**Supplemental Tables**

Supplemental Table 1. *Within-level Standardized Estimates for Sadness and Criticism*

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | ß | PSD | 95% BCI |
| φCC1 | **0.156** | 0.027 | (0.103, 0.209) |
| φSS1 | **0.176** | 0.020 | (0.137, 0.218) |
| φCS1 | -0.020 | 0.024 | (-0.066 0.029) |
| φSC1 | 0.032 | 0.024 | (-0.016, 0.079) |

*Note.* N = 141. φCC1 = Criticism autoregression (previous day on present day); φSS1 = EA Sad autoregression (previous day on present day) ; φCS1 = cross-lagged effect Sad 🡪 Criticism; φSC1= cross-lagged effect Criticism 🡪 Sad. PSD = posterior standard deviation; BCI = Bayes credibility interval. Bold face effects are significant based on 95% credibility interval (CI). Model with innovation parameters did not converge so were not included.

Supplemental Table 2. *Within-level Standardized Estimates for Anxiety and Criticism*

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | ß | PSD | 95% BCI |
| φCC1 | **0.146** | 0.028 | (0.087, 0.194) |
| φNN1 | **0.240** | 0.020 | (0.200, 0.280) |
| φCN1 | -0.017 | 0.023 | (-0.063, 0.029) |
| φNC1 | 0.006 | 0.022 | (-0.035, 0.048) |

*Note.* N = 141 φCC1 = Criticism autoregression (previous day on present day); φNN1 = EA Anxiety autoregression (previous day on present day) ; φCN1 = cross-lagged effect Anxiety 🡪 Criticism; φNC1= cross-lagged effect Criticism 🡪 Anxiety. PSD = posterior standard deviation; BCI = Bayes credibility interval. Bold face effects are significant based on 95% credibility interval (CI). Model with innovation parameters did not converge so were not included.

Supplemental Table 3. *Within-level Standardized Estimates for Shame and Criticism*

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | ß | PSD | 95% BCI |
| φCC1 | **0.141** | 0.027 | (0.088, 0.193) |
| φMM1 | **0.147** | 0.023 | (0.101, 0.192) |
| φCM1 | 0.002 | 0.025 | (-0.048, 0.052) |
| φMC1 | 0.015 | 0.026 | (-0.036, 0.065) |

*Note.*  N = 141. φCC1 = Criticism autoregression (previous day on present day); φMM1 = EA Shame autoregression (previous day on present day) ; φCM1 = cross-lagged effect Shame 🡪 Criticism; φMC1= cross-lagged effect Criticism 🡪 Shame. PSD = posterior standard deviation; BCI = Bayes credibility interval. Bold face effects are significant based on 95% credibility interval (CI). Model with innovation parameters did not converge so were not included.

Supplemental Table 4.*Within-level Standardized Estimates for Happy and Criticism*

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | ß | PSD | 95% BCI |
| φCC1 | **0.136** | 0.027 | (0.082, 0.193) |
| φPP1 | **0.216** | 0.020 | (0.174, 0.254) |
| φCP1 | 0.025 | 0.022 | (-0.019 0.070) |
| φPC1 | -0.023 | 0.023 | (-0.069, 0.021) |
| δCritt | **0.639** | 0.036 | (0.569, 0.711) |
| δHappyt | **0.814** | 0.016 | (0.782, 0.845) |
| ψit by Crit Happy | **0.639****0.814** | 0.0360.016 | (0.569, 0.711)(0.781, 0.845) |

*Note* N = 141. φCC1 = Criticism autoregression (previous day on present day); φHH1 = EA Happy autoregression (previous day on present day) ; φCH1 = cross-lagged effect Happy 🡪 Criticism; φHC1= cross-lagged effect Criticism 🡪 Happy. δCritt = Criticism innovation; δHappyt = Happy innovation; ψit = residual covariance. The innovation parameters corresponding level 2 random variance terms are referred to as πHappy and πCrit (for the variances) and ψ for the covariance in subsequent tables of the between person effects. PSD = posterior standard deviation; BCI = Bayes credibility interval. Bold face effects are significant based on 95% credibility interval (CI).

