Supplementary Table 2. Polygenic overlap between cognitive alleles (derived from COGENT meta-analysis using p<0.5 threshold) and schizophrenia in four case-control cohorts.

SCZ Dataset	# overlapping SNPs	R^2 for SCZ	p value	direction
MGS European-American	25,653	0.45 %	$3.7*10^{-7}$	negative
Japan	9,520	0.34%	0.052	negative
Ashkenazi Jewish	22,588	0.10 %	0.100	negative
MGS African-American	25,878	0.00 %	0.869	negative
Meta-analysis			$3.8*10^{-7}$	negative

Supplementary Table 3. Polygenic overlap between cognitive alleles (derived from COGENT meta-analysis, excluding the IBG cohort, using p<0.3 threshold) and schizophrenia in four case-control cohorts.

SCZ Dataset	# overlapping SNPs	R^2 for SCZ	p value	direction
MGS European-American	17,237	0.57 %	$1.2*10^{-8}$	negative
Japan	6,468	0.52%	0.017	negative
Ashkenazi Jewish	15,151	0.25%	0.010	negative
MGS African-American	17,382	0.00 %	0.591	positive
Meta-analysis			$4.0*10^{-9}$	negative

Supplementary Table 4. Examination of cognitive associations (in COGENT meta-analysis) for SNPs in the major histocompatibility complex (MHC) identified in published GWAS

Source	SNP	Region	Position	Risk Allele Freq. [a]	OR_Sz[a]	COGENT studies	P_COGENT meta-analysis
MGS/ISC Nature 2009	rs13194053	6p22.1	27143883	0.86	1.22	9	0.2253
Decode Nature 2009	rs6932590	6p22.1	27248931	0.78	1.16	9	0.9589
Bergen (Swe) Mol Psy 2012[b]	rs17693963	6p22.1	27710165	.92	1.24	9	0.0975
Yue(China) Nat Gen 2011	rs1635	6p22.1	28227604	.058	1.29	3	0.5565
Irish/WTCCC2 Biol Psy 2012	rs2523722	6p22.1	30165273	0.737	1.25	9	0.7947
Ripke (PGC) Nat Gen 2011	rs2021722	6p22.1	30174131	0.78	1.15	9	0.7365
Decode Nature 2009	rs3131296	6p21.32	32172993	0.87	1.19	6	0.3666

[a] based on source publication

Supplementary Figure 1. Q-Q plot depicting results of COGENT meta-analysis.