Supplementary Information for

Does intergroup contact foster solidarity with the disadvantaged? A longitudinal analysis across seven years

This file includes:

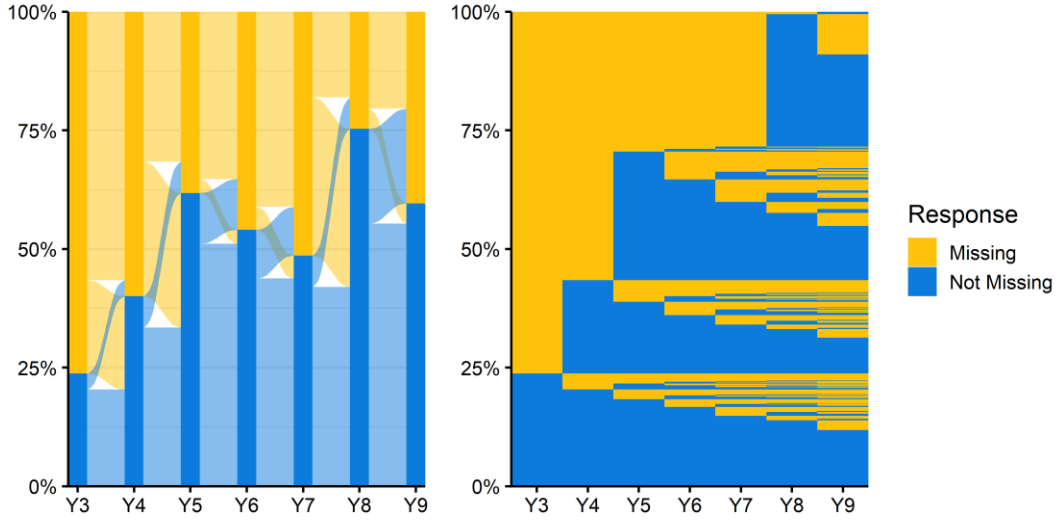
Robustness Tests

Missingness

As our study spanned seven years, it was not surprising that not every participant took part in every wave of the study. Figure S1 (left) shows that 14%–26% of participants who completed one wave did not go on to complete the subsequent wave of the study and that 5%–49% of participants who completed one wave had not completed the previous wave of the study. Figure S1 (right) shows patterns of missingness across all waves. Figure S2 shows the most common patterns of missingness across all participants. While there was predictable and expected attrition from wave to wave, four broad patterns of participation stood out: Participants who newly joined the study in Y3, Y4, Y5, and Y8 and had not completed any previous waves of the study. These patterns of missingness reflect booster sampling that was conducted to bolster sample sizes. We reran our main analyses for each those groups. We reran RI-CLPM models for the friendship measure (Model 1) and the causal contact measure (Model 2) separately for participants who joined in Y3, Y4, and Y5.[1] As Figure S3 shows, our findings were qualitatively similar to the ones from our main analyses.

Figure S1

Change in participation across waves

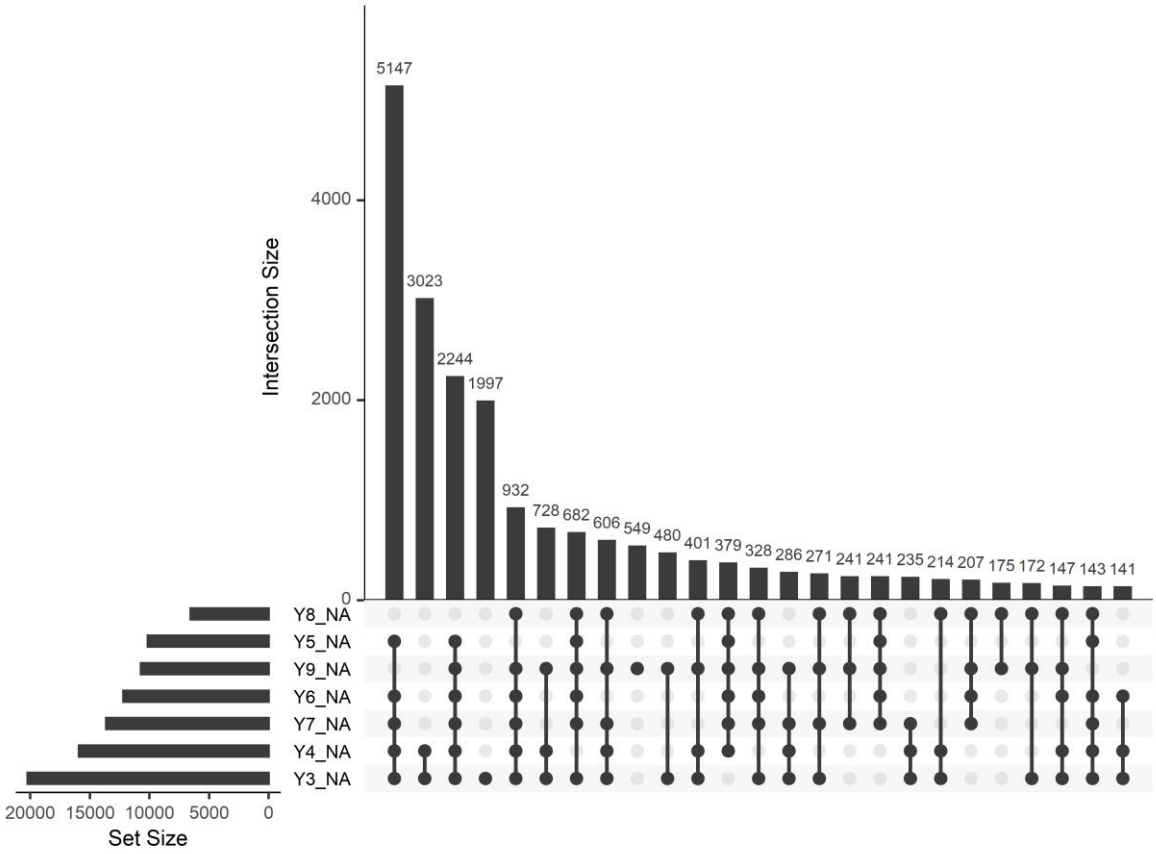


Note. Plots show transitions in missingness from wave to wave (*left*) and patterns of missingness across all waves (*right*).

[1] We could not rerun our analyses for participants who joined in Y8 because RI-CLPMs require at least three waves of data.

Figure S2

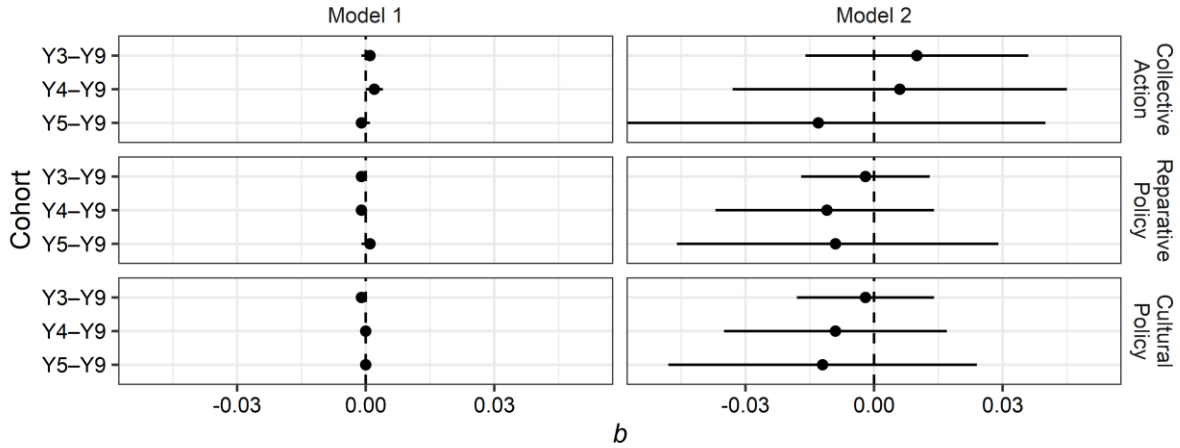
Patterns of missingness across participants



Note. Plot shows the 25 most common intersections of missingness (right) as well as the total number of missingness for each year (bottom left). Black dots and lines (bottom right) represent patterns of missing data while bars (top right) show the frequencies of those patterns.

Figure S3

Results for each pattern of missingness



Note. Plot shows unstandardized coefficients for the within-person effects of intergroup contact (time t-1) on each of the three outcomes (time t) from our separate analyses using only data from each pattern of missingness.

Stationarity

To maximize power, the models presented in the main text assume stationarity – i.e., a continuous process with an unknown starting point (McArdle, 2009). To do this, we constrained the lagged effects of Time 1 variables on Time 2 variables to be equal to the corresponding lagged effects of Time 2 variables on Time 3 variables, to be equal to the corresponding lagged effects from Time 3 variables to Time 4 variables, and so on. However, the stationarity assumption can also be tested empirically by freeing those same parameters and comparing model fit. For Model 1, this revealed that the stationary model was a worse fit to the data ($\chi^2_{(320)}$ = 3,677.514; CFI = .983; RMSEA = .022, 95% CI [.021, .022]; sRMR = .026), than the non-stationary model ($\chi^2_{(240)}$ = 3032.802; CFI = .986; RMSEA = .023, 95% CI [.022, .023]; sRMR = .041; $\Delta\chi^2_{(80)}$ = 644.712; $p < .001$). This is not surprising after freeing up a large number of parameters in a structural equation model, especially given that, with large sample sizes, the χ^2 test is sensitive to extremely trivial reductions in fit. This is why it has long been standard practice in structural equation modelling to rely on other fit indices that are less sensitive than χ^2 (e.g., CFI and RMSEA). When looking at these other fit indices, it appears the difference in fit between the stationary and non-stationary models was negligible (ΔCFI = .003; ΔRMSEA = .001). More importantly, the key conclusion of the analysis – that contact does not have within-person effects on solidarity over time – remained unchanged.

