

Supplementary Table 1. Percentile scores for Modified Mini Mental State (3MS) examination scores stratified by age, education and gender, for Australian Whites (n=16,360).

Age, years	Females						Males					
	70-74		75-79		80+		70-74		75+		80+	
Education	0-12	>12	0-12	>12	0-12	>12	0-12	>12	0-12	>12	0-12	>12
n	3,133	1,942	1,624	852	1,042	435	2,440	1,930	1,160	706	652	444
Total 3MS												
100	100	100	100	100	100	100	100	100	100	100	100	100
99	96	91	97	94	98	93	98	95	99	96	98	98
98	90	77	92	84	95	88	95	87	96	91	96	94
97	90	62	84	73	89	78	89	76	92	81	93	87
96	69	48	75	61	82	67	80	63	86	71	89	79
95	58	37	65	49	74	57	71	51	78	60	83	70
94	46	28	54	39	65	48	62	40	69	50	76	59
93	37	20	44	31	57	39	53	31	59	42	67	50
92	30	15	37	24	50	30	45	23	50	33	60	42
91	23	11	29	18	42	24	36	19	42	26	52	36
90	18	7	23	14	35	20	30	13	36	19	45	30
89	14	5	18	11	27	16	24	9	29	15	37	25
88	11	4	14	8	23	12	19	7	25	11	33	21
87	8	2	11	6	19	10	15	5	20	8	27	15
86	6	1	8	4	15	7	12	3	16	6	22	11
85	5	1	6	4	11	5	9	3	13	4	17	8
84	3	<1	5	3	9	5	7	2	10	3	13	5
83	2	<1	4	2	7	4	5	1	8	2	9	4
82	1	<1	3	1	6	3	3	1	6	2	7	2
81	<1	<1	2	<1	4	1	2	<1	4	1	4	1
80	<1	<1	1	<1	3	1	1	<1	2	<1	3	1
79	<1	<1	1	<1	1		<1	<1	1	<1	1	<1
78	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1

Blank cells indicate no observations

Supplementary Table 2. Percentile scores for Modified Mini Mental State (3MS) examination scores stratified by age, education and gender, for U.S Whites (n=1088).

Age, years	Females				Males			
	70-74		75+		70-74		75+	
Education, years	0-12	>12	0-12	>12	0-12	>12	0-12	>12
<i>n</i>	56	273	88	324	29	132	31	155
3MS Score								
100	100	100	100	100	100	100		100
99	94	84	95	87	96	92	100	94
98	80	66	87	71	89	72	90	79
97	69	52	77	56	82	59	83	72
96	60	32	64	46	72	46	77	60
95	53	23	51	34	62	34	74	52
94	33	17	38	26	58	28	67	42
93	30	14	32	20	51	24	58	36
92	21	10	27	16	34	16	54	29
91	19	8	15	12	20	12	45	25
90	16	6	11	8		8	38	20
89	14	3	10	6				15
88	10	3	9	5			32	11
87	7	2	7	4		5	19	9
86				3	17	3	12	4
85	3	1	6		10	3	6	3
84			5	2	6		3	2
83			4	1		1		1
82				1				1
81		1	3	<1	3			<1
80				<1				
79		<1	2	<1				
78			1					

Blank cells indicate no observations

Supplementary Table 3. Percentile scores for Modified Mini Mental State (3MS) examination scores stratified by age, education and gender, for U.S African Americans (n=895).

Age, years	Females				Males			
	65-69		70+		65-69		70+	
Education, years	0-12	>12	0-12	>12	0-12	>12	0-12	>12
<i>n</i>	64	183	106	240	54	101	61	86
3MS Score								
100	100	100	100	100		100	100	
99	98	95		97	100	97		100
98	95	86	98	92	98	89	98	95
97	90	78	95	85	96	82	95	90
96	89	68	91	76	92	74	91	84
95	79	55	83	69	88	64	90	77
94	70	46	75	59	77	53	83	66
93	62	38	70	48	59	44	77	54
92	56	30	64	40	46	29	70	45
91	51	22	59	34	38	25	65	36
90	42	19	54	27	33	17	60	32
89	28	14	44	24	31	14	52	27
88	18	7	34	20	25	10	44	19
87	14	4	31	16	22	9	40	12
86	12		29	14	16	7	36	10
85	10	3	22	12	12		32	8
84	9	2	19	8		5	22	6
83	6	1	16	6		3	16	
82	4		14	4	11		13	4
81	3		11	2	7	2	11	2
80			8	1	3	1	4	
79			4	1	1		3	
78	1	<1	2	<1				

Supplementary Table 4. Percentile scores for Modified Mini Mental State (3MS) examination scores stratified by age, education and gender, for U.S Hispanic/Latinos (n=316).

