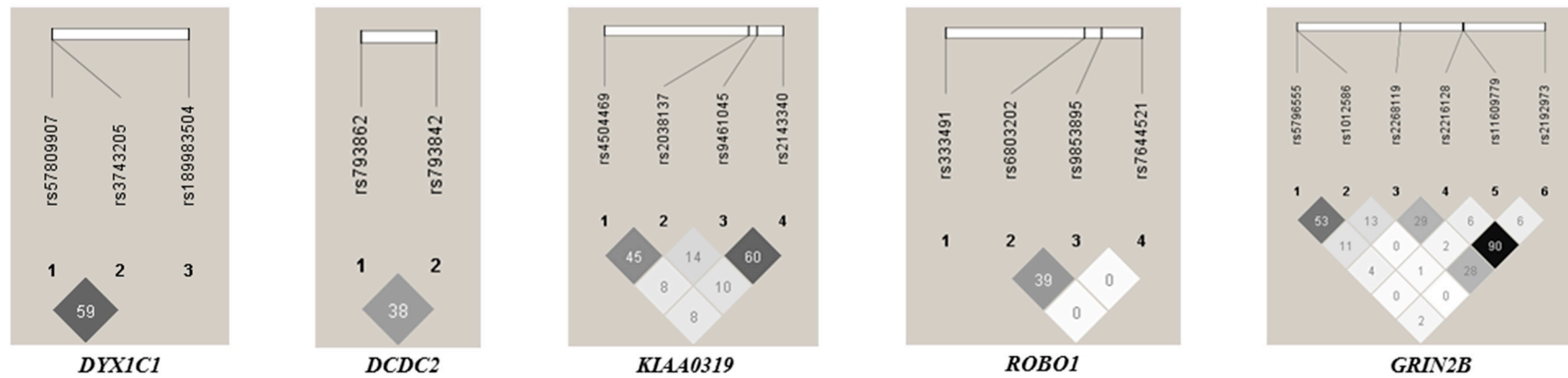


Figure S1. Haploview plot showing pairwise linkage disequilibrium for each gene based on genotypes of unrelated subjects (i.e., probands with DD and typical readers).



Numbers in squares are r^2 values.

Table S1. Descriptive statistics of the demographic, neuropsychological and cognitive measures.

		Total sample (n=302) Age ^a =136.38±33.55; sex ^b =58.9%; SES ^c =59.76±19.61			Nuclear families (n=100)								General population (n=79) Age ^a =122.25±23.92; sex ^b =50.6%; SES ^c =71.07±15.30					
					All offspring (n=223) Age ^a =141.41±35.07; sex ^b =61.9%; SES ^c =55.89±19.46			Probands (n=99) Age ^a =132.19±28.09 sex ^b =67.7% SES ^c =55.20±19.37		Siblings (n=124) Age ^a =148.82±38.23 sex ^b =57.3% SES ^c =56.45±19.59		Affected (n=148) Age ^a =135.81±30.42 sex ^b =65.5% SES ^c =54.45±19.06				Unaffected (n=75) Age ^a =152.37±40.77 sex ^b =54.7% SES ^c =58.72±20.05		
					Mean±SD	Skew.	Kurtosis	Mean±SD	Skew.	Kurtosis	Mean±SD	Mean±SD				Mean±SD	Mean±SD	Mean±SD
IQ ^d	TIQ	111.14±16.81	0.20	-0.52	110.82±17.30	0.30	-0.44	111.43±16.28	110.32±18.11	109.36±16.65	113.68±18.29	110.09±15.40	-0.16	-0.87				
	VIQ	105.57±17.65	0.29	-0.40	105.12±17.76	0.39	-0.37	104.64±16.73	105.49±18.57	103.37±17.02	108.49±18.77	106.83±17.38	0.02	-0.32				
	PIQ	113.89±19.95	0.07	-0.15	114.01±20.54	0.10	-0.16	115.94±20.51	112.53±20.52	113.22±20.73	115.53±20.21	113.56±18.29	-0.05	-0.24				
READING ^e		-0.98±1.52	-1.36	3.26	-1.42±1.52	-1.20	3.28	-2.34±1.44	-0.68±1.14	-2.13±1.34	0.00±0.55	0.26±0.44	-0.88	0.88				
ATTENTION		WE	-15.90±32.97	-0.06	-0.10	-12.30±33.66	-0.21	0.00	-9.75±33.67	-14.39±33.64	-12.13±33.40	-12.63±34.37	-25.93±28.87	0.21	0.04			
VISUAL MOTION PROCESSING		RTLI_b ^f	0.12±0.93	0.52	-0.96	-0.04±0.84	0.58	-0.84	-0.20±0.77	0.10±0.88	-0.16±0.80	0.21±0.88	0.75±1.01	-0.08	-1.60			
		RTLI_t ^g	1.71±0.81	0.68	2.02	1.82±0.82	0.67	2.20	1.80±0.89	1.84±0.76	1.85±0.87	1.75±0.72	1.32±0.63	0.21	-0.67			
RAP			2.08±0.60	-0.13	-1.13	2.00±0.62	0.08	-1.18	1.88±0.62	2.08±0.62	1.90±0.62	2.18±0.59	2.28±0.50	-0.61	-0.35			
RAN		RAN_rt	610.41±107.74	0.59	0.32	609.29±111.85	0.62	0.29	621.81±103.40	599.21±117.69	623.26±109.66	581.35±111.73	613.43±96.40	0.48	0.34			

TIQ=total IQ. VIQ=verbal IQ; PIQ=performance IQ; WE=multisensorial warning effect; RTLI_b= Rotating-Tilted-Lines Illusion slope; RTLI_t=Rotating-Tilted-Lines Illusion threshold; RAP=rapid auditory processing; RAN_rt=rapid automatized naming of colors. reaction time.

^a Age was expressed in years.

^b Percentage of males was reported.

^c SES is defined by parental employment coded according to the Hollingshead nine-point scale (Hollingshead, 1975).

^d For siblings and general population, TIQ, VIQ and PIQ represent an estimated score obtained from the ‘Vocabulary’ and ‘Block Design’ subtests as described in the text.

^e It refers to the average among text-, single word and single non-words reading tasks (both accuracy and speed) as described in the text. Measures are in SD units relative to the age-appropriate Italian population norm.

^f It refers to values after logarithm transformation.

^g It refers to values after square root transformation.

Table S2. Correlation among the cognitive EPs, age and reading in the total sample (n=302).

		ATTENTION	VISUAL MOTION PROCESSING		RAP	RAN	READING [°]
		WE	RTLI_b ^b	RTLI_t ^c		RAN_rt	
AGE^a		0.094	0.144*	-0.062	0.321**	-0.519**	0.104
ATTENTION	WE		-0.138*	0.114	0.093	-0.058	-0.160**
VISUAL MOTION PROCESSING	RTLI_b^b			-0.675**	0.176**	-0.030	0.263**
	RTLI_t^c				-0.163*	0.055	-0.144*
RAP						-0.258**	0.329**
RAN	RAN_rt						-0.252**

WE=multisensorial warning effect; RTLI_b= Rotating-Tilted-Lines Illusion slope; RTLI_t= Rotating-Tilted-Lines Illusion threshold;

RAP=rapid auditory processing; RAN_rt=rapid automatized naming of colors, reaction time.

[°] It refers to the average among text-, single words and single non-words reading (both accuracy and speed) as described in the text.

^a Age was expressed in years.

^b It refers to values after logarithm transformation.

^c It refers to values after square root transformation.

* Two-tail $p \leq 0.05$; ** two-tail $p \leq 0.01$.