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The ripple effect in family networks

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Corrigendum

Vera de Bel
22-3-2022

Publications:

de Bel, V. (2020). Chapter 3: Ambivalent family triads and well-being. In *The ripple effect in family networks. Relational structures and well-being in divorced and non-divorced families* (pp. 41–63).

de Bel, V., Snijders, T. A. B., & Widmer, E. D. (2021). Modelling ambivalent triads in family research. *Social Science Research*, 98, 102577. <https://doi.org/10.1016/j.ssresearch.2021.102577>

Problem:

The dataset that was analyzed for these publications appeared to differ slightly from the official dataset that is available in the Swiss data archive.

What are the differences:

The STEPOUT dataset consists of 300 women reporting about their personal family network. The data that were analyzed also consist of 300 networks, but 1 of the networks was represented twice in the data and 1 of the networks was reported by a man instead of a woman. Lastly, 1 of the networks erroneously presented a conflict tie whereas there were actually no conflict ties in this network.

What are the implications:

Below we present the analyses on the right dataset. Table 3.5 and 3.6 (main analyses, final model) show that all p-values larger than 0.05 differed by less than 0.10 and p-values less than 0.05 differed by less than 0.001; there were no changes between these two categories.

Spearman correlations (Table 3.4)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 1. Social self-esteem	0.373																			
2 2. Performance self-esteem	-0.025	-0.015																		
3 propNoEA	0.052	0.162	-0.230																	
4 propPosEA	-0.088	-0.004	0.176	-0.191																
5 propNegEA	-0.054	-0.146	-0.381	-0.699	-0.176															
6 propAmbEA	-0.037	-0.040	0.547	0.035	0.093	-0.343														
7 propNoAA	0.113	0.075	-0.187	0.360	-0.066	-0.205	-0.543													
8 propPosAA	-0.034	0.022	-0.046	-0.068	0.239	0.023	-0.125	-0.194												
9 propNegAA	-0.103	-0.114	-0.400	-0.437	-0.064	0.691	-0.523	-0.195	0.057											
10 propAmbAA	0.044	0.162	0.058	0.717	-0.019	-0.721	0.028	0.465	-0.121	-0.525										
11 BAL	0.173	0.138	0.036	0.484	-0.361	-0.402	0.016	0.306	-0.538	-0.238	0.483									
12 DOS	-0.058	-0.031	-0.008	0.138	0.015	-0.250	0.057	-0.364	0.227	0.101	-0.277	0.007								
13 DAC	0.149	0.062	-0.120	0.239	-0.503	-0.011	-0.111	0.338	-0.738	0.020	0.958	0.689	-0.236							
14 BAL + DOS*	-0.058	-0.031	-0.008	0.138	0.015	-0.250	0.057	-0.364	0.227	0.101	-0.277	0.007	1.000	-0.236						
15 DSC*	-0.154	-0.066	0.385	0.068	0.170	-0.292	0.449	-0.040	-0.101	-0.344	0.020	-0.058	-0.153	0.038	-0.153					
16 Network size	-0.137	-0.072	-0.171	0.167	0.083	-0.022	-0.149	0.290	-0.017	-0.006	0.144	-0.101	-0.223	0.128	-0.223	0.725				
17 Total triads	0.030	0.051	-0.756	0.051	-0.131	0.408	-0.930	0.446	0.119	0.542	0.187	-0.038	-0.061	0.140	-0.061	-0.443	0.207			
18 Triad presence	-0.059	-0.087	-0.043	-0.080	-0.157	0.125	-0.082	0.032	-0.119	0.111	0.139	-0.026	0.013	0.097	0.013	-0.114	-0.086	0.083		
19 Married	0.017	0.144	0.071	-0.016	0.027	-0.074	-0.004	0.003	-0.054	-0.030	0.005	0.002	0.087	0.007	0.087	0.057	-0.009	-0.014	0.050	
20 Highly educated	0.111	0.100	0.052	-0.020	0.177	-0.058	0.071	-0.070	0.083	-0.083	-0.168	-0.029	-0.005	-0.141	-0.005	0.091	0.078	-0.071	-0.617	-0.080

