

# Isolation proven to cause speech processing differences in young autistic adults, new study finds

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World-first research from Western Sydney University confirms young

Australian adults diagnosed with autism process speech differently due to significant social isolation and limited variety of in-person social interactions.

Published in the international *Autism Research* journal, the study revealed that in-person social interaction affects [speech](#) processing, and that for peak cognitive performance, regular experience with a variety of new talkers is required.

Findings show that Australian English young autistic adult listeners recognize words and [speech sounds](#) as well as IQ-matched non-autistic comparison listeners. However, cognitive flexibility to adapt to speech from a new talker was observed to only differ in the autistic group.

This key finding is believed to stem from a lack of experience with a variety of new talkers and is further supported by data reported by the autistic participants who advise spending only 2.7 hours per week interacting with people outside their immediate circle of family and friends. This contrasts with the 18.3 hours reported by the neurotypical comparison group.

Lead author, Samra Alispahic from the University's MARCS Institute for Brain, Behavior and Development says that the new findings point to a national gap in disability policies and [support services](#) for young autistic adults.

"Social isolation does not always stem from the typical characteristics of autism, or a 'lack-of-want' by young autistic people to engage in social activities. Rather, it can be the consequence of a shortage of integration and transition programs, as well as adequate resources for meaningful social interactions and engagement," said Ms. Alispahic.

"A lack of talker variability affects how we process and adapt to other

people's speech, resulting in long-term ramifications for language-use, learning and development."

Importantly, Ms. Alispahic said this inflexibility might be reversible with regular practice of in-person engagement and interactions with a wider range of new talkers.

Strikingly, the study also revealed that 68% of the autistic participants were unemployed at the time of testing, with one in every two reporting never being employed, further adding to [social isolation](#).

"Our research further echoes the sentiments of participants and their families that once adulthood is reached, NDIS funding is markedly cut, and autistic individuals simply 'vanish,'" said Ms Alispahic.

"There are no national policies, therapeutic or otherwise, relative to social interventions that exist at present. It's up to families to organize grassroots-level social groups, so that [autistic children](#), teenagers and adults may interact in inclusive environments and with like-minded peers," she said.

Co-author of the paper, the late Distinguished Professor Anne Cutler, was a world-renowned pioneer whose contributions advanced scientific understanding of spoken [language processing](#) and shaped the field as it is known today.

Professor Cutler's legacy is evident with this paper being published posthumously. The research team is committed to honoring Professor Cutler's enduring research excellence in the field of psycholinguistics, as well as informing speech processing in neurodivergent populations while advocating for positive changes to disability policy.

**More information:** Samra Alispahic et al, Auditory perceptual

learning in autistic adults, *Autism Research* (2022). DOI: [10.1002/aur.2778](https://doi.org/10.1002/aur.2778)

Provided by Western Sydney University

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