

Transcript

Surprise!

LISA FEIGENSON:

It's easy to look at a baby and see a blank slate. But actually, babies have rich, sophisticated expectations about the world, maybe more than people give them credit for. One of the reasons we know that is that babies are surprised when impossible or surprising things happen. What we've been asking in this set of studies is whether babies can learn from those surprising events.

AIMEE STAHL:

Ready? Hands up. So we showed babies either surprising events, like a car or a ball that appeared to pass through a wall--

[MUSIC PLAYING]

--or an expected event, where the car or ball was stopped by the wall. And then we taught them new information about that object. And we found that babies who saw the surprising event learned that new information more efficiently than babies who saw the expected event. Ready? Boom, boom, boom.

LISA FEIGENSON:

Babies spontaneously produce exploratory behaviours, choosing to play with, interact, touch, mouth objects that have defied their expectations and behave surprisingly. Not only that, but we show that babies actually test very specific hypotheses for the strange behaviour of surprising objects.

AIMEE STAHL:

These results are important because it shows that infants can use their really sophisticated knowledge about the world, about how objects behave, to then harness or guide their future learning. Goodness.

LISA FEIGENSON:

At the heart of our research is the question of where human knowledge comes from. So how much of what we know is something that we're born with, that's innate, and how much is the result of our experiences with the world from our parents, our teachers, or our own observation?

AIMEE STAHL:

Oh, should I do it again?

LISA FEIGENSON:

Babies already, in the first year of life, are remarkably sophisticated thinkers about the world. Our studies show that babies use what they already know about the world to motivate or drive further learning, to figure out what they should learn more about.

AIMEE STAHL:

Oh, yay.

[BABY LAUGHS]