

# The contribution of social anxiety and theory of mind on social adaptive behaviours: the moderating role of autistic traits

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## THEORETICAL BACKGROUND

Difficulties in **adaptive behaviours** and social impairments are characteristics of autism spectrum disorders (ASD), which can be related to the presence of poor **theory of mind**, high levels of **social anxiety** and misinterpretation of **social norms**. Social adaptation may be associated with greater social anxiety in people with higher **autistic traits**, which in turn usually display a lack of theory of mind.

This study aims to analyze, through an online survey of parents, the role of theory of mind, social anxiety and understanding of social norms on adaptive social behaviors in children and adolescents aged 7 to 17 years, and whether levels of autistic traits might moderate these relationships.

### Methods

The study involved 142 parents of children and adolescents aged between 7 and 17 years old (M (DS) = 10.83 (3.50), 72 males).

	N	M	SD
<b>Participants</b>	142		
Mother's age	88	42.40	6.47
Father's age	54	44.46	7.55

### Materials

**Social Norms Questionnaire** (SNQ; Rankin, 2008) measures overadherence to and violation of the norms.

**Adaptive Behavior Assessment System** (ABAS-II; Harrison and Oakland, 2003): only the socialization and free time subscales were administered (social domain).

**Social Phobia and Anxiety Inventory for Children** (SPAI-C-P; Beidel et al., 1996, 1998) assesses social phobia and anxiety in children.

**Social Responsiveness Scale** (SRS; Constantino and Gruber, 2005) measures the presence and levels of autistic traits.

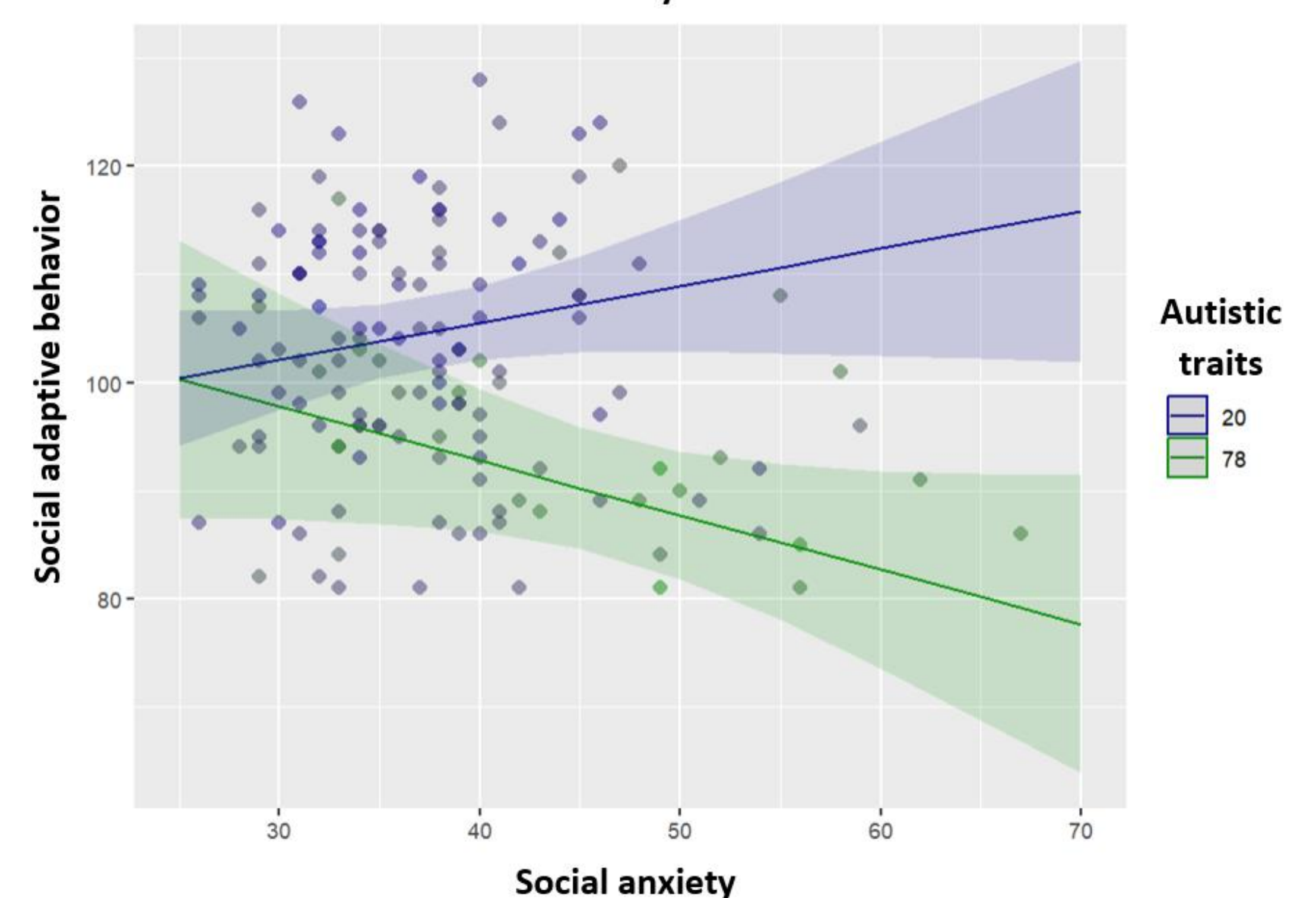
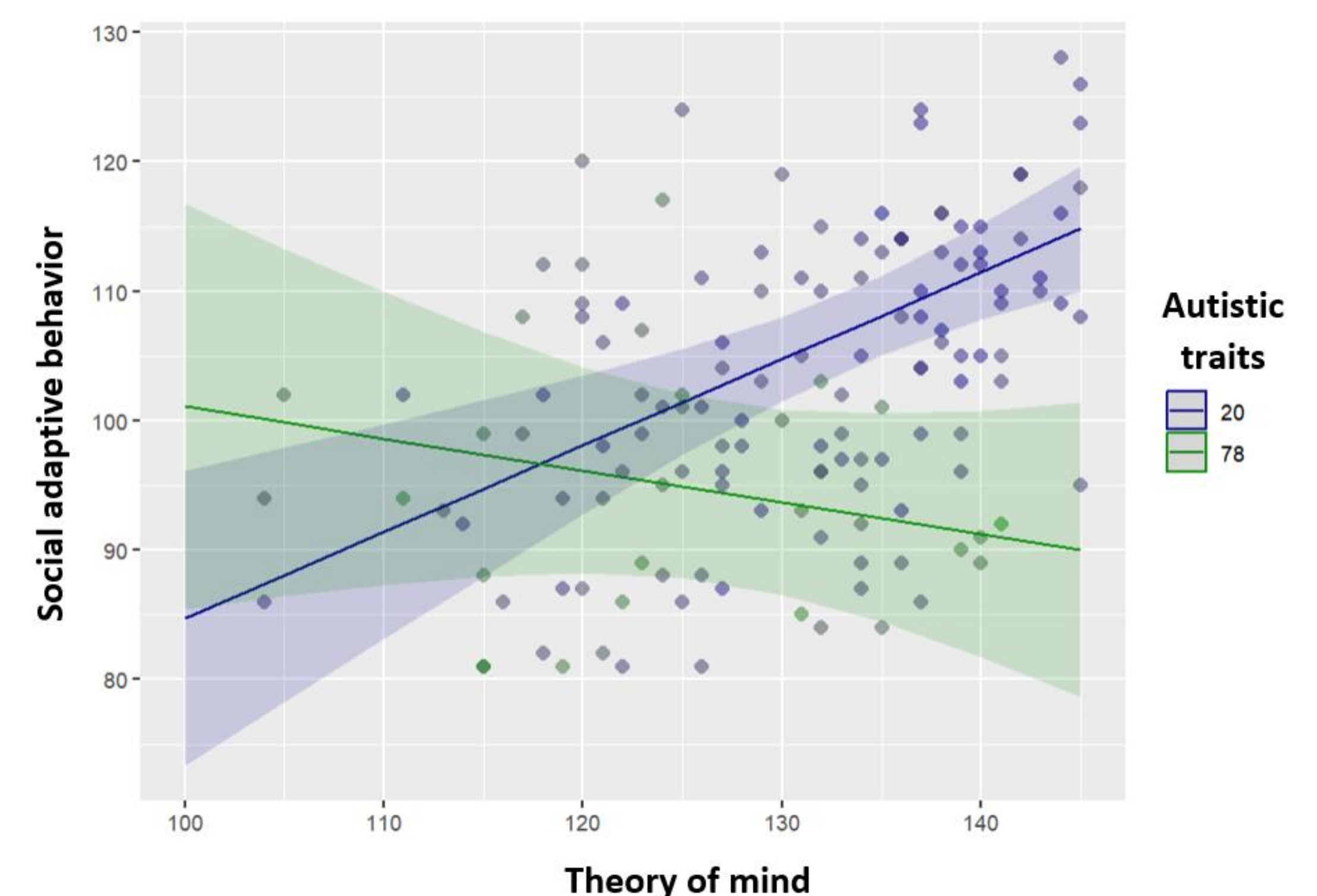
**The Theory of Mind Inventory** (ToMI; Hutchins et al., 2011): only the first order of beliefs was considered.