For Model 2, the stationary model was again a worse fit to the data ($\chi^2_{(140)}$ = 2,171.908; CFI = .987; RMSEA = .029, 95% CI [.028, .030]; sRMR = .028) than the non-stationary model ($\chi^2_{(92)}$ = 1572.315; CFI = .991; RMSEA = .031, 95% CI [.029, .032]; sRMR = .031; $\Delta\chi^2_{(48)}$ = 269.801; $p < .001$). However, as with Model 1, relative fit indices showed negligible differences between models (ΔCFI = .004; ΔRMSEA = .002), and the null within-person effects of contact on solidarity remained unchanged. Therefore, we judged that the improvement in power, as well as the parsimony and ease of interpretation gained by the stationarity assumption, was a reasonable trade-off for the slightly poorer model fit and have retained the stationary model in all analyses.

Aggregating Variables

In the main analyses, we treated the two contact measures separately, because they relate to qualitatively different forms of contact (friendship vs positive interactions) which have both been considered "contact" in the literature to date. They are also measured on different scales (hours vs Likert ratings). Moreover, we treated the three indices of solidarity separately for reasons outlined in the manuscript. But it is also possible to aggregate both the contact and solidarity variables and so we have re-run several analyses with combined measures as robustness tests. These results are presented below.

Hours of Contact and Mean Solidarity

In this analysis, we averaged the three solidarity measures – cultural policy support, reparative policy support, and collective action support – to create a composite measure of solidarity. We then ran a seven-wave RI-CLPM with the hours of contact variable from Model 1 – i.e., time spent with outgroup friends – and the composite solidarity measure. Results confirmed the findings of the main models. Specifically, there was a significant positive correlation between the random intercept of contact and the random intercept of solidarity (r = .27, *se* = .01, p < .001). However, there was no within-person effect of contact on solidarity one year later (*parameter estimate* = <.01, *se* = .02, p = .071).

Likert-scale Contact and Mean Solidarity

In this analysis, we used the same composite solidarity measure as above, but with the contact variable from Model 2 – i.e., Likert-scale ratings of the frequency of positive interactions with outgroup members. This five-wave RI-CLPM again yielded the same conclusions as the main analyses. There was a significant positive correlation between the random-intercept of contact and the random intercept of solidarity (r = .43, *se* = .01, p < .001). However, there was no within-person effect of contact on solidarity one year later (*parameter estimate* = .01, *se* = <.01, p = .126).

Mean Contact and Mean Solidarity

Finally, we also aggregated the contact measures. As these were on different scales, we first re-scaled both variables from 0-1 and then averaged them. This allowed us to test a five-wave RI-CLPM with mean contact and mean solidarity. Once again, results confirmed our previous findings. There was a significant positive correlation between the random intercept of contact and the random intercept of solidarity (r = .42, se = .01, p < .001). However, there was no within-person effect of contact on solidarity one year later (*parameter estimate* = .05, se = .03, p = .070).

Standardized Estimates of Significant Within-Person Effects

When reporting results in the manuscript, we have presented unstandardized within-person lagged effects (see Tables 1 and 2). This is because unstandardized estimates are the only way to present an "average" effect of contact on solidarity over a one-year period (in line with our research question). This would not be possible using standardized effects because the standard errors change year on year and thus the estimates also change. Standardized effects can aid in the interpretation of the magnitude of effects, this was not relevant to null focal effects of contact on solidarity. Nonetheless, some within-person effects in the model *were* significant (specifically, between solidarity measures). In order to help interpret the size of those effects, we provide additional detail on standardized estimates here. Note that only *ranges* of standardized effects can be provided because the estimates change at every lag.

Model 1

There was a significant, positive, within-person effect of Time 1 Contact on Time 2 Contact (βs =.09 – .10), such that an individual with higher-than-average contact in a given year also showed higher-than-average contact in the subsequent year. There were also a significant, positive, within-person effects of Time 1 Cultural Policy support on Time 2 Cultural Policy support (βs =.16 – .19), Time 1 Reparative Policy support on Time 2 Reparative Policy support (βs =.19 – .21), and Time 1 Collective Action support on Time 2 Collective Action support (βs =.09 – .11). There was a significant, positive, within-person effect of Time 1 Reparative Policy

support on Time 2 Symbolic Policy support (βs =.02 – .03) and a significant, positive, within-person effect of Time 1 Symbolic Policy Support on Time 2 Reparative Policy Support (βs = .03 – .04). There was a significant, negative, within-person effect of Time 1 Collective Action support on Time 2 Symbolic Policy Support (βs = -.04 – -.03) as well as on Time 2 Reparative Policy Support (βs = -.04 – -.03).

The negative within-person effects of collective action on policy support are somewhat surprising given the positive between-person correlation (Table 1) and the positive bivariate correlations between each of these constructs at different timepoints (Table S9). They reveal the possibility of a hitherto unrecognized tension between collective action intentions and policy, once between-person stability is accounted for. We can speculate that this might reflect a hydraulic effect whereby people's social-justice motivations are sated by expressing higher collective action support (and perhaps engaging in collective action), leading to them subsequently view policy changes as being less necessary. However, this beyond the scope of the current paper and we leave it to future research to explore this potential hydraulic effect.

Model 2

Analyses for Model 2 showed a similar pattern of results to Model 1. Again, there was a significant, positive, within-person effect of Time 1 Contact on Time 2 Contact (βs =.08 – .09). There were also a significant, positive, within-person effects of Time 1 Cultural Policy support on Time 2 Cultural Policy support (βs =.13 – .14), Time 1 Reparative Policy support on Time 2 Reparative Policy support (βs =.13 – .14), and Time 1 Collective Action support on Time 2 Collective Action support (βs =.08 – .09). In contrast to Model 1, there was no significant within-person effect of Time 1 Reparative Policy support on Time 2 Symbolic Policy support. But there was a significant, positive, within-person effect of Time 1 Symbolic Policy support on Time 2 Reparative Policy support (βs = .02 – .03). Finally, there was a significant, negative, within-person effect of Time 1 Collective Action support on Time 2 Symbolic Policy Support (βs = -.07 – -.06) as well as on Time 2 Reparative Policy Support (βs = -.08 – -.07)

Disturbances

Table S1. Time 3 disturbances (i.e., correlations between all time-specific latent variables) in Model 1

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**<.01**	-	
3. Reparative Policy	**.05**	.16*	-
4. Collective Action	**.01**	.23*	.26*

*p < .01. Focal relationships shown in bold

Table S2. Time 4 disturbances in Model 1

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.01**	-	
3. Reparative Policy	**-.01**	.10*	-
4. Collective Action	**-.03**	.25*	.19*

*p < .01. Focal relationships shown in bold

Table S3. Time 5 disturbances in Model 1

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.01**	-	
3. Reparative Policy	**.01**	.13*	-
4. Collective Action	**<.01**	.22*	.20*

*p < .01. Focal relationships shown in bold

Table S4. Time 6 disturbances in Model 1

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.02**	-	
3. Reparative Policy	**.01**	.13*	-
4. Collective Action	**.03**	.15*	.25*

*p < .01. Focal relationships shown in bold

Table S5. Time 7 disturbances in Model 1

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**-.01**	-	
3. Reparative Policy	**.01**	.14*	-
4. Collective Action	**.02**	.14*	.24*

*p < .01. Focal relationships shown in bold

Table S6. Time 8 disturbances in Model 1

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.01**	-	
3. Reparative Policy	**-.01**	.15*	-
4. Collective Action	**.01**	.20*	.24*

*p < .01. Focal relationships shown in bold

Table S7. Time 9 disturbances in Model 1

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.01**	-	
3. Reparative Policy	**02**	.20*	-
4. Collective Action	**.02**	.23*	.26*

*p < .01. Focal relationships shown in bold

Table S8. Time 3 disturbances in Model 2

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.11***	-	
3. Reparative Policy	**.05***	.14*	-
4. Collective Action	**.09***	.21*	.20*

*p < .01. Focal relationships shown in bold

Table S9. Time 4 disturbances in Model 2

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.08***	-	
3. Reparative Policy	**-.01**	.08*	-
4. Collective Action	**.03**	.24*	.16*

*p < .01. Focal relationships shown in bold

Table S10. Time 5 disturbances in Model 2

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.06***	-	
3. Reparative Policy	**.03**	.13*	-
4. Collective Action	**<.01**	.22*	.20*

*p < .01. Focal relationships shown in bold

Table S11. Time 6 disturbances in Model 2

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.10***	-	

3. Reparative Policy	**.01**	.10*	-
4. Collective Action	**.01**	.16*	.24*

*p < .01. Focal relationships shown in bold

Table S12. Time 7 disturbances in Model 2

	1.	2.	3.
1. Intergroup Contact	-		
2. Cultural Policy	**.09***	-	
3. Reparative Policy	**.03**	.18*	-
4. Collective Action	**.03**	.17*	.25*

