

# Strongly 'handed' squirrels less good at learning

January 20 2020

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Squirrels that strongly favour their left or right side are less good at learning, new research suggests.

Just as humans are usually left- or right-handed, many animals favour one side of their body for certain tasks.

The strength of this preference varies, with some individuals happy to use either side, while others strongly favour one side (known as being strongly "lateralised").

The University of Exeter study found that grey squirrels which strongly favoured a side did less well on a learning task. They had to learn to use a paw, rather than their mouth, to get nuts.

"It has been suggested that being strongly lateralised makes brains more efficient, with each hemisphere focussing on different tasks," said Dr. Lisa Leaver.

"This could help animals survive, which would explain the evolution of laterality across the [animal kingdom](#).

"In fish and birds, there is evidence that being strongly lateralised is linked to better [cognitive performance](#) ([brain function](#)).

"However, limited data from studies of mammals suggest a weak or even [negative relationship](#).

"Our study measured speed of learning among grey squirrels and, in line with these previous mammal studies, suggests that strong lateralisation is linked to poor cognitive performance."

In the study, wild grey squirrels on the University of Exeter's Streatham Campus were presented with a transparent tube containing peanuts.

Squirrels usually collect food with their mouths, but the tube was too narrow to allow this—so they had to learn to use a paw.

By measuring both how quickly squirrels learned and how strongly they favoured a particular paw, the researchers could assess both learning and laterality.

More than 30 squirrels were observed, with 12 providing enough data for inclusion in the study.

The relationship between laterality and human cognitive performance is still unclear, though some research has suggested that less lateralised (ie more ambidextrous) people may be more creative.

"More research on mammals is needed to understand the complex relationship between laterality and cognitive [performance](#)," Dr. Leaver said.

The paper, published in the journal *Learning and Behaviour*, is entitled: "Learning is negatively associated with strength of left/right paw preference in wild [grey squirrels](#) (*Sciurus carolinensis*)."

**More information:** "Learning is negatively associated with strength of left/right paw preference in wild grey squirrels (*Sciurus carolinensis*)."  
*Learning and Behaviour*, [DOI: 10.3758/s13420-019-00408-2](https://doi.org/10.3758/s13420-019-00408-2)

Provided by University of Exeter

Citation: Strongly 'handed' squirrels less good at learning (2020, January 20) retrieved 6 May 2024 from <https://phys.org/news/2020-01-strongly-squirrels-good.html>

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