

Testing attention shifting abilities in children and chimpanzees

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A team of researchers at the University of St Andrews, in the U.K., working with a colleague from the University of Portsmouth, also in the U.K., has tested young children and chimpanzees to learn more about

when attention shifting develops in humans. In their paper published in *Proceedings of the Royal Society B*, the group describes experiments they conducted with children between the ages of three and five and adult chimpanzees.

Prior research has suggested that the [human ability](#) to shift attention quickly is one of the traits that led to dominance over all the other creatures on Earth. Being able to switch our thinking from a [task](#) at hand to a new circumstance comes quite naturally to most people. So, too, does the ability to work toward multiple long-term goals at the same time. In this new effort, the researchers in the U.K. wondered if other creatures such as [chimpanzees](#) have similar abilities. To find out, they devised a simple experiment to test a group of [children](#) and compared their results with those of several chimpanzees.

In the experiment, volunteers chose a cup set on a shelf under which was hidden a treat—a banana for the chimps and stickers for the children. To test attention-shifting ability, the volunteers were faced with two shelves, one colored green, the other blue. Each subject was taught that on the green shelf, the treat would be under the green cup, while on the blue shelf, the treat would be under a pink cup. Thus, each participant had to switch gears after assessing the color of the shelf they were facing.

The researchers found that the chimps did nearly equally well with the three-year-olds but lagged far behind the five-year-olds. Four-year-old children did slightly better than the three-year-old children.

The researchers suggest that chimpanzees do have some degree of attention-shifting ability, but it is far below that of humans. They also suggest that the ability in humans likely arises during an as-yet unknown brain development phase that occurs just before children turn five.

More information: E. Reindl et al, The shifting shelf task: a new, non-

verbal measure for attentional set shifting, *Proceedings of the Royal Society B: Biological Sciences* (2023). [DOI: 10.1098/rspb.2022.1496](https://doi.org/10.1098/rspb.2022.1496)

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