*p < .01. Focal relationships shown in bold

Correlation Matrix

Table S13. Bivariate Correlations between All Variables

		1	2	3	4	5	6	7	8	9	10
1	Contact Hours T3										
2	Likert Contact T3	.138**									
3	Cultural Policy T3	.113**	.362**								
4	Reparative Policy T3	.205**	.253**	.497**							
5	Collective action T3	.130**	.285**	.559**	.661**						
6	Contact Hours T4	.510**	.122**	.109**	.177**	.119**					
7	Likert Contact T4	.122**	.509**	.301**	.200**	.222**	.150**				
8	Cultural Policy T4	.117**	.332**	.829**	.495**	.539**	.139**	.333**			
9	Reparative Policy T4	.187**	.231**	.485**	.838**	.631**	.233**	.215**	.509**		
10	Collective action T4	.116**	.264**	.537**	.628**	.728**	.140**	.258**	.602**	.669**	
11	Contact Hours T5	.542**	.115**	.116**	.160**	.106**	.567**	.139**	.134**	.221**	.147**
12	Likert Contact T5	.117**	.469**	.293**	.188**	.210**	.143**	.536**	.287**	.196**	.219**
13	Cultural Policy T5	.119**	.320**	.825**	.497**	.534**	.134**	.306**	.845**	.491**	.564**
14	Reparative Policy T5	.195**	.234**	.507**	.833**	.632**	.222**	.227**	.521**	.856**	.648**
15	Collective action T5	.131**	.258**	.564**	.630**	.735**	.159**	.237**	.578**	.649**	.755**
16	Contact Hours T6	.554**	.123**	.120**	.192**	.126**	.539**	.152**	.129**	.211**	.138**
17	Likert Contact T6	.121**	.454**	.271**	.163**	.177**	.130**	.513**	.263**	.169**	.193**
18	Cultural Policy T6	.117**	.311**	.812**	.487**	.515**	.123**	.305**	.826**	.484**	.543**
19	Reparative Policy T6	.185**	.251**	.517**	.830**	.634**	.194**	.218**	.528**	.842**	.647**
20	Collective action T6	.138**	.255**	.538**	.659**	.698**	.134**	.229**	.547**	.657**	.719**
21	Contact Hours T7	.468**	.124**	.124**	.184**	.120**	.550**	.149**	.131**	.212**	.130**
22	Likert Contact T7	.112**	.426**	.269**	.159**	.195**	.133**	.505**	.266**	.175**	.203**
23	Cultural Policy T7	.102**	.309**	.810**	.468**	.502**	.117**	.296**	.820**	.463**	.529**
24	Reparative Policy T7	.176**	.233**	.520**	.814**	.643**	.187**	.218**	.539**	.834**	.648**
25	Collective action T7	.135**	.238**	.523**	.645**	.689**	.148**	.231**	.543**	.656**	.706**
26	Hours Contact T8	.514**	.129**	.132**	.211**	.142**	.510**	.141**	.136**	.238**	.166**
27	Cultural Policy T8	.100**	.298**	.792**	.460**	.504**	.113**	.288**	.799**	.452**	.518**
28	Reparative Polict T8	.165**	.242**	.536**	.798**	.639**	.196**	.219**	.545**	.819**	.649**
29	Collective Action T8	.117**	.249**	.557**	.619**	.694**	.135**	.241**	.558**	.624**	.703**
30	Hours Contact T9	.534**	.114**	.100**	.173**	.097**	.486**	.128**	.124**	.220**	.142**
31	Cultural Policy T9	.083**	.299**	.776**	.451**	.497**	.100**	.287**	.791**	.454**	.520**
32	Reparative Polict T9	.167**	.237**	.512**	.787**	.622**	.194**	.213**	.535**	.810**	.639**
33	Collective Action T9	.111**	.240**	.530**	.606**	.674**	.128**	.223**	.542**	.617**	.679**

*p < .05, **p < .01

11	12	13	14	15	16	17	18	19	20	21	22	23	24
.143**													
.124**	.312**												
.210**	.203**	.508**											
.139**	.220**	.587**	.679**										
.575**	.147**	.121**	.203**	.147**									
.131**	.532**	.280**	.174**	.198**	.146**								
.123**	.294**	.836**	.485**	.545**	.132**	.313**							
.199**	.206**	.508**	.860**	.653**	.208**	.184**	.517**						
.143**	.217**	.538**	.667**	.736**	.154**	.206**	.555**	.713**					
.580**	.143**	.118**	.213**	.137**	.635**	.148**	.119**	.208**	.144**				
.121**	.522**	.281**	.182**	.208**	.142**	.561**	.282**	.191**	.198**	.150**			
.108**	.295**	.823**	.475**	.539**	.120**	.290**	.851**	.499**	.531**	.116**	.311**		
.194**	.199**	.512**	.848**	.653**	.194**	.180**	.517**	.871**	.687**	.213**	.197**	.525**	
.144**	.203**	.528**	.667**	.727**	.149**	.196**	.534**	.684**	.765**	.160**	.212**	.551**	.726**
.581**	.146**	.125**	.212**	.139**	.612**	.142**	.120**	.204**	.151**	.645**	.157**	.118**	.200**
.105**	.277**	.806**	.473**	.533**	.121**	.279**	.830**	.491**	.522**	.109**	.293**	.853**	.508**
.189**	.206**	.525**	.833**	.659**	.190**	.179**	.528**	.856**	.685**	.203**	.194**	.527**	.883**
.124**	.210**	.548**	.635**	.724**	.136**	.202**	.554**	.649**	.745**	.137**	.215**	.557**	.678**
.541**	.134**	.117**	.207**	.128**	.614**	.132**	.117**	.208**	.137**	.604**	.142**	.121**	.198**
.093**	.290**	.802**	.469**	.532**	.106**	.277**	.822**	.488**	.533**	.100**	.287**	.840**	.505**
.174**	.204**	.519**	.823**	.650**	.175**	.175**	.524**	.843**	.676**	.181**	.199**	.523**	.865**
.118**	.210**	.536**	.630**	.705**	.127**	.190**	.539**	.647**	.732**	.128**	.218**	.547**	.659**

*p < .05, **p < .01

25	26	27	28	29	30	31	32
.150**							
.524**	.117**						
.701**	.190**	.538**					
.764**	.138**	.586**	.715**				
.145**	.624**	.109**	.175**	.125**			
.530**	.104**	.844**	.524**	.566**	.111**		
.692**	.175**	.521**	.874**	.685**	.187**	.543**	
.745**	.125**	.545**	.675**	.760**	.131**	.587**	.712**

