

**Callous-Unemotional Traits in Adolescents' Daily Life: Associations with Affect and Emotional and Conduct Problems**

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## Supplementary Materials

**Supplementary Table S1**

*Means, Standard Deviations, ICCs, and Correlations for Callous-Unemotional Traits Items*

Item	<i>M</i>	<i>SD</i>	<i>Range</i>	ICC	CU1	CU2	CU3	CU4	CU5	CU6	CU7	CU8	CU9	CU10	CU11	CU12
CU1	.11	.38	0–3	.66	—	.03	.03	.13***	.15***	.21***	.11***	.08***	.09***	.10***	.08***	.12***
CU2	1.02	1.16	0–3	.77	.22	—	-.07***	.25***	.14***	.05*	-.04	.18***	.19***	.01	.07***	.17***
CU3	1.52	1.12	0–3	.78	-.01	.45***	—	-.20***	.05*	.05*	.09***	-.13***	-.11***	.04*	.03	-.06***
CU4	.52	.74	0–3	.60	.51***	.21	-.28	—	.08**	.08***	.09***	.39***	.40***	.04*	.10***	.34***
CU5	.28	.60	0–3	.71	.75***	.18	-.02	.58***	—	.31***	.09***	.04***	.06***	.09***	.08***	.06***
CU6	.24	.56	0–3	.70	.73***	.14	.04	.50***	.86***	—	.19***	.08***	.06***	.12***	.10***	.10***
CU7	.43	.73	0–3	.66	.35***	.06	.33***	.40***	.40***	.61***	—	.06***	.09***	.11***	.09***	.11***
CU8	.63	.83	0–3	.62	.50***	.18	-.25	.83***	.55***	.48***	.33***	—	.56***	.07***	.09***	.36***
CU9	.50	.78	0–3	.62	.54***	.28	-.19	.92***	.55***	.52***	.40***	.82***	—	.01	.10***	.36***
CU10	.24	.58	0–3	.61	.67***	.19	-.03	.61***	.71***	.73***	.47***	.47***	.61***	—	.12***	.05*
CU11	.16	.50	0–3	.56	.75***	.11	-.01	.60***	.62***	.71***	.55***	.47***	.54***	.80***	—	.09***
CU12	.66	.82	0–3	.68	.39***	.13	-.29***	.89***	.44***	.41***	.37***	.78***	.83***	.47***	.40***	—

*Note:* Item correlations estimated using the Bayes estimator. Within-level item correlations are shown above the diagonal. Between-level item correlations are shown below the diagonal. Items 2, 4, 8, 9, 12 are reverse coded. *M* = mean, *SD* = standard deviation, ICC = intraclass correlation coefficient. \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$

**Supplementary Table S2**

*DSEM Standardized Estimates for Callous-Unemotional Traits Items Within-Person Autoregressive Effects*

<b>Item</b>	<b><math>\beta</math></b>	<b><i>SD</i></b>	<b><i>p</i></b>	<b>95% <i>CI</i><sub>lower</sub></b>	<b>95% <i>CI</i><sub>upper</sub></b>
<i>Within-Person</i>					
<i>Autoregressive</i>					
CU1 → CU1	<b>.08</b>	<b>.03</b>	<b>.001</b>	<b>.03</b>	<b>.14</b>
CU2 → CU2	<b>.19</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.14</b>	<b>.24</b>
CU3 → CU3	<b>.23</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.18</b>	<b>.28</b>
CU4 → CU4	<b>.08</b>	<b>.03</b>	<b>.004</b>	<b>.02</b>	<b>.15</b>
CU5 → CU5	<b>.18</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.12</b>	<b>.23</b>
CU6 → CU6	.05	.03	.043	-.01	.11
CU7 → CU7	<b>.13</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.08</b>	<b>.18</b>
CU8 → CU8	<b>.08</b>	<b>.03</b>	<b>.004</b>	<b>.02</b>	<b>.14</b>
CU9 → CU9	<b>.17</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.10</b>	<b>.23</b>
CU10 → CU10	.05	.03	.034	-.00	.10
CU11 → CU11	<b>.08</b>	<b>.03</b>	<b>.002</b>	<b>.02</b>	<b>.13</b>
CU12 → CU12	<b>.17</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.11</b>	<b>.22</b>

*Note:* Bolded indicates significance based on CI. Items 2, 4, 8, 9, 12 are reverse coded.  $\beta$  = standardized beta, *SD* = standard deviation, CI = credible interval.

