



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



# How are you holding up? Personality, cognitive and social predictors of a perceived shift in subjective well-being during COVID-19 pandemic

Michal Kohút<sup>a,\*</sup>, Jakub Šrol<sup>b</sup>, Vladimíra Čavojová<sup>b</sup>

<sup>a</sup> Faculty of Philosophy and Arts, University of Trnava, Hornopotočná 23, 918 43 Trnava, Slovakia

<sup>b</sup> Institute of Experimental Psychology, Centre of Social and Psychological Sciences, Slovak Academy of Sciences, Dúbravská cesta 9, 841 04 Bratislava, Slovakia

## ARTICLE INFO

### Keywords:

Well-being  
COVID-19  
Conspiracy beliefs  
Personality traits  
Unrealistic optimism

## ABSTRACT

While well-being is known to be mainly predicted by relatively stable personality traits and demographic factors, under circumstances of the current COVID-19 pandemic, the role of these predictors may be attenuated, and more situational factors may come into play. In the present study, we examined those relatively stable predictors of well-being along with COVID-19 specific factors, such as the perception of health and economic threat, unrealistic optimism, lack of control, trust in government regulations, and the endorsement of conspiracy beliefs. The data collection took place in early November 2020, when the second wave in Slovakia started to gain momentum and a strict lockdown was issued. Slovak adults ( $N = 1020$ ) reported their current positive and negative affect and current, as well as estimated pre-pandemic and predicted future life satisfaction. The results showed that positive and negative affect was predicted mainly by extraversion and negative emotionality. On the other hand, life satisfaction, and its perceived change from before the pandemic and in three months, was predicted mainly by COVID-19 factors, especially perceived economic threat, unrealistic optimism, and trust in governmental regulations. We discuss the importance of these factors when considering the effect of the COVID-19 pandemic on peoples' well-being.

## 1. Introduction

How are you holding up? Most of us probably got used to asking and answering this question repeatedly as the COVID-19 pandemic struck. Not only it has posed a direct threat to health, but it also had a negative effect on well-being (e.g. Anglim & Horwood, 2021). Yet, even under dire circumstances, some people were able to retain high levels of well-being better than others. Well-being usually refers to how people evaluate their lives and is based on both cognitive judgment and affective reactions and the most widely-used model for assessing well-being is based on Diener's (1984) conceptualization of well-being as consisting of three components: frequent positive affect, infrequent negative affect, and cognitive evaluation, such as life satisfaction. Subjective well-being depends on many factors, one of which are personality traits. Higher extraversion and lower negative emotionality are two of the most consistent personality predictors of subjective and psychological well-being, however, links are also found with conscientiousness, agreeableness, and open-mindedness (e.g. Anglim et al., 2020). These findings were replicated even in the COVID-19 pandemic (e.g. Anglim & Horwood, 2021; Wijngaards et al., 2020). Besides personality traits, being

single or divorced, younger age (18–29 years), and a woman (Kowal et al., 2020; Wijngaards et al., 2020) were all associated with having more negative mental health outcomes during the COVID-19 pandemic.

### 1.1. Factors affecting well-being during the COVID-19 pandemic

However, some of the relatively stable links between personality traits and demographic factors and well-being may be attenuated under such circumstances as the current COVID-19 pandemic (e.g. Anglim & Horwood, 2021) due to other factors. For example, exposure to information about COVID-19 was associated with experiencing depression, anxiety, insomnia (e.g. Mongkhon et al., 2021; Sorokowski et al., 2020), and feelings of lack of control (Šrol et al., 2021). Feelings of anxiety and lack of control not only directly negatively affect well-being but are also associated with higher endorsement of conspiracy beliefs about COVID-19 that may have, in turn, further negative consequences for psychological well-being (for a review, see van Mulukom et al., n.d.). Moreover, according to Diener's (1984) model, anxiety and negative affect, in general, are considered a manifestation of low well-being. Similarly, higher optimism about one's prospects helps to keep higher positive

\* Corresponding author.

E-mail addresses: [michal.kohut@truni.sk](mailto:michal.kohut@truni.sk) (M. Kohút), [jakub.srol@savba.sk](mailto:jakub.srol@savba.sk) (J. Šrol), [vladimira.cavojova@savba.sk](mailto:vladimira.cavojova@savba.sk) (V. Čavojová).

evaluation of one's life by counteracting the prevalent feelings of anxiety and stress because of the COVID-19 pandemic (Genç & Arslan, 2021), but positive affect associated with optimism is, in a sense, also a part of well-being. However, while unrealistic optimism may have some short-term positive effects on subjective well-being, it can also pose health risks, such as underestimating the risk of contracting COVID-19 (Gassen et al., 2021).

