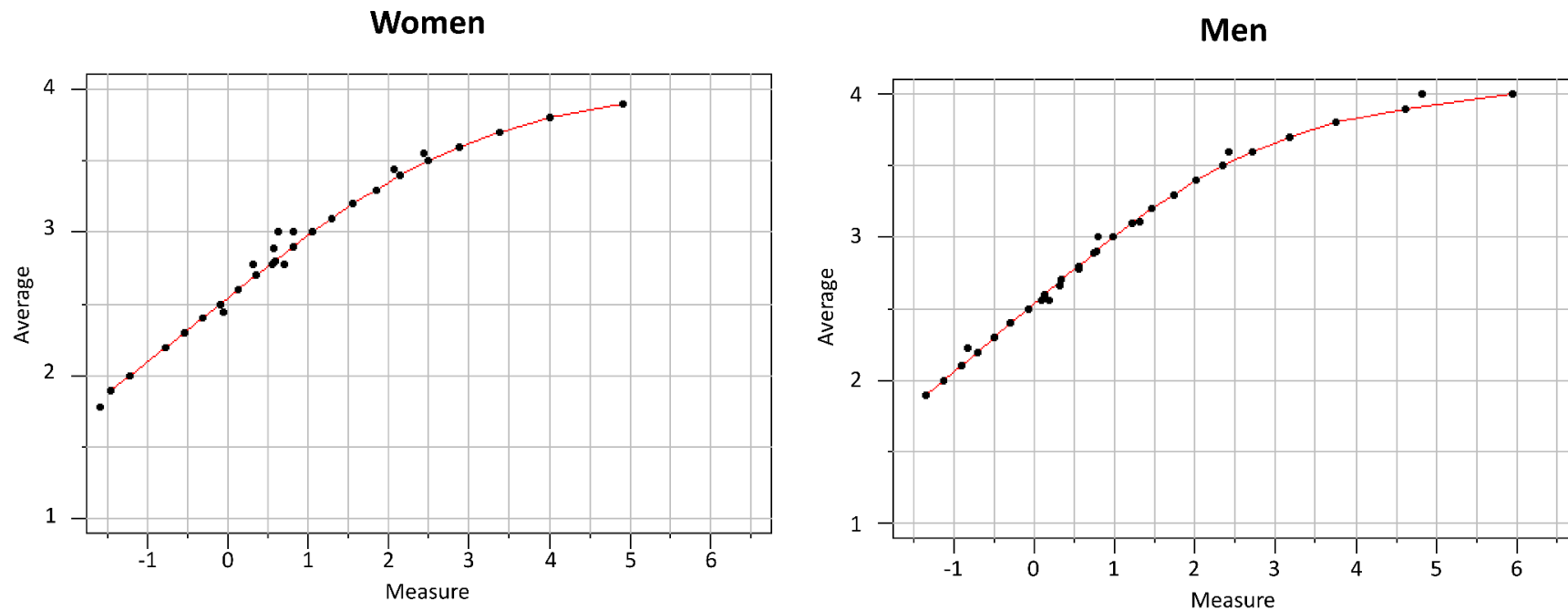


Supplement 1

Figure S1

Relationship between generativity measure and average score

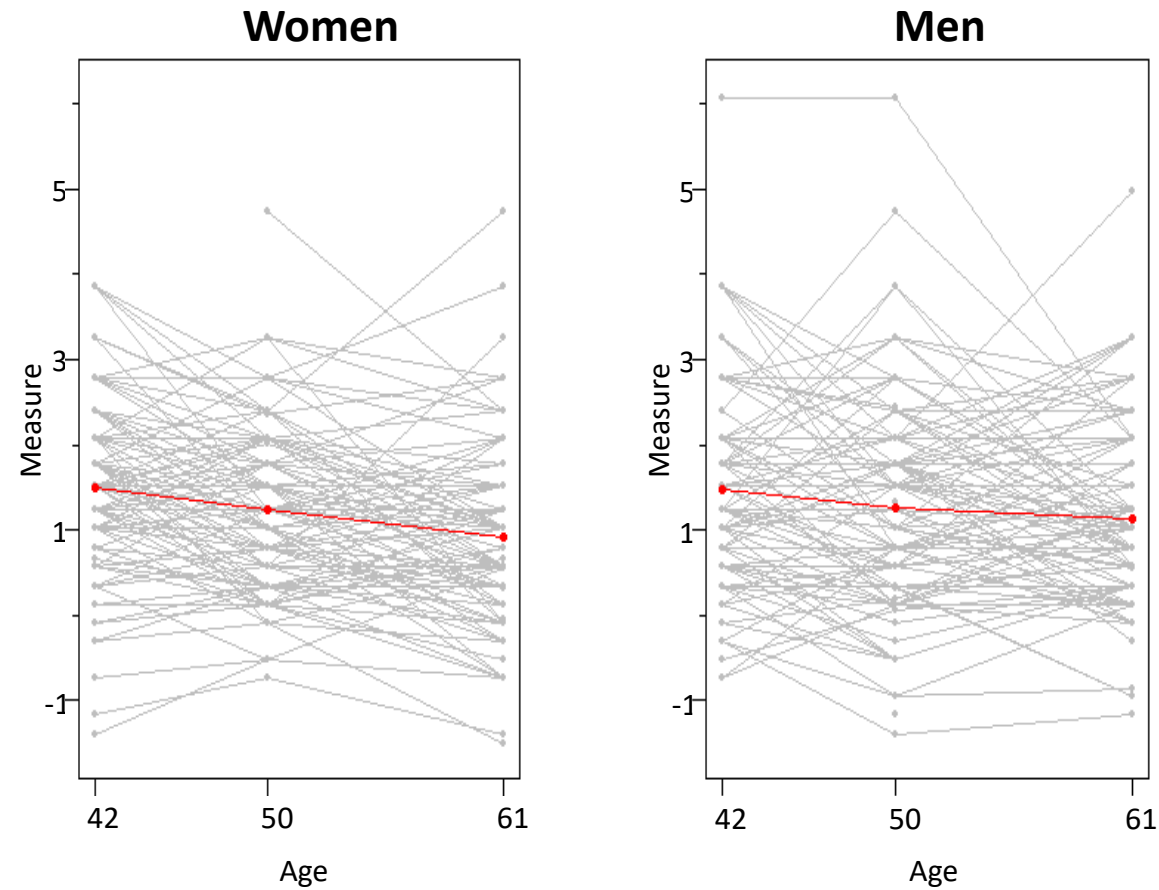


Note. Average = Average of the 10 items of the Generativity Scale; Measure = Generativity