Supplemental Table 5. *Level 2 Direct Effects on Sad-Criticism Model (Moderation and Associations)*

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | β | PSD | 95% CI |
| φCC1 ON |  |  |  |
| EA Depression | 0.084 | 0.145 | (-0.207, 0.359) |
| Sex | 0.024 | 0.144 | (-0.254, 0.306) |
| φSS1 ON |  |  |  |
| EA Depression | -0.107 | 0.169 | (-0.433, 0.226 |
| Sex | -0.033 | 0.192 | (-0.401, 0.347) |
| φCS1 ON |  |  |  |
| EA Depression | 0.031 | 0.203 | (-0.369, 0.425 |
| Sex | 0.119 | 0.253 | (-0.400, 0.578) |
| φSC1 ON |  |  |  |
| EA Depression | -0.044 | 0.168 | (-0.363, 0.294) |
| Sex | -0.133  | 0.144 | (-0.404, 0.158) |
| µCriticismON |  |  |  |
| EA Depression | 0.119 | 0.091 | (-0.063, 0.293) |
| Sex | **0.187** | **0.089** | **(0.008, 0.355)** |
| µSad ON |  |  |  |
| EA Depression | **0.479** | **0.071** | **(0.327, 0.607)** |
| Sex | 0.055 | 0.080 | (-0.104, 0.210) |

*Note.* N = 141. Standardized effects are reported. PSD = posterior standard deviation; φCC1 = Criticism autoregression (previous day on present day); φSS1 = EA Sad autoregression (previous day on present day); φCS1 = cross-lagged effect Sad 🡪 Criticism; φSC1= cross-lagged effect Criticism 🡪 Sad; log(πSad) = log Sad innovation variance; log(πCriticism) = log Criticism innovation variance; log(ψ) = log of negative innovation covariance. Bold face effects are significant based on 95% credibility interval (CI). Sex is coded 0 = female, 1 = male.

Supplemental Table 6. *Level 2 Direct Effects on Anxiety-Criticism Model (Moderation and Associations)*

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | β | PSD | 95% CI |
| φCC1 ON |  |  |  |
| EA Depression | 0.136 | 0.141 | (-0.150, 0.401) |
| Sex | 0.031 | 0.138 | (-0.240, 0.299) |
| φNN1 ON |  |  |  |
| EA Depression | -0.027 | 0.156 | (-0.328, 0.279) |
| Sex | 0.120 | 0.170 | (-0.221, 0.444) |
| φCN1 ON |  |  |  |
| EA Depression | 0.019 | 0.164 | (-0.304, 0.334) |
| Sex | 0.109 | 0.185 | (-0.261, 0.457) |
| φNC1 ON |  |  |  |
| EA Depression | 0.283 | 0.196 | (-0.120, 0.645) |
| Sex | -0.092 | 0.180 | (-0.447, 0.257) |
| µCriticismON |  |  |  |
| EA Depression | 0.115 | 0.091 | (-0.068, 0.289) |
| Sex | **0.189** | **0.088** | **(0.008, 0.355)** |
| µAnxiety ON |  |  |  |
| EA Depression | **0.435** | **0.076** | **(0.275, 0.573)** |
| Sex | 0.040 | 0.083 | (-0.126, 0.199) |

*Note.* N = 141. Standardized effects are reported. PSD = posterior standard deviation; φCC1 = Criticism autoregression (previous day on present day); φNN1 = EA Anxiety autoregression (previous day on present day); φCN1 = cross-lagged effect Anxiety 🡪 Criticism; φNC1= cross-lagged effect Criticism 🡪 Anxiety; log(πAnxiety) = log Anxiety innovation variance; log(πCriticism) = log Criticism innovation variance; log(ψ) = log of negative innovation covariance. Bold face effects are significant based on 95% credibility interval (CI). Sex is coded 0 = female, 1 = male.

Supplemental Table 7. *Level 2 Direct Effects on Shame-Criticism Model (Moderation and Associations)*

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | β | PSD | 95% CI |
| φCC1 ON |  |  |  |
| EA Depression | 0.051 | 0.141 | (-0.226, 0.321) |
| Sex | 0.065 | 0.143 | (-0.217, 0.341) |
| φMM1 ON |  |  |  |
| EA Depression | -0.121 | 0.125 | (-0.362, 0.126) |
| Sex | -0.001 | 0.135 | (-0.262, 0.264) |
| φCM1 ON |  |  |  |
| EA Depression | 0.056 | 0.149 | (-0.233, 0.348) |
| Sex | 0.007 | 0.166 | (-0.311, 0.335) |
| φMC1 ON |  |  |  |
| EA Depression | -0.016 | 0.144 | (-0.308, 0.252) |
| Sex | 0.013 | 0.128 | (-0.237, 0.264) |
| µCriticismON |  |  |  |
| EA Depression | 0.114 | 0.090 | (-0.067, 0.287) |
| Sex | **0.186** | **0.089** | **(0.006, 0.352)** |
| µShame ON |  |  |  |
| EA Depression | **0.390** | **0.078** | **(0.228, 0.532)** |
| Sex | 0.146 | 0.082 | (-0.018, 0.301) |

