

Supplementary Table 1. Pairwise linkage disequilibrium (r^2 value) for 34 SNPs spanning *SETBP1* according to the CEU sub-population as extracted in LDlink (<https://analysistools.nci.nih.gov/LDlink/?tab=home>).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
1	rs1037939	1.0	0.121	0.044	0.005	0.025	0.000	0.000	0.002	0.002	0.013	0.029	0.029	0.021	0.002	0.0	0.009	0.011	0.011	0.007	0.014	0.025	0.000	0.015	0.002	0.010	0.000	0.001	0.012	0.002	0.002	0.002	0.003	0.010	
2	rs744279		1.0	0.000	0.001	0.047	0.174	0.111	0.064	0.096	0.005	0.018	0.000	0.000	0.003	0.007	0.000	0.000	0.000	0.000	0.003	0.002	0.002	0.000	0.022	0.002	0.017	0.003	0.016	0.015	0.009	0.001	0.001	0.002	0.003
3	rs12607198			1.0	0.591	0.084	0.060	0.045	0.005	0.002	0.007	0.012	0.007	0.007	0.006	0.002	0.010	0.013	0.014	0.014	0.002	0.000	0.000	0.007	0.000	0.009	0.014	0.001	0.024	0.021	0.033	0.007	0.000	0.005	0.013
4	rs7230525				1.0	0.151	0.101	0.031	0.010	0.004	0.007	0.016	0.001	0.001	0.007	0.011	0.011	0.000	0.001	0.001	0.001	0.001	0.004	0.000	0.000	0.007	0.014	0.010	0.005	0.004	0.004	0.000	0.002	0.001	0.001
5	rs16978151					1.0	0.083	0.083	0.141	0.092	0.000	0.007	0.048	0.048	0.001	0.009	0.023	0.005	0.006	0.006	0.002	0.016	0.095	0.007	0.030	0.000	0.014	0.001	0.013	0.022	0.036	0.000	0.001	0.000	0.007
6	rs7232987						1.0	0.689	0.318	0.520	0.001	0.088	0.039	0.039	0.012	0.020	0.000	0.000	0.001	0.001	0.010	0.006	0.028	0.001	0.052	0.009	0.018	0.006	0.025	0.043	0.051	0.025	0.005	0.001	0.041
7	rs11872638							1.0	0.465	0.728	0.001	0.088	0.050	0.050	0.012	0.032	0.005	0.000	0.000	0.000	0.010	0.011	0.039	0.005	0.052	0.001	0.031	0.001	0.037	0.043	0.064	0.025	0.016	0.005	0.041
8	rs8085464								1.0	0.654	0.005	0.030	0.060	0.060	0.002	0.012	0.004	0.012	0.016	0.016	0.000	0.003	0.031	0.002	0.037	0.002	0.015	0.001	0.004	0.026	0.025	0.010	0.001	0.002	0.018
9	rs12232728									1.0	0.001	0.097	0.049	0.049	0.026	0.035	0.000	0.001	0.002	0.002	0.020	0.018	0.033	0.000	0.079	0.002	0.034	0.001	0.042	0.041	0.059	0.018	0.017	0.008	0.039
10	rs9945779										1.0	0.024	0.028	0.028	0.021	0.000	0.152	0.020	0.020	0.020	0.031	0.008	0.013	0.136	0.033	0.001	0.006	0.013	0.010	0.009	0.018	0.015	0.003	0.004	0.009
11	rs644286											1.0	0.379	0.379	0.679	0.083	0.114	0.336	0.327	0.327	0.365	0.211	0.153	0.019	0.359	0.007	0.014	0.028	0.040	0.032	0.004	0.005	0.001	0.003	0.000
12	rs12454763												1.0	1.0	0.332	0.096	0.006	0.545	0.526	0.526	0.080	0.205	0.392	0.053	0.059	0.003	0.055	0.023	0.004	0.034	0.025	0.005	0.000	0.009	0.011
13	rs991014													1.0	0.332	0.096	0.006	0.545	0.526	0.526	0.080	0.205	0.392	0.053	0.059	0.003	0.055	0.023	0.004	0.034	0.025	0.005	0.000	0.009	0.011
14	rs881433														1.0	0.072	0.100	0.576	0.565	0.565	0.609	0.415	0.132	0.038	0.308	0.030	0.010	0.006	0.030	0.013	0.001	0.015	0.000	0.013	0.001
15	rs642513															1.0	0.029	0.166	0.163	0.163	0.106	0.08	0.03	0.015	0.097	0.012	0.009	0.001	0.106	0.002	0.006	0.005	0.021	0.000	0.003
16	rs17786966																1.0	0.174	0.177	0.177	0.003	0.155	0.061	0.296	0.002	0.006	0.016	0.056	0.032	0.034	0.087	0.000	0.014	0.004	0.006
17	rs617459																	1.0	0.980	0.980	0.262	0.168	0.216	0.072	0.093	0.007	0.026	0.002	0.002	0.007	0.001	0.004	0.006	0.021	0.000
18	rs663651																		1.0	0.274	0.176	0.221	0.074	0.099	0.007	0.027	0.003	0.002	0.005	0.000	0.003	0.006	0.020	0.000	
19	rs3085861																			1.0	0.274	0.176	0.221	0.074	0.099	0.007	0.027	0.003	0.002	0.005	0.000	0.003	0.006	0.020	0.000
20	rs9945057																				1.0	0.653	0.223	0.078	0.535	0.006	0.026	0.027	0.079	0.040	0.015	0.037	0.004	0.000	0.012
21	rs11660213																					1.0	0.342	0.041	0.341	0.01	0.044	0.015	0.125	0.061	0.068	0.009	0.001	0.000	0.002
22	rs2120315																						1.0	0.032	0.394	0.009	0.207	0.008	0.083	0.040	0.056	0.001	0.002	0.000	0.003
23	rs10502845																							1.0	0.092	0.001	0.005	0.243	0.013	0.003	0.046	0.018	0.000	0.001	0.008
24	rs8090594																								1.0	0.0	0.072	0.065	0.152	0.029	0.017	0.019	0.003	0.007	0.001
25	rs11082414																									1.0	0.033	0.024	0.055	0.028	0.033	0.012	0.006	0.004	0.026
26	rs3744825																										1.0	0.014	0.430	0.168	0.156	0.004	0.008	0.011	0.008
27	rs1064204																											1.0	0.023	0.025	0.043	0.025	0.003	0.001	0.014
28	rs8083119																												1.0	0.299	0.311	0.000	0.007	0.000	0.001
29	rs11082420																													1.0	0.732	0.009	0.004	0.001	0.003
30	rs4890500																														1.0	0.042	0.000	0.000	0.022
31	rs10502849																															1.0	0.050	0.116	0.740
32	rs16978256																																1.0	0.012	0.037
33	rs4890506																																	1.0	0.086
34	rs7228266																																		1.0

