

Babies are smarter than you think

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(CNN) -- In the past 30 years we've learned that babies and young children know more and learn more than we would ever have thought possible.

Philosophers and psychologists, even the great Swiss child-development theorist Jean Piaget, once thought that babies and young children were irrational, solipsistic, illogical and amoral -- unable to take the perspective of others or understand cause and effect. But new scientific techniques have taught us that even the youngest infants already know a great deal about objects, people and language, and learn even more. In fact, they have implicit learning methods that are as powerful and intelligent as those of the smartest scientists.

They can unconsciously do complicated statistical analyses and their everyday play turns out, remarkably, to be very much like a set of scientific experiments. And I, at least, think that they may actually experience the world more vividly than we do.

Here's just one example of this new research:

One of the hardest problems for all of us is figuring out what other people want, think and feel. It's especially difficult when what they want is different from what we want ourselves. Traditionally, psychologists thought that children couldn't take the perspective of other people until they were 8 or so. But my student Betty Repacholi and I gave 15- and 18-month-olds two bowls of food, one of raw broccoli and one of goldfish crackers.

The children, even in Berkeley, liked the crackers and didn't like the broccoli. With the children watching, Betty tasted a little food from each bowl and made either a disgusted face or a happy face. Then she again gave the babies both bowls of food, put out her hand and said, "Can you give me some?" The 18-month-olds, just barely walking and talking, gave her the crackers if she had acted as if she liked the crackers and the broccoli if she had acted as if she liked the broccoli.

These very young children had the profound understanding that someone else -- Betty, in this case -- might have a different perspective on the world, or at least on broccoli, and they helped her get what she wanted. The 15-month-olds, on the other hand, only gave her the crackers. This suggested something even more remarkable: Babies somehow learned this deep fact about human nature between 15 and 18 months. Other studies have shown that this kind of learning is the result of statistical analyses and the everyday experimentation we call play.

This work was inspired by purely scientific, and even philosophical, questions. How can we human beings ever learn as much as we do from the few photons hitting our retinas and the air disturbances that hit our eardrums? How is it that the few genes that separate us from chimpanzees could lead to such big differences in the way we think and live? How can we ever know what someone else thinks or feels?

It turns out, surprisingly enough, that studying babies and young children can hold answers to those big questions. In fact, from an evolutionary point of view it seems that our exceptionally long childhood may play a crucial role in many of the abilities that make us distinctly human.

But this basic science also has implications for what we do. Science has demonstrated just how crucially important the very early years are. And yet more than 20% of American children still grow up in poverty, and preschool teachers are paid less than dogcatchers. We have fewer programs of parental leave or subsidies for childcare than exist in almost every other civilized country.

The programs we do have to help support and encourage early childhood learning, like Head Start, are facing cuts, even though studies show that in the long run they have the best payoffs of any public investment. The scientific work on the way babies learn demonstrates that neglecting our youngest children is self-destructive. Our moral intuition ought to tell us it's just plain wrong. On the other hand, when parents, or even policy-makers hear about how much babies learn, they often conclude that what we need to do is teach them more. Parents spend literally millions of dollars on "educational" toys, videos and programs, that they hope will somehow give their children an edge.

Parents and policy-makers pressure teachers to make preschools more and more academic, with more reading drills and less time for play and pretend. But the science suggests this is also wrong. Very young children learn best from their everyday experiences of people and things, and from being able to playfully explore the world in a safe setting with people who love and care for them. Those settings can't be mass manufactured or provided on the cheap, and the learning they lead to can't be simply measured on standardized tests.

The science of early childhood is constantly surprising -- who would guess that 2-year-olds can use statistics to test hypotheses? But actually the policy implications fit what most preschool teachers know intuitively: Children thrive when they are loved, and they learn when they explore. The real mystery is why we can't get the politicians to see it, too.

Source:

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