

Why clever crow is no bird brain

October 9 2012



A crow drinks water at the Alipore Zoo in Kolkata. Biologists on Tuesday said they had figured out how the New Caledonian crow, a bird famed for using tools, does its party trick.

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Corvus moneduloides, a native of France's South Pacific territory of New Caledonia, is one of the stars of the avian world.

It uses its beak to craft complex tools from sticks, leaves and other material and then inserts them into deadwood or vegetation to fish out insects and other food.

Researchers led by Jolyon Troscianko of the University of Birmingham in central England used an ophthalmoscope video camera to record field of view and eye movement as three wild-caught birds examined a baited tube.

The bird's eyes are more forward-positioned, rather than sideways-positioned, which gives it exceptional "binocular overlap," they found.

This is the area that is viewed by both eyeballs, and is important because it helps the brain judge the distance of nearby objects.

In [New Caledonian crows](#), the binocular overlap is 61.5 degrees, which is at least 23.9 degrees greater than in non-[tool](#)-using species of [crow](#) that the researchers also examined.

Added to this is the crow's unusually straight bill, the investigators found.

With it, the bird can get a firm grip on a tool and bring its tip into its field of binocular vision.

"These features enable a degree of tool control that would be impossible in other corvids [crows], despite their comparative [cognitive abilities](#)," says the study, published by the journal *Nature Communications*.

Dolphins, elephants and other birds are among non-primates that have been found to use tools. But the New Caledonian crow occupies a privileged place because its features are so specifically adapted for tools, says the study.

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Citation: Why clever crow is no bird brain (2012, October 9) retrieved 27 April 2024 from <https://phys.org/news/2012-10-clever-crow-bird-brain.html>

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