person measure drawn from the Rasch Analysis.

Scores based on complete response pattern have been connected with red line.

Figure S2

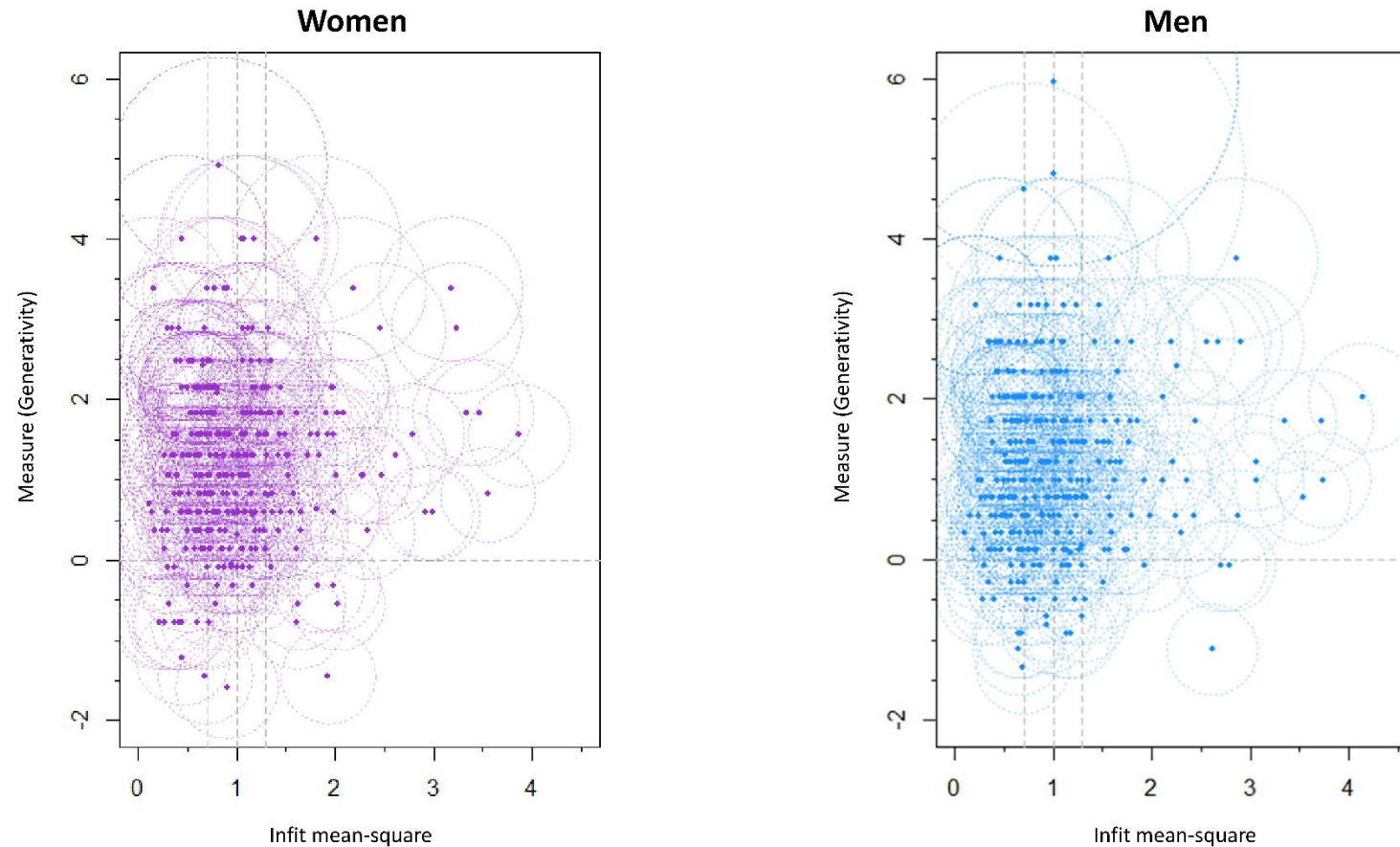
Individual (gray line) and average (red line) generativity Rasch measure trajectories



