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**Clever and Smart: Ravens are on par with Great Apes in cognitive performance**

**Researchers at Osnabrück University and the Max Planck Institute for Ornithology compared cognitive skills between ravens and great apes**

OSNABRUECK.- It is common knowledge that corvids are extremely clever. However, to date, researchers have mainly investigated single cognitive tasks at a time and little is known about their cognitive development on the whole. A new study at the Institute of Cognitive Science, Comparative BioCognition, at Osnabrück University under the direction of Simone Pika has allowed for new insights into the cognitive capacities of corvids by comparing the physical and social abilities of common ravens with those of chimpanzees and orang utans. The study’s findings are published in the journal *Scientific Reports* under the title “Ravens parallel great apes in physical and social cognitive skills”.

This research represents the first systematic, large-scale, quantitative assessment of the physical and social abilities of common ravens with a special focus on their cognitive development. The researchers used an experimental test-battery which had been previously developed for primates, but adjusted it to make it “raven-friendly”. “For instance, to investigate whether ravens know where food is located, we hid treats under a cup, and moved it quickly back and forth among other cups that were empty, just as one does in the ‘shell game’. A raven selected a cup by pecking or pointing at it with its beak, while a chimpanzee would have done this with their fingers,” explains Miriam Sima of the Max Planck Institute for Ornithology.

At the age of four months, the ravens showed comparable cognitive performance   
to that of adult great apes which did not change significantly over the duration of

the study. “This may be due to the fact, that at four months of age young ravens are already quite independent and start to be interested in non-breeding aggregations of conspecifics. Hence, they need to be cognitively on top of things to deal with these new challenges”, says Simone Pika of the Institute of Cognitive Science at Osnabrück University and director of the study.

The researchers tested a total of eight ravens at four, eight, twelve and 16 months of age in nine physical tests (e.g., spatial understanding) and six social tests (e.g., communication). The results showed that the ravens were on par with chimpanzees and orang utans at solving problems, particularly those which involved quantities, causal understanding, social learning and communication. The results reveal that ravens are both social and physical intellects and emphasize that ravens’ cognitive skills are an expression of general rather than domain specific intelligence. The researchers plan to develop new comparative cognitive test batteries that can tap into true species-specific, rather than human-specific, cognitive skills.

**Link to the article**: <http://nature.com/articles/s41598-020-77060-8>

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