

Supplement

Table S1

*Exploratory Analyses With Contact With COVID-19 as a Moderator of the Link Between Momentary Perceived Control and Momentary Optimism*

| Variables                                                       | Model Parameters |               |             |
|-----------------------------------------------------------------|------------------|---------------|-------------|
|                                                                 | Est.             | 95% CI        | p           |
| <b>Fixed Effects</b>                                            |                  |               |             |
| Intercept, $\gamma_{00}$                                        | 5.16             | [4.94, 5.38]  | < .001      |
| <i>Within-person effects</i>                                    |                  |               |             |
| Perceived control <sub>WP</sub> , $\gamma_{10}$                 | 0.45             | [0.39, 0.52]  | < .001      |
| Weekend, $\gamma_{20}$                                          | - 0.04           | [-0.19, 0.12] | .644        |
| Day of ESM, $\gamma_{20}$                                       | 0.02             | [-0.02, 0.06] | .259        |
| <i>Between-person effects</i>                                   |                  |               |             |
| Perceived control <sub>BP</sub> , $\gamma_{01}$                 | 0.48             | [0.40, 0.57]  | < .001      |
| Age, $\gamma_{02}$                                              | 0.11             | [-0.04, 0.26] | .140        |
| Gender, $\gamma_{03}$                                           | 0.51             | [-0.02, 1.03] | .060        |
| Contact with COVID-19, $\gamma_{03}$                            | 0.08             | [-0.35, 0.51] | .720        |
| <i>Cross-level interactions</i>                                 |                  |               |             |
| Perceived Control $\times$ Contact with COVID-19, $\gamma_{11}$ | - 0.07           | [-0.20, 0.06] | .294        |
| <b>Random Effects</b>                                           |                  |               |             |
| Variance Intercept, $\sigma_{u_0}^2$                            |                  |               | 1.48        |
| Variance Perceived Control $\sigma_{u_1}^2$                     |                  |               | 0.06        |
| Residual Variance, $\sigma_e^2$                                 |                  |               | 3.33        |
| ICC                                                             |                  |               | .34         |
| AIC                                                             |                  |               | 12594.899   |
| $R_w^2 / R_b^2$                                                 |                  |               | .296 / .378 |

Note.  $N = 242$  individuals providing 2,985 observations. Gender was coded 0 for females and 1

for males.  $R_w^2$  indicates modeled variance at the within-person level,  $R_b^2$  indicates modeled variance at the between-person level.

**Table S2**

*Exploratory Analyses with Extraversion as a Moderator of Perceptions of the Pandemic*

| Variables                                                       | Personal Consequences |               |             | Societal Consequences |                |           |
|-----------------------------------------------------------------|-----------------------|---------------|-------------|-----------------------|----------------|-----------|
|                                                                 | Est.                  | 95% CI        | p           | Est.                  | 95% CI         | p         |
| <b>Fixed Effects</b>                                            |                       |               |             |                       |                |           |
| Intercept, $\gamma_{00}$                                        | 5.18                  | [4.95, 5.40]  | < .001      | 5.18                  | [4.96, 5.40]   | < .001    |
| <i>Within-person effects</i>                                    |                       |               |             |                       |                |           |
| Perceived control <sub>WP</sub> , $\gamma_{10}$                 | 0.44                  | [0.41, 0.48]  | < .001      | 0.45                  | [0.41, 0.48]   | < .001    |
| Weekend, $\gamma_{20}$                                          | -0.09                 | [-0.25, 0.07] | .268        | -0.09                 | [-0.25, 0.07]  | .258      |
| Day of ESM, $\gamma_{30}$                                       | 0.02                  | [-0.02, 0.06] | .325        | 0.02                  | [-0.02, 0.06]  | .336      |
| <i>Between-person effects</i>                                   |                       |               |             |                       |                |           |
| Perceived control <sub>BP</sub> , $\gamma_{01}$                 | 0.47                  | [0.39, 0.56]  | < .001      | 0.45                  | [0.37, 0.54]   | < .001    |
| Pandemic consequences, $\gamma_{02}$                            | -0.08                 | [-0.26, 0.09] | .352        | -0.16                 | [-0.30, -0.02] | .023      |
| Extraversion, $\gamma_{03}$                                     | 0.27                  | [-0.13, 0.68] | .184        | 0.24                  | [-.17, 0.64]   | .251      |
| Extraversion $\times$ Pandemic consequences, $\gamma_{04}$      | 0.23                  | [-0.14, 0.61] | .227        | 0.12                  | [-0.21, 0.45]  | .486      |
| Age, $\gamma_{05}$                                              | 0.12                  | [-0.03, 0.27] | .123        | 0.13                  | [-0.02, 0.27]  | .093      |
| Gender, $\gamma_{04}$                                           | 0.49                  | [-0.03, 1.01] | .066        | 0.48                  | [-0.04, 1.00]  | .072      |
| Contact with COVID-19, $\gamma_{03}$                            | 0.08                  | [-0.35, 0.52] | .705        | 0.08                  | [-0.35, 0.51]  | .707      |
| <i>Cross-level interactions</i>                                 |                       |               |             |                       |                |           |
| Perceived control $\times$ Pandemic consequences, $\gamma_{11}$ | 0.07                  | [0.04, 0.11]  | < .001      | 0.02                  | [-0.01, 0.05]  | .125      |
| <b>Random Effects</b>                                           |                       |               |             |                       |                |           |
| Variance Intercept, $\sigma_{u_0}^2$                            |                       |               | 1.42        |                       |                | 1.39      |
| Variance Perceived Control $\sigma_{u_1}^2$                     |                       |               | 3.56        |                       |                | 3.58      |
| ICC                                                             |                       |               | .28         |                       |                | .28       |
| AIC                                                             |                       |               | 12662.629   |                       |                | 12673.426 |
| $R_w^2 / R_b^2$                                                 |                       |               | .270 / .390 |                       |                | .271/.398 |