Table 3.5

Dependent variable:						
	SE_SOCIAL					
	OLS					
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	3.623*** (0.114)	3.899*** (0.181)	3.937*** (0.197)	3.991*** (0.287)	3.861*** (0.143)	4.086*** (0.289)
triad_presence		-0.058 (0.152)				
propPosAA			0.118 (0.206)			-0.189 (0.236)
propNegAA			-0.205 (0.418)			0.812 (0.509)
propAmbAA			-0.310 (0.240)			-0.342 (0.347)
propPosEA				0.017 (0.252)		-0.141 (0.273)
propNegEA				-0.391 (0.489)		0.534 (0.587)
propAmbEA				-0.264 (0.250)		-0.248 (0.307)
combi_1					0.056** (0.023)	0.114*** (0.038)
combi_2					-0.022 (0.038)	-0.028 (0.045)
size		-0.023** (0.009)	-0.027*** (0.009)	-0.026*** (0.009)	-0.025*** (0.008)	-0.032*** (0.010)
structfam2	0.159* (0.094)	0.167* (0.094)	0.184* (0.094)	0.186** (0.094)	0.203** (0.094)	0.223** (0.094)
formation_hte2	0.033 (0.075)	0.053 (0.074)	0.054 (0.074)	0.050 (0.074)	0.074 (0.074)	0.095 (0.075)
mariee2	0.010 (0.098)	-0.014 (0.098)	-0.004 (0.098)	0.004 (0.098)	-0.008 (0.097)	0.026 (0.097)
Observations	300	300	300	300	300	300
R2	0.014	0.037	0.047	0.050	0.061	0.087
Adjusted R2	0.004	0.021	0.024	0.027	0.042	0.049
Residual Std. Error	0.642 (df = 296)	0.636 (df = 294)	0.635 (df = 292)	0.634 (df = 292)	0.629 (df = 293)	0.627 (df = 287)
F Statistic	1.437 (df = 3; 296)	2.277** (df = 5; 294)	2.039* (df = 7; 292)	2.200** (df = 7; 292)	3.190*** (df = 6; 293)	2.280*** (df = 12; 287)

Note: *p<0.1; **p<0.05; ***p<0.01

P values table 3.5 (model 6)

Original analyses

```
> summary(SE_SOFC_6)

Call:
lm(formula = ambi_data$SE_SOCIAL ~ ambi_data$combi_1 + ambi_data$combi_2 +
  ambi_data$propPosEA + ambi_data$propNegEA + ambi_data$propAmbEA +
  ambi_data$propPosAA + ambi_data$propNegAA + ambi_data$propAmbAA +
  ambi_data$size + ambi_data$structfam2 + ambi_data$formation_hte2 +
  ambi_data$mariee2)

Residuals:
    Min       1Q   Median       3Q      Max
-1.90526 -0.34624 -0.00749  0.44174  1.47847

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    4.088032   0.289038  14.144 < 2e-16 ***
ambi_data$combi_1  0.114968   0.038297   3.002 0.002918 **
ambi_data$combi_2 -0.029183   0.045277  -0.645 0.519739
ambi_data$propPosEA -0.139038   0.273907  -0.508 0.612117
ambi_data$propNegEA  0.552433   0.587634   0.940 0.347958
ambi_data$propAmbEA -0.248935   0.307625  -0.809 0.419060
ambi_data$propPosAA -0.190037   0.236974  -0.802 0.423255
ambi_data$propNegAA  0.812533   0.509166   1.596 0.111632
ambi_data$propAmbAA -0.336654   0.346779  -0.971 0.332464
ambi_data$size     -0.032691   0.009662  -3.383 0.000816 ***
ambi_data$structfam2  0.222672   0.093941   2.370 0.018432 *
ambi_data$formation_hte2 0.091527   0.075025   1.220 0.223488
ambi_data$mariee2   0.026204   0.097290   0.269 0.787862
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.627 on 287 degrees of freedom
Multiple R-squared:  0.08765, Adjusted R-squared:  0.0495
F-statistic: 2.298 on 12 and 287 DF, p-value: 0.008313
```