Note. Measure = Generativity measure drawn from the Rasch Analysis. Intraclass correlation for women: 0.46 (95 % CI: 0.34, 0.58) and men: 0.51 (95% CI: 0.38, 0.63).

Figure S3

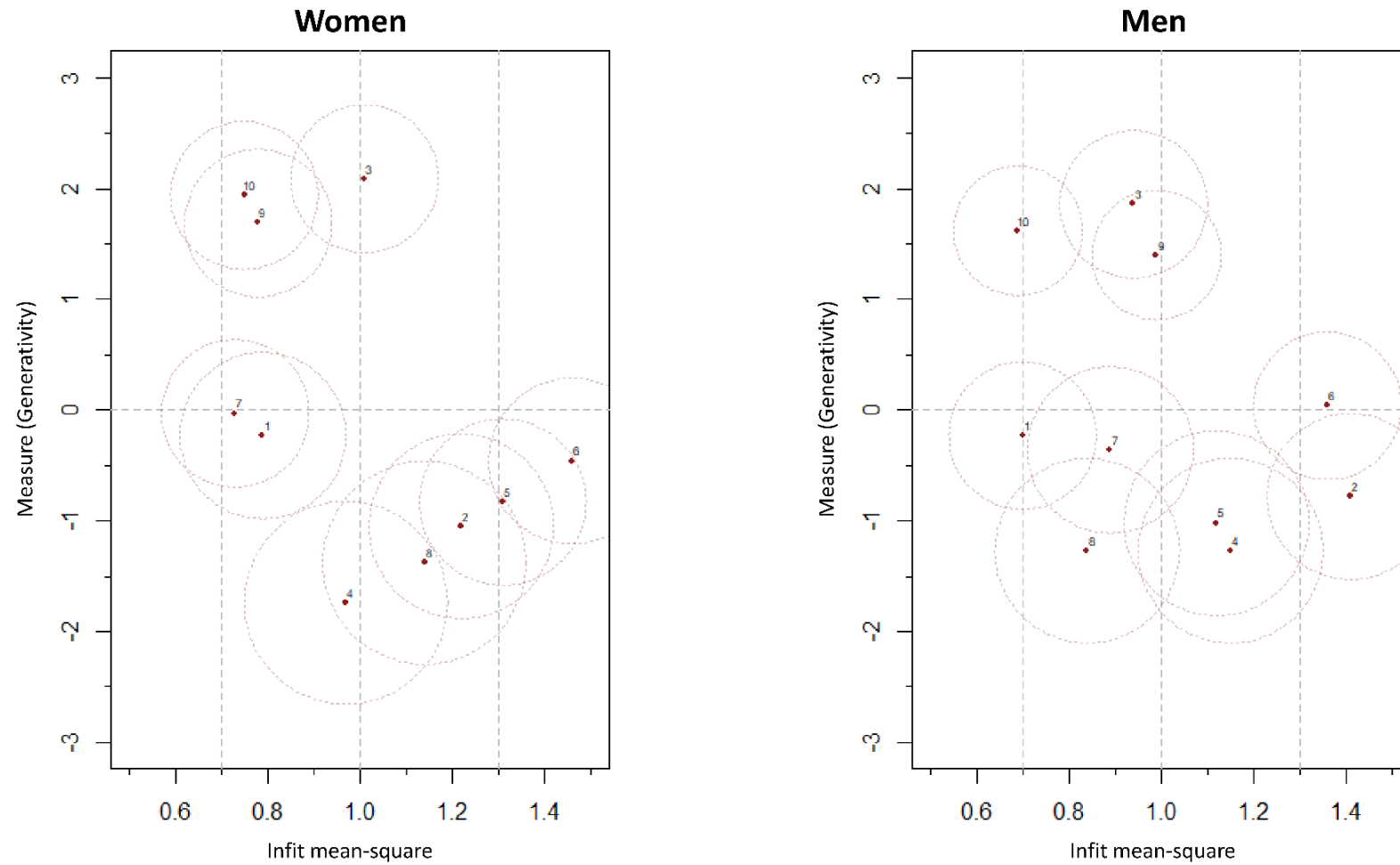
Rasch person measures against model fit



Note. Measure = Generativity measure drawn from the Rasch Analysis. Infit mean-square is sensitive to unexpected response patterns when there are not many extremes (that is subjects selecting the most extreme response option for all items). Subjects are indicated with dots and a circle drawn at one standard deviation distance from person measure estimate.

Figure S4

Rasch model-based generativity item measure (vertical axis) against item infit mean-square (horizontal axis) for women and men



Note. Measure = Generativity item measure drawn from the Rasch Analysis. Radius of circle is one standard error.