### Supplementary Table S3

*DSEM Standardized Estimates for Callous-Unemotional Traits Items Within-Person Cross-Lagged Effects*

Item	$\beta$	<i>SD</i>	<i>p</i>	95% <i>CI</i> <sub>lower</sub>	95% <i>CI</i> <sub>upper</sub>
<i>Within-Person</i>					
<i>Cross-Lagged</i>					
<i>CU1</i>					
CU1 → CU2	<b>.06</b>	<b>.03</b>	<b>.010</b>	<b>.01</b>	<b>.11</b>
CU1 → CU3	.00	.03	.498	-.05	.05
CU1 → CU4	-.04	.03	.075	-.10	.02
CU1 → CU5	.04	.03	.077	-.02	.09
CU1 → CU6	.04	.03	.109	-.02	.09
CU1 → CU7	-.01	.03	.378	-.06	.04
CU1 → CU8	-.01	.03	.410	-.07	.06
CU1 → CU9	.00	.03	.482	-.06	.07
CU1 → CU10	.02	.03	.247	-.04	.07
CU1 → CU11	-.03	.03	.120	-.08	.02
CU1 → CU12	<b>.06</b>	<b>.03</b>	<b>.022</b>	<b>.00</b>	<b>.12</b>
<i>CU2</i>					
CU2 → CU1	-.02	.03	.180	-.07	.03
CU2 → CU3	.03	.02	.153	-.02	.07
CU2 → CU4	-.04	.03	.081	-.10	.02
CU2 → CU5	-.01	.03	.350	-.06	.04
CU2 → CU6	.02	.03	.228	-.03	.07
CU2 → CU7	-.02	.02	.242	-.06	.03
CU2 → CU8	-.03	.03	.184	-.09	.03
CU2 → CU9	.04	.03	.122	-.02	.10
CU2 → CU10	-.01	.02	.297	-.06	.04
CU2 → CU11	<b>.07</b>	<b>.03</b>	<b>.003</b>	<b>.02</b>	<b>.12</b>
CU2 → CU12	<b>.13</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.07</b>	<b>.18</b>
<i>CU3</i>					
CU3 → CU1	.01	.03	.331	-.04	.06
CU3 → CU2	<b>.05</b>	<b>.03</b>	<b>.016</b>	<b>.00</b>	<b>.10</b>
CU3 → CU4	.01	.03	.366	-.05	.07
CU3 → CU5	.03	.03	.158	-.03	.08
CU3 → CU6	-.04	.03	.099	-.09	.02
CU3 → CU7	.00	.02	.439	-.04	.05
CU3 → CU8	.01	.03	.363	-.05	.05
CU3 → CU9	<b>-.06</b>	<b>.03</b>	<b>.023</b>	<b>-.12</b>	<b>-.00</b>
CU3 → CU10	.01	.02	.416	-.04	.05
CU3 → CU11	-.01	.03	.385	-.06	.04
CU3 → CU12	.01	.03	.396	-.05	.06
<i>CU4</i>					
CU4 → CU1	-.03	.03	.115	-.09	.02
CU4 → CU2	-.01	.03	.432	-.06	.05
CU4 → CU3	-.00	.03	.460	-.05	.05
CU4 → CU5	.02	.03	.194	-.03	.08
CU4 → CU6	-.01	.03	.354	-.07	.05
CU4 → CU7	<b>.06</b>	<b>.03</b>	<b>.009</b>	<b>.01</b>	<b>.11</b>
CU4 → CU8	.01	.03	.440	-.06	.07
CU4 → CU9	<b>.08</b>	<b>.03</b>	<b>.012</b>	<b>.01</b>	<b>.14</b>
CU4 → CU10	.02	.03	.232	-.03	.07
CU4 → CU11	.00	.03	.491	-.05	.05
CU4 → CU12	<b>.08</b>	<b>.03</b>	<b>.002</b>	<b>.03</b>	<b>.14</b>

