. "It is essential for navigating the social world," she explains. "Adults assess the actions and intentions of the people around us, and make decisions about who's a friend and who's a foe, who's a potentially useful social partner and who is not. We judge good behavior as deserving of reward and bad behavior as deserving of punishment."

Wynn also believes there are benefits to understanding moral development. "Maybe we'll gain a better understanding of sociopathy or psychopathy. Understanding the roots of moral development could lead to a better understanding of developmental disorders like autism," she notes. "The more we understand about normal development, the better we are able to address problems when it goes awry."

Provided by National Science Foundation

Citation: The good, the bad and the baby (w/ video) (2011, March 29) retrieved 1 February 2024 from https://medicalxpress.com/news/2011-03-good-bad-baby-video.html