Supplementary Table S1

Sample-Level Moderators of the Meta-Analytic Associations for Verbal Reasoning

	With CogUSA Analogies				With CogUSA Similarities			
	Difference in Partial *r*	95% CI	*Q*	*p*	Difference in Partial *r*	95% CI	*Q*	*p*
Neuroticism								
Age 60	.063	.009, .116	5.19	.023	.076	.031, .120	10.80	.001
Personality Measure (BFI)	-.063	-.123, -.003	4.21	.040	-.048	-.118, .022	1.83	.176
Personality Measure (MIDI)	.043	-.051, .136	.81	.369	.029	-.071, .129	.33	.568
Verbal Measure (Analogies)	.042	-.025, .108	1.51	.219	.043	-.031, .116	1.29	.257
Verbal Measure (Similarities)	-.022	-.101, .057	.30	.582	-.027	-.100, .045	.55	.460
Prospective measure (UAS)	.090	.033, .146	9.70	.002	.099	.048, .150	14.38	.000
Extraversion								
Age 60	-.027	-.057, .003	3.05	.081	-.037	-.080, .005	2.95	.086
Personality Measure (BFI)	.029	-.011, .068	1.97	.161	.023	-.031, .077	.69	.406
Personality Measure (MIDI)	.004	-.050, .058	.02	.882	.014	-.057, .085	.15	.702
Verbal Measure (Analogies)	-.018	-.057, .020	.89	.346	-.029	-.079, .022	1.25	.264
Verbal Measure (Similarities)	.003	-.042, .047	.02	.902	.016	-.036, .068	.37	.542
Prospective measure (UAS)	-.025	-.075, .025	.97	.324	-.034	-.100, .032	1.04	.308
Openness								
Age 60	-.046	-.124, .034	1.26	.261	-.053	-.138, .032	1.49	.222
Personality Measure (BFI)	-.054	-.131, .023	1.89	.169	-.062	-.144, .021	2.15	.143
Personality Measure (MIDI)	.032	-.077, .141	.33	.563	.039	-.081, .157	.41	.524
Verbal Measure (Analogies)	-.040	-.113, .033	1.13	.287	-.066	-.141, .010	2.86	.091
Verbal Measure (Similarities)	.088	.051, .125	21.69	.000	.094	.063, .125	34.47	.000
Prospective measure (UAS)	-.064	-.162, .036	1.58	.209	-.070	-.177, .039	1.60	.206
Agreeableness								
Age 60	.029	-.040, .098	.68	.409	.014	-.052, .080	.17	.678
Personality Measure (BFI)	.003	-.071, .077	.00	.945	-.012	-.080, .057	.11	.738

Personality Measure (MIDI)	-.045	-.128, .038	1.13	.288	-.033	-.112, .046	.66	.417
Verbal Measure (Analogies)	-.012	-.079, .055	.12	.726	-.002	-.069, .065	.00	.958
Verbal Measure (Similarities)	-.004	-.078, .069	.01	.905	-.003	-.066, .061	.01	.938
Prospective Measure (UAS)	-.025	-.115, .065	.30	.587	-.038	-.116, .041	.89	.346
Conscientiousness								
Age 60	.018	-.053, .089	.25	.615	.012	-.055, .079	.13	.720
Personality Measure (BFI)	.051	-.007, .110	2.94	.086	.046	-.010, .102	2.58	.108
Personality Measure (MIDI)	-.052	-.129, .025	1.78	.182	-.048	-.120, .025	1.66	.198
Verbal Measure (Analogies)	-.004	-.072, .063	.02	.899	.011	-.056, .078	.11	.743
Verbal Measure (Similarities)	-.049	-.106, .009	2.74	.098	-.052	-.098, .005	4.74	.030
Prospective Measure (UAS)	-.027	-.116, .062	.35	.555	-.032	-.114, .050	.58	.448

Note. Total *N* for the meta-analysis=39,177/39,169 (analogies/similarities). CI=Confidence Interval. Age 60 compared samples with a mean age below 60 (k=2) to a mean age above 60 (k=5). Personality Measure BFI compared samples with the BFI (k=5) to samples that used other personality measures (MIDI, TIPI) (k=2). Personality Measure MIDI compared samples with the MIDI (k=1) to samples that used other personality measures (BFI, TIPI; k=6). Verbal Measure Analogies compared samples with the analogies (k=3) to samples that used other verbal reasoning measures (similarities, sentence completion; k=4). Verbal Measure Similarities compared samples with the similarities (k=3) to samples that used other verbal reasoning measures (analogies, sentence completion; k=4). Prospective Measure compares samples that measured personality two years prior to the numeric reasoning measure (k=1) compared to samples that measured personality and numeric reasoning cross-sectionally (k=6).