*CU5*

CU5 → CU1	.05	.03	.046	-.01	.10
CU5 → CU2	<b>.05</b>	<b>.03</b>	<b>.021</b>	<b>.00</b>	<b>.10</b>
CU5 → CU3	.03	.03	.102	-.02	.08
CU5 → CU4	-.05	.03	.045	-.11	.01
CU5 → CU6	-.05	.03	.042	-.10	.01
CU5 → CU7	-.01	.03	.422	-.05	.04
CU5 → CU8	.02	.03	.273	-.04	.08
CU5 → CU9	.00	.03	.470	-.06	.07
CU5 → CU10	.02	.03	.196	-.03	.07
CU5 → CU11	-.01	.03	.310	-.06	.04
CU5 → CU12	<b>.07</b>	<b>.03</b>	<b>.016</b>	<b>.00</b>	<b>.12</b>

*CU6*

CU6 → CU1	.04	.03	.101	-.02	.09
CU6 → CU2	<b>.06</b>	<b>.03</b>	<b>.017</b>	<b>.00</b>	<b>.11</b>
CU6 → CU3	.00	.03	.479	-.05	.05
CU6 → CU4	.00	.03	.456	-.05	.06
CU6 → CU5	.02	.03	.235	-.03	.08
CU6 → CU7	<b>.07</b>	<b>.03</b>	<b>.004</b>	<b>.02</b>	<b>.12</b>
CU6 → CU8	.01	.03	.419	-.06	.07
CU6 → CU9	-.03	.03	.186	-.09	.03
CU6 → CU10	-.01	.03	.379	-.06	.04
CU6 → CU11	-.01	.03	.337	-.06	.04
CU6 → CU12	.03	.03	.157	-.03	.09

*CU7*

CU7 → CU1	.01	.03	.311	-.04	.06
CU7 → CU2	<b>-.07</b>	<b>.03</b>	<b>.002</b>	<b>-.12</b>	<b>-.02</b>
CU7 → CU3	.02	.03	.189	-.03	.07
CU7 → CU4	-.02	.03	.198	-.08	.03
CU7 → CU5	.00	.03	.455	-.05	.06
CU7 → CU6	-.03	.03	.133	-.08	.02
CU7 → CU8	.06	.03	.030	-.00	.12
CU7 → CU9	<b>.07</b>	<b>.03</b>	<b>.011</b>	<b>.01</b>	<b>.13</b>
CU7 → CU10	-.02	.03	.174	-.07	.03
CU7 → CU11	-.02	.03	.229	-.07	.03
CU7 → CU12	.02	.03	.255	-.04	.08

*CU8*

CU8 → CU1	-.04	.03	.072	-.09	.01
CU8 → CU2	.02	.03	.197	-.03	.07
CU8 → CU3	-.02	.03	.170	-.07	.03
CU8 → CU4	.04	.03	.103	-.02	.09
CU8 → CU5	-.02	.03	.191	-.08	.03
CU8 → CU6	-.04	.03	.075	-.09	.02
CU8 → CU7	<b>.10</b>	<b>.02</b>	<b>&lt;.001</b>	<b>.05</b>	<b>.14</b>
CU8 → CU9	<b>.10</b>	<b>.03</b>	<b>.001</b>	<b>.04</b>	<b>.16</b>
CU8 → CU10	.02	.03	.184	-.03	.07
CU8 → CU11	<b>.05</b>	<b>.03</b>	<b>.020</b>	<b>.00</b>	<b>.10</b>
CU8 → CU12	.05	.03	.038	-.01	.11

*CU9*

CU9 → CU1	.02	.03	.258	-.03	.07
CU9 → CU2	.01	.03	.291	-.04	.06
CU9 → CU3	-.02	.03	.258	-.07	.03
CU9 → CU4	.03	.03	.186	-.03	.08
CU9 → CU5	-.01	.03	.397	-.06	.05
CU9 → CU6	<b>-.09</b>	<b>.03</b>	<b>&lt;.001</b>	<b>-.14</b>	<b>-.04</b>
CU9 → CU7	<b>.10</b>	<b>.02</b>	<b>&lt;.001</b>	<b>.05</b>	<b>.14</b>