Note.  $N = 242$  individuals providing 2,985 observations. Gender was coded 0 for females and 1 for males.

$R_w^2$  indicates modeled variance at the within-person level,  $R_b^2$  indicates modeled variance at the between-person level. Since the model with personal consequences of the pandemic did not converge with random slopes, we fitted both models with random intercepts only for comparability. The script for the analyses with random slopes can be found on OSF.

**Table S3***Exploratory By-Item Analyses for Personal Consequences Items*

| Variables                                                          | Est.  | Item 1<br>95% CI | p           | Est.  | Item 2<br>95% CI | p           | Est.  | Item 3<br>95% CI | p           | Est.  | Item 4<br>95% CI | p           |
|--------------------------------------------------------------------|-------|------------------|-------------|-------|------------------|-------------|-------|------------------|-------------|-------|------------------|-------------|
| <b>Fixed Effects</b>                                               |       |                  |             |       |                  |             |       |                  |             |       |                  |             |
| Intercept, $\gamma_{00}$                                           | 5.16  | [4.94, 5.39]     | < .001      | 5.15  | [4.93, 5.37]     | < .001      | 5.15  | [4.93, 5.38]     | < .001      | 5.16  | [4.94, 5.38]     | < .001      |
| <i>Within-person effects</i>                                       |       |                  |             |       |                  |             |       |                  |             |       |                  |             |
| Perceived control <sub>WP</sub> , $\gamma_{10}$                    | 0.44  | [0.38, 0.49]     | < .001      | 0.43  | [0.38, 0.49]     | < .001      | 0.44  | [0.38, 0.49]     | < .001      | 0.44  | [0.38, 0.49]     | < .001      |
| Weekend, $\gamma_{20}$                                             | -0.03 | [-0.19, 0.12]    | .662        | -0.04 | [-0.19, 0.12]    | .658        | -0.04 | [-0.19, 0.12]    | .655        | -0.03 | [-0.19, 0.12]    | .664        |
| Day of ESM, $\gamma_{30}$                                          | 0.02  | [-0.02, 0.06]    | .266        | 0.02  | [-0.02, 0.06]    | .276        | 0.02  | [-0.02, 0.06]    | .268        | 0.02  | [-0.02, 0.06]    | .259        |
| <i>Between-person effects</i>                                      |       |                  |             |       |                  |             |       |                  |             |       |                  |             |
| Perceived control <sub>BP</sub> , $\gamma_{01}$                    | 0.49  | [0.40, 0.57]     | < .001      | 0.47  | [0.38, 0.55]     | < .001      | 0.48  | [0.40, 0.57]     | < .001      | 0.48  | [0.40, 0.56]     | < .001      |
| Pandemic consequences, $\gamma_{02}$                               | 0.04  | [-0.06, 0.14]    | .401        | -0.10 | [-0.19, -0.00]   | .040        | -0.03 | [-0.12, 0.07]    | .577        | -0.03 | [-0.14, 0.08]    | .575        |
| Age, $\gamma_{03}$                                                 | 0.11  | [-0.04, 0.26]    | .149        | 0.11  | [-0.04, 0.26]    | .148        | 0.12  | [-0.03, 0.26]    | .130        | 0.12  | [-0.03, 0.27]    | .130        |
| Gender, $\gamma_{04}$                                              | 0.50  | [-0.02, 1.03]    | .060        | 0.49  | [-0.03, 1.01]    | .064        | 0.52  | [-0.01, 1.05]    | .054        | 0.49  | [-0.04, 1.02]    | .068        |
| Contact with COVID-19, $\gamma_{05}$                               | 0.07  | [-0.36, 0.50]    | .750        | 0.11  | [-0.32, 0.54]    | .613        | 0.09  | [-0.35, 0.52]    | .692        | 0.09  | [-0.35, 0.52]    | .701        |
| <i>Cross-level interactions</i>                                    |       |                  |             |       |                  |             |       |                  |             |       |                  |             |
| Perceived Control $\times$<br>Pandemic Consequences, $\gamma_{11}$ | 0.01  | [-0.02, 0.04]    | .396        | 0.02  | [-0.01, 0.04]    | .289        | 0.02  | [-0.01, 0.05]    | .217        | 0.04  | [0.00, 0.07]     | .034        |
| <b>Random Effects</b>                                              |       |                  |             |       |                  |             |       |                  |             |       |                  |             |
| Variance Intercept, $\sigma_{u_0}^2$                               |       |                  | 1.47        |       |                  | 1.45        |       |                  | 1.48        |       |                  | 1.47        |
| Variance Perceived Control,<br>$\sigma_{u_1}^2$                    |       |                  | 0.06        |       |                  | 0.06        |       |                  | 0.06        |       |                  | 0.06        |
| Residual Variance, $\sigma_e^2$                                    |       |                  | 3.34        |       |                  | 3.33        |       |                  | 3.34        |       |                  | 3.33        |
| ICC                                                                |       |                  | .34         |       |                  | .33         |       |                  | .34         |       |                  | .34         |
| AIC                                                                |       |                  | 12596.568   |       |                  | 12592.692   |       |                  | 12596.189   |       |                  | 12593.189   |
| $R_w^2 / R_b^2$                                                    |       |                  | .296 / .378 |       |                  | .299 / .386 |       |                  | .295 / .376 |       |                  | .296 / .376 |

