

Supplementary Table 1: Group Characteristics for Participants Included in Primary Brain Imaging Analyses (N=763)

Variable*	Sites (N=17)	Ranges Across Sites								Grand Mean and SD						Group Comparisons		
	n	ASD (N=360)				TC (N=403)				ASD (N=360)			TC (N=403)			Mann-Whitney		
		Min	Max	Mean	SD	Min	Max	Mean	SD	Sub n	Mean	SD	Sub n	Mean	SD	Z	U	p
Age at scan (years)	17	7.0-18.0	11.8-58.0	9.9-26.6	1.1-14.9	6.4-18.0	12.0-48.0	10.2-25.5	1.0-9.4	360	16.3	7	403	16.3	7	-0.534	70917.5	0.593
Full IQ**	17	78-91	118-139	96-115	10-17	79-98	121-139	102-116	6-22	360	106	15	403	111	11	-4.91	57620	<.0001
Verbal IQ	13	69-88	108-149	96-117	11-20	67-103	117-147	105-118	9-23	302	105	16	324	111	13	-5.405	36706.5	<.0001
Performance IQ	13	64-89	112-149	98-113	11-19	67-97	120-137	98-111	8-22	302	106	15	324	108	12	-1.678	47903.5	0.093
ADI-R Scaled Scores	12	-	-	-	-	-	-	-	-	255	-	-	-	-	-	-	-	-
Social	12	7-14	23-30	18-24	4-7	-	-	-	-	255	20	5	-	-	-	-	-	-
Communication	12	4-15	20-26	14-19	3-6	-	-	-	-	255	16	4	-	-	-	-	-	-
RRB	12	0-4	9-13	6-8	2-3	-	-	-	-	255	6	3	-	-	-	-	-	-
Onset	9	0-2	5-5	3-4	1-2	-	-	-	-	201	3	1	-	-	-	-	-	-
ADOS (Lord et al. ¹) Scaled Scores***	11	-	-	-	-	-	-	-	-	261	-	-	-	-	-	-	-	-
Total Score (Social+Communication)	11	2-9	16-22	9-14	3-4	-	-	-	-	261	12	7	-	-	-	-	-	-
Social	10	2-7	10-14	7-10	2-4	-	-	-	-	239	8	3	-	-	-	-	-	-
Communication	10	0-2	5-8	3-5	1-2	-	-	-	-	239	4	1	-	-	-	-	-	-
RRB	7	0-1	3-8	1-3	1-2	-	-	-	-	187	2	2	-	-	-	-	-	-
ADOS (Gotham et al. ²)****	9	-	-	-	-	-	-	-	-	180	-	-	-	-	-	-	-	-
Social Affect & RRB Total	8	2-10	17-27	11-16	2-5	-	-	-	-	167	12	5	-	-	-	-	-	-
Social Affect	8	2-7	12-20	8-13	2-5	-	-	-	-	167	9	4	-	-	-	-	-	-
RRB	9	0-2	5-8	2-4	1-2	-	-	-	-	180	3	2	-	-	-	-	-	-
Calibrated Severity Score	8	1-6	9-10	6-8	1-2	-	-	-	-	167	7	2	-	-	-	-	-	-
Mean FD (mm)	17	0.04-0.12	0.23-0.78	0.13-0.36	0.05-0.22	0.04-0.11	0.26-0.79	0.12-0.29	0.04-0.18	360	0.21	0.15	403	0.17	0.13	-4.733	58154	<.0001
																Chi-Square		
	n	Min	Max			Min	Max			Sub n	n	%	Sub n	n	%	Value	df	p
Sex (n males)	17	10	64	-		11	77	-		360	360	100	403	403	100	-	-	-
Handedness (n right handed)^	17	8	48	-		10	72	-		360	305	85	403	364	90	7.872	2	0.049
Eye Status at R-fMRI (n eyes open)	17	0	57	-		0	64	-		360	270	75	403	293	72	0.518	1	0.472
DSM-IV-TR Diagnosis (n Autism)^^	12	1	48	-		-	-	-		279	198	71	-	-	-	-	-	-
Medication Status (n on meds)^^^	13	1	16	-		-	-	-		274	87	32	-	-	-	-	-	-
Comorbidity^^^^	2	18	33	-		-	-	-		78	41	52	-	-	-	-	-	-

Ranges of minima, maxima, means and standard deviations of the mean (SD) for continuous phenotypic variables and minima, maxima for categorical variables available for each group (Autism Spectrum Disorders [ASD] and Typical Controls [TC]), as well as group mean and SD for continuous variables and total and percentages for categorical variables. All measures are based on non imputed values to avoid a bias in representing the variance in their distributions. *Only information for samples with a variable available for at least 75% of the participants in each diagnostic group per each site are included. **Details on assessment instruments used per each sample's site are available on the ABIDE website (http://fcon_1000.projects.nitrc.org/indi/abide/). ***Modules 2, 3 and 4 were employed in 2, 10, and 10 sites, respectively. ****Developed for modules 1, 2, and 3 which were employed in 0, 3, and 8 sites, respectively. ^For 3 sites providing dimensional measures of handedness based on standard scales, we assigned right-handedness for any positive score > 0 and left handedness for negative scores, 0 values were defined as ambidextrous. ^^Six samples classified probands as having ASD but did not use specific DSM-IV-TR labels. ^^12 sites provided information on use of psychoactive medications within the month prior to the scan; 1 site provided medication use at any time within a year from enrollment in the study. 32% of the individuals with ASD for whom information was provided, used psychoactive medications. Medications typically used to target ADHD (e.g., stimulants) were the most frequent, followed by antidepressants and then by antipsychotics. ~ 60% of the individuals using medications discontinued medication 24 hours prior to the scan. ^^^52% of the individuals with ASD with available information on comorbidity carried at least one comorbid diagnosis. Of them, 34% had at least two comorbid diagnoses. ADI-R=Autism Diagnostic Interview-Revised; ADOS=Autism Diagnostic Observation Schedule; FD=Framewise Displacement; IQ=Intelligence Quotient; RRB=Restricted Repetitive Behaviors. Additional measures collected in less than 5 samples included Social Responsiveness Scale Raw Total (n=4 samples), Autism Quotient (n=1), Social Communication Questionnaire (n=1) and Body Mass Index (n=1). 1. Lord C, Risi S, Lambrecht L, Cook EH, Leventhal BL, DiLavore PC et al. The Autism Diagnostic Observation Schedule-Generic: A standard measure of social and communication deficits associated with the spectrum of autism. *Journal of Autism and Developmental Disorders* 2000; 30(3): 205-223. 2. Gotham K, Risi S, Pickles A, Lord C. The Autism Diagnostic Observation Schedule: revised algorithms for improved diagnostic validity. *Journal of Autism and Developmental Disorders* 2007; 37(4): 613-627.