Interpersonal and institutional trust is known to be associated with well-being, especially in older people (Poulin & Haase, 2015; Zhang & Zhang, 2015). During the COVID-19 pandemic, trust toward social and political actors (politicians, scientists, health system) is crucial, since people must rely on those actors to getting the pandemic situation under control. Indeed, trust in these actors predicted both higher individual well-being (Paolini et al., 2020), and lower levels of anxiety and lack of control (Šrol et al., 2021). Institutional trust partially mediated the relationship between perceived adversities and subjective well-being and mental health in older adults in a study in 27 European countries (Lee, 2020).

Finally, while COVID-19 may be seen primarily as a health threat, secondary stressors, such as financial insecurity and occupational difficulty, were found to be more strongly associated with experiencing depressive symptoms than the fear of contracting COVID-19 per se (Zheng et al., 2021). Especially at the beginning of the pandemic, Dawel et al. (2020) found that exposure to COVID-19 had minimal relations with mental health outcomes, but pandemic-induced impairments in work and financial distress due to the pandemic were key predictors of worse mental health outcomes. Similarly, the financial threat was associated with higher psychological distress and lower life satisfaction, happiness, self-rated health, and mental health index (Lee, 2020).

### 1.2. The present study

In the present study, we examined the role of relatively stable demographic factors and personality predictors of well-being along with COVID-specific factors potentially contributing to people's well-being in the pandemic, i.e. unrealistic optimism, trust in government regulations, endorsement of conspiracy and pseudoscientific beliefs, feeling of lack of control, perception of health and economic threat. We surveyed participants' cognitive evaluation of satisfaction with their lives during the pandemic as well as positive and negative affect. Further, there is some evidence that evaluation of well-being can be a subject of focusing illusion, i.e. when people consider an impact of any single factor on their well-being, they tend to exaggerate its importance (Kahneman et al., 2006). Therefore, subjective well-being during the pandemic is likely viewed through this lens and compared with the times before the pandemic. Thus, to address this issue, we extended our evaluation of well-being and asked participants to also evaluate their well-being before the pandemic and anticipated well-being in three months.

## 2. Method

### 2.1. Sample

The participants were recruited through an agency to be representative of the Slovak population in terms of gender, age, and education; they were compensated for their participation. In total, we collected the data from 1024 participants, however, four participants were excluded from further analyses because they either entered invalid age information or chose not to disclose their gender. The final sample consists of 1020 participants, 486 (47.6%) men and 534 (52.4%) women with an average age of 44.14 (SD = 15.34) years. The study was part of a larger research project aimed at understanding the associations between scientific reasoning, analytic thinking, and the endorsement of

epistemically suspect beliefs during the second wave of the COVID-19 pandemic in Slovakia. It was run between the 2nd and 6th November 2020, when the second wave in Slovakia started to gain momentum<sup>1</sup> and a strict lockdown was issued. This time was also marked by the first national antigen testing of COVID-19, proposed by the Prime minister and the leading political party as a pass from the strict lockdown measures, which had strong opposition from some scientists, political parties, and the president, causing public confusion about the meaningfulness of testing.

### 2.2. Measures

More information for all measures can be found in Appendix A. Full wording of most items included in the present study is available online at: <https://osf.io/uw5rf/>

#### 2.2.1. Life satisfaction

We used Cantril's ladder (Cantril, 1965) in which participants were asked to imagine a ladder with ten steps where step ten represents the best and step zero the worst possible life for them. Participants were asked to report: 1) on which step they currently stand on; 2) on which step they stood on before the pandemic; and 3) on which step they will stand in three months. Moreover, we calculated two additional scores, which were used to reflect the change in life satisfaction between the time before the pandemic and the present (higher scores represent increased current well-being), and the difference between the current and future life satisfaction (higher scores represent increased estimated future well-being).

*Positive and Negative Affect Schedule* (Watson et al., 1988) was used to measure positive and negative affect as a second alternative to our well-being measure. Participants were asked to indicate how strongly they lately feel on ten positive and ten negative emotions.

#### 2.2.2. Big five personality traits

We used the Slovak version of the Big Five Inventory 2 short form (Kohút et al., 2020). It contains 30 Likert's scale items measuring five broad personality factors: Extraversion, Agreeableness, Conscientiousness, Negative Emotionality, and Open-Mindedness.

