

# Mental Rotation for Autism Spectrum Disorder by Matching Directions with a Known Sample

NAKAGAWA Azusa

Graduate School of Science for Human Services, Ritsumeikan University

**Keywords:** Mental rotation, conditional discrimination, autism spectrum disorder

Prior research implies that mental rotation lies at the base of the Theory of Mind. Although some researchers highlight the importance of mental rotation, no studies have focused on the way that mental rotation is learned. This study attempts to provide a behavioral account and suggest intervention for mental rotation.

In an intervention, the author matches the direction of the object to a known picture. If the intervention proves effective, it implies that naming is necessary for mental rotation. This study proposes confirming the effect of intervention, in order to examine the necessity of naming and to try to describe mental rotation in behavioral accounts.

Three participants between ages 6 and 10 were used. A pre-test began with a teddy bear placed on a turntable and covered with a box. Then, the experimenter turned the turntable 90°, 180°, 270°, and 360°, and then asked the participant which direction the teddy bear was facing when the experimenter covered it with the box. In the intervention, the experimenter matched the direction of the object to a known picture. The result showed that the intervention did not affect all of the participants. The author then discusses the need for intervention improvement.