*Note.* N = 141. Standardized effects are reported. PSD = posterior standard deviation; φCC1 = Criticism autoregression (previous day on present day); φMM1 = EA Shame autoregression (previous day on present day); φCM1 = cross-lagged effect Shame 🡪 Criticism; φNC1= cross-lagged effect Criticism 🡪 Shame; log(πShame) = log Shame innovation variance; log(πCriticism) = log Criticism innovation variance; log(ψ) = log of negative innovation covariance. Bold face effects are significant based on 95% credibility interval (CI). Sex is coded 0 = female, 1 = male.

Supplemental Table 8. *Level 2 Direct Effects on Happy-Criticism Model (Moderation and Associations)*

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | β | PSD | 95% CI |
| φCC1 ON |  |  |  |
| EA Depression | 0.008 | 0.160 | (-0.309, 0.313) |
| Sex | 0.051 | 0.160 | (-0.261, 0.359) |
| φHH1 ON |  |  |  |
| EA Depression | -0.031 | 0.152 | (-0.326, 0.265) |
| Sex | -0.092 | 0.148 | (-0.377, 0.202) |
| φCH1 ON |  |  |  |
| EA Depression | 0.020 | 0.211 | (-0.400, 0.422) |
| Sex | 0.181 | 0.235 | (-0.306, 0.600) |
| φHC1 ON |  |  |  |
| EA Depression | 0.031 | 0.188 | (-0.342, 0.392) |
| Sex | 0.045  | 0.149 | (-0.251, 0.329) |
| log(πCrit) ON |  |  |  |
| EA Depression | **0.201** | **0.095** | **(0.007, 0.377)** |
| Sex | 0.014 | 0.093 | (-0.170, 0.195) |
| log(πHappy) ON |  |  |  |
| EA Depression | **0.257** | **0.085** | **(0.085, 0.417)**  |
| Sex | **-0.262** | **0.084** | **(-0.421, -0.093)** |
| log(Ψ) ON |  |  |  |
| EA Depression | 0.106 | 0.146 | (-0.186, 0.385) |
| Sex | -0.192 | 0.111 | (-0.400, 0.035) |
| µCriticismON |  |  |  |
| EA Depression | 0.111 | 0.093 | (-0.073, 0.290) |
| Sex | **0.187** | **0.088** | **(0.009, 0.353)** |
| µHappy ON |  |  |  |
| EA Depression | **-0.340** | **0.083** | **(-0.494, -0.168)** |
| Sex | 0.060 | 0.085 | (-0.106, 0.224) |

*Note.* N = 141. Standardized effects are reported. PSD = posterior standard deviation; φCC1 = Criticism autoregression (previous day on present day); φHH1 = EA Happy autoregression (previous day on present day); φCH1 = cross-lagged effect Happy 🡪 Criticism; φHC1= cross-lagged effect Criticism 🡪 Happy; log(πHappy) = log Happy innovation variance; log(πCriticism) = log Criticism innovation variance; log(ψ) = log of negative innovation covariance. Bold face effects are significant based on 95% credibility interval (CI). Sex is coded 0 = female, 1 = male.

Supplemental Table 9. *Between-Level Residual Variances and Correlations of Random Effects for Sad*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Latent Estimate | 1. | 2. | 3. | 4. | 5. |
| 1. φCC1
 |  |  |  |  |  |
| 1. 2. φSS1
 | -0.022 |  |  |  |  |
| 1. 3. φCS1
 | -0.053 | -0.298 |  |  |  |
| 1. 4. φSC1
 | 0.275 | 0.025 | 0.281 |  |  |
| 5. µCriticism | 0.051 | -0.117 | 0.297 | -0.203 |  |
| 6. µSad | 0.083 | -0.018 | -0.023 | 0.031 | **0.289** |

*Note.* N = 141. φCC1 = Criticism autoregression (previous day on present day); φSS1 = EA Sad autoregression (previous day on present day) ; φCS1 = cross-lagged effect Sad 🡪 Criticism; φSC1= cross-lagged effect Criticism 🡪 Sad. PSD = posterior standard deviation; BCI = Bayes credibility interval. Bold face effects are significant based on 95% credibility interval (CI). Model with innovation parameters did not converge so were not included.

