

Online Supplementary Material 1

Title: The Long-Term Buffering Effect of Sense of Coherence on Psychopathological Symptoms During the First Year of the COVID-19 Pandemic: A Prospective Observational Study

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1 **Details on Assessment Points**

2 Assessment points for the current study were chosen to represent turning points of the pandemic in
3 Germany. The first COVID-19-related assessment took place in March 2020 (2020/03/16 – 2020/03/22,
4 range Oxford Stringency Index¹: 52.38 – 77.38), which marks the beginning of the first wave of the pandemic
5 in Germany (with 7,274 cases at 2020/03/16 and 24,875 at 2020/03/22). First containment measures were
6 put in place at that time (e.g., checks at German borders, closure of schools and nurseries, closure of non-
7 essential shops, limited access to hospitals and nursing homes). The second assessment during the COVID-19
8 pandemic was conducted in April 2020 (2020/04/17 – 2020/04/23, Oxford Stringency Index: 77.38). During
9 this time infections were about to decrease, and first debates on relaxation of containment measures
10 started². During the summer months, infection rates and deaths were lower, also reflected in eased
11 containment measures³ (e.g., international travel was allowed, schools and nurseries as well as non-
12 essential shops were opened, visiting bans in hospitals and nursing homes were relaxed). Starting in late
13 spring⁴, protests in the legitimacy of containment measures received increasing public interest during the
14 summer⁵. The third COVID-19-related assessment took place at the end of August (2020/08/26 –
15 2020/08/31, Oxford Stringency Index: 63.1). During this time, containment measures were still debated⁶ but
16 also infection rates started to increase and caused first discussions on potential lockdown measures (e.g.,

¹ The Oxford Stringency Index (Fuller et al., 2021; Hale et al., 2021) represents a composite index comprising nine containment policies. These include the cancellation of public events, workplace closures, school closures, gathering restrictions, border closures, internal movement restrictions, public transport closures, recommendations to stay at home, and stay-at-home-orders.

² <https://p.dw.com/p/3bczk>

³ <https://p.dw.com/p/3c0a8>

⁴ <https://p.dw.com/p/3bOy6>

⁵ <https://p.dw.com/p/3gMDv>

⁶ <https://p.dw.com/p/3howt>

1 closure of schools) during the winter months. The fourth COVID-19-related assessment was scheduled in
2 November (2020/11/10 – 2020/11/17, Oxford Stringency Index: 66.67). At this time, infection rates still
3 increased, and lockdown measures were put into place⁷ (e.g., checks at German borders, closure of schools
4 and nurseries, closure of non-essential shops, limited access to hospitals and nursing homes). Moreover,
5 many people started worrying about gathering restrictions during Christmas holidays⁸. The next assessment
6 at the beginning of January (2021/01/11 – 2021/01/17, Oxford Stringency Index: 86.9) was chosen to
7 capture the situation after the Christmas holidays. Although restrictions were put in place before Christmas⁹
8 and officials appealed to the public to avoid larger family gathering at Christmas¹⁰, infection rates increased
9 resulting in a prolonged lockdown measures during January 2021¹¹. At the same time, vaccination rollout
10 started in Germany¹² but was criticized as “gross failure” by Frauke Zipp, a neurologist and member of the
11 advisory Leopoldina Academy of Sciences, due to insufficient doses of vaccine¹³. From January to March
12 2021, infection rates decreased. The last assessment in March 2021 (2021/03/16 – 2021/03/2021, Oxford
13 Stringency Index: 79.76) was a one-year follow-up of the first COVID-19-related assessment wave in March
14 2020.

