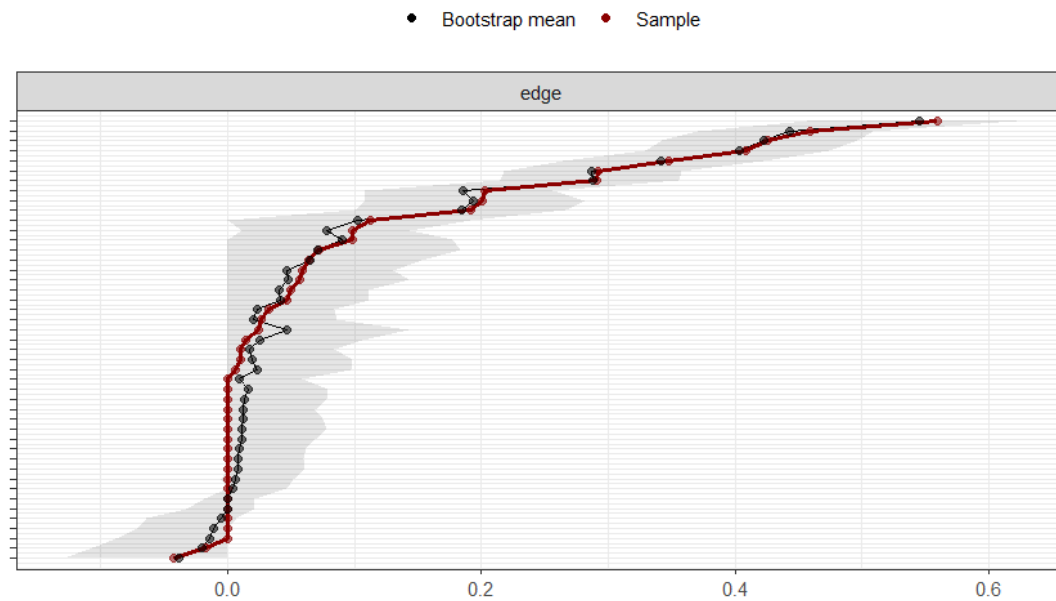
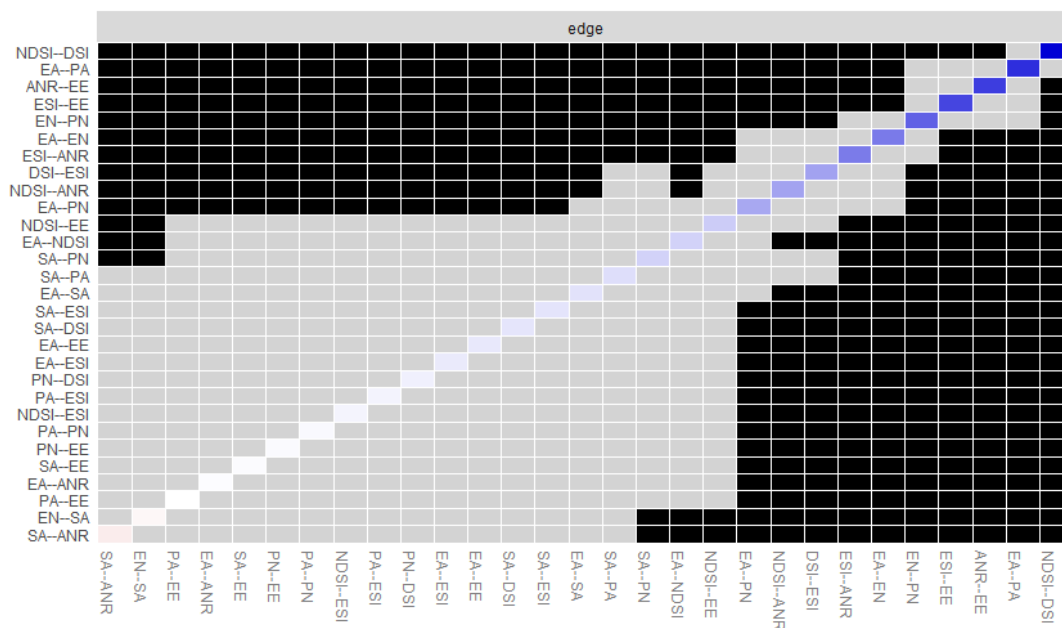