Age, years	Females				Males			
	65-69		70+		65-69		70+	
Education, years	0-12	>12	0-12	>12	0-12	>12	0-12	>12
<i>n</i>	47	37	79	32	28	23	37	33
3MS Score								
100	100	100	100	100	100			
99	97	94	98	96		100		100
98	95	81	97		96	91	100	93
97	93	75		90	85	78	97	78
96	89	62	92	84	82	65	89	69
95		48	87	75		47	83	63
94	82	32	82	56	71	43	75	54
93	74	24	77	40	64	39	67	42
92	65		72				59	39
91	55	21	70	28	57		56	30
90	42	16	62		46	17	54	21
89	40	10	50	21	35	13	51	18
88	36	8	45	18	32		48	12
87	27	5	36	15	21	8	43	
86	19		32				37	
85	14			12	17	4	35	9
84	8		25					
83	6		22	9	14		27	6
82			18		7		21	
81			11	6			18	
80			6	3	3			
79			5				13	
78		2	2				8	3

Supplementary Table 5: Exploratory factor analysis of the 15 items from the Modified Mini Mental State (3MS) examination, for Australian Whites (n=16,360)

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	1.92	0.71	0.12	0.13
Factor 2	1.20	0.13	0.080	0.21
Factor 3	1.07	0.05	0.072	0.28
Factor 4	1.02	0.02	0.068	0.35
Factor 5	1.00	0.007	0.067	0.41
Factor 6	0.99	0.01	0.066	0.48
Factor 7	0.98	0.01	0.066	0.55
Factor 8	0.97	0.02	0.065	0.61
Factor 9	0.95	0.004	0.064	0.67
Factor 10	0.95	0.04	0.063	0.74
Factor 11	0.91	0.01	0.061	0.80
Factor 12	0.90	0.08	0.060	0.86
Factor 13	0.82	0.04	0.055	0.91
Factor 14	0.78	0.25	0.052	0.97
Factor 15	0.53	-	0.035	1.0

Likelihood-ratio test of independence against the saturated model: chi-square (105) = 8372.14, p<0.0001

Supplementary Table 6: Four-factor solution to exploratory analysis^a of the 15 items from the Modified Mini Mental State (3MS) examination, for Australian Whites (n=16,360)

Item	<u>Factor1</u> Verbal episodic memory	<u>Factor2</u> Language & Executive Function	<u>Factor3</u> Psychomotor & Working memory	<u>Factor4</u> Orientation & Visuo- construction	Uniqueness
First recall	0.83	0.01	-0.02	-0.004	0.32
Second recall	0.82	0.05	0.07	0.009	0.32
Naming	0.02	0.49	0.26	-0.21	0.72
Read and obey	0.01	0.47	-0.11	-0.10	0.74
Repetition	0.10	0.45	0.15	0.05	0.74
Three-stage command	0.01	0.43	-0.22	0.06	0.75
Similarities	0.25	0.43	0.30	0.14	0.66
Four-legged animals	0.25	0.38 ^b	0.12	0.01	0.78
Writing	-0.05	0.11	0.69	-0.05	0.52
Mental reversal	0.15	-0.04	0.66	0.05	0.54
Place & date of birth	0.02	-0.12	-0.05	0.66	0.47
Spatial Orientation	0.03	0.29	-0.04	0.49	0.73
Copying pentagons	-0.10	0.18	0.22	0.43	0.75
Registration	-0.10	0.02	-0.10	0.21	0.88
Temporal Orientation	0.22	0.01	0.07	0.26	0.85
% Variance explained	12.4	8.0	7.2	6.8	34.4

^aNumbers in bold represent factor loadings ≥ 0.40 . ^aUsing an orthogonal rotation. ^bFour-legged animals loaded strongly on Factor 2 (0.38) although fell short of this cut-off.

Supplementary Table 7: Four-factor solution to exploratory analysis^a of the 15 items from the Modified Mini Mental State (3MS) examination, for Australian Whites (n=16,360)

Item	Factor1 Verbal episodic memory	Factor2 Language & Executive Function	Factor3 Psychomotor & Working memory	Factor4 Orientation & Visuo- construction	Uniqueness
First recall	0.84	0.004	-0.08	-0.02	0.32
Second recall	0.82	0.04	0.003	-0.01	0.32
Naming	-0.05	0.41	0.24	-0.24	0.72
Read and obey	-0.03	0.51	-0.16	-0.13	0.74
Repetition	0.10	0.45	0.15	0.05	0.74
Three-stage command	0.03	0.48	-0.26	0.02	0.75
Similarities	0.16	0.39	0.25	0.08	0.66
Four-legged animals	0.20	<i>0.36^b</i>	0.11	-0.04	0.78
Writing	-0.14	0.04	0.70	-0.07	0.52
Mental reversal	0.08	-0.09	0.67	0.03	0.54
Place & date of birth	-0.006	-0.12	-0.05	0.73	0.47
Spatial Orientation	-0.03	0.26	-0.09	0.42	0.73
Copying pentagons	-0.15	0.08	0.23	0.39	0.75
Registration	-0.12	0.27	-0.13	0.15	0.88
Temporal Orientation	0.22	-0.06	0.05	0.31	0.85
% Variance explained	12.7	8.0	7.2	6.8	34.4

^aNumbers in bold represent factor loadings ≥ 0.40 . ^aUsing an oblique rotation. ^bFour-legged animals loaded strongly on Factor 2 (0.36) although fell short of this cut-off.

Supplementary Figure 1: The scree plot for the exploratory factor analysis of the 15 items on the 3MS in Australian white participants (n=16,360). 3MS: Modified Mini Mental State examination.