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⁷ <https://p.dw.com/p/3kXaz>

⁸ <https://p.dw.com/p/3li5t>; <https://p.dw.com/p/3mdqK>

⁹ <https://p.dw.com/p/3lobo>

¹⁰ <https://p.dw.com/p/3mVLE>

¹¹ <https://p.dw.com/p/3nX98>

¹² <https://p.dw.com/p/3nF77>

¹³ <https://p.dw.com/p/3nS9q>

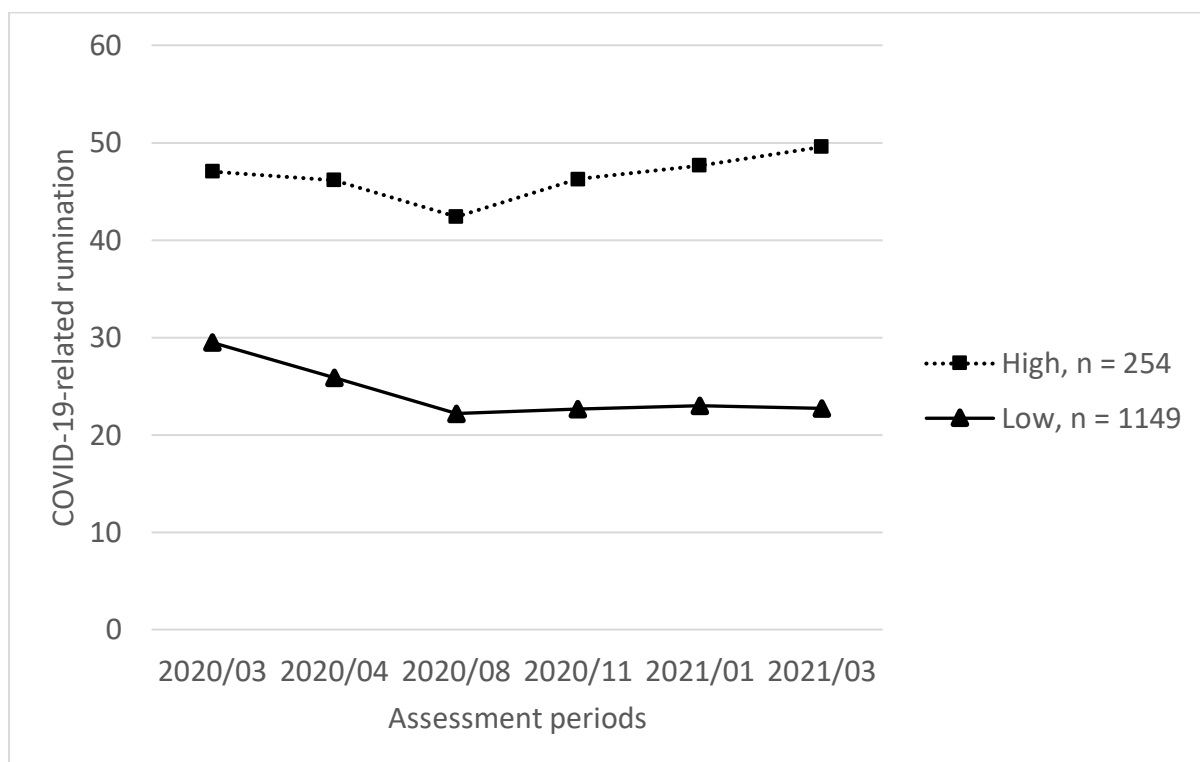
1 **Table 1SM.** Latent Class Growth Analysis with random intercepts and fixed slopes and quadratic trend

| Fit indices | Linear weights | | | Linear and quadratic weights | | |
|----------------|----------------|-----------|-----------|------------------------------|-------------------|-----------|
| | 1 class | 2 classes | 3 classes | 1 class | 2 classes | 3 classes |
| AIC | 49363.79 | 49062.71 | 48936.07 | 49131.37 | 48827.25 | 48683.81 |
| BIC | 49411.01 | 49125.67 | 49014.76 | 49183.83 | 48900.70 | 48778.07 |
| SSBI | 49382.42 | 49087.55 | 18967.11 | 49152.07 | 48856.22 | 48721.07 |
| Entropy | - | 0.81 | 0.84 | - | 0.81 | 0.83 |
| VRLT | - | < 0.001 | 0.004 | - | < 0.001 | 0.100 |
| LRT | - | < 0.001 | 0.005 | - | < 0.001 | 0.107 |
| Smallest class | 1403 | 273 | 51 | 1403 | 254 | 66 |