Figure S5

Differential item functioning for age

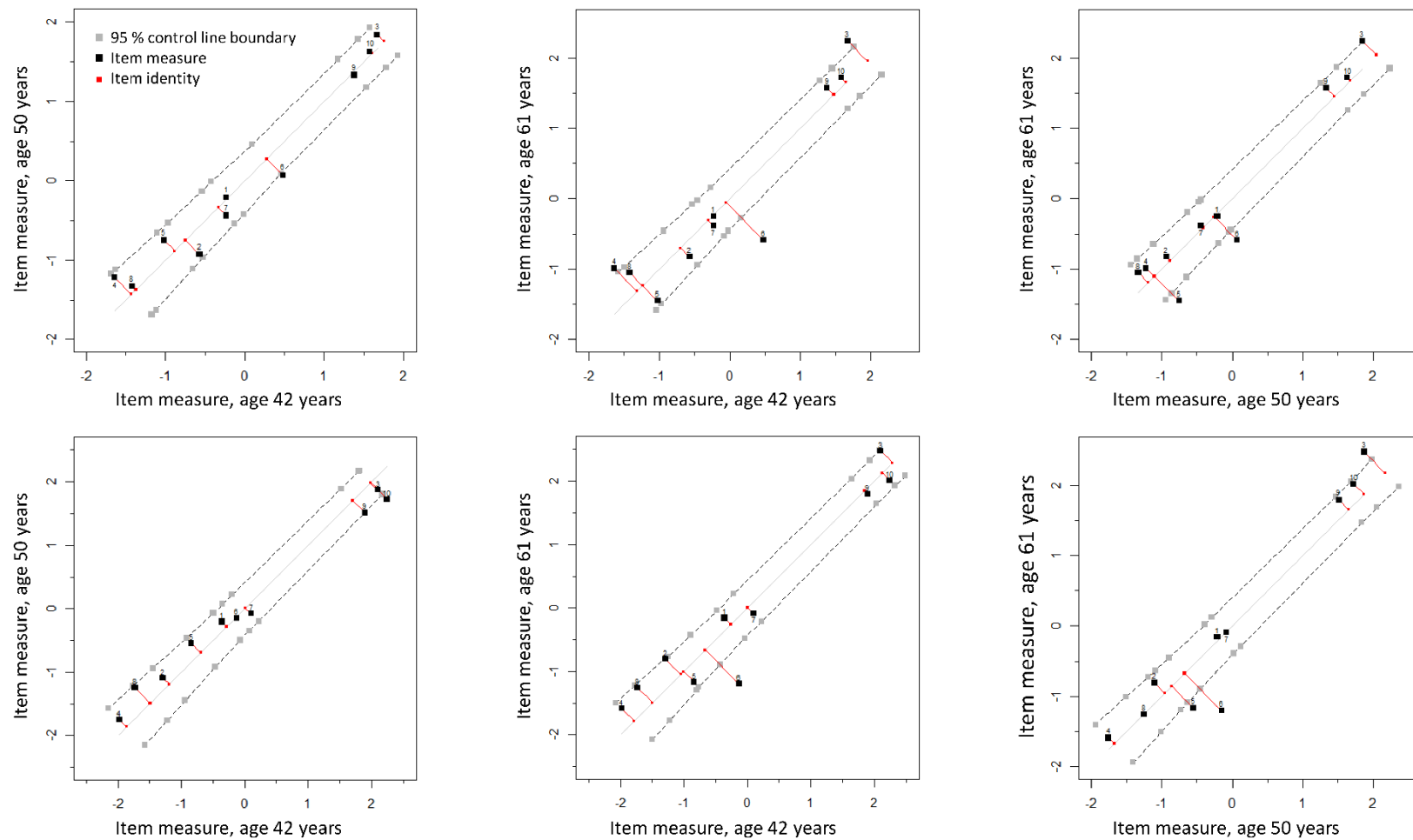


Figure S6

Differential item functioning for genders