#### 2.2.3. COVID-19 epistemically suspect beliefs

We used 14 items to measure participants' endorsement of epistemically suspect beliefs that included popular conspiracy and/or pseudoscientific beliefs (e.g. "SARS-CoV-2 (coronavirus) is a biological weapon created to eliminate the overcrowded human population") about the COVID-19 pandemic.

#### 2.2.4. Exposure to information about COVID-19

Participants were asked three questions based on the study by Sorokowski et al. (2020) about how often they look up or encounter information about COVID-19.

#### 2.2.5. Lack of control regarding COVID-19

We asked participants to rate four items taken from Šrol et al. (2021) that dealt with the feelings of lacking control regarding the COVID-19 pandemic.

#### 2.2.6. Unrealistic optimism regarding COVID-19

Four items were used to measure the tendency to be unrealistically optimistic about the future regarding the COVID-19 pandemic.

#### 2.2.7. Trust in science

Six items from the Credibility of Science Scale by Hartman et al. (2017) were used to measure participants' trust in science.

<sup>1</sup> <https://www.worldometers.info/coronavirus/country/slovakia/>

### 2.2.8. Trust in governmental regulations regarding COVID-19

One item was used to assess the degree to which participants perceived the government-issued health-preventive regulations as reasonable.

### 2.2.9. Perceived health and economic threat

One item was used to access the degree to which participants perceived COVID-19 as a health threat and one item for economic threat.

### 2.2.10. Demographic information

At the beginning of the study, we asked participants to indicate their age, gender, attained education, the strength of their religious faith, and partnership status (which we collapsed into 2 categories: in a relationship / not in a relationship).

## 2.3. Analysis

The data were analyzed using SPSS 22 and jamovi software (The jamovi project, 2021). Firstly, we analyzed the associations between the predictors and outcome variables, using Pearson's correlation and Student's *t*-test. Then, we conducted several hierarchical linear regressions where each outcome variable was predicted by demographic information in the first step. In the second step, we added the Big Five personality domains. Lastly, we added COVID-19 specific predictors: epistemically suspect beliefs, exposure to information, lack of control, unrealistic optimism, trust in science, trust in governmental regulations, and perceived health and economic threat. We report the standardized Beta values and their 95% confidence intervals from the full model, as well as explained variance (adjusted  $R^2$ ) at every step of the model. Due to a relatively large number of predictors in the regression models, we used a more conservative, Bonferroni-adjusted threshold for statistical significance ( $p < 0.0027$ ).

## 3. Results and discussion

Firstly, we focused on the change between estimated pre-pandemic, present and future life satisfaction. Results showed significant medium decrease ( $d = -0.55$ , 95% CI [-0.62, -0.48]) between estimated pre-pandemic ( $M = 6.77$ ,  $SD = 2.02$ ) and present ( $M = 5.79$ ,  $SD = 2.03$ ) life satisfaction, but the change from present to expected future ( $M = 5.83$ ,  $SD = 2.35$ ) life satisfaction was not significant ( $d = 0.03$ , 95% CI [-0.09, 0.03]).

### 3.1. Prediction of positive and negative affect

The results of correlational analyses are presented in Table A (Appendix B). Both positive and negative affect correlated significantly with all personality domains. Positive affect correlated most strongly and negatively with negative emotionality and positively with extraversion. Correlations with other variables were weak or close to zero. Negative affect correlated mainly with negative emotionality where a strong positive relationship was found. Moreover, weak to moderate positive correlations were found with lack of control, perceiving COVID-19 as an economic or health threat, exposure to COVID-19 related information.

Table 1 presents the results of hierarchical regressions predicting positive and negative affect (see Table B for extended results). Overall, the models explained 32.9% of the variance for positive affect and 43.9% for negative affect. Most of it was explained by the Big Five personality factors, 29.6% for positive and 36.7% for negative affect. Although we found a meaningful pattern of correlations between all five personality domains and positive and negative affect (e.g. Anglim et al., 2020; Modersitzki et al., 2020), only extraversion, negative emotionality, and open-mindedness were significant predictors of positive affect. Negative affect was mainly predicted by negative emotionality and agreeableness which had a small significant negative effect. The large proportion of explained variance by personality compared to other

**Table 1**

Results of hierarchical linear regression predicting positive and negative affect.