*p < .05, **p < .01

MPlus Syntax

Model 1

```
USEVARIABLE ARE

!See Define Statement for variable information

  y1t1 y1t2 y1t3 y1t4 y1t5 y1t6 y1t7
  y2t1 y2t2 y2t3 y2t4 y2t5 y2t6 y2t7
  y3t1 y3t2 y3t3 y3t4 y3t5 y3t6 y3t7
  y4t1 y4t2 y4t3 y4t4   y4t5 y4t6 y4t7;

!Selecting only NZ Europeans and those with data for two or more timepoints

  USEOBS ARE (Euro EQ 1 and TSUM09 GE 2);


  DEFINE:

!Defining Cultural Policy support as the mean of the four items at each timepoint.

  SPOLT03 = MEAN (Spol1T03     Spol2T03     Spol3T03     Spol4T03);
  SPOLT04 = MEAN (Spol1T04     Spol2T04     Spol3T04     Spol4T04);
  SPOLT05 = MEAN (Spol1T05     Spol2T05     Spol3T05     Spol4T05);
  SPOLT06 = MEAN (Spol1T06     Spol2T06     Spol3T06     Spol4T06);
  SPOLT07 = MEAN (Spol1T07     Spol2T07     Spol3T07     Spol4T07);
  SPOLT08 = MEAN (Spol1T08     Spol2T08     Spol3T08     Spol4T08);
  SPOLT09 = MEAN (Spol1T09     Spol2T09     Spol3T09     Spol4T09);

!Defining Reparative Policy support as the mean of the four items at each timepoint.

  RPOLT03 = MEAN (Rpol1T03     Rpol2T03     Rpol3T03     Rpol4T03);
  RPOLT04 = MEAN (Rpol1T04     Rpol2T04     Rpol3T04     Rpol4T04);
  RPOLT05 = MEAN (Rpol1T05     Rpol2T05     Rpol3T05     Rpol4T05);
  RPOLT06 = MEAN (Rpol1T06     Rpol2T06     Rpol3T06     Rpol4T06);
  RPOLT07 = MEAN (Rpol1T07     Rpol2T07     Rpol3T07     Rpol4T07);
  RPOLT08 = MEAN (Rpol1T08     Rpol2T08     Rpol3T08     Rpol4T08);
  RPOLT09 = MEAN (Rpol1T09     Rpol2T09     Rpol3T09     Rpol4T09);

!Hours with outgroup friends measure at each timepoint

  y1t1 = HoursT03;
  y1t2 = HoursT04;
  y1t3 = HoursT05;
  y1t4 = HoursT06;
  y1t5 = HoursT07;
  y1t6 = HoursT08;
  y1t7 = HoursT09;
```

```
!Cultural Policy measure at each timepoint

  y2t1 = SPOLT03;
  y2t2 = SPOLT04;
  y2t3 = SPOLT05;
  y2t4 = SPOLT06;
  y2t5 = SPOLT07;
  y2t6 = SPOLT08;
  y2t7 = SPOLT09;

!Reparative Policy measure at each timepoint

  y3t1 = RPOLT03;
  y3t2 = RPOLT04;
  y3t3 = RPOLT05;
  y3t4 = RPOLT06;
  y3t5 = RPOLT07;
  y3t6 = RPOLT08;
  y3t7 = RPOLT09;

!Collective Action measure at each timepoint

  y4t1 = CAT03;
  y4t2 = CAT04;
  y4t3 = CAT05;
  y4t4 = CAT06;
  y4t5 = CAT07;
  y4t6 = CAT08;
  y4t7 = CAT09;


  ANALYSIS:

  COVERAGE = .001;
  PROCESSORS = 12;
  TYPE = General;
  ESTIMATOR = MLR; !Maximum Likelihood with Robust Estimation of Standard Errors.

  MODEL:

!Specifying the random intercepts

 ry1 by y1t1@1 y1t2@1 y1t3@1 y1t4@1 y1t5@1 y1t6@1 y1t7@1;
  ry2 by y2t1@1 y2t2@1 y2t3@1 y2t4@1 y2t5@1 y2t6@1 y2t7@1;
  ry3 by y3t1@1 y3t2@1 y3t3@1 y3t4@1 y3t5@1 y3t6@1 y3t7@1;
  ry4 by y4t1@1 y4t2@1 y4t3@1       y4t4@1 y4t5@1 y4t6@1 y4t7@1;

!Creating centered within-person variables

  cy1t1 by y1t1@1; cy1t2 by y1t2@1; cy1t3 by y1t3@1; cy1t4 by y1t4@1; cy1t5 by y1t5@1;
```

```
cy1t6 by y1t6@1; cy1t7 by y1t7@1;
cy2t1 by y2t1@1; cy2t2 by y2t2@1; cy2t3 by y2t3@1; cy2t4 by y2t4@1; cy2t5 by y2t5@1;
cy2t6 by y2t6@1; cy2t7 by y2t7@1;
cy3t1 by y3t1@1; cy3t2 by y3t2@1; cy3t3 by y3t3@1; cy3t4 by y3t4@1; cy3t5 by y3t5@1;
cy3t6 by y3t6@1; cy3t7 by y3t7@1;
cy4t1 by y4t1@1; cy4t2 by y4t2@1; cy4t3 by y4t3@1; cy4t4 by y4t4@1; cy4t5 by y4t5@1;
cy4t6 by y4t6@1; cy4t7 by y4t7@1;

!Constraining the residual variance of all observed variables to zero

y1t1-y4t7@0;

!Cross-lagged Panel Model

!=====================================!

cy1t2 ON    cy1t1 cy2t1 cy3t1 cy4t1 (1-4);
cy2t2 ON    cy1t1 cy2t1 cy3t1 cy4t1 (5-8);
cy3t2 ON    cy1t1 cy2t1 cy3t1 cy4t1 (9-12);
cy4t2 ON    cy1t1 cy2t1 cy3t1 cy4t1 (13-16);

!=====================================!

cy1t3 ON    cy1t2 cy2t2 cy3t2 cy4t2 (1-4);
cy2t3 ON    cy1t2 cy2t2 cy3t2 cy4t2 (5-8);
cy3t3 ON    cy1t2 cy2t2 cy3t2 cy4t2 (9-12);
cy4t3 ON    cy1t2 cy2t2 cy3t2 cy4t2 (13-16);

!=====================================!

cy1t4 ON    cy1t3 cy2t3 cy3t3 cy4t3 (1-4);
cy2t4 ON    cy1t3 cy2t3 cy3t3 cy4t3 (5-8);
cy3t4 ON    cy1t3 cy2t3 cy3t3 cy4t3 (9-12);
cy4t4 ON    cy1t3 cy2t3 cy3t3 cy4t3 (13-16);

!=====================================!

cy1t5 ON    cy1t4 cy2t4 cy3t4 cy4t4 (1-4);
cy2t5 ON    cy1t4 cy2t4 cy3t4 cy4t4 (5-8);
cy3t5 ON    cy1t4 cy2t4 cy3t4 cy4t4 (9-12);
cy4t5 ON    cy1t4 cy2t4 cy3t4 cy4t4 (13-16);

!=====================================!

cy1t6 ON    cy1t5 cy2t5 cy3t5 cy4t5 (1-4);
cy2t6 ON    cy1t5 cy2t5 cy3t5 cy4t5 (5-8);
cy3t6 ON    cy1t5 cy2t5 cy3t5 cy4t5 (9-12);
cy4t6 ON    cy1t5 cy2t5 cy3t5 cy4t5 (13-16);

!=====================================!
```

```
  cy1t7 ON      cy1t6 cy2t6 cy3t6 cy4t6 (1-4);
  cy2t7 ON      cy1t6 cy2t6 cy3t6 cy4t6 (5-8);
  cy3t7 ON      cy1t6 cy2t6 cy3t6 cy4t6 (9-12);
  cy4t7 ON      cy1t6 cy2t6 cy3t6 cy4t6 (13-16);

  !====================================!

!Within-timepoint correlations between all variables

  cy1t1 WITH cy2t1 cy3t1 cy4t1;
  cy1t1 WITH cy2t1 cy3t1;
  cy2t1 WITH cy3t1;

  cy1t2 WITH cy2t2 cy3t2 cy4t2;
  cy1t2 WITH cy2t2 cy3t2;
  cy2t2 WITH cy3t2;

  cy1t3 WITH cy2t3 cy3t3 cy4t3;
  cy1t3 WITH cy2t3 cy3t3;
  cy2t3 WITH cy3t3;

  cy1t4 WITH cy2t4 cy3t4 cy4t4;
  cy1t4 WITH cy2t4 cy3t4;
  cy2t4 WITH cy3t4;

  cy1t5 WITH cy2t5 cy3t5 cy4t5;
  cy1t5 WITH cy2t5 cy3t5;
  cy2t5 WITH cy3t5;

  cy1t6 WITH cy2t6 cy3t6 cy4t6;
  cy1t6 WITH cy2t6 cy3t6;
  cy2t6 WITH cy3t6;

  cy1t7 WITH cy2t7 cy3t7 cy4t7;
  cy1t7 WITH cy2t7 cy3t7;
  cy2t7 WITH cy3t7;

!Constraining the correlations between the random intercepts and Time 1 within-person
variables to zero.

  ry1 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
  ry2 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
  ry3 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
  ry4 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;


  OUTPUT:

  SAMPSTAT CINT STDYX
```

Model 2

```
USEVARIABLE ARE

!See Define Statement for variable information

  y1t1 y1t2 y1t3 y1t4 y1t5
  y2t1 y2t2 y2t3 y2t4 y2t5
  y3t1 y3t2 y3t3 y3t4 y3t5
  y4t1 y4t2 y4t3 y4t4   y4t5;


!Selecting only NZ Europeans and those with data for two or more timepoints

  USEOBS ARE (Euro EQ 1 and TSUM07 GE 2);


  DEFINE:

!Defining Cultural Policy support as the mean of the four items at each timepoint.

SPOLT03 = MEAN (Spol1T03       Spol2T03       Spol3T03       Spol4T03);
  SPOLT04 = MEAN (Spol1T04     Spol2T04       Spol3T04       Spol4T04);
  SPOLT05 = MEAN (Spol1T05     Spol2T05       Spol3T05       Spol4T05);
  SPOLT06 = MEAN (Spol1T06     Spol2T06       Spol3T06       Spol4T06);
  SPOLT07 = MEAN (Spol1T07     Spol2T07       Spol3T07       Spol4T07);
  SPOLT08 = MEAN (Spol1T08     Spol2T08       Spol3T08       Spol4T08);
  SPOLT09 = MEAN (Spol1T09     Spol2T09       Spol3T09       Spol4T09);

!Defining Reparative Policy support as the mean of the four items at each timepoint.

  RPOLT03 = MEAN (Rpol1T03     Rpol2T03       Rpol3T03       Rpol4T03);
  RPOLT04 = MEAN (Rpol1T04     Rpol2T04       Rpol3T04       Rpol4T04);
  RPOLT05 = MEAN (Rpol1T05     Rpol2T05       Rpol3T05       Rpol4T05);
  RPOLT06 = MEAN (Rpol1T06     Rpol2T06       Rpol3T06       Rpol4T06);
  RPOLT07 = MEAN (Rpol1T07     Rpol2T07       Rpol3T07       Rpol4T07);
  RPOLT08 = MEAN (Rpol1T08     Rpol2T08       Rpol3T08       Rpol4T08);
  RPOLT09 = MEAN (Rpol1T09     Rpol2T09       Rpol3T09       Rpol4T09);

!Likert-scale contact measure at each timepoint
  y1t1 = ConT03;
  y1t2 = ConT04;
  y1t3 = ConT05;
  y1t4 = ConT06;
  y1t5 = ConT07;

!Cultural Policy measure at each timepoint
  y2t1 = SPOLT03;
  y2t2 = SPOLT04;
```

```
  y2t3 = SPOLT05;
  y2t4 = SPOLT06;
  y2t5 = SPOLT07;

!Reparative Policy measure at each timepoint

  y3t1 = RPOLT03;
  y3t2 = RPOLT04;
  y3t3 = RPOLT05;
  y3t4 = RPOLT06;
  y3t5 = RPOLT07;

!Collective Action measure at each timepoint

  y4t1 = CAT03;
  y4t2 = CAT04;
  y4t3 = CAT05;
  y4t4 = CAT06;
  y4t5 = CAT07;



  ANALYSIS:

  COVERAGE = .001;
  PROCESSORS = 12;
  TYPE = General;
  ESTIMATOR = MLR; !Maximum Likelihood with Robust Estimation of Standard Errors.

  MODEL:

!Specifying the random intercepts

  ry1 by y1t1@1 y1t2@1 y1t3@1 y1t4@1 y1t5@1;
  ry2 by y2t1@1 y2t2@1 y2t3@1 y2t4@1 y2t5@1;
  ry3 by y3t1@1 y3t2@1 y3t3@1 y3t4@1 y3t5@1;
  ry4 by y4t1@1 y4t2@1 y4t3@1      y4t4@1 y4t5@1;

!Creating centered within-person variables

  cy1t1 by y1t1@1; cy1t2 by y1t2@1; cy1t3 by y1t3@1; cy1t4 by y1t4@1; cy1t5 by y1t5@1;
  cy2t1 by y2t1@1; cy2t2 by y2t2@1; cy2t3 by y2t3@1; cy2t4 by y2t4@1; cy2t5 by y2t5@1;
  cy3t1 by y3t1@1; cy3t2 by y3t2@1; cy3t3 by y3t3@1; cy3t4 by y3t4@1; cy3t5 by y3t5@1;
  cy4t1 by y4t1@1; cy4t2 by y4t2@1; cy4t3 by y4t3@1; cy4t4 by y4t4@1; cy4t5 by y4t5@1;

!Constraining the residual variances of all observed variables to zero

  y1t1-y4t5@0;

  !Cross-lagged Panel Model
```

```
!=====================================!

cy1t2 ON      cy1t1 cy2t1 cy3t1 cy4t1 (1-4);
cy2t2 ON      cy1t1 cy2t1 cy3t1 cy4t1 (5-8);
cy3t2 ON      cy1t1 cy2t1 cy3t1 cy4t1 (9-12);
cy4t2 ON      cy1t1 cy2t1 cy3t1 cy4t1 (13-16);

!=====================================!

cy1t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (1-4);
cy2t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (5-8);
cy3t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (9-12);
cy4t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (13-16);

!=====================================!

cy1t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (1-4);
cy2t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (5-8);
cy3t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (9-12);
cy4t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (13-16);

!=====================================!

cy1t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (1-4);
cy2t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (5-8);
cy3t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (9-12);
cy4t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (13-16);

!=====================================!

!Within-timepoint correlations between all variables

cy1t1 WITH cy2t1 cy3t1 cy4t1;
cy1t1 WITH cy2t1 cy3t1;
cy2t1 WITH cy3t1;

cy1t2 WITH cy2t2 cy3t2 cy4t2;
cy1t2 WITH cy2t2 cy3t2;
cy2t2 WITH cy3t2;

cy1t3 WITH cy2t3 cy3t3 cy4t3;
cy1t3 WITH cy2t3 cy3t3;
cy2t3 WITH cy3t3;

cy1t4 WITH cy2t4 cy3t4 cy4t4;
cy1t4 WITH cy2t4 cy3t4;
cy2t4 WITH cy3t4;

cy1t5 WITH cy2t5 cy3t5 cy4t5;
```

```
cy1t5 WITH cy2t5 cy3t5;
cy2t5 WITH cy3t5;

!Constraining the correlations between the random intercepts and Time 1 within-person
variables to zero.

ry1 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
ry2 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
ry3 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
ry4 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;


OUTPUT:

SAMPSTAT CINT STDYX
```

