MedicalXpress

Surprising language abilities in children with autism

April 25 2008

What began as an informal presentation by a clinical linguist to a group of philosophers, has led to some surprising discoveries about the communicative language abilities of people with autism.

Several years back, Robert Stainton, now a philosophy professor at The University of Western Ontario, attended a presentation by his long-time friend Jessica de Villiers, a clinical linguist now at the University of British Columbia. The topic was Autism Spectrum Disorder (ASD). De Villiers explained that many individuals with ASD have significant difficulties with what linguists call “pragmatics.” That is, people with ASD often have difficulty using language appropriately in social situations. They do not make appropriate use of context or knowledge of what it would be “reasonable to say.” Most glaringly, many speakers with ASD have immense trouble understanding metaphor, irony, sarcasm, and what might be intimated or presumed, but not stated.

Drawing on his philosophical training, however, Stainton noticed less-than-obvious pragmatic abilities at work in de Villiers’ examples, which were drawn from transcripts of conversations with 42 speakers with ASD – abilities that had been missed by clinicians.

Thus began research to more clearly understand and define the conversational abilities and challenges of people with Autism Spectrum Disorder (ASD). Stainton and de Villiers’ research, in collaboration with Peter Szatmari, a clinical psychiatrist at McMaster University, has shown that indeed, many individuals with ASD do have “a rich array of

pragmatic abilities."

These researchers do not contest the well-established claim that people with ASD have difficulty with non-literal pragmatics, such as metaphors ("Juliet is the sun") or irony/sarcasm ("Boy, is that a good idea"). They have, however, found that many speakers with ASD do not show the same difficulty with literal pragmatics. An example is the phrase, "I took the subway north" from a transcript of a conversation with a research participant with ASD. The use of the word "the" could indicate there is only one subway in existence going north. "The subway" could also be referring to a subway car, a subway system or a subway tunnel. Taking account of the context and the listener's expectations, however, the individual using the phrase was able to convey the specific meaning he intended. That is, he used pragmatics effectively.

In short, Stainton and his colleagues produced surprising evidence to show that speakers with ASD use and understand pragmatics in cases of literal talk, as in the subway example.

Stainton, who is also Acting Associate Dean of Research in the Faculty of Arts and Humanities at Western, says, "It is especially gratifying and encouraging, because this is an Arts and Humanities contribution to clinical research. Without a philosophical perspective, this discovery might not have been made."

Related research allowed de Villiers and Szatmari to develop a rating scale of pragmatic abilities that can be used in the clinical assessment of people with ASD. Stainton says, "In the short term, their new tool will help identify where an individual fits on that spectrum. In the longer term, however, by making use of recent results in philosophy of language, it may contribute to our theoretical understanding of the boundary between knowledge of the meanings of words, and non-linguistic abilities – specifically pragmatics."

Stainton believes that both clinicians who work with people with ASD, and language theorists who are interested in pragmatics for philosophical reasons, will find these results striking.

Source: University of Western Ontario