

# Crows found able to distinguish between human voices

16 May 2012, by Bob Yirka



*Corvus brachyrhynchos* or *Corvus caurinus*. Image: Wikipedia.

(Phys.org) -- Researchers at the University of Vienna have discovered that carrion crows are able to distinguish between familiar and unknown human voices. They also found, as they write in their paper published in the journal *Animal Cognition*, that the birds are able to do the same with other birds outside of their species, though they react in different ways.

Suspecting that crows, which are among the smartest of all [birds](#), are able to tell the difference between people they know and those they don't based on voice alone, the team set up an experiment to find out. They recorded the voices of five people who care for a group of carrion crows living in the university's aviary, speaking the word "hey." They then recorded the voices of five other people who the birds had never heard, speaking the same word. Later, when the recordings were played back for the birds, the researchers noted that the crows responded much more clearly to the unfamiliar voices, turning to look right away, investigating its source. The team suggests this is because crows see humans as a potential threat and thus any voice they hear that they can't

identify needs to be paid special attention.

Wondering if the birds displayed similar tendencies when interacting with other animals besides humans, the team repeated the experiment using bird calls instead of human voices. Because carrion crows tend to live and interact with other birds in the crow family, the team recorded calls from jackdaws and magpies, both of which are also considered highly intelligent. This time, when they played back the recordings for the carrion crows, they got the opposite reaction. The birds responded more clearly to the calls of other birds that they'd heard many times as opposed to calls from birds they'd never heard before. In this instance, the researchers suggest that the carrion crows on occasion team up with other such birds in cooperative efforts to find food or sound the alarm when threats are identified. This confirms prior work by other groups that had found that corvids (birds in the crow family) tend to work purposely with some birds when foraging, while ignoring others.

The team suggests that the behaviors exhibited by the carrion crows in the experiments likely help crows survive in both their natural environment and in those they share with human beings.

**More information:** You sound familiar: carrion crows can differentiate between the calls of known and unknown heterospecifics, *Animal Cognition*, 2012, [DOI: 10.1007/s10071-012-0508-8](https://doi.org/10.1007/s10071-012-0508-8)

## Abstract

In group-living animals, it is adaptive to recognize conspecifics on the basis of familiarity or group membership as it allows association with preferred social partners and avoidance of competitors. However, animals do not only associate with conspecifics but also with heterospecifics, for example in mixed-species flocks. Consequently, between-species recognition, based either on familiarity or even individual recognition, is likely to be beneficial. The extent to which animals can

distinguish between familiar and unfamiliar heterospecifics is currently unclear. In the present study, we investigated the ability of eight carrion crows to differentiate between the voices and calls of familiar and unfamiliar humans and jackdaws. The crows responded significantly more often to unfamiliar than familiar human playbacks and, conversely, responded more to familiar than unfamiliar jackdaw calls. Our results provide the first evidence that birds can discriminate between familiar and unfamiliar heterospecific individuals using auditory stimuli.

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