CU9 → CU8	.06	.03	.003	-.00	.11
CU9 → CU10	-.02	.02	.245	-.06	.03
CU9 → CU11	.04	.03	.064	-.01	.09
CU9 → CU12	<b>.07</b>	<b>.03</b>	<b>.009</b>	<b>.01</b>	<b>.12</b>
<i>CU10</i>					
CU10 → CU1	.03	.03	.111	-.02	.09
CU10 → CU2	-.01	.03	.328	-.07	.04
CU10 → CU3	.02	.03	.209	-.03	.07
CU10 → CU4	-.01	.03	.414	-.07	.05
CU10 → CU5	-.00	.03	.470	-.06	.05
CU10 → CU6	-.03	.03	.129	-.09	.02
CU10 → CU7	.05	.03	.035	-.00	.10
CU10 → CU8	-.00	.03	.482	-.07	.06
CU10 → CU9	.02	.03	.295	-.05	.08
CU10 → CU11	.02	.03	.265	-.04	.07
CU10 → CU12	.02	.03	.295	-.05	.08
<i>CU11</i>					
CU11 → CU1	.05	.03	.027	-.00	.11
CU11 → CU2	<b>.06</b>	<b>.03</b>	<b>.010</b>	<b>.01</b>	<b>.12</b>
CU11 → CU3	.02	.03	.219	-.03	.07
CU11 → CU4	-.05	.03	.048	-.11	.01
CU11 → CU5	.04	.03	.077	-.01	.09
CU11 → CU6	-.02	.03	.226	-.08	.03
CU11 → CU7	.02	.03	.190	-.03	.07
CU11 → CU8	-.02	.03	.304	-.08	.05
CU11 → CU9	.02	.03	.237	-.04	.09
CU11 → CU10	.02	.03	.236	-.04	.07
CU11 → CU12	<b>.07</b>	<b>.03</b>	<b>.010</b>	<b>.01</b>	<b>.13</b>
<i>CU12</i>					
CU12 → CU1	.03	.03	.178	-.03	.08
CU12 → CU2	.03	.03	.110	-.02	.09
CU12 → CU3	.00	.03	.440	-.05	.05
CU12 → CU4	-.01	.03	.438	-.06	.06
CU12 → CU5	-.00	.03	.490	-.05	.06
CU12 → CU6	<b>-.05</b>	<b>.03</b>	<b>.021</b>	<b>-.11</b>	<b>-.00</b>
CU12 → CU7	<b>.08</b>	<b>.03</b>	<b>.001</b>	<b>.03</b>	<b>.13</b>
CU12 → CU8	-.02	.03	.227	-.09	.04
CU12 → CU9	.03	.03	.144	-.03	.10
CU12 → CU10	.01	.03	.426	-.04	.05
CU12 → CU11	.04	.03	.060	-.01	.09

*Note:* Bolded indicates significance based on CI. Items 2, 4, 8, 9, 12 are reverse coded.  $\beta$  = standardized beta, *SD* = standard deviation, CI = credible interval.

**Supplementary Table S4**

*Means, Standard Deviations, ICCs, and Correlations for CU Traits, Positive Affect, Negative Affect, Conduct Problems, and Emotional Problems Subscales*

<b>Item</b>	<b><i>M</i></b>	<b><i>SD</i></b>	<b><i>Range</i></b>	<b>ICC</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1. Callousness	.24	.37	0.00-2.33	.66	—	.19***	-.02	.20***	.23***	.14**
2. Uncaring	.66	.62	0.00-3.00	.60	.57***	—	-.12***	.10*	.22***	.04
3. Positive Affect	2.66	.94	1.00-5.00	.70	-.24*	-.34***	—	.08	-.05	-.07
4. Negative Affect	1.59	.80	1.00-5.00	.62	.51***	.07	-.16	—	.28***	.51***
5. Conduct Problems	.18	.26	0.00-1.40	.61	.71***	.58***	-.29**	.50***	—	.17***
6. Emotional Problems	.44	.51	0.00-2.00	.76	.40***	.07	-.38***	.87***	.46***	—

*Note:* Item correlations estimated using the Bayes estimator. Within-level item correlations are shown above the diagonal. Between-level item correlations are shown below the diagonal. *M* = mean, *SD* = standard deviation, ICC = intraclass correlation coefficient. \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

**Supplementary Table S5**

*DSEM Standardized Estimates for Callous-Unemotional Traits, Positive Affect, Negative Affect, Conduct Problems, and Emotional Problems Subscales Within-Person Autoregressive Effects*