Updated analyses

```
> summary(SE_SOFC_6)

Call:
lm(formula = ambi_data$SE_SOCIAL ~ ambi_data$combi_1 + ambi_data$combi_2 +
  ambi_data$propPosEA + ambi_data$propNegEA + ambi_data$propAmbEA +
  ambi_data$propPosAA + ambi_data$propNegAA + ambi_data$propAmbAA +
  ambi_data$size + ambi_data$structfam2 + ambi_data$formation_hte2 +
  ambi_data$mariee2)

Residuals:
    Min       1Q   Median       3Q      Max
-1.90677 -0.34727 -0.00498  0.44302  1.48021

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    4.085951   0.288917  14.142 < 2e-16 ***
ambi_data$combi_1  0.114326   0.038271   2.987 0.003058 **
ambi_data$combi_2 -0.027769   0.044927  -0.618 0.537010
ambi_data$propPosEA -0.140858   0.273084  -0.516 0.606388
ambi_data$propNegEA  0.534197   0.587409   0.909 0.363895
ambi_data$propAmbEA -0.247977   0.306849  -0.808 0.419680
ambi_data$propPosAA -0.189099   0.236442  -0.800 0.424506
ambi_data$propNegAA  0.811513   0.509250   1.594 0.112139
ambi_data$propAmbAA -0.342289   0.346823  -0.987 0.324509
ambi_data$size     -0.032378   0.009587  -3.377 0.000834 ***
ambi_data$structfam2  0.223216   0.094010   2.374 0.018236 *
ambi_data$formation_hte2 0.095348   0.075130   1.269 0.205428
ambi_data$mariee2   0.025770   0.097364   0.265 0.791448
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.6272 on 287 degrees of freedom
Multiple R-squared:  0.08703, Adjusted R-squared:  0.04885
F-statistic: 2.28 on 12 and 287 DF, p-value: 0.008876
```

Table 3.6

Dependent variable:					
SE_PERFORMANCE					
	(1)	(2)	OLS (3)	(4)	(5)
Constant	3.405*** (0.080)	3.468*** (0.127)	3.289*** (0.097)	3.265*** (0.167)	3.318*** (0.089)
triad_presence		0.093 (0.107)			
size		-0.010 (0.006)			
propPosEA				0.190 (0.180)	
propNegEA				-0.098 (0.341)	
propAmbEA				-0.062 (0.165)	
combi_1					0.005 (0.017)
combi_2					-0.007 (0.028)
propPosAA			0.338** (0.141)	0.198 (0.146)	0.292* (0.149)
propNegAA			0.377 (0.277)		
propAmbAA			-0.062 (0.155)		
structfam2	0.080 (0.066)	0.085 (0.066)	0.093 (0.066)	0.105 (0.066)	0.095 (0.067)
formation_hte2	0.140*** (0.052)	0.148*** (0.052)	0.138*** (0.052)	0.136*** (0.052)	0.138*** (0.053)
mariee2	-0.026 (0.069)	-0.040 (0.069)	-0.017 (0.069)	-0.003 (0.069)	-0.023 (0.068)
Observations	300	300	300	300	300
R2	0.032	0.048	0.057	0.067	0.051
Adjusted R2	0.022	0.032	0.037	0.045	0.031
Residual Std. Error	0.450 (df = 296)	0.448 (df = 294)	0.447 (df = 293)	0.445 (df = 292)	0.448 (df = 293)
F Statistic	3.288** (df = 3; 296)	2.991** (df = 5; 294)	2.937*** (df = 6; 293)	3.002*** (df = 7; 292)	2.612** (df = 6; 293)

Note:

*p<0.1; **p<0.05; ***p<0.01

P values table 3.6 (model 5)

Original analyses

```
> summary(SE_PERF_5)

Call:
lm(formula = ambi_data$SE_PERFORMANCE ~ ambi_data$combi_1 + ambi_data$combi_2 +
    ambi_data$propPosAA + ambi_data$structfam2 + ambi_data$formation_hte2 +
    ambi_data$mariee2)

Residuals:
    Min       1Q   Median       3Q      Max
-1.13117 -0.29159 -0.00351  0.30092  1.55984

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      3.320220   0.089349  37.160 < 2e-16 ***
ambi_data$combi_1  0.004186   0.016658   0.251  0.80176
ambi_data$combi_2 -0.010421   0.027996  -0.372  0.70998
ambi_data$propPosAA 0.285798   0.149690   1.909  0.05720 .
ambi_data$structfam2 0.094973   0.066635   1.425  0.15514
ambi_data$formation_hte2 0.138578   0.052584   2.635  0.00885 **
ambi_data$mariee2  -0.023213   0.068416  -0.339  0.73464
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.4481 on 293 degrees of freedom
Multiple R-squared:  0.05093, Adjusted R-squared:  0.0315
F-statistic: 2.621 on 6 and 293 DF, p-value: 0.01723
```

