Electronic Supplementary Material

ESM 6. Overview of studies reporting empirical evidence against/for an association between ToM and communication subcomponents

Study (year)	Sample size	Social cognition measure	Communication measure	Statistical measure	Results
Bosco et al. (2017; 2018)	35	Composite Score: *First-order ToM* Smarties Task (Perner et al., 1989); Sally-Anne Task (Baron-Cohen et al., 1985) *Second-order ToM* Selection of 6 Strange Stories (Happé, 1994)	*Pragmatics (indirect speech acts, irony, deceit)* ABaCo	Hierarchical regression analysis	Better ToM – better linguistic comprehension of deceit, better extralinguistic comprehension of deceit, better extralinguistic production of deceit, better linguistic production of irony
Byom & Turkstra (2012)	5	*ToM (exp.)* Manipulated version of RCIT in terms of ToM demands (intimacy) → Analysis of MST	*Discourse production* RCIT	Wilcoxon signed rank test	Less adequate adjustment to increase of intimacy level in conversation than control group in terms of production of MST
Byom & Turkstra (2017)	21	*ToM (exp.)* Manipulated version of discourse task (high ToM demands) → view of a fictional character holding the opposite opinion → analysis of MST	*Discourse production (exp.)* → production of MST in discussion of controverse topics (e.g., animal testing) → rating of social communication (naive raters)	Correlation (Spearman's *r*)	More mental state words – more socially acceptable communication
Channon et al. (2005)	19	*ToM (exp.)* Action Comprehension Task	*Pragmatics (sarcasm; exp.)* Sarcasm Comprehension Task	Pearson product moment correlations	Better ToM – better sarcasm comprehension
Honan et al. (2015)	25	*ToM (exp.)* High-ToM-condition of discourse task	*Discourse comprehension (exp.)* Comprehension of everyday conversations	Regression analysis	No significant influence of ToM on comprehension of everyday conversations
Martin & McDonald (2005)	16	*ToM (exp.)* Mental Inference Stories (Bibby & McDonald, 2005)	*Pragmatics (irony; exp.)* Pragmatic Interpretation Stories	Correlation (Spearman's *r*)	No significant association of ToM and irony comprehension
McDonald & Flanagan (2004)	34	*ToM, emotion recognition* TASIT – Subtest 2 & 3	*Pragmatics (sarcasm)* TASIT	Linear regression analysis	Better second-order ToM – better ability to understand social conversational inferences
McDonald et al. (2004)	21	*ToM, emotion recognition* TASIT – Part 2 & 3	*Global communication* BRISS-R for video-recording of spontaneous interaction	Correlation (Spearman's *r*)	Better ToM – appropriate personal conversation style (e.g., use of humor)
McDonald et al. (2014)	25	*ToM* High-ToM-condition of naturalistic speech production task (Exp.)	*Discourse production (exp.)* Naturalistic speech production task → analysis of number and adequacy of correct	Regression analysis	Influence of ToM on discourse production with high demand on inhibitory control

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Study (year)	Sample size	Social cognition measure	Communication measure	Statistical measure	Results
			details in picture description/ association tasks		
McDonald et al. (2015)	31	*ToM, emotion recognition* TASIT – Part 2 & 3	*Pragmatics (insincerity; exp.)* Identification of insincerity	Correlation (Spearman's *r*)	Better ToM – better detection of insincerity
McDonald et al. (2016)	30	*ToM emotion recognition* TASIT – Part 2 & 3	*Pragmatics (hints; exp.)* Audiovisual hinting task	Correlation (Spearman's *r*)	Better ToM – better understanding of hints
Milders et al. (2008)	33	*ToM* Faux Pas Test (Stone et al., 1998); Cartoon test (Happé et al., 1999)	*Global communication (proxy)* NBAP	Correlation (Spearman's *r*)	No correlation between ToM and proxy rating of social behavior (incl. pragmatic behavior)
Muller et al. (2010)	15	*ToM verbal* Faux Pas Test; First-order false belief & second-order false belief task (Exp.) *ToM nonverbal* Character intention task (Brunet et al., 2000); Reading The Mind in The Eyes Test (Baron-Cohen et al., 2001)	*Pragmatics (indirect speech acts)* MEC	Correlation (Spearman's *r*)	Better ToM (verbal tasks) – better understanding of indirect speech acts
Saxton et al. (2013)	24	*ToM* Adapted Stories Task (Bibby & McDonald, 2005) The Eyes Test (Baron-Cohen et al., 2001)	*Global communication (self)* Key Behaviors Change Inventory (KBCI; Kolitz et al., 2003; Vanderploeg et al., 2007) → Domain "Communication Problems"	Simultaneous regression analysis	No correlations between TOM and global communication rating (self)

Note. ToM: Theory of Mind; MST: mental state term; TASIT: The Awareness of Social Inference Test (McDonald et al., 2003); ABaCo: Assessment Battery of Communication (Angeleri et al., 2012); RCIT: Relationship Closeness Induction Task (Sedikides, Campbell et al., 1998); BRISS-R: Behavioural Referenced Rating System of Intermediate Social Skills, Revised (Wallander et al., 1985); NBAP: Neuropsychology Behavior and Affect Profile (Nelson et al., 1998); MEC: Montreal Protocol for the Evaluation of Communication (Joanette et al., 2004).