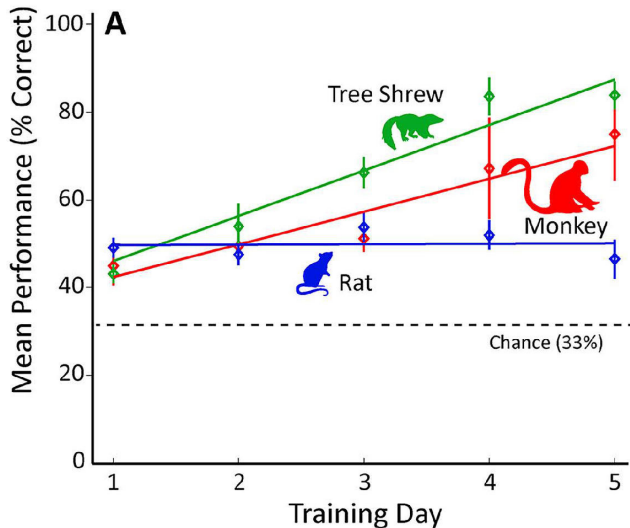


Rats trail behind shrews, monkeys, and humans in visual problem solving

13 July 2018



differences on a task, few studies have directly tested this idea.

Gregor Rainer and colleagues addressed this gap in knowledge by comparing the ability of two species more closely related to humans—macaques (*Macaca fascicularis*) and tree shrews (*Tupaia belangeri*)—to discriminate a flickering light from two distracting stimuli. While the macaques and tree shrews used similar visual learning strategies and their performance improved over time, rats (*Rattus norvegicus*) were instead focused on where they had previously received a food reward and their performance did not improve. These findings suggest that [rats](#) use their brains differently than the other [species](#) in the context of this particular task.

Rats take a fundamentally different approach toward solving a simple visual discrimination task than tree shrews, monkeys, and humans, according to a comparative study of the four mammal species published in *eNeuro*. The work could have important implications for the translation of research in animal models to humans. Credit: Mustafar et al., *eNeuro* (2018)

More information: Faiz Mustafar et al, Divergent Solutions to Visual Problem Solving across Mammalian Species, *eNeuro* (2018). [DOI: 10.1523/ENEURO.0167-18.2018](https://doi.org/10.1523/ENEURO.0167-18.2018)

Provided by Society for Neuroscience

Rats take a fundamentally different approach toward solving a simple visual discrimination task than tree shrews, monkeys, and humans, according to a comparative study of the four mammal species published in *eNeuro*. The work could have important implications for the translation of research in animal models to humans.

Scientists have developed powerful technologies that allow for precise manipulation of the rodent nervous system, which is similar to that of humans, making them crucial laboratory animals in neuroscience. Although it is thought that learning in mice and rats can overcome initial species

APA citation: Rats trail behind shrews, monkeys, and humans in visual problem solving (2018, July 13) retrieved 29 October 2022 from <https://medicalxpress.com/news/2018-07-rats-trail-shrews-monkeys-humans.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.