

New Research in Scientific Reports Shows Infants Recognize When Others Need Information

VIENNA, AUSTRIA, December 17, 2025 /EINPresswire.com/ -- A new study led by researchers at Central European University (CEU), provides groundbreaking evidence that infants as young as 14 months understand that information can be valuable for other people – even when it is no longer new to themselves. The findings, published in Scientific Reports, shed new light on the origins of human communication, cooperation, and our uniquely information-driven social lives.

The study, titled “Human infants appreciate that information bears value for other individuals” shows that infants recognize when another agent (in the study animated cartoon-like stimuli is used) lacks crucial information, and expect her to seek it out when needed, and are surprised when she seeks out information that she does not need. These results suggest that the ability to track others’ informational needs – previously believed to develop much later – emerges surprisingly early in life.

“Importantly, information matters not just for reducing our own uncertainty, it also has value for others,” explains lead author Bálint Varga, the starting point of this research, which was part of his PhD work at the Central European University. “Indeed, recognizing that information carries value for other people lies at the foundation of human societies, which depend on the transmission of cultural and scientific knowledge.” added Agnes Melinda Kovacs, Director of the [Cognitive Development Center](#), Co-Director of the [Center for Belief Update and Debiasing \(DEBIAS\)](#) at Central European University.

Understanding Others’ Uncertainty Begins in Infancy

In the present research, authors investigated whether young infants appreciate that a piece of knowledge they have just acquired – namely, where a target has hidden – and thus became “old news” for them (in the sense that it no longer provides new information), may still be valuable for another agent who did not observe the event, but aims to find the target. If so, they may also understand that not knowing something can motivate others to seek out the missing details. Specifically, the research asked whether infants recognize that others may need information to resolve their own uncertainty, and whether infants treat information as something that carries value for others independently of their own knowledge state.

Across four studies, the research team used established looking-time methods to test whether 14-month-old infants could track when another person was uncertain. Infants watched scenarios in which an agent did – or did not – observe where a toy was hidden. When the agent lacked information, infants expected her to take an information-seeking detour (e.g., moving to a vantage point to see inside boxes). When she already knew the answer, infants viewed such information-seeking as unnecessary and were surprised when she did it.

The babies also showed sensitivity to the efficiency of information-seeking: when two actions had equal cost but different informational value, infants expected the agent to choose the option that maximized information gain.

“These results suggest that infants have a nuanced grasp of how uncertainty and novelty drive information-seeking,” the team notes. “They treat information as something people pursue for rational reasons – and they expect others to do so efficiently.”

Why This Research Matters in an Information-Saturated World

The findings have broad implications for understanding early communication, social cognition, and learning. Recognizing others’ informational needs is essential and likely supports several later-developing abilities, including:

- interpreting questions as requests for information,
- tailoring communication to a partner’s knowledge state,
- coordinating actions efficiently,
- and building trust in shared knowledge.

The researchers argue that the roots of our species’ extraordinary capacity for information exchange may lie in early-developing expectations about how information works and why people seek it. “Humans appear to treat information as inherently valuable and often approach communicated input with an initial stance of trust – tendencies that may originate in early-developing processes like those revealed here, as well as in our previous research,” – argues Professor Kovacs.

At a time when societies grapple with unprecedented flows of information – and misinformation – the study underscores the deep evolutionary and developmental foundations of how humans evaluate knowledge.

For Journalists: Topics the Authors Can Address:

How infants interpret and evaluate others’ information-seeking actions

What it means for a 14-month-old to appreciate the value of information

How uncertainty and novelty motivate information-gathering

Implications for early communication and learning

About CEU

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Notes for Editors:

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