|                                                        | Positive affect                                                                                                                                                           | Negative affect                                                                                                                                   |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Demographic information                             | Adj. $R^2 = 0.015$                                                                                                                                                        | Adj. $R^2 = 0.016$                                                                                                                                |
| 2. Big Five personality domains                        | <b><math>\Delta</math> Adj. <math>R^2 = 0.296</math></b>                                                                                                                  | <b><math>\Delta</math> Adj. <math>R^2 = 0.367</math></b>                                                                                          |
| 3. COVID-19 factors                                    | <b><math>\Delta</math> Adj. <math>R^2 = 0.019</math></b>                                                                                                                  | <b><math>\Delta</math> Adj. <math>R^2 = 0.056</math></b>                                                                                          |
| Full model                                             | <b>Adj. <math>R^2 = 0.329</math></b>                                                                                                                                      | <b>Adj. <math>R^2 = 0.439</math></b>                                                                                                              |
| Std. $\beta$ of predictors significant at $p < 0.0027$ | Negative Emotionality (-0.27), Extraversion (0.22), Open-Mindedness (0.15), Exposure to information about COVID-19 (0.09), Unrealistic optimism regarding COVID-19 (0.09) | Negative Emotionality (0.46), Perceiving COVID-19 as economic threat (0.14), Exposure to information about COVID-19 (0.11), Agreeableness (-0.10) |

Note. This is an abbreviated table that shows the results of two hierarchical regressions with three blocks of predictors, presenting  $R^2$  change at every step of the model along with standardized regression coefficients significant ( $p < 0.0027$ ) at the final step of the regression model. For more comprehensive regression results see Table B. Adjusted  $R^2$  significant at  $p < 0.01$  are presented in bold. Gender: men were coded as 0 and women as 1.

predictors suggests that even in an unpredictable and threatening situation such as the COVID-19 pandemic, the affect is still mainly driven by personality. A similar conclusion was reached by Anglim and Horwood (2021) who likewise focused on the impact of COVID-19 on the link between personality and well-being.

The effect of exposure to information and unrealistic optimism on positive affect was significant, although the unique explained variance by COVID-19 factors was only 1.9%. Considering the correlations (Table A), the significant effect of exposure to information was rather a statistical artifact, as there was practically no correlation with positive affect. The COVID-19 factors explained 5.6% of the unique variance for negative affect. People whose economic welfare is threatened by COVID-19 and are more exposed to information about (at that time) gloomy perspective on the COVID-19 pandemic, experience more negative emotions (Mongkhon et al., 2021; Zheng et al., 2021). Contrary to Zheng et al. (2021), we did not find an association between perceived health threat and negative affect in a regression model, although we found a weak bivariate correlation.

### 3.2. Prediction of life satisfaction and its perceived change

The correlations presented in Table A (Appendix B) showed that evaluation of pre-pandemic life satisfaction was slightly more positive for men, people with a partner, higher extraversion, and lower negative emotionality. Other correlations were only weak or close to zero. As presented in Table 2 (see Table C for extended results), the regression model explained 12% of the variance in pre-pandemic life satisfaction, most of which was explained by Big Five factors. The COVID-19 factors explained only 1.1% of the variance. Compared to this, for present and expected future life satisfaction, as well as their shifts from past and to the future, these factors explained most of the variance, which could mean that the COVID-19 pandemic moderates their relevance. As an important note, low explained variance by COVID-19 factors in the past (pre-pandemic) compared to present and future life satisfaction, along with the stable effect of Big five personality traits provide evidence that participants were capable of estimating their past, present, and future life satisfaction.

These results also suggest that personality has an important role in affect and emotions, but this effect is not so prevalent in the cognitive evaluation of one's own satisfaction with life while focusing on the specific situation, such as the current pandemic. Similarly, Anglim and Horwood (2021) also suggested that the COVID-19 pandemic may moderate the effect of certain personality traits on well-being:

