Supplementary materials for

Network analyses of psychopathology in cross-section: Why network psychometrics cannot escape psychometric theory

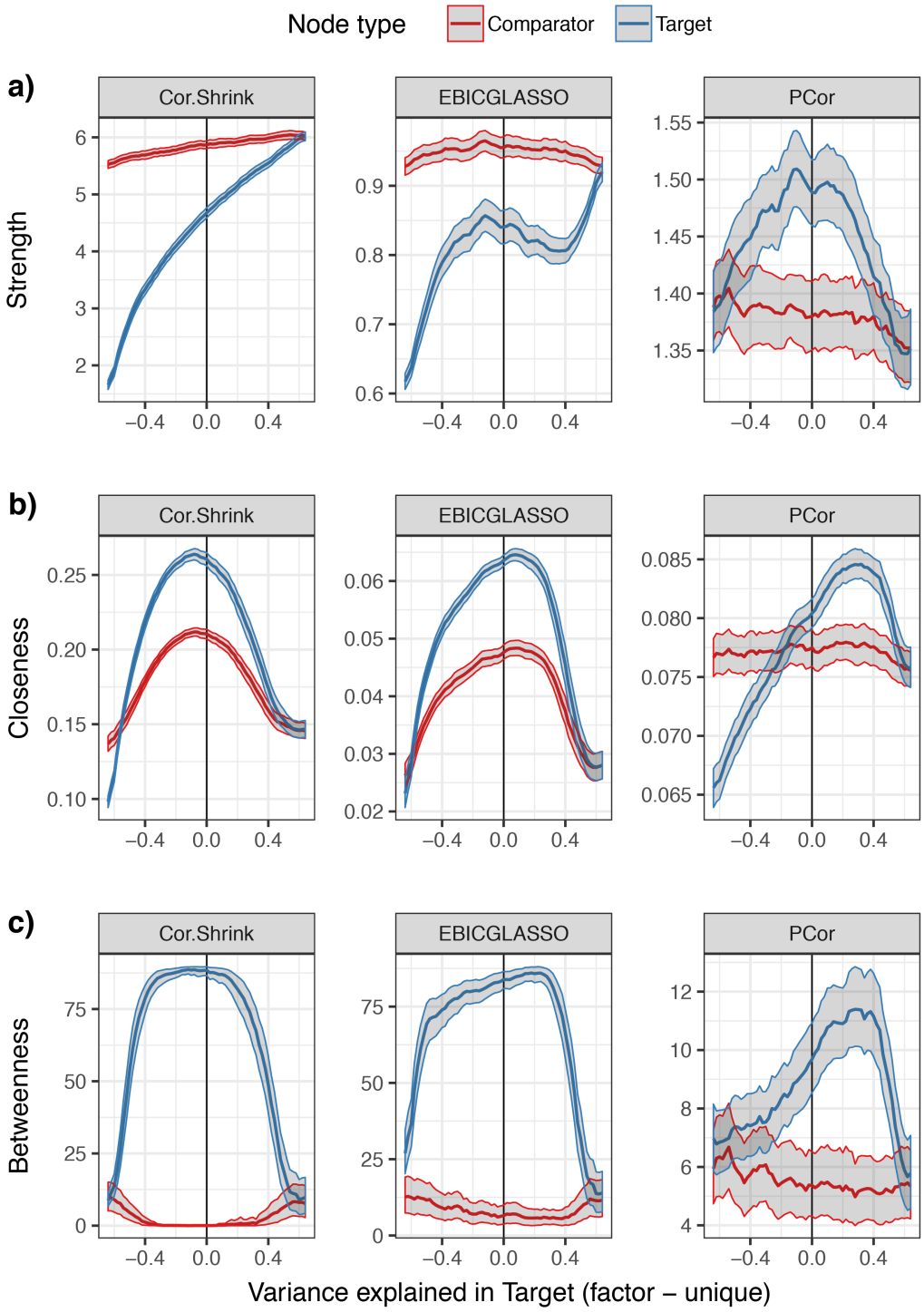

Figure S1. Nodal graph metrics as a function of variance explained in the target nodes, *y2* and *y12*, by common factor or unique sources (cf. Figure 7). Here, we include the effect of the simulation on graph metrics when the graph was constructed from *marginal* correlations. More specifically, the *Cor.Shrink* panel depicts graph metrics when edge weights reflected a shrinkage estimate of the zero-order correlation among items (*cor.shrink* function from the *corpcor* package; Schäfer & Strimmer, 2005).

The x axis represents difference in the variance explained by these sources, with the far left-hand side denoting variation completely due to a bivariate relationship between

y2 and *y12* (no factor effect). The far right-hand side denotes a condition in which all variation is due to common latent factors (no unique residual association). Lines denote the mean across replications within a condition; ribbons denote the 99% bootstrapped confidence limits of the mean. The *target* node depicts the effects of the simulation conditions on *y2*, whereas the *comparator* node depicts effects on *y3*, whose variance was not manipulated by the simulation.

Supplementary Table 1. The effect of factor loadings on closeness for target and comparator nodes in Simulation 3

Outcome	Predictor	*b*	*b* 95% CI [LL, UL]	*β*
Target (y17) Closeness	Intercept	0.08**	[0.08, 0.08]	
	Target Factor 1 loading (f1)	0.04**	[0.04, 0.04]	0.66
	Target Factor 2 loading (f2)	0.04**	[0.04, 0.04]	0.66
	$f1^2$	-0.05**	[-0.06, -0.05]	-0.15
	$f2^2$	-0.05**	[-0.06, -0.05]	-0.16
	f1 x f2	.08**	[.07, .08]	.26
Comparator (y10) Closeness	Intercept	.06**	[.06, .06]	
	Target Factor 1 loading (f1)	0.02**	[0.02, 0.02]	0.64
	Target Factor 2 loading (f2)	0.02**	[0.02, 0.02]	0.67
	$f1^2$	-0.03**	[-0.04, -0.03]	-0.16
	$f2^2$	-0.04**	[-0.05, -0.04]	-0.21
	f1 x f2	.04**	[.04, .05]	.23

Note. b represents unstandardized regression weights. *β* indicates the standardized regression weights. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. ** indicates $p < .01$.

Supplementary Table 2. The effect of factor loadings on betweenness for target and comparator nodes in Simulation 3

Outcome	Predictor	*b*	*b* 95% CI [LL, UL]	*β*
Target (y17) Betweenness	Intercept	54.26**	[54.11, 54.42]	
	Target Factor 1 loading (f1)	-2.74**	[-3.56, -1.92]	-0.39
	Target Factor 2 loading (f2)	-2.86**	[-3.68, -2.04]	-0.40
	f1 x f2	12.60**	[8.21, 17.00]	0.33
Comparator (y10) Betweenness	Intercept	5.08**	[4.94, 5.22]	
	Target Factor 1 loading (f1)	0.56	[-0.19, 1.30]	0.06
	Target Factor 2 loading (f2)	-7.46**	[-8.21, -6.71]	-0.84
	f1 x f2	-0.56	[-4.57, 3.45]	-0.01

Note. b represents unstandardized regression weights. *β* indicates the standardized regression weights. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. ** indicates $p < .01$.