

Storytelling and Asperger Syndrome: A Key for Social Integration

Alain N. SAHIN* ¹

¹ Student, Université de Montréal, Canada

* *Auteur(e) correspondant* | *Corresponding author* : alain.nathan.sahin@umontreal.ca

Résumé :

(traduction)

La narration est un moyen de communication universel entre les êtres humains. Cette habileté est inhibée lorsque les troubles de développements neuronaux empêchent les interactions réciproques, la compréhension du langage corporel, et les nuances du langage. Le syndrome d'Asperger (SA), l'un de ces troubles, est caractérisé par un handicap social et un comportement répétitif. Puisque les individus atteints du SA ne peuvent pas communiquer de messages au moyen de la narration, ils souffrent d'isolement social et se retirent de la société. Le développement du système des neurones miroirs dans le cerveau, qui stimule l'imitation des pairs, pourrait être modifié chez les individus atteints du SA, d'après un mécanisme qui n'est pas encore compris. Il faut pouvoir imiter les émotions d'autrui afin de comprendre leurs sentiments et leur perception du monde, mais la « théorie de l'esprit » ne se manifeste pas normalement chez les individus atteints du SA. Bien que certaines études ont évoqué cette barrière, les opinions et les faits actuels démontrent que les personnes atteintes du SA peuvent se servir de la narration pour s'intégrer dans la société. À l'avenir, les recherches devraient étudier la narration comme moyen d'augmenter les interactions sociales des individus atteints du SA.

Mots-clés :

Syndrome d'Asperger, narration, théorie de l'esprit, système des neurones miroirs, intégration sociale

Abstract:

Storytelling is a universal way of communication between human beings. It is inhibited when neurodevelopmental disorders hinder human reciprocity, the understanding of body language, and nuances of language. Asperger Syndrome (AS), one of these disorders, is characterized by social impairment and repetitive patterns of behaviour. Messages cannot be conveyed through storytelling, which causes social isolation and withdrawal of individuals with AS from society. The development of the mirror neuron system in the brain, which incites imitation of peers, might be altered in AS by a mechanism that is not entirely understood. Because mirroring the emotions of others is key to understanding their feelings and perceptions of the world, the "theory of mind" is not formed in individuals with AS as it normally would be. While studies have suggested this impediment, current views and evidence show that people with AS may use storytelling as a powerful tool to integrate themselves into society. Future research should investigate storytelling as an intervention to increase social interaction of individuals with AS.

Keywords:

Asperger Syndrome, storytelling, theory of mind, mirror neuron system, social integration

Storytelling is a framework used ubiquitously in communication and is an important key in understanding human interactions. When neurodevelopmental disorders hinder the understanding of body language and the nuances of language, as well as reciprocity, storytelling is impeded. Asperger Syndrome (AS), a disorder located on the autism spectrum, is characterized by social impairment and repetitive patterns of behaviour (American Psychiatric Association, 2013). These traits, in turn, impair the ability of individuals with AS to decode messages conveyed through storytelling. Although the mechanism of AS is not fully understood, the development of the mirror neuron system, a system in the brain which incites imitation of peers, might be altered (Iacoboni & Dapretto, 2006). Since mirroring the emotions of others is key to understanding their feelings and perceptions of the world, the ability to comprehend and reflect mental states is restrained. This ability is known as the “theory of mind” (ToM; Premack & Woodruff, 1978), which is not formed in individuals with AS, as it normally would be. Empathy is impeded and social impairment ensues. Especially during childhood, bullying can seriously affect individuals with AS, as they are perceived as being isolated and different, and having poor social skills. Withdrawal from others and severe tantrums can occur (Heinrichs, 2003). While previous research suggests that AS causes social impairment (Heinrichs, 2003), current views indicate that people with AS may use storytelling as a powerful tool to integrate themselves in society (Martinovich, 2006).

