

Jays found to be sensitive to cognitive illusions

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A team of researchers working at the University of Cambridge, has found that Eurasian jays are sensitive to cognitive illusions designed to fool humans. In their paper published in the journal *Royal Society Open*

Science, the group describes experiments they conducted that involved exposing jays to magic tricks and what they learned from them.

Prior research has shown that Eurasian jays have excellent [memory](#) skills and that they have also shown some signs of being able to comprehend the intentions of others. In this new study, the researchers wondered how jays might react if they were to be exposed to cognitive illusions. To find out, the team gathered several specimens and put them individually through a regimen meant to discover which of three types of foods was a particular bird's favorite. Next, the [birds](#) were introduced to a version of the cups and balls magic trick. In their version, the birds were shown two cups and were able to watch as a researcher dropped a treat into one of them. Then both cups were turned over and the birds were allowed to choose one to get a treat. The cups had short strings glued to the bottom which allowed the birds to lift them easily. The sleight-of-hand involved replacing one type of food with another, or with no treat at all. The birds, quite naturally, always tried to choose the cup that they thought held their favorite treat. The researchers then watched to see how the birds would react under different scenarios.

Analyzing the data, the researchers found that most often when a bird discovered a less favored treat under the cup it chose, it immediately tried the other cup. If they came up empty again, many of the birds would turn away, refusing the second-rate treat. They also found that some of the birds continued picking up one of the cups, apparently hoping for a different outcome. The researchers also found that birds that ranked higher in the pecking order exhibited stronger reactions when confronted with a sub-par treat, behaving as if angry before flying off. The researchers suggest their experiments show that Eurasian jays have some ability to foresee things in the future and to tailor their expectations accordingly.

More information: Alexandra K. Schnell et al, Jays are sensitive to

cognitive illusions, *Royal Society Open Science* (2021). [DOI: 10.1098/rsos.202358](https://doi.org/10.1098/rsos.202358)

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