

THE CONVERSATION

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How patterns of conversation could help identify early signs of autism in children

Published: September 9, 2024 5.13pm BST

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Autistic children – and adults – often communicate differently to neurotypical people. Key characteristics of autistic speech can include less eye contact, focusing on the details rather than the overall gist of a conversation, and favouring literal meaning: autistic people may find it more challenging to guess if something is being implied rather than said directly.

These differences may make some communication between autistic children and the adults in their lives difficult. But understanding them can help.

My research with colleagues has explored how autistic and neurotypical children imitate their parents' speech during a conversation.

Imitation is an aspect of language and communication that starts from birth. When people talk with others, they often repeat what they say, mirror their gestures, align with their tone of voice and even their accent.

This takes place as a learning process, but also to conform socially. It displays engagement, signalling to others in the conversation that they are being heard and understood.

The kind of imitation we looked at, known as “resonance”, involves re-using the speech of others during a conversation. Imagine me asking you: “Have you had a nice weekend?” and you responding: “Yes”. This is a case where there would be no resonance in your response. You would answer my question but not engage with my words.

Had you instead answered something like: “I had quite an interesting weekend actually, I went to Paris”, you would then “resonate” with several words in my question (“weekend”, “had”) and engage creatively with them (replacing “nice” with “interesting”).

Speaking and imitating

In our research, we looked at this form of imitation between children and their mothers. Our study involved a total of 180 Mandarin-speaking children ranging from 37 to 60 months of age (roughly from three up to five years old).

We included both neurotypical and neurodiverse children, and we looked at their verbal imitation – how they spontaneously re-used and re-formulated the words that had been said to them. We found that autistic children were much less likely to make use of this kind of imitation.

An example from our research is a mother opening a book and saying: “The fox was so scared that it ran away.” This was resonated by a her neurotypical daughter in a way to engage with her words: “She was so scared and ran away all in a hurry.”

This form of verbal imitation was rarer among autistic children, as they re-used their parents’ words much less frequently and creatively.

Dad and two sons looking at book together

Resonance involves creatively reusing others’ words. Dmytro Zinkevych/Shutterstock

Resonance involves the ability to quickly “improvise” with the words of others. We found that children diagnosed with autism spectrum disorder are less likely to do this than neurotypical children. An autistic child often might repeat the same phrase used by their mother, but without embellishing or re-using the words in a creative way.

This is not to say they were not capable of resonating creatively with their mother's words, but that they did it significantly less.

This could be because creativity in autistic people may be more frequently expressed in social isolation, and becomes more challenging during a conversation. Put simply, creativity is not impeded in autism spectrum disorder, but what is more difficult for autistic people is the ability to be creative with the words of others during a conversation.

This finding gives us a new awareness of how parents, clinicians and educators can identify early signs of autism in children's development. It can help parents of autistic children understand why their child's patterns of speech, and how they respond to other people, may be different to neurotypical children.