Note.  $N = 242$  individuals providing 2,985 observations. Item 1= having fewer contacts with friends; Item 2 = having trouble to focus on schoolwork; Item 3 =

avoiding social contacts out of fear of infection; Item 4 = doing well with avoiding contact with others (reversed). Gender was coded 0 for females and 1 for

males.  $R_w^2$  indicates modeled variance at the within-person level,  $R_b^2$  indicates modeled variance at the between-person level.

**Table S4***Exploratory By-Item Analyses for Societal Consequences Items*

| Variables                                                       | Est.  | Item 1<br>95% CI | p          | Est.  | Item 2<br>95% CI | p         |
|-----------------------------------------------------------------|-------|------------------|------------|-------|------------------|-----------|
| <b>Fixed Effects</b>                                            |       |                  |            |       |                  |           |
| Intercept, $\gamma_{00}$                                        | 5.16  | [4.94, 5.39]     | < .001     | 5.19  | [4.97, 5.40]     | < .001    |
| <i>Within-person effects</i>                                    |       |                  |            |       |                  |           |
| Perceived control <sub>WP</sub> , $\gamma_{10}$                 | 0.44  | [0.38, 0.49]     | < .001     | 0.44  | [0.38, 0.49]     | < .001    |
| Weekend, $\gamma_{20}$                                          | -0.03 | [-0.19, 0.12]    | .697       | -0.04 | [-0.19, 0.12]    | .655      |
| Day of ESM, $\gamma_{30}$                                       | 0.02  | [-0.02, 0.06]    | .269       | 0.02  | [-0.02, 0.06]    | .271      |
| <i>Between-person effects</i>                                   |       |                  |            |       |                  |           |
| Perceived control <sub>BP</sub> , $\gamma_{01}$                 | 0.49  | [0.40, 0.57]     | < .001     | 0.44  | [0.36, 0.52]     | < .001    |
| Pandemic Consequences, $\gamma_{02}$                            | 0.04  | [-0.06, 0.15]    | .403       | -0.24 | [-0.34, -0.13]   | < .001    |
| Age, $\gamma_{03}$                                              | 0.11  | [-0.04, 0.26]    | .162       | 0.14  | [-0.01, 0.28]    | .064      |
| Gender, $\gamma_{04}$                                           | 0.49  | [-0.04, 1.01]    | .069       | 0.44  | [-0.06, 0.95]    | .085      |
| Contact with COVID-19, $\gamma_{05}$                            | 0.07  | [-0.37, 0.50]    | .768       | 0.02  | [-0.40, 0.44]    | .925      |
| <i>Cross-level interactions</i>                                 |       |                  |            |       |                  |           |
| Perceived Control $\times$ Pandemic Consequences, $\gamma_{11}$ | 0.03  | [-0.00, 0.06]    | .070       | -0.01 | [-0.05, 0.02]    | .401      |
| <b>Random Effects</b>                                           |       |                  |            |       |                  |           |
| Variance Intercept, $\sigma_{u_0}^2$                            |       |                  | 1.47       |       |                  | 1.33      |
| Variance Perceived Control, $\sigma_{u_1}^2$                    |       |                  | 0.06       |       |                  | 0.06      |
| Residual Variance, $\sigma_e^2$                                 |       |                  | 3.34       |       |                  | 3.33      |
| ICC                                                             |       |                  | .34        |       |                  | .32       |
| AIC                                                             |       |                  | 12594.027  |       |                  | 12578.610 |
| $R_w^2 / R_b^2$                                                 |       |                  | .295 /.377 |       |                  | .316/.427 |

Note.  $N = 242$  individuals providing 2,985 observations. Item 1 = being anxious/worried, Item 2 = believing that

we as a society can get the situation under control (reversed). Gender was coded 0 for females and 1 for males.

$R_w^2$  indicates modeled variance at the within-person level,  $R_b^2$  indicates modeled variance at the between-person level.