Individuals interact in a way to create a connection between each other and transmit important information about their lives. This transfer of information is largely made through the use of stories. The use of stories is ubiquitous in all domains of life because stories strike a chord within individuals (Zak, 2013). People have a tendency to remember the beginnings and ends of conversations. To compensate for that, stories are used because they increase tension until the climax. A sense of familiarity with a beginning, middle, and end compels the listeners (Zak, 2013). Brian Sturm (1999), a professor of library science at the University of North Carolina at Chapel Hill, notes how this art of storytelling itself has stages. The conversation before the story brings about the idea of telling the story, and settles who is telling the story. The teller announces the story as a distinct “entity,” identifying it as something unique and special (Sturm, 1999). Gradually, the teller brings the listeners into a “story realm” through several conducts such as humour, the novelty of the story, the familiarity of the story, or by assuring the physical and emotional comfort of listeners (Sturm, 1999). The physical comfort could, for example, be giving someone a comfortable chair to sit on. The emotional comfort is, for instance, linked to having a “good” or a “bad” day. These conducts, when not clogged, facilitate bringing the listeners

from reality to this “altered consciousness” (Sturm, 1999). Distractions, which occur in AS, prevent that transition to the world of storytelling.

The repetitive patterns of behaviour of individuals with AS exacerbate these distractions. For example, people with AS can be inclined to work on a specific subject such as molecular structure or photography. Although they do not have an intrinsic passion for the subject, they can dedicate a great amount of time on it as it becomes a repetitive pattern of behaviour (Klin, 2006). Consequently, they can continue to talk about that subject for a very long time because they do not comprehend their listeners’ body language and nonverbal cues that may show disinterest with the subject (Klin, 2006). In this case, the effects of social impairment and repetitive behaviour are compounded. Hence, the individual with AS is disconnected from the other interlocutors.

Since storytelling is anchored in understanding emotional states, AS creates difficulty in connecting the dots in stories and finding the underlying message. The conducts identified in the storytelling conceptualization of Sturm (1999) are obstructed because nuances cannot be comprehended. This also explains why these individuals disconnect very easily from conversations. Pathos, the ability to appeal to the listener’s emotions, is essential in persuading someone to stay connected to the story and to enter the story realm. Those with autism spectrum disorders, who do not understand these appeals to emotions, simply stop listening. They understand the cognitive basis of humour, but do not understand why one should share humour with others for amusement (Kasari & Rotheram-Fuller, 2005). This is explained by the absence of a ToM in individuals with autism.

The ToM is the ability of individuals to “impute mental states to himself and others” (Premack & Woodruff, 1978). In other words, if an individual understands the desires and beliefs of others, this shows an acquired ToM of others. Autism therapies, such as social communication intervention, focus on reducing the deficits associated to the lack of ToM in individuals with autism. Notably, individuals with autism can be sensitized to the importance of face perceptions to recognize emotional expressions (Schreibman, 1988). For instance, familiarizing individuals with autism with drawings of sad, happy, confused, or angry faces and their meanings can help them with their interactions with others (Schreibman, 1988).

Furthermore, AS restricts figurative thinking, hypothetical situations that assume exaggerations, and understanding of sarcastic comments (Craig & Baron-Cohen, 2000). These elements form an important part of storytelling and imaginative thinking. Executive dysfunction of creativity in indi-

viduals with AS is manifested by their inclination towards reality-based scenarios. Previous studies done at the University of Cambridge reveal that children with AS are less able to come up with the plot of a story after being offered an imaginary theme on which to expand (Craig & Baron-Cohen, 2000). Because figurative language is used in everyday conversations and in recounting of events, AS hinders the comprehension of the information that is being transmitted.

Although several literary devices such as metaphors, hyperboles, and irony used in storytelling are thereby inhibited in people with AS, the current outlooks advocate that other storytelling conducts in specific settings can be put to use. This idea started through exposures to “social stories” during childhood. Social stories are stories that help individuals in the autism spectrum understand the nuances of interpersonal relationships by showing day-to-day situations (Gray, 1994). Many people with AS are skilled at visual learning and often enjoy illustrated social stories. Carol Gray is the original author of social stories such as *The New Social Story Book*. In her books, she illustrates effective models of social interactions in a concrete way that can be helpful for children with AS (Gray, 2010). Social stories provide information about potential results of specific reactions and the emotional states that arise. This may improve a person's understanding of a previously difficult situation and diminish the anxiety in AS by structuring a person's life (Gray, 2010).

