Supplementary Material

	HL		TL			
	1.5 Months	**9 Months**	**1.5 Months**	**9 Months**	**1.5 Months**	**9 Months**
	N=39	**N=48**	**N=38**	**N=24**	**HL v TL X^2 (p)**	**HL v TL X^2 (p)**
Diagnoses						
TD	15 (62%)	20 (61%)	23 (82%)	16 (76%)	-	-
Other Concerns	4 (17%)	6 (18%)	3 (11%)	2 (10%)	-	-
ASD	5 (21%)	7 (21%)	2 (7%)	3 (14%)	-	-
					-	-
Dx Unavailable	15	15	10	3	-	-
Scanner						
Trio	21 (54%)	18 (36%)	27 (71%)	13 (54%)	2.43 (p=0.12)	1.81 (p=0.18)
Prisma	18 (46%)	30 (64%)	11 (29%)	11 (46%)		

Supplementary Table 1: Diagnostic assessments were performed at 36 months of age using the ADOS-2. Diagnoses are unavailable for some participants, either due to attrition or because they were not yet old enough for their diagnostic assessment at the time the analyses for this study were conducted. Reported percentages exclude infants for whom diagnoses were unavailable. "TD" = Typically Developing; "Other Concerns" = speech/language delay, subclinical presentation of ASD-like symptoms, or other developmental delay; "ASD" = Autism Spectrum Disorder; "Dx" = Diagnosis.
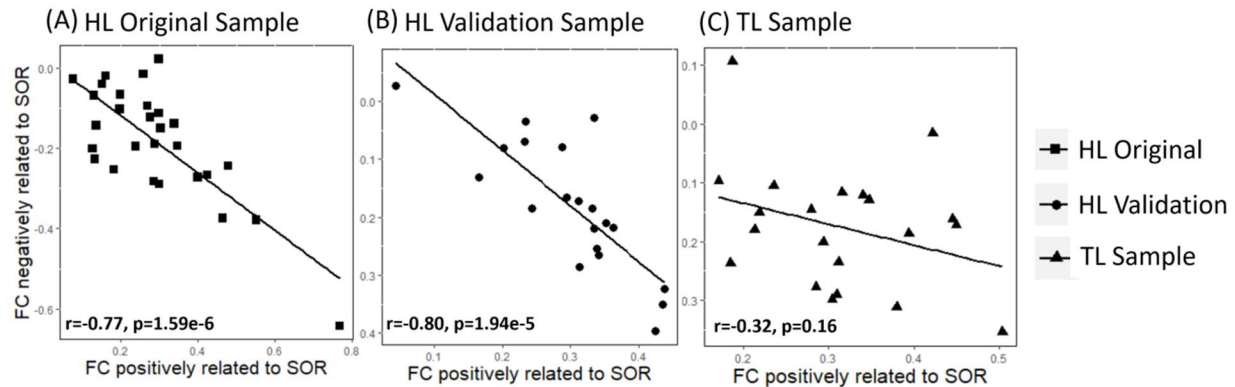
Supplementary Figure 1: Functional trade-offs in connectivity patterns associated with SOR, with outliers included. Groups (a), (b), and (c) each contained one outlier, but these did not significantly influence the results reported in Figure 4. Connectivity indices between the thalamus and regions positively associated with SOR are shown on the x-axis (derived from clusters in Figure 3A) and are plotted against connectivity indices between the thalamus and regions negatively associated with SOR (y-axis; derived from clusters in Figure 3B). This trade-off relationship was significant across the original sample of 9-month-old HL infants (n = 28) included in the initial whole-brain SOR regression (a), as well as a "validation group" of HL infants (n = 20) for whom SOR scores were not available (b). This relationship was not observed in the subset of TL infants (c; n = 21).