

# 'Look at that!' -- ravens use gestures, too

November 29 2011

---

Pointing and holding up objects in order to attract attention has so far only been observed in humans and our closest living relatives, the great apes. Simone Pika from the Max Planck Institute for Ornithology and Thomas Bugnyar from the University of Vienna, however, now provide the first evidence that ravens (*Corvus corax*) also use so called deictic gestures in order to test the interest of a potential partner or to strengthen an already existing bond.

From early childhood on, children frequently use distinct [gestures](#) to draw the attention of adults to external objects. So-called deictic gestures such as "pointing" ("look here") and "holding up of objects" ("take this") are used by children for the first time at the age of nine to twelve months, before they produce their first [spoken words](#). Scientists believe that such gestures are based on relatively complex intelligence abilities and represent the starting point for the use of symbols and therefore also [human language](#). Deictic gestures are thus milestones in the development of [human speech](#).

Surprisingly, observations of comparable gestures in our closest living relatives, the great apes, are relatively rare. [Chimpanzees](#) (*Pan troglodytes*) in the Kibale National Park in Uganda, for example, use so-called directed scratches, to indicate distinct spots on their bodies to be groomed. Deictic gestures thus represent an extremely rare form of communication evolutionarily and have been suggested as confined to primates only.

According to the two researchers from Seewiesen and Vienna, however,

such behaviour is not restricted to humans and great apes. For two years, Simone Pika und Thomas Bugnyar investigated the non-vocal behaviour of individually marked members of a wild raven community in the Cumberland Wildpark in Grünau, Austria. They observed that ravens use their beaks similar to hands to show and offer objects such as moss, stones and twigs. These distinct gestures were predominantly aimed at partners of the opposite sex and resulted in frequent orientation of recipients to the object and the signallers. Subsequently, the ravens interacted with each other, for example, by example billing or joint manipulation of the object.

Ravens are songbirds belonging to the corvid family like crows and magpies, and they surpass most of the other avian species in terms of intelligence. Their scores on various intelligence tests are similarly high than those of great apes. Ravens in particular can be characterized by complex intra-pair communication, relatively long-time periods to form bonds and a relatively high degree of cooperation between partners.

This new study shows that differentiated gestures have especially evolved in species with a high degree of collaborative abilities. "Gesture studies have too long focused on communicative skills of [primates](#) only. The mystery of the origins of human language, however, can only be solved if we look at the bigger picture and also consider the complexity of the communication systems of other animal groups" says Simone Pika from the Max Planck Institute for [Ornithology](#).

**More information:** Simone Pika & Thomas Bugnyar, The use of referential gestures in ravens (*Corvus corax*) in the wild, *Nature Communications*, November 29, 2011, 10.1038/ncomms1567

Provided by Max-Planck-Gesellschaft

Citation: 'Look at that!' -- ravens use gestures, too (2011, November 29) retrieved 25 April 2024 from <https://phys.org/news/2011-11-ravens-gestures.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.