Updated analyses

```
> summary(SE_PERF_5)

Call:
lm(formula = ambi_data$SE_PERFORMANCE ~ ambi_data$combi_1 + ambi_data$combi_2 +
    ambi_data$propPosAA + ambi_data$structfam2 + ambi_data$formation_hte2 +
    ambi_data$mariee2)

Residuals:
    Min       1Q   Median       3Q      Max
-1.13295 -0.29726 -0.00197  0.30001  1.56595

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      3.318209   0.089270  37.171 < 2e-16 ***
ambi_data$combi_1  0.004621   0.016714   0.276  0.78238
ambi_data$combi_2 -0.006780   0.027783  -0.244  0.80737
ambi_data$propPosAA 0.292416   0.148670   1.967  0.05014 .
ambi_data$structfam2 0.095318   0.066655   1.430  0.15378
ambi_data$formation_hte2 0.138113   0.052558   2.628  0.00905 **
ambi_data$mariee2  -0.022743   0.068422  -0.332  0.73983
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.4481 on 293 degrees of freedom
Multiple R-squared:  0.05078, Adjusted R-squared:  0.03134
F-statistic: 2.612 on 6 and 293 DF, p-value: 0.01754
```


Table 3.8 (online supplementary material)

Dependent variable:					
	SE_SOCIAL				
	OLS				
	(1)	(2)	(3)	(4)	(5)
Constant	4.205*** (0.449)	4.086*** (0.289)	4.087*** (0.286)	3.861*** (0.143)	3.857*** (0.143)
combi_1	0.114*** (0.038)	0.114*** (0.038)	0.065** (0.029)	0.056** (0.023)	0.059*** (0.022)
combi_2	-0.027 (0.045)	-0.028 (0.045)	-0.032 (0.040)	-0.022 (0.038)	
propPosEA	-0.262 (0.444)	-0.141 (0.273)	-0.109 (0.257)		
propNegEA	0.412 (0.686)	0.534 (0.587)	0.225 (0.555)		
propAmbEA	-0.370 (0.468)	-0.248 (0.307)	-0.346 (0.250)		
propPosAA	-0.410 (0.680)	-0.189 (0.236)			
propNegAA	0.565 (0.875)	0.812 (0.509)			
propAmbAA	-0.575 (0.756)	-0.342 (0.347)			
triad_presence	0.247 (0.712)				
size	-0.033*** (0.010)	-0.032*** (0.010)	-0.031*** (0.009)	-0.025*** (0.008)	-0.025*** (0.008)
structfam2	0.223** (0.094)	0.223** (0.094)	0.209** (0.094)	0.203** (0.094)	0.204** (0.093)
formation_hte2	0.094 (0.075)	0.095 (0.075)	0.072 (0.074)	0.074 (0.074)	0.071 (0.074)
mariee2	0.024 (0.098)	0.026 (0.097)	0.006 (0.097)	-0.008 (0.097)	-0.007 (0.096)
Observations	300	300	300	300	300
R2	0.087	0.087	0.075	0.061	0.060
Adjusted R2	0.046	0.049	0.046	0.042	0.044
Residual Std. Error	0.628 (df = 286)	0.627 (df = 287)	0.628 (df = 290)	0.629 (df = 293)	0.629 (df = 294)
F Statistic	2.107** (df = 13; 286)	2.280*** (df = 12; 287)	2.594*** (df = 9; 290)	3.190*** (df = 6; 293)	3.772*** (df = 5; 294)

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 3.9 (online supplementary material)

Dependent variable:				
SE_PERFORMANCE				
OLS				
	(1)	(2)	(3)	(4)
Constant	3.936*** (0.314)	3.555*** (0.203)	3.592*** (0.200)	3.540*** (0.101)
combi_1	0.007 (0.027)	0.010 (0.027)	0.002 (0.020)	0.019 (0.016)
combi_2	-0.055* (0.031)	-0.057* (0.032)	-0.050* (0.028)	-0.025 (0.027)
propPosEA	-0.324 (0.310)	0.064 (0.192)	0.154 (0.180)	
propNegEA	-0.638 (0.479)	-0.246 (0.412)	-0.165 (0.389)	
propAmbEA	-0.795** (0.327)	-0.404* (0.215)	-0.243 (0.175)	
propPosAA	-0.605 (0.475)	0.101 (0.166)		
propNegAA	-0.299 (0.611)	0.489 (0.357)		
propAmbAA	-0.512 (0.528)	0.232 (0.243)		
triad_presence	0.788 (0.497)			
size	-0.016** (0.007)	-0.014** (0.007)	-0.018*** (0.006)	-0.014** (0.006)
structfam2	0.108 (0.066)	0.108 (0.066)	0.110* (0.066)	0.097 (0.067)
formation_hte2	0.148*** (0.053)	0.154*** (0.053)	0.157*** (0.052)	0.160*** (0.053)
mariee2	-0.017 (0.068)	-0.012 (0.068)	-0.013 (0.068)	-0.038 (0.069)
Observations	300	300	300	300
R2	0.111	0.104	0.094	0.055
Adjusted R2	0.071	0.066	0.066	0.036
Residual Std. Error	0.439 (df = 286)	0.440 (df = 287)	0.440 (df = 290)	0.447 (df = 293)
F Statistic	2.759*** (df = 13; 286)	2.765*** (df = 12; 287)	3.359*** (df = 9; 290)	2.862** (df = 6; 293)