**Table 2**  
Results of hierarchical linear regression predicting life satisfaction.

|                                                        | Past                                                                                                             | Present                                                                                                                                                                                                                                 | Future                                                                                                                                                                                     | Past to present                                                                                                | Present to future                                                                                              |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 1. Demographic information                             | Adj. R <sup>2</sup> = <b>0.025</b>                                                                               | Adj. R <sup>2</sup> = <b>0.051</b>                                                                                                                                                                                                      | Adj. R <sup>2</sup> = <b>0.038</b>                                                                                                                                                         | Adj. R <sup>2</sup> = <b>0.019</b>                                                                             | Adj. R <sup>2</sup> = 0.010                                                                                    |
| 2. Big Five personality domains                        | $\Delta$ Adj. R <sup>2</sup> = <b>0.083</b>                                                                      | $\Delta$ Adj. R <sup>2</sup> = <b>0.074</b>                                                                                                                                                                                             | $\Delta$ Adj. R <sup>2</sup> = <b>0.076</b>                                                                                                                                                | $\Delta$ Adj. R <sup>2</sup> = <b>0.017</b>                                                                    | $\Delta$ Adj. R <sup>2</sup> = 0.004                                                                           |
| 3. COVID-19 factors                                    | $\Delta$ Adj. R <sup>2</sup> = <b>0.011</b>                                                                      | $\Delta$ Adj. R <sup>2</sup> = <b>0.088</b>                                                                                                                                                                                             | $\Delta$ Adj. R <sup>2</sup> = <b>0.137</b>                                                                                                                                                | $\Delta$ Adj. R <sup>2</sup> = <b>0.136</b>                                                                    | $\Delta$ Adj. R <sup>2</sup> = <b>0.045</b>                                                                    |
| Full model                                             | Adj. R <sup>2</sup> = <b>0.120</b>                                                                               | Adj. R <sup>2</sup> = <b>0.212</b>                                                                                                                                                                                                      | Adj. R <sup>2</sup> = <b>0.251</b>                                                                                                                                                         | Adj. R <sup>2</sup> = <b>0.171</b>                                                                             | Adj. R <sup>2</sup> = <b>0.059</b>                                                                             |
| Std. $\beta$ of predictors significant at $p < 0.0027$ | Gender (0.21), Negative Emotionality (−0.17), Extraversion (0.15), Exposure to information about COVID-19 (0.11) | Partnership status (0.29), Negative Emotionality (−0.20), Perceiving COVID-19 as economic threat (−0.19), Unrealistic optimism regarding COVID-19 (0.12), Trust in governmental regulations regarding COVID-19 (0.12), Education (0.09) | Perceiving COVID-19 as economic threat (−0.22), Partnership status (0.19), Unrealistic optimism regarding COVID-19 (0.19), Negative Emotionality (−0.16), Age (−0.12), Extraversion (0.11) | Perceiving COVID-19 as an economic threat (−0.29), Trust in governmental regulations regarding COVID-19 (0.15) | Unrealistic optimism regarding COVID-19 (0.15), Perceiving COVID-19 as an economic threat (−0.11), Age (−0.10) |

Note. This is an abbreviated table that shows the results of five hierarchical regressions with three blocks of predictors, presenting R<sup>2</sup> change at every step of the model along with standardized regression coefficients significant ( $p < 0.0027$ ) at the final step of the regression model. For more comprehensive regression results see Table C. Adjusted R<sup>2</sup> significant at  $p < 0.01$  are presented in bold. Gender: men were coded as 0 and women as 1. Partnership status: participants without a partner were coded as 0 and people with a partner as 1.

specifically, they suggest that lockdown measures may attenuate the effect of extraversion on well-being or mood, as these measures deprive extroverts of social contact – one of their sources of happiness. Our results support this notion: the correlation between extraversion and past life satisfaction ( $r = 0.24$ ) was stronger than the one with present ( $r = 0.16$ ) and future ( $r = 0.18$ ) life satisfaction. Overall, the predictors explained a moderate amount of the variance (17–25%) in our life satisfaction measures, except for the model predicting the increase in future life satisfaction in comparison with the current life satisfaction, where the proportion of explained variance was quite low (5.9%).

The demographic indicators played a role mainly for present and future life satisfaction. The most pronounced was partnership status. Being in a relationship (marital or nonmarital) has a positive effect on life satisfaction in general (e.g. Stahnke & Cooley, 2020), which is present even in a pandemic situation, probably due to the possibility for dyadic coping and lower stress levels (e.g. Kowal et al., 2020). For the Big Five factors, we mainly found small negative correlations between the negative emotionality and present and future life satisfaction, which is in line with the tendency of more negative evaluation of own life for people with higher depression or anxiety (Halama et al., 2020; Schimmack et al., 2004). This effect was found in other studies focused on the COVID-19 pandemic (e.g. Morales-Vives et al., 2020). Moreover, extraversion positively predicted the expected future life satisfaction, possibly because of a more cheerful view on life in general (Schimmack et al., 2004) and a broader social network (Halama et al., 2020) which are beneficial for satisfaction with life.