Supplemental Table 10. *Between-Level Residual Variances and Correlations of Random Effects for Anxiety*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Latent Estimate | 1. | 2. | 3. | 4. | 5. |
| 1. φCC1
 |  |  |  |  |  |
| 1. φNN1
 | 0.461 |  |  |  |  |
| 1. φCN1
 | -0.107 | -0.044 |  |  |  |
| 1. φNC1
 | 0.052 | -0.156 | 0.398 |  |  |
| 5. µCriticism | 0.032 | -0.020 | 0.027 | -0.035 |  |
| 6. µAnxiety | -0.149 | 0.108 | -0.018 | 0.071 | **0.294** |

*Note.* N = 141 φCC1 = Criticism autoregression (previous day on present day); φNN1 = EA Anxiety autoregression (previous day on present day); φCN1 = cross-lagged effect Anxiety 🡪 Criticism; φNC1= cross-lagged effect Criticism 🡪 Anxiety. PSD = posterior standard deviation; BCI = Bayes credibility interval. Bold face effects are significant based on 95% credibility interval (CI). Model with innovation parameters did not converge so were not included.

Supplemental Table 11. *Between-Level Residual Variances and Correlations of Random Effects for Shame*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Latent Estimate | 1. | 2. | 3. | 4. | 5. |
| 1. φCC1
 |  |  |  |  |  |
| 1. φMM1
 | -0.085 |  |  |  |  |
| 1. φCM1
 | -0.137 | -0.096 |  |  |  |
| 1. φMC1
 | 0.205 | -0.027 | 0.148 |  |  |
| 5. µCriticism | -0.031 | 0.028 | 0.036 | -0.201 |  |
| 6. µShame | -0.231 | 0.255 | 0.148 | -0.071 | **0.275** |

*Note.*  N = 141. φCC1 = Criticism autoregression (previous day on present day); φAA1 = EA Shame autoregression (previous day on present day) ; φCM1 = cross-lagged effect Shame 🡪 Criticism; φMC1= cross-lagged effect Criticism 🡪 Shame. PSD = posterior standard deviation; BCI = Bayes credibility interval. Bold face effects are significant based on 95% credibility interval (CI). Model with innovation parameters did not converge so were not included.

Supplemental Table 12. *Between-Level Residual Variances and Correlations of Random Effects for Happy*.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Latent Estimate | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
| 1. φCC1
 |  |  |  |  |  |  |  |  |
| 2. φHH1 | -0.170 |  |  |  |  |  |  |  |
| 1. φCH1
 | 0.067 | -0.058 |  |  |  |  |  |  |
| 1. φHC1
 | -0.165 | -0.024 | 0.187 |  |  |  |  |  |
| 1. log(πHappy)
 | 0.168 | 0.185 | 0.181 | -0.039 |  |  |  |  |
| 6. log(πCrit) | 0.142 | 0.111 | 0.008 | -0.143 | **0.229** |  |  |  |
| 7. log(ψ) | 0.156 | 0.080 | 0.088 | -0.101 | **0.504** | **0.747** |  |  |
| 8. µCriticism | 0.156 | -0.082 | -0.273 | -0.008 | 0.081 | **0.287** | **0.322** |  |
| 9. µHappy | -0.177 | -0.074 | -0.024 | 0.012 | **-0.267** | 0.040 | -0.209 | -0.185 |

*Note* N = 141. φCC1 = Criticism autoregression (previous day on present day); φHH1 = EA Happy autoregression (previous day on present day) ; φCH1 = cross-lagged effect Happy 🡪 Criticism; φHC1= cross-lagged effect Criticism 🡪 Happy. δCritt = Criticism innovation; δHappyt = Happy innovation; ψit = residual covariance. The innovation parameters corresponding level 2 random variance terms are referred to as πHappy and πCrit (for the variances) and ψ for the covariance in subsequent tables of the between person effects. PSD = posterior standard deviation; BCI = Bayes credibility interval. Bold face effects are significant based on 95% credibility interval (CI).