Supplementary Materials

Disentangling touch aversion: A systematic investigation of measurement approaches, behavioural correlates, and underlying individual differences

[1]Uta Sailer (iD) https://orcid.org/0000-0002-9728-8738

[2]Yasemin Abra

[2]Wenhan Sun (iD) https://orcid.org/0009-0001-3666-9262

[2]Merle T. Fairhurst* (iD) https://orcid.org/0000-0001-6540-5891

1. Dept. of Behavioural Medicine, Institute of Basic Medical Sciences, Faculty of Medicine, University of Oslo, Oslo, Norway
2. Centre for Tactile Internet with Human-in-the-Loop (CeTI), 6G life, Faculty of Electrical and Computer Engineering, Technische Universität Dresden, Dresden, Germany
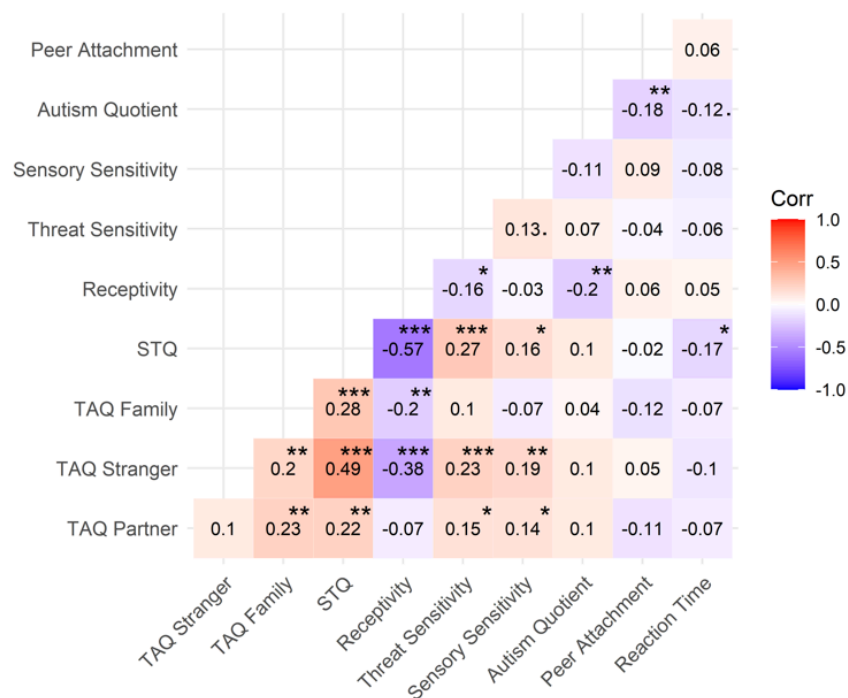
Corresponding author: XXX

Fig.S1 Correlation matrix representing the relationships between measures of touch avoidance including subscales of TAQ (Touch Avoidance Questionnaire), STQ (Social Touch Questionnaire), and Receptivity scores, as well as Threat Sensitivity, Sensory Sensitivity, Autism Quotient, Peer Attachment, and Reaction Time from the Discomfort Distance Task using a heatmap with a red-blue gradient, where red represents positive correlations and blue represents negative correlations. The values indicate Spearman's rank correlation coefficients, with significance levels marked by asterisks (*** denoting p < .001; ** denoting p < .01; . denoting .1 > p > .05)
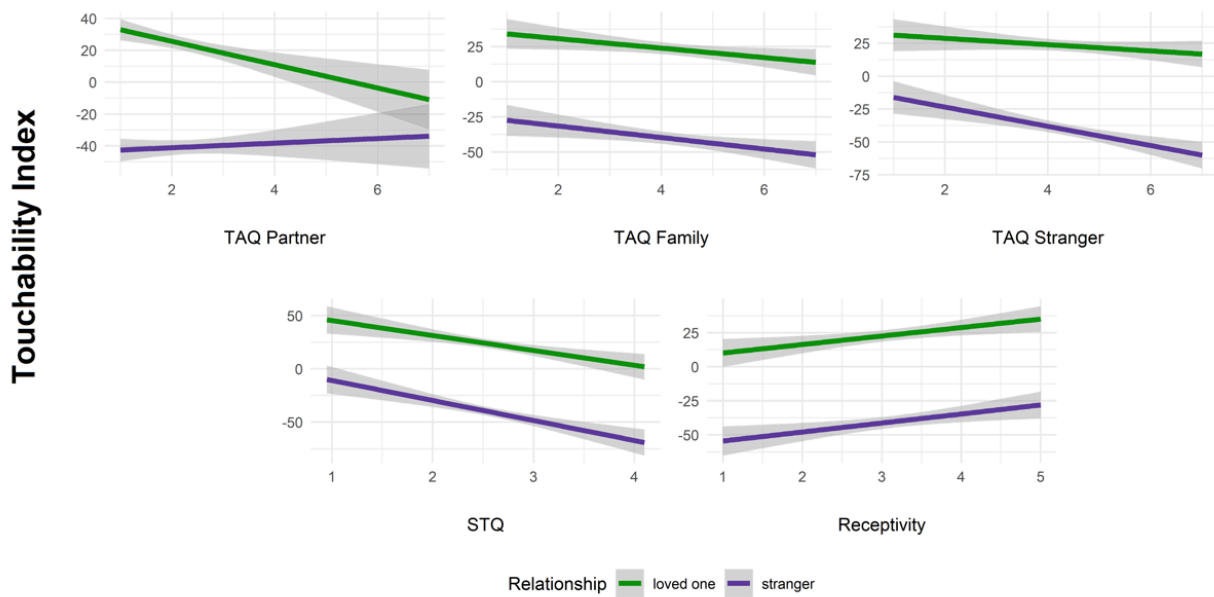
Fig.S2 Relationship between TAQ Partner, TAQ Family, TAQ Stranger, STQ, and Receptivity scores and Touchability Index for different relationship types. The plot shows fitted regression lines with 95% confidence intervals for each condition. Green lines represent interactions involving a loved one, and purple lines represent interactions involving a stranger. Shaded areas indicate the uncertainty around the regression estimates

