

Additional File 5

Comparability of SOP2 Across Gender and Age Groups via Measurement Invariance Tests, by Nation

	Δdf (df)	$\Delta\chi^2$ (χ^2)	p (p)	ΔCFI (CFI)	$\Delta RMSEA$ (RMSEA)	$\Delta SRMR$ (SRMR)	ΔBIC (BIC)	MI
UK								
Gender								
Metric	- (0)	- (0.000)	- (-)	- (1.000)	- (.000)	- (.000)	- (3,267.214)	-
Scalar	1 (1)	0.002 (0.002)	.961 (.961)	.000 (1.000)	.000 (.000)	.001 (.001)	-6.146 (3,461.068)	Yes
Uniqueness	2 (3)	0.642 (0.714)	.725 (.870)	.000 (1.000)	.000 (.000)	.013 (.014)	-11.384 (3,449.684)	Yes
Age								
Metric	- (0)	- (0.000)	- (-)	- (1.000)	- (.000)	- (.000)	- (3,467.554)	-
Scalar	2 (2)	22.102 (22.102)	<.001 (<.001)	-.320 (.680)	.254 (.254)	.071 (.071)	13.014 (3,480.568)	No
Partial scalar ^a	1 (1)	1.189 (1.189)	.276 (.276)	.000 (.997)	.000 (.035)	.001 (.012)	-5.006 (3,462.548)	Yes
DE								
Gender								
Metric	- (0)	- (0.000)	- (-)	- (1.00)	- (.000)	- (.000)	- (3,271.934)	-
Scalar	1 (1)	0.663 (0.663)	.416 (.415)	.000 (1.000)	.000 (.000)	.010 (.010)	-5.489 (3,266.445)	Yes
Uniqueness	2 (3)	0.997 (1.623)	.607 (.654)	.000 (1.000)	.000 (.000)	.005 (.015)	-10.864 (3,255.581)	Yes
Age								
Metric	- (0)	- (0.000)	- (-)	- (1.000)	- (.000)	- (.000)	- (3,290.873)	-
Scalar	2 (2)	3.553 (3.553)	.169 (.169)	-.013 (.987)	.070 (.070)	.017 (.017)	-9.007 (3,281.866)	No
Partial scalar ^a	1 (1)	0.448 (0.448)	.503 (.503)	.000 (1.000)	.000 (.000)	.007 (.007)	-32.702 (3,285.171)	Yes

Note. MI = measurement invariance; UK = United Kingdom ($N = 468$, $n_{\text{male}} = 222$, $n_{\text{female}} = 246$, $n_{18-29} = 104$, $n_{30-49} = 180$, $n_{50-69} = 184$); DE = Germany ($N = 474$, $n_{\text{male}} = 237$, $n_{\text{female}} = 237$, $n_{18-29} = 105$, $n_{30-49} = 191$, $n_{50-69} = 178$). $\Delta\chi^2$ is Satorra-Bentler corrected.

^a The intercept of the optimism item is freely estimated in age group 2 (30–49 years).