Supplemental Information

Supplemental Table S1. Cognitive variable factor structure. Measurement models of all cognitive variables of interest as either a one-factor solution or as a two-factor solution (executive function tests and processing speed tests as separate constructs). The 2-factor solution fit the data significantly better than a 1-factor solution (via a chi-square difference test $\chi 2[9] = 103.006, p < .00001.$)

Model Fit Parameters	1-Factor	2-Factor
Akaike Information Criterion (AIC)	4208.56	4123.554
Bayesian Information Criterion (BIC)	4305.008	4248.936
Root Mean Square Error	0.162	0.126
Comparative Fit Index (CFI)	0.861	0.938
Tucker-Lewis Index (TLI)	0.822	0.893
Standardized Root Mean Square Residual	0.058	0.038
Chi-Square Test of Model Fit	204.463	101.457

Supplemental Table S2. Alternative model 2 fit parameters. Two separate specifications of the original "Model 2" were tested to compare the fit parameters when executive function and processing speed were separated and covarying with each other (EF/PS) and for when these measures were modeled as a single cognitive latent (COG). While both models demonstrate excellent fit parameters, the EF/PS specification demonstrated a slight improvement over the COG model in many of the most commonly referenced fit indices. Additionally, the EF/PS model fits the data significantly better using a chi-square difference test $\chi 2[5] = 20.431, p = .001037.$

Model Fit Parameter	EF/PS	COG
Akaike Information Criterion (AIC)	5016.41	5026.84
Bayesian Information Criterion (BIC)	5209.31	5203.67
Root Mean Square Error	0.047	0.055
Comparative Fit Index (CFI)	0.982	0.974
Tucker-Lewis Index (TLI)	0.974	0.965
Standardized Root Mean Square Residual	0.03	0.036
Chi-Square Test of Model Fit	116.999	137.431