2 *Note.* AIC: Akaike Information Criterion; BIC: Bayesian Information Criterion; SSBI: Sample-size adjusted BIC;

3 VRLT: Vuong-Lo-Mendell-Rubin Likelihood Ratio test; LRT: Lo-Mendell-Rubin Adjusted LRT test.

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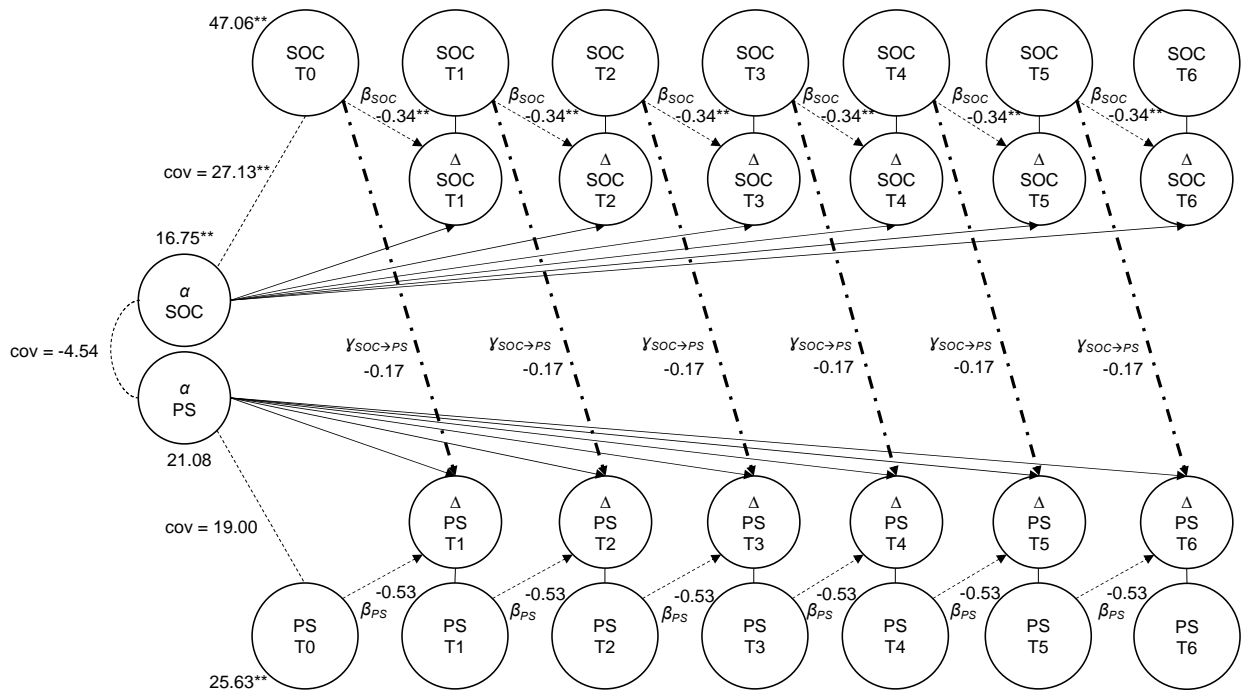


