Why are left-handed people excluded from brain research?

About 10 percent of people prefer to use their left hand for everyday activities, like writing, a percentage that's remained the same for at least tens of thousands of years. (We know this from scientists' analyses of prehistoric handprint art from the Ice Age.) They even have their own day: August 13 is International Left-Handers Day. Despite their constant presence, lefties are frequently, if not almost always, excluded from neuroscience research.

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Shutting out left-handers is an attempt to reduce variations in brain data. In studies that use neuroimaging, like brain scans that capture where the brain is activating, scientists often want subjects that can be compared to one another. That way, they can calculate group averages and come to conclusions about the way the brain functions overall.

Left-handed people's brains can work slightly differently for certain tasks, like language processing and motor skills, because of a feature of the brain called lateralization.

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When trying to figure out how the brain works, we need to account for all the ways a healthy brain can function, [researcher Emma] Karlsson said. Including left-handed people could actually help us learn more about the brain rather than mess up our efforts—like the ways the left and right side of the brain divide up the work, and the genetics that help to drive the brain's asymmetries.

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