

## Abstract

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder which affects one's ability to form relationships with others (APA, 2013). Children with ASD experience significant difficulty in pragmatic language, showing consequent impairments in social communication skills (Cardillo et al., 2020). Common Ground is a pragmatic language skill in which speakers adjust the contents of their speech based on the information shared during discourse (De Marchena & Eigsti, 2016) and children with CAASD (Cognitively Able ASD, IQ>70) have a deficit in this skill. Another characteristic of children with ASD is a high rate of motor difficulties (Eigsti, 2013; Liu & Breslin, 2013) and difficulties in Coordinated Joint Action which is the ability to coordinate the motor movement with the movement of a partner (McDuffie et al., 2005). Even though there is evidence of a link between motor skills and language development it is still unknown if it exists among children with ASD. In addition, the deficit in the ability to coordinate with others among children with ASD is a key component of common ground and joint action, though to the best of our knowledge there is no research that examined such coordination between peers of the same age and cognitive abilities as well as the link between these two skills.

The contribution of coordinated joint action to the creation of common ground, in relation to verbal IQ, ASD severity and Theory of Mind (ToM) was examined in this study among 84 children aged 6-16 years with CAASD of them 70 boys and 14 girls. The children were assigned in dyads of the same age, gender and cognitive abilities. The children were observed while completing a task that demonstrates creating common ground during a conversation. In each of the six turns one child had to describe several Tangram shapes to their peer while switching their roles between turns. The pairs also performed several tasks requiring motor coordination. Some tasks required mirroring the other's movement like coordinated walking and some required completion like imaginary football. The parental questionnaire TOMI - Theory of Mind Inventory (Hutchins et al., 2012) was used to examine ToM skills like basic and advanced ToM.

The main findings of this study showed that as children with CAASD grow up their ToM, common ground and coordinated joint action skills improve. Also, a positive correlation between common ground and coordinated joint action skills among children with CAASD was found. The research results suggest that enhancing coordinated joint

action skills can improve the language skills of children with CAASD. Using these results can aid in developing an interventional program that would incorporate motor skills as a way to improve the language abilities of children with ASD. The results also have a theoretical contribution indicating a link between motor and language capabilities.