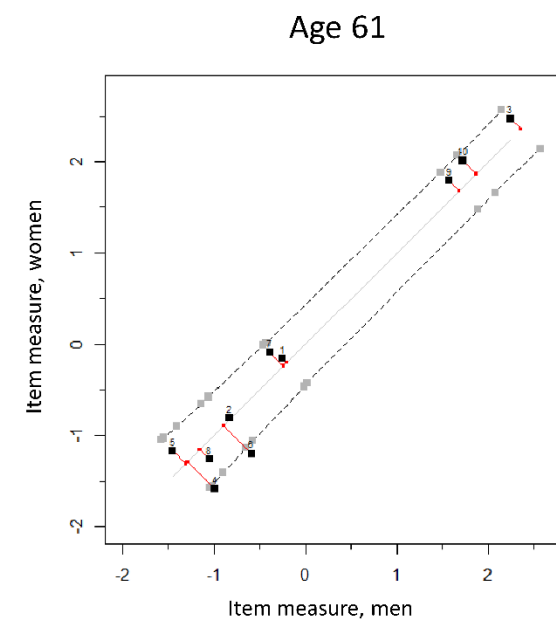
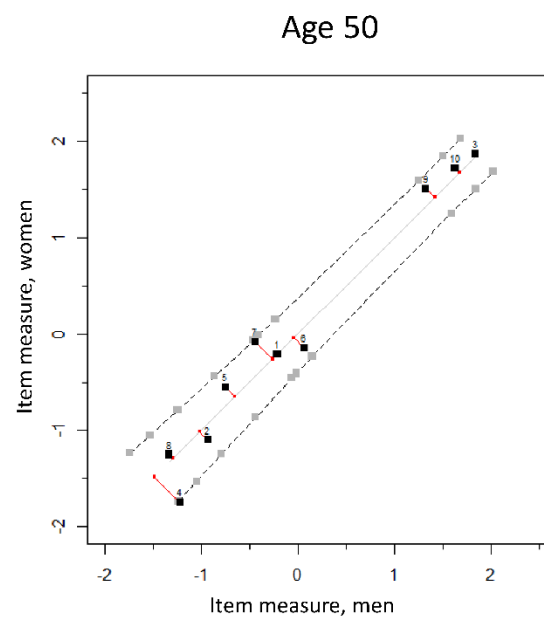
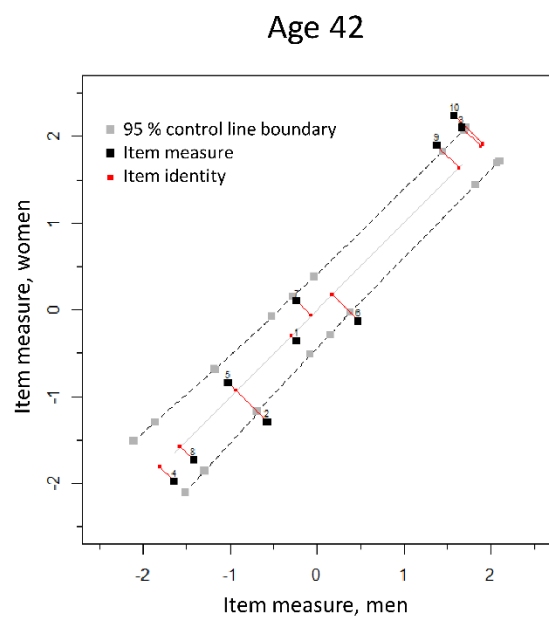