## Findings

Hierarchical regression models

Dependent variable = Social adaptive behavior (from ABAS)

Regression models	Standardized Beta	t	p	R <sup>2</sup> adj
<b>Model 1</b>			<0.001	0.06
Children's age	0.07	3.39	<0.001 **	
<b>Model 2</b>			<0.001	0.28
Children's age	0.04	1.87	0.06 .	
Autistic traits	-0.23	-3.00	<0.001 **	
Theory of mind	0.27	2.52	0.01 *	
Social anxiety	-0.10	-0.88	0.37	
Violation of norms	-0.12	-0.82	0.41	
Over adherence to norms	-0.31	-1.77	0.07 .	
<b>Model 3</b>			<0.001	0.34
Children's age	0.02	1.32	0.18	
Autistic traits	1.87	1.55	0.12	
Theory of mind	0.98	3.57	<0.001 **	
Social anxiety	0.63	1.83	0.06 .	
Violation of norms	-0.87	-1.86	0.06 .	
Over adherence to norms	-0.52	-1.01	0.31	
Theory of mind * Autistic traits	-0.01	-2.50	0.01 *	
Social anxiety * Autistic traits	-0.01	-1.98	0.04 *	
Violation of norms * Autistic traits	0.01	1.42	0.15	
Over adherence to norms * Autistic traits	<0.001	0.22	0.82	



## CONCLUSIONS

Findings suggest that theory of mind might act as a protective factor by showing a positive correlation with social adaptive behaviours in youth with lower autistic traits, yet not being an advantage when higher autistic symptoms occur. On the other hand, social anxiety might be a risk factor for the development of inadequate social behaviours in youth with high autistic traits, but it might help social adaptive behaviours when low autistic traits. Clinical practice should consider the presence of social anxiety and how the child perceives others' feelings and intentions when handling social adaptation skills.