From the COVID-19 factors, we found correlations mainly with epistemically suspect beliefs, unrealistic optimism, trust in governmental regulations, and perceiving COVID-19 as an economic threat, although the first was not significant in regression models. People who were more economically threatened by the COVID-19 pandemic showed a stronger decrease in life satisfaction, as well as lower present and expected future life satisfaction, which is in line with Lee’s (2020) findings that worsening financial insecurity was negatively related to life satisfaction, happiness, and mental health. This could partially be due to the specific Slovak context since the first wave of the pandemic in Slovakia was very mild due to very restrictive government regulations. These regulations were effective in stopping the spread of the virus, but their economic impact was quite drastic for many people. However, similar results were reported by Zheng et al. (2021), who showed that secondary pandemic threats, such as financial and occupational insecurity, were more strongly associated with experiencing depressive symptoms than the fear of contracting COVID-19 per se. Therefore, policymakers need to take these secondary stressors very seriously when

they make decisions about which health preventive regulations to issue. For example, Renström and Bäck (2021) found that fear and anger predicted support for restrictive policies to limit the spread of the virus, while anxiety predicted support for economic policies. Different aspects of the crises evoked different emotional reactions, which, in turn, had a specific effect on various policy support and political action. However, adherence to government-issued regulations is predicted also by trust in government and perception of its truthfulness (Pak et al., 2021).

Unrealistic optimism was associated with life satisfaction, in line with Genç and Arslan (2021). People with a more positive view on the pandemic situation indicated higher current life satisfaction, expected shift to the future, as well as future life satisfaction, and this trend does not seem to be due to the general tendency to answer more positively, because of low correlation with past life satisfaction. This suggests that unrealistic optimism can have a protective effect, although possibly at the cost of underestimation of health risk (Dolinski et al., 2020; Shukla et al., 2021). In accordance with Paolini et al. (2020), our results showed a positive effect of trust in governmental regulations on well-being. Believing that the restrictions and actions proposed by the government are meaningful had a protective effect on the change of life satisfaction in the pandemic and increases current well-being. Regarding the epistemically suspect beliefs about COVID-19, we found moderate negative correlations with perceived past to present shift, present, and future life satisfaction, although the effect of these predictors was not significant.

### 3.3. Limitations

Our study had several limitations that need to be noted. Our design is cross-sectional. A longitudinal design would be more appropriate to access the pre-pandemic life satisfaction as recalling can be biased by nostalgia or a rosy view of the past. Similarly, by asking participants about their present, future, and pre-pandemic life satisfaction, we might have amplified the salience of the pandemic when making those judgments. The next limitation lies in the assessment of COVID-19 factors, namely trust in science, which is not specifically focused on COVID-19, and low internal consistency of exposure to information and unrealistic optimism scales.

### 4. Conclusion

Whether you experience more positive or negative feelings during a pandemic depends mostly on your personality (mainly extraversion and negative emotionality). But when it comes to how satisfied you are with



your life, and especially to perceived changes from before and after the pandemic, those dimensions are, besides personality traits, also substantially affected by COVID-19 factors, such as the economic threat of a pandemic, unrealistic optimism, and trust in governmental regulations. As always, it is better to be financially secure, as a threat and lack of control over their lives drive people toward behaviors and beliefs that further undermine trust and contribute to prolonging the problem that caused financial threat in the first place. Especially during demanding crises, such as a pandemic, government officials should be aware of the factors contributing to the general well-being of people, because people are more likely to follow unpopular restrictions if they believe that government cares about their psychological and financial well-being.

### CRediT authorship contribution statement

**Michal Kohút:** Conceptualization, Resources, Methodology, Formal

### Appendix A

Life satisfaction:

Current life satisfaction:  $M = 5.79$ ,  $SD = 2.03$

Pre-pandemic life satisfaction:  $M = 6.77$ ,  $SD = 2.02$

Life satisfaction in three months:  $M = 5.83$ ,  $SD = 2.35$

*Positive and Negative Affect Schedule.* Participants responded on a scale from 1 (“very little”) to 7 (“very intensively”). We used average rating on positive and negative emotions as indicators of positive ( $M = 4.27$ ,  $SD = 1.13$ ,  $\alpha = 0.90$ ) and negative ( $M = 2.81$ ,  $SD = 1.21$ ,  $\alpha = 0.91$ ) affect.