Figure S7

Proportion of variance in item responses explained by sources of variance (eigenvalues) among women and men

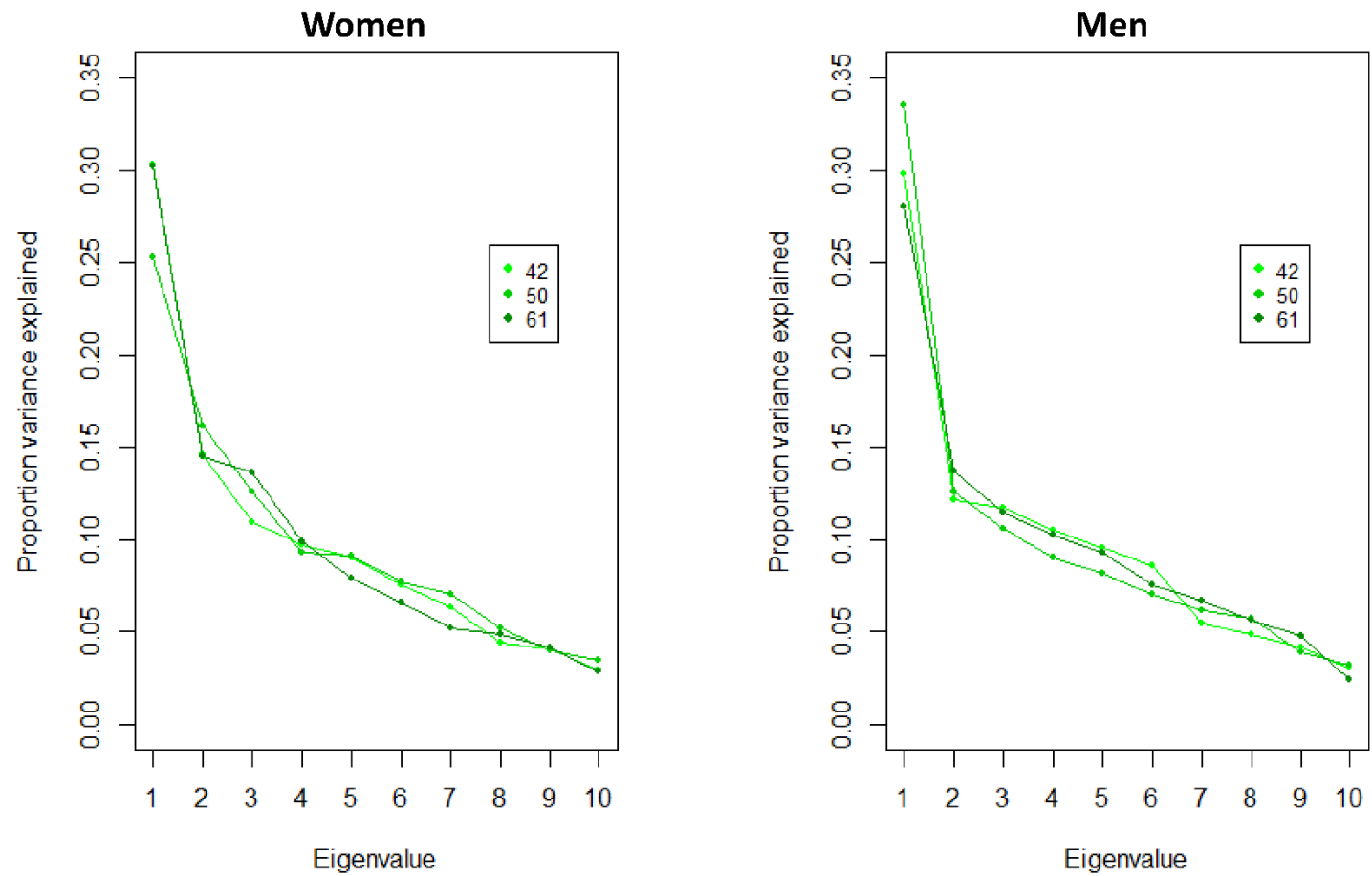


Table S1

Generativity measure means, standard deviations, and correlations between measurements in six groups based on the person infit and outfit mean-square values

