

Wild raccoons are flexible learners, puzzle box study shows

July 24 2024, by Bob Yirka



Images of wild raccoons interacting with the single-solution box (top) and the multi-solution box (bottom). All of the doors on the single-solution box could be opened in the same way by sliding the horizontal bolt latch to the right (H). The doors on the multi-solution box could be opened in one of four ways: (H) a side-pull bolt latch (same as the single-solution box), (R) a rod removal and eye hole latch, (V) a pull-down bolt latch, and (S) an up-down swivel latch. Credit: *Proceedings of the Royal Society B: Biological Sciences* (2024). DOI: [10.1098/rspb.2024.0911](https://doi.org/10.1098/rspb.2024.0911)

A team of zoologists and cognitive ecologists at the University of Wyoming has found that wild raccoons are flexible learners. In their research project, [published](#) in the journal *Proceedings of the Royal Society B: Biological Sciences*, the group captured video of raccoons attempting to access food inside puzzle boxes.

Prior research has shown that [raccoons](#) are not only curious, but highly intelligent. They are one of the few species of animals that have adapted well to human encroachment. For this new study, the research team wondered if part of their success is based on flexible learning, in which members of a group learn in different ways.

To find out, they placed large puzzle boxes in suburban areas where wild raccoons were known to congregate. All of the boxes had multiple compartments, each with its own small [door](#). Holes in the doors allowed the raccoons to see and smell the contents. The researchers baited the compartments with a mix of dog kibble and sardines, treats that appeal to raccoons. To make it interesting, each of the doors was locked in a different way.

The researchers found that the raccoons took individualistic approaches to getting at the treats. Some used different techniques to open the doors, others used different positions. And in a surprise, [small groups](#) would often simply wait behind another raccoon as it fiddled with the lock—upon success, they would push him out of the way and grab the food treat.

The researchers found that the raccoons were successful at getting a treat approximately 25% of the time—if they were unsuccessful, they would simply give up and go search for [food](#) elsewhere.

The research team found multiple examples of flexible learning, in which the animals would learn by themselves or by watching others in action. They suggest such flexibility likely helps explain their success in adapting to human-occupied areas.

More information: Lauren A. Stanton et al, Wild raccoons demonstrate flexibility and individuality in innovative problem-solving, *Proceedings of the Royal Society B: Biological Sciences* (2024). [DOI: 10.1098/rspb.2024.0911](https://doi.org/10.1098/rspb.2024.0911)

© 2024 Science X Network

Citation: Wild raccoons are flexible learners, puzzle box study shows (2024, July 24) retrieved 24 July 2024 from <https://phys.org/news/2024-07-wild-raccoons-flexible-learners-puzzle.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.