Supplementary Table 2. Markers spanning SETBP1 that show nominally significant p-values in the gene – behavior targeted association analyses.

Marker	Behavioral Traits*		β	<i>p</i>
rs663651	WJII	Picture Vocabulary	-1.009	0.021
		Word Attack	-1.978	0.032
		Spelling	-2.003	0.052
	CTOPP	Blending Words	-0.965	0.030
		Memory for Digits	-0.863	0.032
		Blending Non-Words	-0.784	0.040
		Non-Word Repetition	-0.715	0.042
GORT	Oral Reading Quotient	-6.724	0.021	
rs11082414	WASI	Vocabulary	2.154	0.052
rs3744825	CTOPP	Non-Word Repetition	-1.090	0.042
		Blending Words	-1.331	0.048
rs1064204	PPVT	Total Score	-7.820	0.019
	WJII	Oral Language Recall Direct	-5.902	0.031
		Oral Comprehension	-1.642	0.041
		Picture Vocabulary	-1.392	0.042
rs11660213	CTOPP	Rapid Digits Naming	-4.613	0.019
rs10502845	WJII	Oral Comprehension	-2.102	0.011
		Picture Vocabulary	-1.521	0.033
		Oral Language Recall Direct	-5.802	0.040
	CTOPP	Blending Words	-1.679	0.020
		Memory for Digits	-1.304	0.046
	WASI	Vocabulary	-3.393	0.024
rs10502849	CTOPP	Blending Non-Words	0.815	0.032
rs11872638	CTOPP	Rapid Digits Naming	6.123	0.033
	WJII	Oral Language Recall Direct	4.655	0.042
rs17786966	CTOPP	Non-Word Repetition	-0.946	0.046
rs7230525	CTOPP	Memory for Digits	1.074	0.007
rs7232987	CTOPP	Rapid Digits Naming	6.167	0.026
rs744279	PPVT	Total Score	-7.105	0.021
	CTOPP	Non-Word Repetition	-1.076	0.039

rs8090594	CTOPP	Rapid Digits Naming	-5.411	0.007
rs9945779	CTOPP	Blending Non-Words	-1.607	0.016
	WASI	Vocabulary	-3.824	0.018
	WJII	Oral Comprehension	-2.172	0.020
		Oral Language Recall Direct	-6.834	0.031

* Controlled for children's age and sex.

WJII=The Woodcock-Johnson Tests of Achievement (Woodcock et al., 2001); CTOPP=Comprehensive Test of Phonological Processing (Wagner et al., 1999); GORT=Gray Oral Reading Test (Wiederholt, 2001); WASI=Wechsler Abbreviated Scale of Intelligence (Wechsler, 1999); PPVT=Peabody Picture Vocabulary Test (Dunn, 1997). Associations generating the strongest signal after applying the gene-based empirical association as estimated with VEGAS2v02 are reported in bold.

Supplementary Table 3. Markers spanning SETBP1 that show nominally significant p-values in the gene – behavior targeted association analyses ran only in the Caucasian participants (n=116).

Marker	Behavioral Traits*		β	<i>p</i>
rs1064204	PPVT	Total Score	-8.995	0.010
	WJII	Oral Language Recall Direct	-6.120	0.039
		Oral Comprehension	-1.970	0.024
		Picture Vocabulary	-1.487	0.036
rs11660213	CTOPP	Rapid Digits Naming	-4.144	0.050
rs10502849	CTOPP	Blending Non-Words	1.010	0.010
rs11872638	CTOPP	Rapid Digits Naming	6.979	0.025
rs7230525	CTOPP	Memory for Digits	1.245	0.006
rs7232987	CTOPP	Rapid Digits Naming	7.380	0.014
rs744279	PPVT	Total Score	-6.603	0.042
	CTOPP	Non-Word Repetition	-1.290	0.021
rs8090594	CTOPP	Rapid Digits Naming	-5.428	0.011
rs7228266	CTOPP	Blending Non-Words	0.981	0.016
		Blending Words	1.007	0.035
rs1037939	CTOPP	Blending Words	-0.909	0.034
rs11082420	WJII	Oral Comprehension	1.169	0.035

* Controlled for children's age and sex.

WJII=The Woodcock-Johnson Tests of Achievement (Woodcock et al., 2001); CTOPP=Comprehensive Test of Phonological Processing (Wagner et al., 1999); PPVT=Peabody Picture Vocabulary Test (Dunn, 1997).

Associations generating the strongest signal after applying the gene-based empirical association as estimated with VEGAS2v02 are reported in bold.