Table S1

TAQ Partner	relationship	touchability$_{mean}$	touchability$_{SD}$	touchability$_{max}$	touchability$_{min}$
high	loved one	15.967	25.747	97.638	-73.565
high	stranger	-40.284	32.919	51.561	-98.308
low	loved one	29.814	32.755	99.212	-44.899
low	stranger	-40.912	30.757	14.362	-98.438

Table S2

TAQ Stranger	relationship	touchability$_{mean}$	touchability$_{SD}$	touchability$_{max}$	touchability$_{min}$
high	loved one	20.625	29.557	99.212	-35.065
high	stranger	-51.211	32.191	10.457	-98.438
low	loved one	25.01	30.872	95.911	-73.565
low	stranger	-32.91	29.2	51.561	-97.656

Tables S1 and S2 Descriptive statistics for low and high TAQ partner and TAQ stranger groups based on a median split of TAQ partner and stranger scores

Outcome Variable	Predictor	β	p-value	Corrected p-value	Adj. R2	Model F(df)	Model p-value
TAQ partner	GSQ	0.011	**0.003**	**0.030**	0.065	4.52 (4,197)	**0.0016**
	TFQ	0.016	**0.044**	0.127			
	AQs	0.076	0.241	0.349			
	PA	-0.011	0.221	0.349			
TAQ family	GSQ	-0.004	0.465	0.581	0.007	1.33 (4,197)	0.2586
	TFQ	0.013	0.254	0.349			
	AQs	-0.048	0.594	0.699			
	PA	-0.023	0.073	0.161			
TAQ stranger	GSQ	0.011	**0.013**	0.067	0.073	4.94 (4,197)	**0.0008**
	TFQ	0.027	**0.005**	**0.031**			
	AQs	0.097	0.203	0.349			
	PA	0.013	0.223	0.349			
STQ	GSQ	0.004	0.056	0.140	0.065	4.47 (4,197)	**0.0018**
	TFQ	0.014	**0.001**	**0.028**			
	AQs	0.039	0.262	0.349			
	PA	0.000	0.973	0.973			
Receptivity	GSQ	-0.001	0.941	0.973	–		
	TFQ	-0.032	**0.033**	0.121	–		
	AQs	-0.250	**0.036**	0.121	–		
	PA	0.001	0.952	0.973	–		

Table S3 Results of multivariate linear regression models predicting TAQ subscales, and STQ from sensory sensitivity (GSQ), threat sensitivity (TFQ), autism quotient (AQs) and peer attachment (PA). Each outcome variable (TAQ Partner, TAQ Family, TAQ Stranger, and STQ) was entered into a multivariate model with GSQ, TFQ, AQs, and PA as simultaneous predictors. For each predictor-outcome pair, the table reports the unstandardized regression coefficient (β), its raw p-value, and the FDR-corrected p-value obtained using the Benjamini-Hochberg procedure across all coefficients in the analysis. For each outcome, the adjusted R², model F statistic with associated degrees of freedom, and overall model p-value summarize model fit. Receptivity was analysed in a separate proportional odds ordinal regression model with the same set of predictors, for which the table reports the corresponding regression coefficients, raw p-values derived from the z statistics, and FDR-corrected p-values from the joint multiple-comparison correction across all predictors and outcomes