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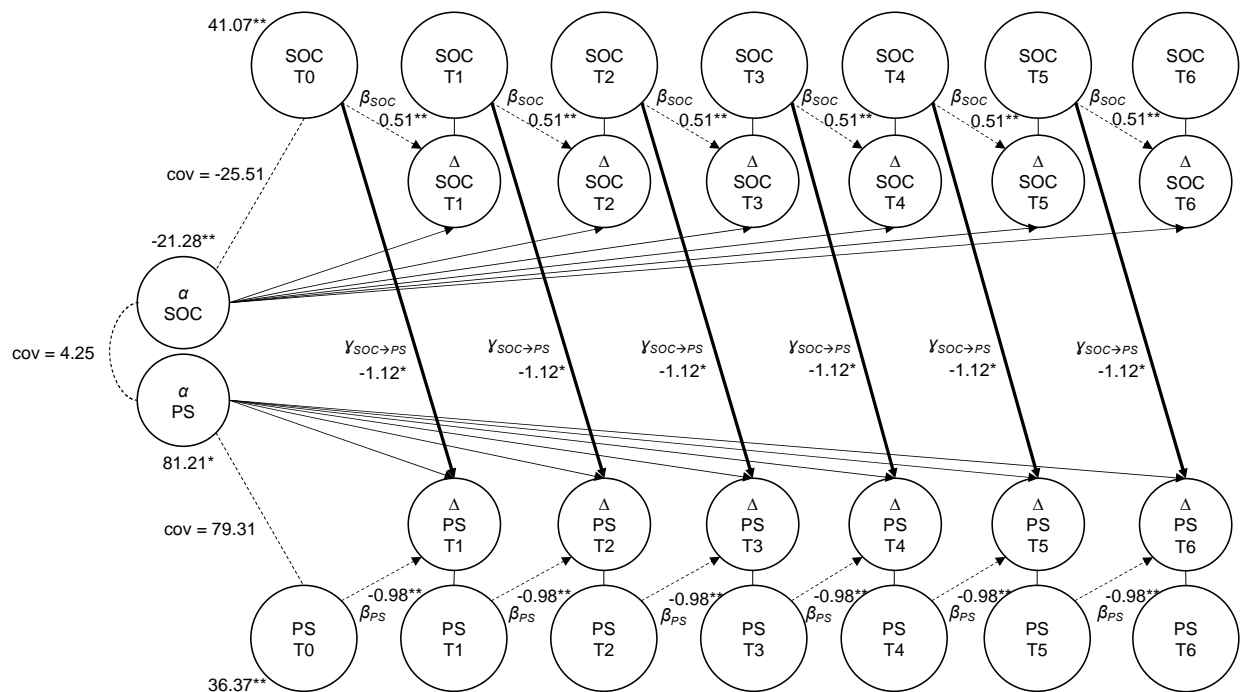
6 **Fig. 1SM.** Latent Class Growth Analysis – the unconditional model of latent trajectories of COVID-19-related

7 rumination

a. Low-rumination group (n = 1,149)



b. High-rumination group (n = 254)



Abbreviations:
 PS: Psychopathological symptoms, SOC: sense of coherence, T0: Assessment 2020/02, T1: Assessment 2020/03, T2: Assessment 2020/04, T3: Assessment 2020/08-09, T4: Assessment 2020/11, T5: Assessment 2021/01, T6: Assessment 2021/03

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2 **Fig. 2SM.** Schematic illustration of the most parsimonious bivariate latent change score model used
 3 for group comparison between the low and high COVID-19-related rumination groups.

1 **References**

- 2 Fuller, J. A., Hakim, A., Victory, K. R., Date, K., Lynch, M., Dahl, B., ... CDC COVID-19 Response Team. (2021).
3 Mitigation Policies and COVID-19-Associated Mortality—37 European Countries, January 23-June 30,
4 2020. *MMWR. Morbidity and Mortality Weekly Report*, 70(2), 58–62.
5 <https://doi.org/10.15585/mmwr.mm7002e4>
- 6 Hale, T., Angrist, N., Goldszmidt, R., Kira, B., Petherick, A., Phillips, T., ... Tatlow, H. (2021). A global panel
7 database of pandemic policies (Oxford COVID-19 Government Response Tracker). *Nature Human*
8 *Behaviour*, 5(4), 529–538. <https://doi.org/10.1038/s41562-021-01079-8>

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