

‘Profound consequences’: Autistic people unable to tune out distractions, study suggests

Autistic people have atypical activity in a part of the brain that regulates attention, according to a new study. The researchers measured pupil responses as a proxy for brain activity in a brain region known as the locus ceruleus.

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In the new study, researchers compared autistic and typical people’s pupil responses when performing a task with and without a distracting sound. Typical people’s pupils grew larger when hearing the sound, suggesting a boost in focus directed by the locus ceruleus. By contrast, the pupils of autistic people did not widen, indicating they do not modulate their attention in the same way.

This might have profound consequences for autistic people’s sensory experience, the researchers say.

“If you can’t really attend to the most salient information, then you have a whole lot of stimuli bombarding you,” says lead investigator [Marlene Behrmann](#), professor of psychology at Carnegie Mellon University in Pittsburgh, Pennsylvania. “This may contribute to the sensory hyperreactivity that you see in individuals with autism.”

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Experts not involved in the work caution that the findings need to be replicated to support the broader claims about the locus ceruleus’ role in autism.

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