Crows use their smarts in study linked to UI

Two crows examined by researchers at the University of Iowa and Moscow State University used analogical reasoning in tests involving flashcards, according to a study published Dec. 18, 2014, in "Current Biology."

Crows are known for being clever — a reputation that research co-authored by University of Iowa psychology professor Ed Wasserman supports.
The study, which Wasserman co-authored along with researchers Anna Smirnova, Zoya Zorina and Tanya Obozova at Moscow State University, suggests that crows can use analogical reasoning without being trained to do so, a skill scientists previously thought only humans and apes could master.

According to the study, published Dec. 18 in the journal Current Biology, two hooded crows that researchers examined successfully made analogies, when presented with flashcards, by matching sets of unlike shapes to other sets of unlike shapes and matching sets of similar shapes to other sets of similar shapes.

Researchers tested the crows in three separate behavioral assessments, the study reads.

Wasserman, 68, who studies animals' intelligence, said researchers taught the birds to make easier matches initially, and that the crows made leaps in their thinking when they began making these more complex analogies.

He said the fact that the crows made those leaps is exciting and surprising news in the field of animal intelligence, and that a harder look at other animals' thoughts may yield similar surprises for him and his colleagues.

"We're of the opinion that we haven't really begun to scratch the surface in our understanding of intelligence in nature," he said.
Researchers at the University of Iowa and Moscow State University examined the behavior of two hooded crows, and the results of their study suggest crows can use analogical reasoning. (Photo: Special to the Press-Citizen)

Bob McMurray, a UI associate professor who studies human language development, said the study is significant in terms of human psychology because "it puts in perspective where our abilities kind of came from."

He said the study provides evidence suggesting the processes by which young children learn to speak and think may be more simple than one might assume.

"We may be building on the same kinds of learning processes that animals can do, but achieving something much more sophisticated with them," he said.

McMurray said he thinks it's amazing that crows can engage in "pretty deep learning."
Wasserman, who has also authored papers on dogs, bonobos, pigeons, chickens and rats, said an understanding of the crows' abilities may inform humans' treatment of animals and enhance our ability to benefit from animals such as guide dogs.

He said as humans form a better appreciation of animals' intelligence, we may be more apt to treat animals with respect.

Wasserman also said the study brings value in terms of humans' understanding of the planet and our place in the grand scheme of things. He said rather than looking to outer space for other forms of intelligent life, he'd suggest people look in their own backyards.

"My answer is look on Earth," he said. "There are plenty of life forms that are intelligent right here."

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