Big five personality domains:

Participants indicate their agreement or disagreement with the items using a 5-point scale ranging from “Disagree strongly” to “Agree strongly”.

An average rating on the 6 items was used to compute each domain score.

Extraversion:  $M = 3.22$ ,  $SD = 0.68$ ,  $\alpha = 0.66$

Agreeableness:  $M = 3.69$ ,  $SD = 0.66$ ,  $\alpha = 0.69$

Conscientiousness:  $M = 3.70$ ,  $SD = 0.65$ ,  $\alpha = 0.70$

Negative emotionality:  $M = 2.75$ ,  $SD = 0.77$ ,  $\alpha = 0.77$

Openness:  $M = 3.39$ ,  $SD = 0.65$ ,  $\alpha = 0.64$

*COVID-19 epistemically suspect beliefs.* Participants rated those items on a scale from 1 (“strongly disagree”) to 5 (“strongly agree”). An average rating on the 14 items was used as an indicator of participants' endorsement of epistemically suspect beliefs regarding the COVID-19 pandemic ( $M = 2.15$ ,  $SD = 1.01$ ,  $\alpha = 0.95$ )

*Exposure to information about COVID-19.* Participants gave their responses on a seven-point scale. An average rating for the three items was used as an indicator of exposure to information about COVID-19 ( $M = 4.63$ ,  $SD = 1.38$ ,  $\alpha = 0.67$ ).

*Lack of control regarding COVID-19.* An average rating on a scale from 1 (“strongly disagree”) to 7 (“strongly agree”) was used as a measure of feelings of lack of control ( $M = 3.40$ ,  $SD = 1.53$ ,  $\alpha = 0.84$ ).

*Unrealistic optimism regarding COVID-19.* Participants rated the items on a scale from 1 (“strongly disagree”) to 5 (“strongly agree”). An average rating was used as an indicator of unrealistic optimism ( $M = 2.69$ ,  $SD = 0.85$ ,  $\alpha = 0.66$ ).

*Trust in science.* Participants responded to items using a scale from 1 (“very strongly disagree”) to 7 (“very strongly agree”). All items in the scale are worded negatively, therefore, all ratings were reversed and averaged to obtain a measure of trust in science ( $M = 4.65$ ,  $SD = 1.29$ ,  $\alpha = 0.88$ ).

*Trust in governmental regulations regarding COVID-19.* Participants responded on a scale from 1 (“completely unreasonable”) to 7 (“completely reasonable”). Overall, participants were more inclined to trust that the regulations were reasonable ( $M = 4.59$ ,  $SD = 1.97$ ).

*Perceiving COVID-19 as health threat.* Participants responded on a 7-point scale from “I don't feel any threat at all” to “I feel very threatened”.  $M = 3.86$ ,  $SD = 1.84$

*Perceiving COVID-19 as economic threat.* Participants responded on a 7-point scale from “I don't feel any threat at all” to “I feel very threatened”.  $M = 4.64$ ,  $SD = 1.85$

Demographic information:

Age.  $M = 45.27$  ( $SD = 14.82$ ) for men, and  $M = 43.10$  ( $SD = 15.74$ ) for women.

Education. 65 (6.4%) participants reported elementary school, 320 (31.4%) high school without diploma, 400 (39.2%) high school with diploma, 52 (5.1%) bachelor's degree, 174 (17.1%) university degree, 9 (0.9%) university PhD. degree.

*Strength of religious faith.* Participants responded to a question “How important is religion or faith in God to you?” on a scale from 1 (“Not at all important”) to 7 (“Very important”).  $M = 4.06$ ,  $SD = 2.19$ .

*Partnership status.* 358 (35.1%) reported being without a partner and 662 (64.9%) having a partner.

analysis, Investigation, Data curation, Writing – original draft, Funding acquisition. **Jakub Šrol:** Conceptualization, Resources, Methodology, Writing – original draft, Writing – review & editing. **Vladimíra Čavojová:** Conceptualization, Resources, Writing – original draft, Writing – review & editing, Supervision, Funding acquisition.

### Acknowledgments

The study was supported by the Slovak Research and Development Agency as part of the research project APVV-20-0335 “Reducing the spread of disinformation, pseudoscience and bullshit” and by the Scientific Grant Agency VEGA [grant number 1/0363/18].