Model 1 CLPM

```
USEVARIABLE ARE

cy1t1 cy1t2 cy1t3 cy1t4 cy1t5 cy1t6 cy1t7
cy2t1 cy2t2 cy2t3 cy2t4 cy2t5 cy2t6 cy2t7
cy3t1 cy3t2 cy3t3 cy3t4 cy3t5 cy3t6 cy3t7
cy4t1 cy4t2 cy4t3 cy4t4       cy4t5 cy4t6 cy4t7;


USEOBS ARE (Euro EQ 1 and TSUM09 GE 2);


DEFINE:

SPOLT03 = MEAN (Spol1T03      Spol2T03      Spol3T03      Spol4T03);
SPOLT04 = MEAN (Spol1T04      Spol2T04      Spol3T04      Spol4T04);
SPOLT05 = MEAN (Spol1T05      Spol2T05      Spol3T05      Spol4T05);
SPOLT06 = MEAN (Spol1T06      Spol2T06      Spol3T06      Spol4T06);
SPOLT07 = MEAN (Spol1T07      Spol2T07      Spol3T07      Spol4T07);
SPOLT08 = MEAN (Spol1T08      Spol2T08      Spol3T08      Spol4T08);
SPOLT09 = MEAN (Spol1T09      Spol2T09      Spol3T09      Spol4T09);

RPOLT03 = MEAN (Rpol1T03      Rpol2T03      Rpol3T03      Rpol4T03);
RPOLT04 = MEAN (Rpol1T04      Rpol2T04      Rpol3T04      Rpol4T04);
RPOLT05 = MEAN (Rpol1T05      Rpol2T05      Rpol3T05      Rpol4T05);
RPOLT06 = MEAN (Rpol1T06      Rpol2T06      Rpol3T06      Rpol4T06);
RPOLT07 = MEAN (Rpol1T07      Rpol2T07      Rpol3T07      Rpol4T07);
RPOLT08 = MEAN (Rpol1T08      Rpol2T08      Rpol3T08      Rpol4T08);
RPOLT09 = MEAN (Rpol1T09      Rpol2T09      Rpol3T09      Rpol4T09);


cy1t1 = HoursT03;
```

```
cy1t2 = HoursT04;
cy1t3 = HoursT05;
cy1t4 = HoursT06;
cy1t5 = HoursT07;
cy1t6 = HoursT08;
cy1t7 = HoursT09;

cy2t1 = SPOLT03;
cy2t2 = SPOLT04;
cy2t3 = SPOLT05;
cy2t4 = SPOLT06;
cy2t5 = SPOLT07;
cy2t6 = SPOLT08;
cy2t7 = SPOLT09;

cy3t1 = RPOLT03;
cy3t2 = RPOLT04;
cy3t3 = RPOLT05;
cy3t4 = RPOLT06;
cy3t5 = RPOLT07;
cy3t6 = RPOLT08;
cy3t7 = RPOLT09;

cy4t1 = CAT03;
cy4t2 = CAT04;
cy4t3 = CAT05;
cy4t4 = CAT06;
cy4t5 = CAT07;
cy4t6 = CAT08;
cy4t7 = CAT09;


ANALYSIS:

COVERAGE = .001;
PROCESSORS = 12;
TYPE = General;
ESTIMATOR = MLR;

MODEL:


!Cross-lagged Panel Model

!====================================!

cy1t2 ON      cy1t1 cy2t1 cy3t1 cy4t1 (1-4);
cy2t2 ON      cy1t1 cy2t1 cy3t1 cy4t1 (5-8);
cy3t2 ON      cy1t1 cy2t1 cy3t1 cy4t1 (9-12);
cy4t2 ON      cy1t1 cy2t1 cy3t1 cy4t1 (13-16);
```

```
!=====================================!

cy1t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (1-4);
cy2t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (5-8);
cy3t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (9-12);
cy4t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (13-16);

!=====================================!

cy1t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (1-4);
cy2t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (5-8);
cy3t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (9-12);
cy4t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (13-16);

!=====================================!

cy1t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (1-4);
cy2t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (5-8);
cy3t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (9-12);
cy4t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (13-16);

!=====================================!

cy1t6 ON      cy1t5 cy2t5 cy3t5 cy4t5 (1-4);
cy2t6 ON      cy1t5 cy2t5 cy3t5 cy4t5 (5-8);
cy3t6 ON      cy1t5 cy2t5 cy3t5 cy4t5 (9-12);
cy4t6 ON      cy1t5 cy2t5 cy3t5 cy4t5 (13-16);

!=====================================!

cy1t7 ON      cy1t6 cy2t6 cy3t6 cy4t6 (1-4);
cy2t7 ON      cy1t6 cy2t6 cy3t6 cy4t6 (5-8);
cy3t7 ON      cy1t6 cy2t6 cy3t6 cy4t6 (9-12);
cy4t7 ON      cy1t6 cy2t6 cy3t6 cy4t6 (13-16);

!=====================================!


cy1t1 WITH cy2t1 cy3t1 cy4t1;
cy1t1 WITH cy2t1 cy3t1;
cy2t1 WITH cy3t1;

cy1t2 WITH cy2t2 cy3t2 cy4t2;
cy1t2 WITH cy2t2 cy3t2;
cy2t2 WITH cy3t2;

cy1t3 WITH cy2t3 cy3t3 cy4t3;
cy1t3 WITH cy2t3 cy3t3;
cy2t3 WITH cy3t3;
```

```
cy1t4 WITH cy2t4 cy3t4 cy4t4;
cy1t4 WITH cy2t4 cy3t4;
cy2t4 WITH cy3t4;

cy1t5 WITH cy2t5 cy3t5 cy4t5;
cy1t5 WITH cy2t5 cy3t5;
cy2t5 WITH cy3t5;

cy1t6 WITH cy2t6 cy3t6 cy4t6;
cy1t6 WITH cy2t6 cy3t6;
cy2t6 WITH cy3t6;

cy1t7 WITH cy2t7 cy3t7 cy4t7;
cy1t7 WITH cy2t7 cy3t7;
cy2t7 WITH cy3t7;


OUTPUT:

SAMPSTAT CINT STDYX
```