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 3.10 (online supplementary material)

Dependent variable:			
	SE_SOCIAL		
	OLS		
	(1)	(2)	(3)
Constant	3.873*** (0.143)	3.846*** (0.143)	3.748*** (0.179)
int_1	0.041 (0.044)		
int_2		0.094 (0.074)	
int_3			-0.017 (0.017)
combi_1	0.031 (0.035)	0.059*** (0.023)	0.058** (0.023)
combi_2	-0.022 (0.038)	-0.061 (0.049)	-0.020 (0.038)
size	-0.026*** (0.008)	-0.025*** (0.008)	-0.015 (0.013)
structfam2	0.201** (0.094)	0.211** (0.094)	0.394* (0.205)
formation_hte2	0.075 (0.074)	0.081 (0.074)	0.076 (0.074)
mariee2	-0.009 (0.097)	0.003 (0.097)	-0.001 (0.097)
Observations	300	300	300
R2	0.064	0.066	0.065
Adjusted R2	0.042	0.044	0.042
Residual Std. Error (df = 292)	0.630	0.629	0.629
F Statistic (df = 7; 292)	2.858***	2.971***	2.894***

Note: *p<0.1; **p<0.05; ***p<0.01

Table 3.11 (online supplementary material)

Dependent variable:			
SE_PERFORMANCE			
	(1)	OLS (2)	(3)
Constant	3.318*** (0.089)	3.308*** (0.090)	3.318*** (0.089)
int_1	-0.010 (0.031)		
int_2		0.065 (0.053)	
int_3			-0.007 (0.008)
combi_1	0.011 (0.026)	0.007 (0.017)	0.007 (0.017)
combi_2	-0.007 (0.028)	-0.034 (0.036)	-0.008 (0.028)
propPosAA	0.290* (0.149)	0.292* (0.149)	0.286* (0.149)
structfam2	0.096 (0.067)	0.101 (0.067)	0.178 (0.109)
formation_hte2	0.138*** (0.053)	0.143*** (0.053)	0.144*** (0.053)
mariee2	-0.023 (0.069)	-0.015 (0.069)	-0.025 (0.068)
Observations	300	300	300
R2	0.051	0.056	0.054
Adjusted R2	0.028	0.033	0.031
Residual Std. Error (df = 292)	0.449	0.448	0.448
F Statistic (df = 7; 292)	2.248**	2.458**	2.369**

Note: *p<0.1; **p<0.05; ***p<0.01

Table 3.12 (online supplementary material)

Dependent variable:	
SE_SOCIAL	
OLS	
Constant	4.110*** (0.288)
combi_1	0.120*** (0.038)
combi_2	-0.021 (0.044)
propPosEA	-0.244 (0.275)
propNegEA	1.279** (0.620)
propAmbEA	-0.321 (0.304)
propPosAA	-0.110 (0.236)
propNegAA	0.860 (0.536)
propAmbAA	-0.295 (0.342)
size	-0.027*** (0.010)
triad9	-0.159** (0.069)
triad12	-0.189*** (0.068)
triad13	0.001 (0.034)
structfam2	0.211** (0.093)
formation_hte2	0.102 (0.074)
mariee2	0.013 (0.097)
Observations	300
R2	0.123
Adjusted R2	0.077
Residual Std. Error	0.618 (df = 284)
F Statistic	2.663*** (df = 15; 284)
Note:	*p<0.1; **p<0.05; ***p<0.01

Dependent variable:	
SE_PERFORMANCE	
OLS	
Constant	3.328*** (0.093)
combi_1	0.002 (0.017)
combi_2	-0.008 (0.028)
propPosAA	0.295** (0.150)
triad9	-0.003 (0.047)
triad12	-0.016 (0.046)
triad13	-0.009 (0.022)
structfam2	0.095 (0.067)
formation_hte2	0.136** (0.053)
mariee2	-0.024 (0.069)
Observations	300
R2	0.052
Adjusted R2	0.022
Residual Std. Error	0.450 (df = 290)
F Statistic	1.756* (df = 9; 290)
Note:	*p<0.1; **p<0.05; ***p<0.01