Group	Generativity Measure		N _w /N _m	M _w /M _m	Correlation			
					Age	42	50	61
Infit > 0.4	Age	42	94/93	1.66/1.50		0.95/1.17	0.69	0.45
		50	97/105	1.34/1.27		0.53	0.96/1.21	0.45
		61	85/77	1.01/1.15		0.41	0.44	1.10/0.99
Infit < 1.9	Age	42	99/102	1.49/1.41		1.01/1.17	0.62	0.52
		50	96/113	1.24/1.21		0.67	1.01/1.19	0.44
		61	88/80	0.85/1.04		0.51	0.52	1.05/1.03
Infit 0.4–1.9	Age	42	74/74	1.60/1.49		0.90/1.19	0.68	0.48
		50	73/85	1.30/1.26		0.56	0.98/1.22	0.44
		61	67/60	0.92/1.11		0.41	0.45	1.05/1.00
Outfit > 0.4	Age	42	97/97	1.56/1.44		0.94/1.16	0.70	0.43
		50	99/109	1.26/1.21		0.55	0.90/1.13	0.46
		61	87/80	0.88/1.12		0.39	0.40	0.99/0.96
Outfit < 1.9	Age	42	101/99	1.50/1.37		1.01/1.16	0.62	0.51
		50	101/109	1.26/1.17		0.66	1.01/1.19	0.45
		61	93/76	0.87/1.02		0.51	0.52	1.05/1.05
Outfit 0.4–1.9	Age	42	79/76	1.52/1.40		0.91/1.18	0.70	0.48
		50	80/86	1.24/1.15		0.61	0.93/1.11	0.48
		61	74/60	0.82/1.07		0.46	0.44	0.98/1.00

Note. Groups: infit/outfit mean-square values over 0.4 in all measurements, infit/outfit mean-square values less than 1.9 in all measurements, and infit/outfit mean-square values between 0.4–1.9 in all measurements. Correlations with standard deviations women/men on the diagonal. Lower off-diagonal elements are correlations for women and upper diagonal elements include correlations for men. Subscript abbreviations: W = women; M = men.