Model 2 CLPM

```
USEVARIABLE ARE

cy1t1 cy1t2 cy1t3 cy1t4 cy1t5
cy2t1 cy2t2 cy2t3 cy2t4 cy2t5
cy3t1 cy3t2 cy3t3 cy3t4 cy3t5
cy4t1 cy4t2 cy4t3 cy4t4      cy4t5;


USEOBS ARE (Euro EQ 1 and TSUM07 GE 2);


DEFINE:

SPOLT03 = MEAN (Spol1T03     Spol2T03     Spol3T03     Spol4T03);
SPOLT04 = MEAN (Spol1T04     Spol2T04     Spol3T04     Spol4T04);
SPOLT05 = MEAN (Spol1T05     Spol2T05     Spol3T05     Spol4T05);
SPOLT06 = MEAN (Spol1T06     Spol2T06     Spol3T06     Spol4T06);
SPOLT07 = MEAN (Spol1T07     Spol2T07     Spol3T07     Spol4T07);
SPOLT08 = MEAN (Spol1T08     Spol2T08     Spol3T08     Spol4T08);
SPOLT09 = MEAN (Spol1T09     Spol2T09     Spol3T09     Spol4T09);

RPOLT03 = MEAN (Rpol1T03     Rpol2T03     Rpol3T03     Rpol4T03);
RPOLT04 = MEAN (Rpol1T04     Rpol2T04     Rpol3T04     Rpol4T04);
RPOLT05 = MEAN (Rpol1T05     Rpol2T05     Rpol3T05     Rpol4T05);
RPOLT06 = MEAN (Rpol1T06     Rpol2T06     Rpol3T06     Rpol4T06);
RPOLT07 = MEAN (Rpol1T07     Rpol2T07     Rpol3T07     Rpol4T07);
```

```
RPOLT08 = MEAN (Rpol1T08     Rpol2T08     Rpol3T08     Rpol4T08);
RPOLT09 = MEAN (Rpol1T09     Rpol2T09     Rpol3T09     Rpol4T09);


cy1t1 = ConT03;
cy1t2 = ConT04;
cy1t3 = ConT05;
cy1t4 = ConT06;
cy1t5 = ConT07;


cy2t1 = SPOLT03;
cy2t2 = SPOLT04;
cy2t3 = SPOLT05;
cy2t4 = SPOLT06;
cy2t5 = SPOLT07;


cy3t1 = RPOLT03;
cy3t2 = RPOLT04;
cy3t3 = RPOLT05;
cy3t4 = RPOLT06;
cy3t5 = RPOLT07;


cy4t1 = CAT03;
cy4t2 = CAT04;
cy4t3 = CAT05;
cy4t4 = CAT06;
cy4t5 = CAT07;



ANALYSIS:

COVERAGE = .001;
PROCESSORS = 12;
TYPE = General;
ESTIMATOR = MLR;

MODEL:


!Cross-lagged Panel Model

!====================================!

cy1t2 ON     cy1t1 cy2t1 cy3t1 cy4t1 (1-4);
cy2t2 ON     cy1t1 cy2t1 cy3t1 cy4t1 (5-8);
cy3t2 ON     cy1t1 cy2t1 cy3t1 cy4t1 (9-12);
```

```
cy4t2 ON      cy1t1 cy2t1 cy3t1 cy4t1 (13-16);

!=====================================!

cy1t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (1-4);
cy2t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (5-8);
cy3t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (9-12);
cy4t3 ON      cy1t2 cy2t2 cy3t2 cy4t2 (13-16);

!=====================================!

cy1t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (1-4);
cy2t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (5-8);
cy3t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (9-12);
cy4t4 ON      cy1t3 cy2t3 cy3t3 cy4t3 (13-16);

!=====================================!

cy1t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (1-4);
cy2t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (5-8);
cy3t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (9-12);
cy4t5 ON      cy1t4 cy2t4 cy3t4 cy4t4 (13-16);

!=====================================!



cy1t1 WITH cy2t1 cy3t1 cy4t1;
cy1t1 WITH cy2t1 cy3t1;
cy2t1 WITH cy3t1;

cy1t2 WITH cy2t2 cy3t2 cy4t2;
cy1t2 WITH cy2t2 cy3t2;
cy2t2 WITH cy3t2;

cy1t3 WITH cy2t3 cy3t3 cy4t3;
cy1t3 WITH cy2t3 cy3t3;
cy2t3 WITH cy3t3;

cy1t4 WITH cy2t4 cy3t4 cy4t4;
cy1t4 WITH cy2t4 cy3t4;
cy2t4 WITH cy3t4;

cy1t5 WITH cy2t5 cy3t5 cy4t5;
cy1t5 WITH cy2t5 cy3t5;
cy2t5 WITH cy3t5;
```

OUTPUT:

SAMPSTAT CINT STDYX

Model 1 non-stationary

USEVARIABLE ARE

y1t1 y1t2 y1t3 y1t4 y1t5 y1t6 y1t7
y2t1 y2t2 y2t3 y2t4 y2t5 y2t6 y2t7
y3t1 y3t2 y3t3 y3t4 y3t5 y3t6 y3t7
y4t1 y4t2 y4t3 y4t4 y4t5 y4t6 y4t7;

USEOBS ARE (Euro EQ 1 and TSUM09 GE 2);

DEFINE:

SPOLT03 = MEAN (Spol1T03 Spol2T03 Spol3T03 Spol4T03);
SPOLT04 = MEAN (Spol1T04 Spol2T04 Spol3T04 Spol4T04);
SPOLT05 = MEAN (Spol1T05 Spol2T05 Spol3T05 Spol4T05);
SPOLT06 = MEAN (Spol1T06 Spol2T06 Spol3T06 Spol4T06);
SPOLT07 = MEAN (Spol1T07 Spol2T07 Spol3T07 Spol4T07);
SPOLT08 = MEAN (Spol1T08 Spol2T08 Spol3T08 Spol4T08);
SPOLT09 = MEAN (Spol1T09 Spol2T09 Spol3T09 Spol4T09);

RPOLT03 = MEAN (Rpol1T03 Rpol2T03 Rpol3T03 Rpol4T03);
RPOLT04 = MEAN (Rpol1T04 Rpol2T04 Rpol3T04 Rpol4T04);
RPOLT05 = MEAN (Rpol1T05 Rpol2T05 Rpol3T05 Rpol4T05);
RPOLT06 = MEAN (Rpol1T06 Rpol2T06 Rpol3T06 Rpol4T06);
RPOLT07 = MEAN (Rpol1T07 Rpol2T07 Rpol3T07 Rpol4T07);
RPOLT08 = MEAN (Rpol1T08 Rpol2T08 Rpol3T08 Rpol4T08);
RPOLT09 = MEAN (Rpol1T09 Rpol2T09 Rpol3T09 Rpol4T09);

y1t1 = HoursT03;
y1t2 = HoursT04;
y1t3 = HoursT05;
y1t4 = HoursT06;
y1t5 = HoursT07;
y1t6 = HoursT08;
y1t7 = HoursT09;

y2t1 = SPOLT03;
y2t2 = SPOLT04;
y2t3 = SPOLT05;
y2t4 = SPOLT06;
y2t5 = SPOLT07;
y2t6 = SPOLT08;

```
y2t7 = SPOLT09;

y3t1 = RPOLT03;
y3t2 = RPOLT04;
y3t3 = RPOLT05;
y3t4 = RPOLT06;
y3t5 = RPOLT07;
y3t6 = RPOLT08;
y3t7 = RPOLT09;

y4t1 = CAT03;
y4t2 = CAT04;
y4t3 = CAT05;
y4t4 = CAT06;
y4t5 = CAT07;
y4t6 = CAT08;
y4t7 = CAT09;


ANALYSIS:

COVERAGE = .001;
PROCESSORS = 12;
TYPE = General;
ESTIMATOR = MLR;

MODEL:

ry1 by y1t1@1 y1t2@1 y1t3@1 y1t4@1 y1t5@1 y1t6@1 y1t7@1;
ry2 by y2t1@1 y2t2@1 y2t3@1 y2t4@1 y2t5@1 y2t6@1 y2t7@1;
ry3 by y3t1@1 y3t2@1 y3t3@1 y3t4@1 y3t5@1 y3t6@1 y3t7@1;
ry4 by y4t1@1 y4t2@1 y4t3@1      y4t4@1 y4t5@1 y4t6@1 y4t7@1;

cy1t1 by y1t1@1; cy1t2 by y1t2@1; cy1t3 by y1t3@1; cy1t4 by y1t4@1; cy1t5 by y1t5@1;
cy1t6 by y1t6@1; cy1t7 by y1t7@1;
cy2t1 by y2t1@1; cy2t2 by y2t2@1; cy2t3 by y2t3@1; cy2t4 by y2t4@1; cy2t5 by y2t5@1;
cy2t6 by y2t6@1; cy2t7 by y2t7@1;
cy3t1 by y3t1@1; cy3t2 by y3t2@1; cy3t3 by y3t3@1; cy3t4 by y3t4@1; cy3t5 by y3t5@1;
cy3t6 by y3t6@1; cy3t7 by y3t7@1;
cy4t1 by y4t1@1; cy4t2 by y4t2@1; cy4t3 by y4t3@1; cy4t4 by y4t4@1; cy4t5 by y4t5@1;
cy4t6 by y4t6@1; cy4t7 by y4t7@1;

y1t1-y4t7@0;

!Cross-lagged Panel Model

!====================================!

cy1t2 ON      cy1t1 cy2t1 cy3t1 cy4t1;
cy2t2 ON      cy1t1 cy2t1 cy3t1 cy4t1;
```

```
cy3t2 ON      cy1t1 cy2t1 cy3t1 cy4t1;
cy4t2 ON      cy1t1 cy2t1 cy3t1 cy4t1;

!=====================================!

cy1t3 ON      cy1t2 cy2t2 cy3t2 cy4t2;
cy2t3 ON      cy1t2 cy2t2 cy3t2 cy4t2;
cy3t3 ON      cy1t2 cy2t2 cy3t2 cy4t2;
cy4t3 ON      cy1t2 cy2t2 cy3t2 cy4t2;

!=====================================!

cy1t4 ON      cy1t3 cy2t3 cy3t3 cy4t3;
cy2t4 ON      cy1t3 cy2t3 cy3t3 cy4t3;
cy3t4 ON      cy1t3 cy2t3 cy3t3 cy4t3;
cy4t4 ON      cy1t3 cy2t3 cy3t3 cy4t3;

!=====================================!

cy1t5 ON      cy1t4 cy2t4 cy3t4 cy4t4;
cy2t5 ON      cy1t4 cy2t4 cy3t4 cy4t4;
cy3t5 ON      cy1t4 cy2t4 cy3t4 cy4t4;
cy4t5 ON      cy1t4 cy2t4 cy3t4 cy4t4;

!=====================================!

cy1t6 ON      cy1t5 cy2t5 cy3t5 cy4t5;
cy2t6 ON      cy1t5 cy2t5 cy3t5 cy4t5;
cy3t6 ON      cy1t5 cy2t5 cy3t5 cy4t5;
cy4t6 ON      cy1t5 cy2t5 cy3t5 cy4t5;

!=====================================!

cy1t7 ON      cy1t6 cy2t6 cy3t6 cy4t6;
cy2t7 ON      cy1t6 cy2t6 cy3t6 cy4t6;
cy3t7 ON      cy1t6 cy2t6 cy3t6 cy4t6;
cy4t7 ON      cy1t6 cy2t6 cy3t6 cy4t6;

!=====================================!


cy1t1 WITH cy2t1 cy3t1 cy4t1;
cy1t1 WITH cy2t1 cy3t1;
cy2t1 WITH cy3t1;

cy1t2 WITH cy2t2 cy3t2 cy4t2;
cy1t2 WITH cy2t2 cy3t2;
cy2t2 WITH cy3t2;

cy1t3 WITH cy2t3 cy3t3 cy4t3;
```

```
cy1t3 WITH cy2t3 cy3t3;
cy2t3 WITH cy3t3;

cy1t4 WITH cy2t4 cy3t4 cy4t4;
cy1t4 WITH cy2t4 cy3t4;
cy2t4 WITH cy3t4;

cy1t5 WITH cy2t5 cy3t5 cy4t5;
cy1t5 WITH cy2t5 cy3t5;
cy2t5 WITH cy3t5;

cy1t6 WITH cy2t6 cy3t6 cy4t6;
cy1t6 WITH cy2t6 cy3t6;
cy2t6 WITH cy3t6;

cy1t7 WITH cy2t7 cy3t7 cy4t7;
cy1t7 WITH cy2t7 cy3t7;
cy2t7 WITH cy3t7;



ry1 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
ry2 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
ry3 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
ry4 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;


OUTPUT:

SAMPSTAT CINT STDYX
```

