

## Impact of autism may be different in men and women

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Men and women with autism spectrum conditions (ASC) may show subtle but significant differences in the cognitive functions impacted by the condition, according to new research published Oct 17 by Meng-Chuan Lai and colleagues from the Autism Research Centre at the University of Cambridge, UK in the open access journal *PLOS ONE*.

Though individuals with autism show sex-specific differences in serum biomarkers, genetics and <u>brain anatomy</u>, little is known about any sex-dependent differences in cognition caused by ASC. Following their previous report on behavioral sex differences in adults with ASC (also published in <u>PLOS ONE</u>, see

(<a href="http://dx.plos.org/10.1371/journal.pone.0020835">http://dx.plos.org/10.1371/journal.pone.0020835</a>), in this new study the researchers compared four aspects of cognition in adults with ASC to those with typical development. They found that perception of facial emotions was equally impaired across both sexes in individuals with ASC. In tasks involving attention to detail or dexterity requiring strategic thinking, women with ASC performed comparably to women without ASC, but men with ASC showed more difficulties than neurotypical men.

According to the authors, their results suggest that the severity with which certain cognitive functions are affected by autism may be dependent on sex, and has implications for assessment and intervention of ASC.

"What we know about males with ASC should not be assumed to



generalize to females", said Dr. Lai. "Their similarities and differences need to be investigated systematically in <u>autism research</u>."

**More information:** Lai M-C, Lombardo MV, Ruigrok ANV, Chakrabarti B, Wheelwright SJ, et al. (2012) Cognition in Males and Females with Autism: Similarities and Differences. PLoS ONE 7(10): e47198. doi:10.1371/journal.pone.0047198

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