Quantifying the ability of storytelling in those with autism is growing (Losh & Gordon, 2014). Martinovich (2006), a psychologist and creative therapist, argues that storytelling should be encouraged for all individuals on the autism spectrum. Her book, *Creative Expressive Activities and Asperger Syndrome*, uses creative activities to develop skills in relationships and work on the creativity of individuals with AS (Martinovich, 2006). These tools can help in daily life and can be used on a wider scale. For example, John Elder Robison is a writer with AS, who shared many stories about being autistic in his following books: *Look Me in the Eye* and *Be Different: Adventures of a Free-Range Aspergian* (Robison, 2007; 2011). In another case, Robin Borakove (2014), a children's book author and storyteller with AS, tells stories to children while dressing up as characters in these stories. Hence, storytelling is a new approach to integrate people with AS into society.

Since AS disrupts the storytelling framework, it clouds the understanding of quotidian stories as a result. Nonetheless, storytelling is a valuable tool to familiarize individuals with AS to model social interactions and allow them to improve their creativity (Martinovich, 2006). This dimin-

ishes their possible feeling of isolation from society. Furthermore, moulding what AS is into stories told by people with AS and disseminating these stories, may be a noble step in the right direction. This would allow others to become more aware and sensitive to AS. Finally, further research on using this technique as an intervention and encouragement of those who have this condition to tell their own stories as much as possible would be worthwhile.

References

- American Psychiatric Association. (2013). Neurodevelopmental disorders. In *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition. Retrieved from <http://dx.doi.org/10.1176/appi.books.9780890425596.dsm01>
- Borakove, R. (2014, December 27). *Heart of autism: Giving back through storytelling*. Retrieved from <http://www.autismspeaks.org/blog/2013/04/11/heart-autism-giving-back-through-storytelling>
- Craig, J., & Baron-Cohen, S. (2000). Story-telling ability in children with autism or Asperger syndrome: A window into the imagination. *The Israel Journal of Psychiatry and Related Sciences*, 37(1), 64-70.
- Gray, C. (1994). *Comic strip conversations: Colorful, illustrated interactions with students with Autism and related disorders*. Arlington, TX: Future Horizons.
- Gray, C. (2010). *The new social story book, revised and expanded 10th anniversary edition: Over 150 social stories that teach everyday social skills to children with autism or Asperger's syndrome and their peers*. Arlington, TX: Future Horizons.
- Heinrichs, R. (2003). *Perfect targets: Asperger syndrome and bullying - Practical solutions for surviving the social world*. Shawnee Mission, KS: Autism Asperger Publishing.
- Iacoboni, M., & Dapretto, M. (2006). The mirror neuron system and the consequences of its dysfunction. *Nature Reviews Neuroscience*, 7(12), 942-951. doi:10.1038/nrn2024
- Kasari, C., & Rotheram-Fuller, E. (2005). Current trends in psychological research on children with high-functioning autism and Asperger disorder. *Current Opinion in Psychiatry*, 18(5), 497-501.
- Klin, A. (2006). Autism and Asperger syndrome: An overview. *Revista Brasileira de Psiquiatria*, 28(Suppl 1), S3-11. doi:10.1590/S1516-44462006000500002

- Losh, M., & Gordon, P. C. (2014). Quantifying narrative ability in autism spectrum disorder: A computational linguistic analysis of narrative coherence. *Journal of Autism and Developmental Disorders*, 44(12), 3016-3025. doi:10.1007/s10803-014-2158-y
- Martinovich, J. (2006). *Creative expressive activities and Asperger's syndrome: Social and emotional skills and positive life goals for adolescents and young adults*. London, UK: Jessica Kingsley Publishers.
- Premack, D., & Woodruff, G. (1978). Does the chimpanzee have a theory of mind? *Behavioral and Brain Sciences*, 1(4), 515-526. doi:10.1017/S0140525X00076512
- Robison, J. E. (2007). *Look me in the eye: My life with Asperger's*. New York, NY: Crown Publishers.
- Robison, J. E. (2011). *Be different: Adventures of a free-range Aspergian with practical advice for Aspergians, misfits, families & teachers*. New York, NY: Crown Archetype.
- Schreibman, L. E. (1988). *Autism*. Newbury Park, CA: Sage Publications.
- Sturm, B. W. (1999). The enchanted imagination: Storytelling's power to entrance listeners. *School Library Media Research*, 2. Retrieved from <http://www.ala.org/aasl/slr/vol2>
- Zak, P. J. (2013). How stories change the brain. *Greater Good*. Retrieved from http://greatergood.berkeley.edu/article/item/how_stories_change_brain