Supplementary Table S2

Sample-Level Moderators of the Meta-Analytic Associations for Numeric Reasoning

	Difference in Partial *r*	95% CI	*Q*	*p*
Neuroticism				
Age 60	.025	-.023, .073	1.03	.311
Personality Measure	-.026	-.071, .020	1.24	.266
Prospective Measure	.041	-.005, .087	3.01	.083
Scoring	-.029	-.079, .022	1.26	.262
Extraversion				
Age 60	-.011	-.061, .039	.19	.664
Personality Measure	.007	-.043, .056	.07	.794
Prospective Measure	-.026	-.075, .023	1.08	.298
Scoring	.007	-.048, .061	.05	.815
Openness				
Age 60	-.017	-.059, .025	.61	.434
Personality Measure	.004	-.039, .047	.04	.841
Prospective Measure	-.035	-.070, .000	3.87	.049
Scoring	-.018	-.063, .027	.62	.432
Agreeableness				
Age 60	.007	-.039, .052	.08	.778
Personality Measure	-.012	-.055, .031	.29	.589
Prospective Measure	-.025	-.066, .015	1.48	.223
Scoring	.010	-.039, .058	.16	.694
Conscientiousness				
Age 60	-.012	-.046, .022	.48	.491
Personality Measure	.030	.006, .054	6.06	.014
Prospective Measure	-.011	-.050, .029	.27	.604
Scoring	.019	-.021, .058	.86	.355

Note. Total *N* for the meta-analysis=76,388. CI=Confidence Interval. Age 60 compared samples with a mean age below 60 (k=4) to a mean age above 60 (k=3). Personality Measure compared samples with the BFI (k=4) to samples that used the MIDI (k=3). Prospective Measure compares samples that measured personality two years prior to the numeric reasoning measure (k=2) compared to samples that measured personality and numeric reasoning cross-sectionally (k=5). Scoring compares samples that used IRT-based scoring (k=5) compared to samples that used raw scoring (k=2).

Supplementary Table S3

Interactions Between Personality and Demographic Factors on Verbal Reasoning

	HRS	UAS	CogUSA (Analogies)	CogUSA (Similarities)	CFAS	WLSG [a]	WLSS	PSID
Sex interactions								
Neuroticism	-.021*	.024*	-.012	.008	-.002	-.012	-.021	-.00
Extraversion	-.004	.001	-.025	.013	.032	.019	.032	.023
Openness	-.013	-.005	-.024	-.029	.058**	.013	-.005	.01
Agreeableness	-.006	.005	.019	.003	-.004	.021	.002	.01
Conscientiousness	.006	.006	-.001	.031	.032	.025*	.041*	.00
Age interactions								
Neuroticism	-.006	.016	.023	.020	.008	--	-.008	-.024
Extraversion	.018*	-.012	-.005	.006	.000	--	.007	.025
Openness	-.008	-.016	-.033	.006	.000	--	.030	-.01
Agreeableness	.009	-.026*	.008	-.033	-.006	--	.029	-.00
Conscientiousness	.008	-.021	.050	-.027	.034	--	.020	.01

Note. *N*=13,398 for HRS; *N*=5,800 for UAS; *N*=1,212/1,207 for CogUSA Analogies and Similarities, respectively; *N*=2,092 for CFAS; *N*=5,924 for WLSG; *N*=3,120 for WLSS; *N*=7,631 for PSID. Regression coefficients are interaction term for each trait with the demographic moderator on verbal reasoning controlling for the main effect of the trait and demographic factor. HRS=Health and Retirement Study. UAS=Understanding America Study. CogUSA=Cognition in the United States. CFAS=Cognitive Function and Ageing Study in Wales. WLSG=Wisconsin Longitudinal Study Graduate sample. WLSS= Wisconsin Longitudinal Study Sibling sample. PSID= Panel Study of Income Dynamics. [a] Interaction with age was not computed because participants in the sample were nearly all the same age.

* p<.05. **p<.01.

Supplementary Table S4

Interactions Between Personality and Demographic Factors on Numeric Reasoning

	HRS	UAS	CogUSA	MIDUS	US	PSID	ELSA
Sex interactions							
Neuroticism	.000	.027*	.001	-.011	.000	.006	.011
Extraversion	.002	.016	-.005	.011	.015**	.015	.010
Openness	-.010	-.005	-.028	.005	-.014**	.005	-.009
Agreeableness	.001	.011	.025	-.015	.000	.001	.008
Conscientiousness	-.009	-.005	.010	.024	.014**	-.002	-.002
Age interactions							
Neuroticism	-.013	.004	.005	.029*	.007	-.019	.030**
Extraversion	.004	-.012	.011	.008	-.006	.018	.012
Openness	.014	-.016	.013	.008	.000	.012	.021
Agreeableness	.008	-.006	.037	.013	-.030**	-.002	.026*
Conscientiousness	.010	-.002	.036	.006	-.015**	-.007	.013

Note. *N*=12,476 for HRS; *N*=6.025 for UAS; *N*=1,207 CogUSA; *N*=3,622 for MIDUS; *N*=38,315 for US; *N*=7,631 for PSID; *N*=7,112 for ELSA. Regression coefficients are interaction term for each trait with the demographic moderator on numeric reasoning controlling for the main effect of the trait and demographic factor. HRS=Health and Retirement Study. UAS=Understanding America Study. CogUSA=Cognition in the United States. MIDUS=Midlife in the United States. US=Understanding Society. PSID= Panel Study of Income Dynamics. ELSA=English Longitudinal Study of Ageing.
* p<.05. **p<.01.