Model 2 non-stationary

```
USEVARIABLE ARE

y1t1 y1t2 y1t3 y1t4 y1t5
y2t1 y2t2 y2t3 y2t4 y2t5
y3t1 y3t2 y3t3 y3t4 y3t5
y4t1 y4t2 y4t3 y4t4   y4t5;


USEOBS ARE (Euro EQ 1 and TSUM07 GE 2);


DEFINE:

SPOLT03 = MEAN (Spol1T03     Spol2T03     Spol3T03     Spol4T03);
SPOLT04 = MEAN (Spol1T04     Spol2T04     Spol3T04     Spol4T04);
SPOLT05 = MEAN (Spol1T05     Spol2T05     Spol3T05     Spol4T05);
```

```
SPOLT06 = MEAN (Spol1T06    Spol2T06    Spol3T06    Spol4T06);
SPOLT07 = MEAN (Spol1T07    Spol2T07    Spol3T07    Spol4T07);
SPOLT08 = MEAN (Spol1T08    Spol2T08    Spol3T08    Spol4T08);
SPOLT09 = MEAN (Spol1T09    Spol2T09    Spol3T09    Spol4T09);

RPOLT03 = MEAN (Rpol1T03    Rpol2T03    Rpol3T03    Rpol4T03);
RPOLT04 = MEAN (Rpol1T04    Rpol2T04    Rpol3T04    Rpol4T04);
RPOLT05 = MEAN (Rpol1T05    Rpol2T05    Rpol3T05    Rpol4T05);
RPOLT06 = MEAN (Rpol1T06    Rpol2T06    Rpol3T06    Rpol4T06);
RPOLT07 = MEAN (Rpol1T07    Rpol2T07    Rpol3T07    Rpol4T07);
RPOLT08 = MEAN (Rpol1T08    Rpol2T08    Rpol3T08    Rpol4T08);
RPOLT09 = MEAN (Rpol1T09    Rpol2T09    Rpol3T09    Rpol4T09);


y1t1 = ConT03;
y1t2 = ConT04;
y1t3 = ConT05;
y1t4 = ConT06;
y1t5 = ConT07;


y2t1 = SPOLT03;
y2t2 = SPOLT04;
y2t3 = SPOLT05;
y2t4 = SPOLT06;
y2t5 = SPOLT07;


y3t1 = RPOLT03;
y3t2 = RPOLT04;
y3t3 = RPOLT05;
y3t4 = RPOLT06;
y3t5 = RPOLT07;


y4t1 = CAT03;
y4t2 = CAT04;
y4t3 = CAT05;
y4t4 = CAT06;
y4t5 = CAT07;



ANALYSIS:

COVERAGE = .001;
PROCESSORS = 12;
TYPE = General;
ESTIMATOR = MLR;
```

MODEL:

ry1 by y1t1@1 y1t2@1 y1t3@1 y1t4@1 y1t5@1;
ry2 by y2t1@1 y2t2@1 y2t3@1 y2t4@1 y2t5@1;
ry3 by y3t1@1 y3t2@1 y3t3@1 y3t4@1 y3t5@1;
ry4 by y4t1@1 y4t2@1 y4t3@1 y4t4@1 y4t5@1;

cy1t1 by y1t1@1; cy1t2 by y1t2@1; cy1t3 by y1t3@1; cy1t4 by y1t4@1; cy1t5 by y1t5@1;
cy2t1 by y2t1@1; cy2t2 by y2t2@1; cy2t3 by y2t3@1; cy2t4 by y2t4@1; cy2t5 by y2t5@1;
cy3t1 by y3t1@1; cy3t2 by y3t2@1; cy3t3 by y3t3@1; cy3t4 by y3t4@1; cy3t5 by y3t5@1;
cy4t1 by y4t1@1; cy4t2 by y4t2@1; cy4t3 by y4t3@1; cy4t4 by y4t4@1; cy4t5 by y4t5@1;

y1t1-y4t5@0;

!Cross-lagged Panel Model

!=====================================!

cy1t2 ON cy1t1 cy2t1 cy3t1 cy4t1;
cy2t2 ON cy1t1 cy2t1 cy3t1 cy4t1;
cy3t2 ON cy1t1 cy2t1 cy3t1 cy4t1;
cy4t2 ON cy1t1 cy2t1 cy3t1 cy4t1;

!=====================================!

cy1t3 ON cy1t2 cy2t2 cy3t2 cy4t2;
cy2t3 ON cy1t2 cy2t2 cy3t2 cy4t2;
cy3t3 ON cy1t2 cy2t2 cy3t2 cy4t2;
cy4t3 ON cy1t2 cy2t2 cy3t2 cy4t2;

!=====================================!

cy1t4 ON cy1t3 cy2t3 cy3t3 cy4t3;
cy2t4 ON cy1t3 cy2t3 cy3t3 cy4t3;
cy3t4 ON cy1t3 cy2t3 cy3t3 cy4t3;
cy4t4 ON cy1t3 cy2t3 cy3t3 cy4t3;

!=====================================!

cy1t5 ON cy1t4 cy2t4 cy3t4 cy4t4;
cy2t5 ON cy1t4 cy2t4 cy3t4 cy4t4;
cy3t5 ON cy1t4 cy2t4 cy3t4 cy4t4;
cy4t5 ON cy1t4 cy2t4 cy3t4 cy4t4;

!=====================================!

cy1t1 WITH cy2t1 cy3t1 cy4t1;

```
cy1t1 WITH cy2t1 cy3t1;
cy2t1 WITH cy3t1;

cy1t2 WITH cy2t2 cy3t2 cy4t2;
cy1t2 WITH cy2t2 cy3t2;
cy2t2 WITH cy3t2;

cy1t3 WITH cy2t3 cy3t3 cy4t3;
cy1t3 WITH cy2t3 cy3t3;
cy2t3 WITH cy3t3;

cy1t4 WITH cy2t4 cy3t4 cy4t4;
cy1t4 WITH cy2t4 cy3t4;
cy2t4 WITH cy3t4;

cy1t5 WITH cy2t5 cy3t5 cy4t5;
cy1t5 WITH cy2t5 cy3t5;
cy2t5 WITH cy3t5;

ry1 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
ry2 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
ry3 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;
ry4 with cy1t1@0 cy2t1@0 cy3t1@0 cy4t1@0;


OUTPUT:

SAMPSTAT CINT STDYX
```

Hours of Contact and Mean Solidarity

```
USEVARIABLE ARE

y1t1 y1t2 y1t3 y1t4 y1t5 y1t6 y1t7
y2t1 y2t2 y2t3 y2t4 y2t5 y2t6 y2t7;


USEOBS ARE (Euro EQ 1 and TSUM09 GE 2);


DEFINE:


SOLT03 = MEAN (Rpol1T03 Rpol2T03 Rpol3T03 Rpol4T03
Spol1T03 Spol2T03 Spol3T03 Spol4T03 CAT03);
SOLT04 = MEAN (Rpol1T04 Rpol2T04 Rpol3T04 Rpol4T04
Spol1T04 Spol2T04 Spol3T04 Spol4T04 CAT04);
SOLT05 = MEAN (Rpol1T05 Rpol2T05 Rpol3T05 Rpol4T05
Spol1T05 Spol2T05 Spol3T05 Spol4T05 CAT05);
SOLT06 = MEAN (Rpol1T06 Rpol2T06 Rpol3T06 Rpol4T06
```

```
Spol1T06      Spol2T06 Spol3T06 Spol4T06 CAT06);
SOLT07 = MEAN (Rpol1T07        Rpol2T07 Rpol3T07 Rpol4T07
Spol1T07      Spol2T07 Spol3T07 Spol4T07 CAT07);
SOLT08 = MEAN (Rpol1T08        Rpol2T08 Rpol3T08 Rpol4T08
Spol1T08      Spol2T08 Spol3T08 Spol4T08 CAT08);
SOLT09 = MEAN (Rpol1T09        Rpol2T09 Rpol3T09 Rpol4T09
Spol1T09      Spol2T09 Spol3T09 Spol4T09 CAT09);

y1t1 = HoursT03;
y1t2 = HoursT04;
y1t3 = HoursT05;
y1t4 = HoursT06;
y1t5 = HoursT07;
y1t6 = HoursT08;
y1t7 = HoursT09;

y2t1 = SOLT03;
y2t2 = SOLT04;
y2t3 = SOLT05;
y2t4 = SOLT06;
y2t5 = SOLT07;
y2t6 = SOLT08;
y2t7 = SOLT09;


ANALYSIS:

COVERAGE = .001;
PROCESSORS = 12;
TYPE = General;
ESTIMATOR = MLR;

MODEL:

ry1 by y1t1@1 y1t2@1 y1t3@1 y1t4@1 y1t5@1 y1t6@1 y1t7@1;
ry2 by y2t1@1 y2t2@1 y2t3@1 y2t4@1 y2t5@1 y2t6@1 y2t7@1;


cy1t1 by y1t1@1; cy1t2 by y1t2@1; cy1t3 by y1t3@1; cy1t4 by y1t4@1; cy1t5 by y1t5@1;
cy1t6 by y1t6@1; cy1t7 by y1t7@1;
cy2t1 by y2t1@1; cy2t2 by y2t2@1; cy2t3 by y2t3@1; cy2t4 by y2t4@1; cy2t5 by y2t5@1;
cy2t6 by y2t6@1; cy2t7 by y2t7@1;

y1t1-y2t7@0;

!Cross-lagged Panel Model

!====================================!

cy1t2 ON      cy1t1 cy2t1 (1-2);
```

```
cy2t2 ON      cy1t1 cy2t1 (3-4);

!=====================================!

cy1t3 ON      cy1t2 cy2t2 (1-2);
cy2t3 ON      cy1t2 cy2t2 (3-4);

!=====================================!

cy1t4 ON      cy1t3 cy2t3 (1-2);
cy2t4 ON      cy1t3 cy2t3 (3-4);

!=====================================!

cy1t5 ON      cy1t4 cy2t4 (1-2);
cy2t5 ON      cy1t4 cy2t4 (3-4);

!=====================================!

cy1t6 ON      cy1t5 cy2t5 (1-2);
cy2t6 ON      cy1t5 cy2t5 (3-4);

!=====================================!

cy1t7 ON      cy1t6 cy2t6 (1-2);
cy2t7 ON      cy1t6 cy2t6 (3-4);

!=====================================!

cy2t1 WITH cy1t1;
cy2t2 WITH cy1t2;
cy2t3 WITH cy1t3;
cy2t4 WITH cy1t4;
cy2t5 WITH cy1t5;
cy2t6 WITH cy1t6;
cy2t7 WITH cy1t7;

ry1 with cy1t1@0 cy2t1@0;
ry2 with cy1t1@0 cy2t1@0;



OUTPUT:

SAMPSTAT CINT STDYX
```