<b>Item</b>	<b><math>\beta</math></b>	<b><i>SD</i></b>	<b><i>p</i></b>	<b>95% <i>CI</i><sub>lower</sub></b>	<b>95% <i>CI</i><sub>upper</sub></b>
<i>Within-Person</i>					
<i>Autoregressive</i>					
Callousness → Callousness	<b>.13</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.08</b>	<b>.18</b>
Uncaring → Uncaring	<b>.26</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.21</b>	<b>.32</b>
Positive Affect → Positive Affect	<b>.29</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.24</b>	<b>.34</b>
Negative Affect → Negative Affect	<b>.35</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.29</b>	<b>.41</b>
Conduct Problems → Conduct Problems	<b>.21</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.16</b>	<b>.26</b>
Emotional Problems → Emotional Problems	<b>.34</b>	<b>.03</b>	<b>&lt;.001</b>	<b>.29</b>	<b>.40</b>

*Note:* Bolded indicates significance based on CI.  $\beta$  = standardized beta, *SD* = standard deviation, CI = credible interval.



### Supplementary Table S6

*DSEM Standardized Estimates for Callous-Unemotional Traits, Positive Affect, Negative Affect, Conduct Problems, and Emotional Problems Subscales Within-Person Cross-Lagged Effects*

Item	$\beta$	<i>SD</i>	<i>p</i>	95% <i>CI</i> <sub>lower</sub>	95% <i>CI</i> <sub>upper</sub>
<i>Within-Person</i>					
<i>Cross-Lagged</i>					
<i>Callousness</i>					
Callousness → Uncaring	<b>.08</b>	<b>.03</b>	<b>.001</b>	<b>.03</b>	<b>.13</b>
Callousness → Positive Affect	.05	.03	.032	-.00	.10
Callousness → Negative Affect	-.04	.03	.082	-.11	.02
Callousness → Conduct Problems	.01	.03	.334	-.04	.06
Callousness → Emotional Problems	.05	.03	.054	-.01	.11
<i>Uncaring</i>					
Uncaring → Callous	.04	.03	.078	-.01	.09
Uncaring → Positive Affect	-.03	.02	.150	-.07	.02
Uncaring → Negative Affect	-.02	.03	.240	-.08	.04
Uncaring → Conduct Problems	.05	.03	.026	.00	.10
Uncaring → Emotional Problems	.00	.03	.456	-.06	.06
<i>Positive Affect</i>					
Positive Affect → Callous	<b>.05</b>	<b>.03</b>	<b>.024</b>	<b>.00</b>	<b>.10</b>
Positive Affect → Uncaring	-.04	.03	.070	-.09	.01
Positive Affect → Negative Affect	.05	.03	.063	-.01	.10
Positive Affect → Conduct Problems	-.01	.03	.280	-.06	.04
Positive Affect → Emotional Problems	-.00	.03	.452	-.06	.05
<i>Negative Affect</i>					
Negative Affect → Callous	-.00	.03	.439	-.05	.05
Negative Affect → Uncaring	.01	.02	.410	-.05	.05
Negative Affect → Positive Affect	.05	.02	.026	-.00	.09
Negative Affect → Conduct Problems	-.02	.03	.173	-.07	.03
Negative Affect → Emotional Problems	<b>.07</b>	<b>.03</b>	<b>.009</b>	<b>.01</b>	<b>.13</b>
<i>Conduct Problems</i>					
Conduct Problems → Callous	.03	.03	.153	-.02	.08
Conduct Problems → Uncaring	<b>.05</b>	<b>.03</b>	<b>.023</b>	<b>.00</b>	<b>.10</b>
Conduct Problems → Positive Affect	.04	.03	.053	-.01	.09
Conduct Problems → Negative Affect	.00	.03	.498	-.06	.06
Conduct Problems → Emotional Problems	.01	.03	.412	-.05	.06
<i>Emotional Problems</i>					
Emotional Problems → Callous	.02	.02	.223	-.03	.07
Emotional Problems → Uncaring	.03	.02	.129	-.02	.08
Emotional Problems → Positive Affect	.03	.02	.084	-.01	.08
Emotional Problems → Negative Affect	<b>.09</b>	<b>.03</b>	<b>.001</b>	<b>.03</b>	<b>.15</b>
Emotional Problems → Conduct Problems	-.03	.03	.094	-.08	.02

*Note:* Bolded indicates significance based on CI.  $\beta$  = standardized beta, *SD* = standard deviation, CI = credible interval.