Figure S8

Summaries of infit and outfit statistics

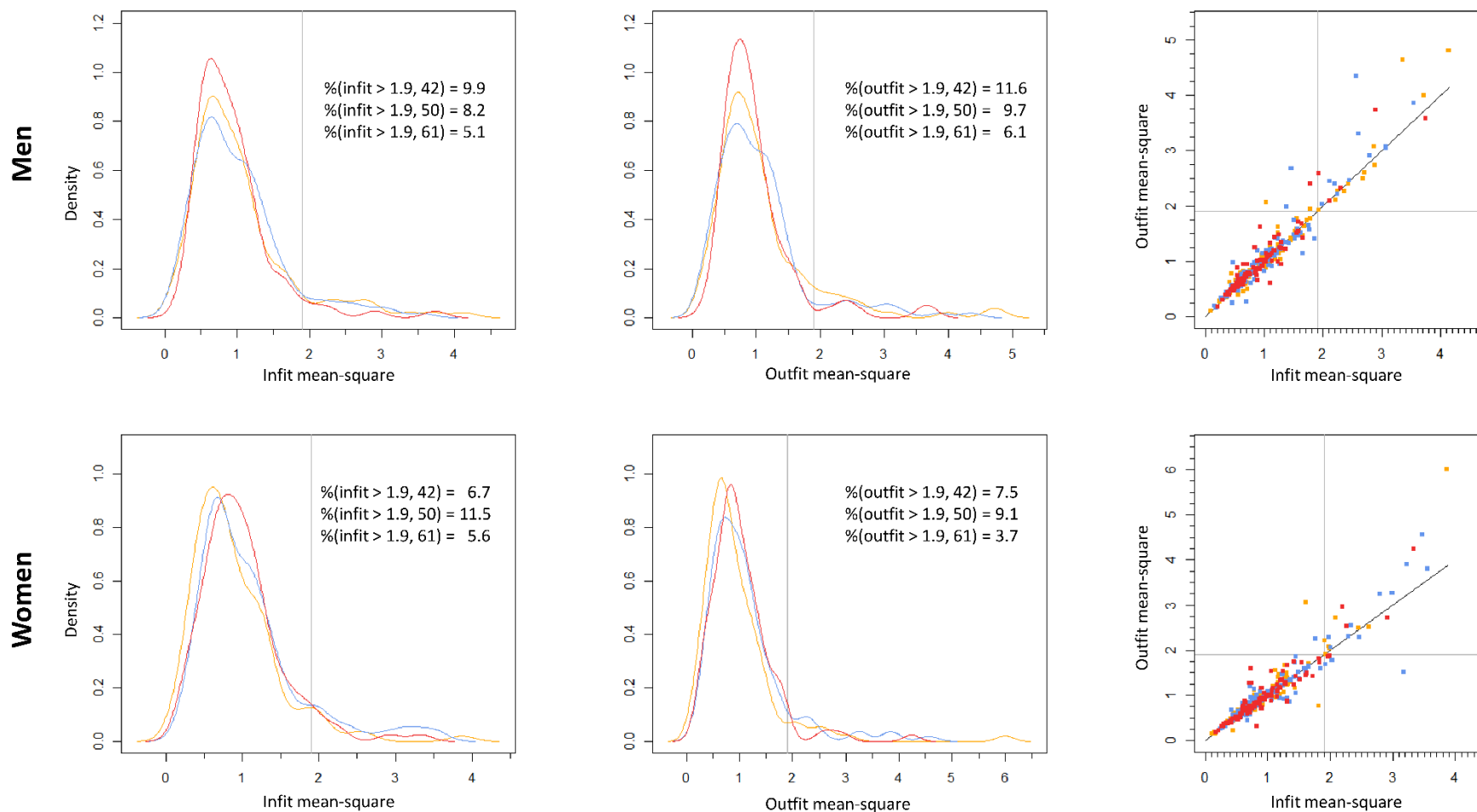


Table S2

Sensitivity analyses comparing main analysis parameter estimates (Est.) and 95 % confidence intervals to analyses excluding extreme values based on infit and outfit estimates

Group	Parameter	Main analysis			Infit < 1.9			Outfit < 1.9			Infit < 1.9 and outfit < 1.9		
		Est.	95 % CI		Est.	95 % CI		Est.	95 % CI		Est.	95 % CI	
			Lower	Upper		Lower	Upper		Lower	Upper		Lower	Upper
Men	Mean/intercept												
	G42	1.42	1.23	1.61	1.43	1.15	1.70	1.37	1.09	1.64	1.37	1.09	1.64
	D2	0.29	0.02	0.56	0.35	-0.01	0.71	0.32	-0.04	0.68	0.32	-0.04	0.68
	D3	0.38	0.07	0.69	0.30	-0.05	0.65	0.29	-0.07	0.65	0.29	-0.07	0.65
	Path coefficient												
	G42 → D50	-0.35	-0.50	-0.19	-0.33	-0.53	-0.14	-0.30	-0.51	-0.10	-0.30	-0.51	-0.10
	G42 → D61	-0.50	-0.67	-0.32	-0.47	-0.67	-0.27	-0.47	-0.68	-0.26	-0.47	-0.68	-0.26
	D2 → D3	-0.83	-1.03	-0.64	-0.85	-1.07	-0.62	-0.84	-1.07	-0.61	-0.84	-1.07	-0.61
	Residual variance												
	G42	1.30	0.99	1.62	1.33	0.89	1.77	1.28	0.84	1.71	1.28	0.84	1.71
	D2	0.86	0.63	1.08	0.92	0.61	1.22	0.92	0.61	1.24	0.92	0.61	1.24
	D3	0.79	0.56	1.01	0.82	0.54	1.09	0.85	0.56	1.13	0.85	0.56	1.13
Women	Mean/intercept												
	G42	1.58	1.40	1.76	1.50	1.27	1.72	1.51	1.29	1.73	1.50	1.27	1.72
	D2	0.31	0.06	0.56	0.31	0.05	0.58	0.33	0.05	0.60	0.31	0.05	0.58
	D3	-0.02	-0.36	0.32	-0.07	-0.43	0.29	-0.09	-0.44	0.26	-0.07	-0.43	0.29
	Path coefficient												
	G42 → D50	-0.39	-0.52	-0.26	-0.39	-0.54	-0.25	-0.39	-0.54	-0.23	-0.39	-0.54	-0.25
	G42 → D61	-0.34	-0.54	-0.15	-0.35	-0.57	-0.13	-0.33	-0.54	-0.12	-0.35	-0.57	-0.13
	D2 → D3	-0.65	-0.88	-0.41	-0.65	-0.93	-0.37	-0.63	-0.90	-0.37	-0.65	-0.93	-0.37
	Residual variance												
	G42	1.09	0.81	1.37	1.05	0.72	1.38	1.03	0.71	1.34	1.05	0.72	1.38
	D2	0.56	0.41	0.71	0.48	0.33	0.62	0.50	0.35	0.66	0.48	0.33	0.62
	D3	0.82	0.60	1.04	0.78	0.54	1.03	0.77	0.53	1.00	0.78	0.53	1.03

Note. The limit of extreme values was set to 1.9, as we did not consider too predictable response patterns (< 0.4) as problematic as poor predictability (>1.9).