

Developmental and Social Mechanisms in Reasoning About Mirrors: A Comparison Between Adults, Typically Developed Children and Children With Autism Spectrum Disorder

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Developmental and social mechanisms in reasoning about mirrors: A comparison between adults, typically developed children and children with autism spectrum disorder.

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To study people's reasoning about mirrors, Bertamini & Soranzo (2018; Perception) employed a top-down drawing of a room with a sketch of a person facing a wall with a mirror, and objects on the opposite side of the wall (RAMP: room and mirror perspective test). Participants selected which objects the person could see in the mirror from different viewpoints. Results showed poor sensitivity to optics (knowledge about mirror reflections) and poor sensitivity to viewpoint (knowledge that what is visible varies with the person's perspective). This last result suggests that social mechanisms may be involved in perspective taking. To explore the developmental and social aspects of this task, we conducted a new study using RAMP. Performance of adults (18+), 8-11 years' old typically developed children (TD) and children with a diagnosis of Autism Spectrum Disorder (ASD) was compared. Results show that adults are more sensitive to optics than both TD and ADS children but not more sensitive to viewpoint. Interestingly, a difference in sensitivity to viewpoint emerged between TD and ASD children. These finding supports the importance of both developmental processes and social mechanisms, such as the Theory of Mind, in reasoning about mirrors.