Supplementary Table 1 All edges weights of network

	EA	EN	SA	PA	PN	NDSI	DSI	ESI	ANR	EE
EA	0.00	0.29	0.06	0.46	0.19	0.10	0.00	0.05	0.01	0.05
EN	0.29	0.00	-0.02	0.00	0.35	0.00	0.00	0.00	0.00	0.00
SA	0.06	-0.02	0.00	0.07	0.10	0.00	0.06	0.06	-0.04	0.01
PA	0.46	0.00	0.07	0.00	0.01	0.00	0.00	0.03	0.00	0.00
PN	0.19	0.35	0.10	0.01	0.00	0.00	0.03	0.00	0.00	0.01
NDSI	0.10	0.00	0.00	0.00	0.00	0.00	0.56	0.02	0.20	0.11
DSI	0.00	0.00	0.06	0.00	0.03	0.56	0.00	0.20	0.00	0.00
ESI	0.05	0.00	0.06	0.03	0.00	0.02	0.20	0.00	0.29	0.41
ANR	0.01	0.00	-0.04	0.00	0.00	0.20	0.00	0.29	0.00	0.43
EE	0.05	0.00	0.01	0.00	0.01	0.11	0.00	0.41	0.43	0.00



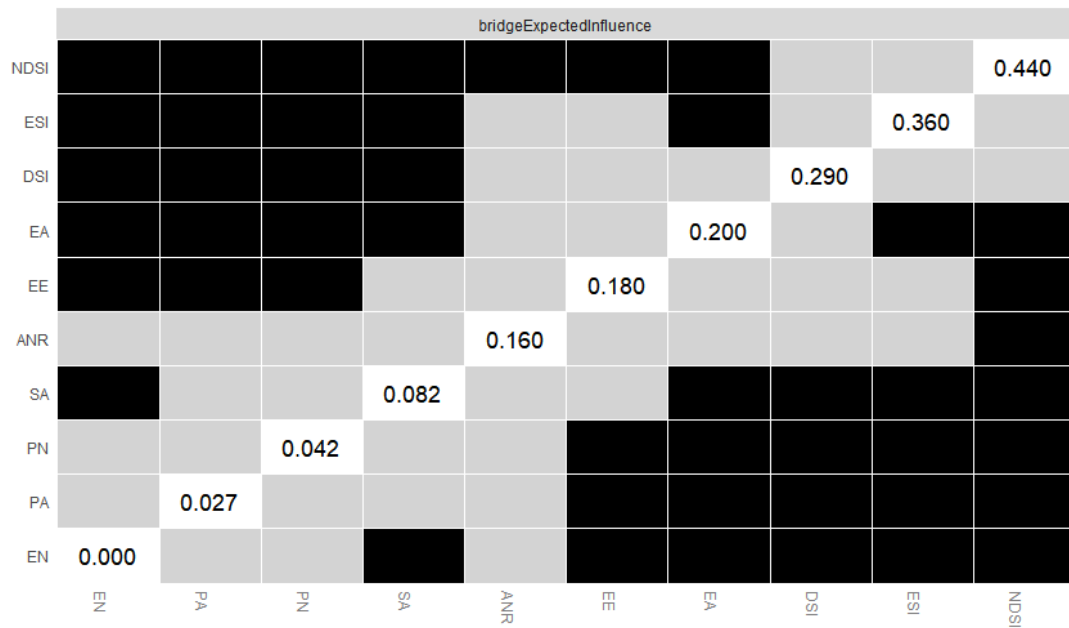
Supplementary Figure 1 Accuracy of edge weights. The red line depicts the sample edge weights and the gray bar depicts the bootstrapped confidence interval.



Supplementary Figure 2 Bootstrapped difference test for edge weights. Gray boxes indicate edge weights that do not differ significantly from one another, while black boxes indicate edge weights that do differ significantly. Blue and red boxes on the diagonal correspond to edge weights with positive and negative correlations, respectively.

expectedInfluence										
SA									0.30	
PN								0.69		
PA							0.57			
NDSI						1.00				
ESI					1.10					
EN				0.62						
EE			1.00							
EA			1.20							
DSI		0.85								
ANR	0.88									
	ANR	DSI	EA	EE	EN	ESI	NDSI	PA	PN	SA

Supplementary Figure 3 Bootstrapped difference test for the expected influence. Gray boxes indicate the expected influence that do not differ significantly from one another, while black boxes indicate the expected influence that do differ significantly. The number in the white boxes (*i.e.*, diagonal line) represent the value of the expected influence.



Supplementary Figure 4 Bootstrapped difference test for the bridge expected influence. Gray boxes indicate the bridge expected influence that do not differ significantly from one another, while black boxes indicate the bridge expected influence that do differ significantly. The number in the white boxes (i.e., diagonal line) represent the value of the bridge expected influence.