Likert-scale Contact and Mean Solidarity

```
USEVARIABLE ARE
```

```
y1t1 y1t2 y1t3 y1t4 y1t5
y2t1 y2t2 y2t3 y2t4 y2t5;


USEOBS ARE (Euro EQ 1 and TSUM07 GE 2);


DEFINE:


SOLT03 = MEAN (Rpol1T03        Rpol2T03 Rpol3T03 Rpol4T03
Spol1T03      Spol2T03 Spol3T03 Spol4T03 CAT03);
SOLT04 = MEAN (Rpol1T04        Rpol2T04 Rpol3T04 Rpol4T04
Spol1T04      Spol2T04 Spol3T04 Spol4T04 CAT04);
SOLT05 = MEAN (Rpol1T05        Rpol2T05 Rpol3T05 Rpol4T05
Spol1T05      Spol2T05 Spol3T05 Spol4T05 CAT05);
SOLT06 = MEAN (Rpol1T06        Rpol2T06 Rpol3T06 Rpol4T06
Spol1T06      Spol2T06 Spol3T06 Spol4T06 CAT06);
SOLT07 = MEAN (Rpol1T07        Rpol2T07 Rpol3T07 Rpol4T07
Spol1T07      Spol2T07 Spol3T07 Spol4T07 CAT07);
SOLT08 = MEAN (Rpol1T08        Rpol2T08 Rpol3T08 Rpol4T08
Spol1T08      Spol2T08 Spol3T08 Spol4T08 CAT08);
SOLT09 = MEAN (Rpol1T09        Rpol2T09 Rpol3T09 Rpol4T09
Spol1T09      Spol2T09 Spol3T09 Spol4T09 CAT09);

y1t1 = ConT03;
y1t2 = ConT04;
y1t3 = ConT05;
y1t4 = ConT06;
y1t5 = ConT07;


y2t1 = SOLT03;
y2t2 = SOLT04;
y2t3 = SOLT05;
y2t4 = SOLT06;
y2t5 = SOLT07;


ANALYSIS:

COVERAGE = .001;
PROCESSORS = 12;
TYPE = General;
ESTIMATOR = MLR;

MODEL:

ry1 by y1t1@1 y1t2@1 y1t3@1 y1t4@1 y1t5@1;
ry2 by y2t1@1 y2t2@1 y2t3@1 y2t4@1 y2t5@1;
```

```
cy1t1 by y1t1@1; cy1t2 by y1t2@1; cy1t3 by y1t3@1; cy1t4 by y1t4@1; cy1t5 by y1t5@1;
cy2t1 by y2t1@1; cy2t2 by y2t2@1; cy2t3 by y2t3@1; cy2t4 by y2t4@1; cy2t5 by y2t5@1;


y1t1-y2t5@0;

!Cross-lagged Panel Model

!====================================!

cy1t2 ON      cy1t1 cy2t1 (1-2);
cy2t2 ON      cy1t1 cy2t1 (3-4);

!====================================!

cy1t3 ON      cy1t2 cy2t2 (1-2);
cy2t3 ON      cy1t2 cy2t2 (3-4);

!====================================!

cy1t4 ON      cy1t3 cy2t3 (1-2);
cy2t4 ON      cy1t3 cy2t3 (3-4);

!====================================!

cy1t5 ON      cy1t4 cy2t4 (1-2);
cy2t5 ON      cy1t4 cy2t4 (3-4);

!====================================!



cy2t1 WITH cy1t1;
cy2t2 WITH cy1t2;
cy2t3 WITH cy1t3;
cy2t4 WITH cy1t4;
cy2t5 WITH cy1t5;

ry1 with cy1t1@0 cy2t1@0;
ry2 with cy1t1@0 cy2t1@0;


OUTPUT:

SAMPSTAT CINT STDYX
```

Mean Contact and Mean Solidarity

```
USEVARIABLE ARE

 y1t1 y1t2 y1t3 y1t4 y1t5
 y2t1 y2t2 y2t3 y2t4 y2t5;


 USEOBS ARE (Euro EQ 1 and TSUM07 GE 2);


 DEFINE:

 SOLT03 = MEAN (Rpol1T03        Rpol2T03 Rpol3T03 Rpol4T03
 Spol1T03     Spol2T03 Spol3T03 Spol4T03 CAT03);
 SOLT04 = MEAN (Rpol1T04        Rpol2T04 Rpol3T04 Rpol4T04
 Spol1T04     Spol2T04 Spol3T04 Spol4T04 CAT04);
 SOLT05 = MEAN (Rpol1T05        Rpol2T05 Rpol3T05 Rpol4T05
 Spol1T05     Spol2T05 Spol3T05 Spol4T05 CAT05);
 SOLT06 = MEAN (Rpol1T06        Rpol2T06 Rpol3T06 Rpol4T06
 Spol1T06     Spol2T06 Spol3T06 Spol4T06 CAT06);
 SOLT07 = MEAN (Rpol1T07        Rpol2T07 Rpol3T07 Rpol4T07
 Spol1T07     Spol2T07 Spol3T07 Spol4T07 CAT07);
 SOLT08 = MEAN (Rpol1T08        Rpol2T08 Rpol3T08 Rpol4T08
 Spol1T08     Spol2T08 Spol3T08 Spol4T08 CAT08);
 SOLT09 = MEAN (Rpol1T09        Rpol2T09 Rpol3T09 Rpol4T09
 Spol1T09     Spol2T09 Spol3T09 Spol4T09 CAT09);

 ConStT03 = (ConT03-1)/6;
 ConStT04 = (ConT04-1)/6;
 ConStT05 = (ConT05-1)/6;
 ConStT06 = (ConT06-1)/6;
 ConStT07 = (ConT07-1)/6;

 HrStT03 = HoursT03/168;
 HrStT04 = HoursT04/168;
 HrStT05 = HoursT05/168;
 HrStT06 = HoursT06/168;
 HrStT07 = HoursT07/168;

 MconT03 = Mean (ConStT03 HrStT03);
 MconT04 = Mean (ConStT04 HrStT04);
 MconT05 = Mean (ConStT05 HrStT05);
 MconT06 = Mean (ConStT06 HrStT06);
 MconT07 = Mean (ConStT07 HrStT07);

 y1t1 = MConT03;
 y1t2 = MConT04;
 y1t3 = MConT05;
 y1t4 = MConT06;
```

```
y1t5 = MConT07;


y2t1 = SOLT03;
y2t2 = SOLT04;
y2t3 = SOLT05;
y2t4 = SOLT06;
y2t5 = SOLT07;


ANALYSIS:

COVERAGE = .001;
PROCESSORS = 12;
TYPE = General;
ESTIMATOR = MLR;

MODEL:

ry1 by y1t1@1 y1t2@1 y1t3@1 y1t4@1 y1t5@1;
ry2 by y2t1@1 y2t2@1 y2t3@1 y2t4@1 y2t5@1;


cy1t1 by y1t1@1; cy1t2 by y1t2@1; cy1t3 by y1t3@1; cy1t4 by y1t4@1; cy1t5 by y1t5@1;
cy2t1 by y2t1@1; cy2t2 by y2t2@1; cy2t3 by y2t3@1; cy2t4 by y2t4@1; cy2t5 by y2t5@1;


y1t1-y2t5@0;

!Cross-lagged Panel Model

!====================================!

cy1t2 ON      cy1t1 cy2t1 (1-2);
cy2t2 ON      cy1t1 cy2t1 (3-4);

!====================================!

cy1t3 ON      cy1t2 cy2t2 (1-2);
cy2t3 ON      cy1t2 cy2t2 (3-4);

!====================================!

cy1t4 ON      cy1t3 cy2t3 (1-2);
cy2t4 ON      cy1t3 cy2t3 (3-4);

!====================================!

cy1t5 ON      cy1t4 cy2t4 (1-2);
cy2t5 ON      cy1t4 cy2t4 (3-4);
```

```
!====================================!



cy2t1 WITH cy1t1;
cy2t2 WITH cy1t2;
cy2t3 WITH cy1t3;
cy2t4 WITH cy1t4;
cy2t5 WITH cy1t5;

ry1 with cy1t1@0 cy2t1@0;
ry2 with cy1t1@0 cy2t1@0;



OUTPUT:

SAMPSTAT CINT STDYX
```