**Table A**  
Correlation matrix of used variables.

|                                                          | 1.           | 2.           | 3.           | 4.           | 5.           | 6.           | 7.           | 8.           | 9.           | 10.          | 11.          | 12.          | 13.          | 14.          | 15.          | 16.          | 17.          | 18.          | 19.         | 20.          | 21.          | 22.          | 23.         | 24.         |  |
|----------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|-------------|-------------|--|
| 1. Positive affect                                       | –            |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 2. Negative affect                                       | <b>–0.36</b> | –            |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 3. Past life satisfaction                                | <b>0.27</b>  | <b>–0.14</b> | –            |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 4. Present life satisfaction                             | <b>0.35</b>  | <b>–0.33</b> | <b>0.62</b>  | –            |              |              |              |              |              |              |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 5. Future life satisfaction                              | <b>0.29</b>  | <b>–0.34</b> | <b>0.48</b>  | <b>0.82</b>  | –            |              |              |              |              |              |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 6. Past to present shift in life satisfaction            | <b>0.10</b>  | <b>–0.22</b> | <b>–0.44</b> | <b>0.44</b>  | <b>0.39</b>  | –            |              |              |              |              |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 7. Present to future shift in life satisfaction          | <b>–0.03</b> | <b>–0.09</b> | <b>–0.09</b> | <b>–0.08</b> | <b>0.51</b>  | 0.02         | –            |              |              |              |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 8. Gender                                                | <b>–0.09</b> | <b>0.11</b>  | <b>0.12</b>  | 0.05         | 0.06         | <b>–0.08</b> | 0.03         | –            |              |              |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 9. Partnership status                                    | 0.08         | <b>–0.03</b> | <b>0.10</b>  | <b>0.16</b>  | <b>0.11</b>  | 0.07         | <b>–0.06</b> | 0.02         | –            |              |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 10. Age                                                  | 0.04         | <b>–0.08</b> | <b>–0.04</b> | <b>–0.04</b> | <b>–0.10</b> | 0.00         | <b>–0.11</b> | <b>–0.07</b> | <b>0.10</b>  | –            |              |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 11. Education                                            | 0.05         | <b>–0.03</b> | <b>0.08</b>  | <b>0.17</b>  | <b>0.15</b>  | <b>0.10</b>  | 0.01         | 0.06         | 0.08         | <b>–0.09</b> | –            |              |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 12. Strength of religious faith                          | 0.04         | 0.06         | 0.00         | 0.03         | 0.02         | 0.03         | <b>–0.01</b> | <b>0.11</b>  | 0.03         | <b>–0.02</b> | <b>–0.01</b> | –            |              |              |              |              |              |              |             |              |              |              |             |             |  |
| 13. Extraversion                                         | <b>0.43</b>  | <b>–0.29</b> | <b>0.24</b>  | <b>0.16</b>  | <b>0.18</b>  | <b>–0.09</b> | 0.07         | <b>–0.01</b> | 0.04         | 0.04         | 0.04         | 0.00         | –            |              |              |              |              |              |             |              |              |              |             |             |  |
| 14. Agreeableness                                        | <b>0.26</b>  | <b>–0.32</b> | <b>0.18</b>  | <b>0.16</b>  | <b>0.16</b>  | <b>–0.02</b> | 0.04         | <b>0.15</b>  | 0.03         | <b>0.17</b>  | 0.08         | <b>0.11</b>  | <b>0.18</b>  | –            |              |              |              |              |             |              |              |              |             |             |  |
| 15. Conscientiousness                                    | <b>0.36</b>  | <b>–0.35</b> | <b>0.18</b>  | <b>0.16</b>  | <b>0.15</b>  | <b>–0.02</b> | 0.01         | 0.01         | 0.05         | <b>0.10</b>  | <b>0.11</b>  | 0.02         | <b>0.40</b>  | <b>0.46</b>  | –            |              |              |              |             |              |              |              |             |             |  |
| 16. Negative Emotionality                                | <b>–0.47</b> | <b>0.61</b>  | <b>–0.23</b> | <b>–0.28</b> | <b>–0.26</b> | <b>–0.06</b> | <b>–0.04</b> | <b>0.16</b>  | <b>–0.04</b> | <b>–0.10</b> | <b>–0.07</b> | 0.05         | <b>–0.44</b> | <b>–0.39</b> | <b>–0.51</b> | –            |              |              |             |              |              |              |             |             |  |
| 17. Open-Mindedness                                      | <b>0.34</b>  | <b>–0.23</b> | <b>0.16</b>  | <b>0.11</b>  | <b>0.11</b>  | <b>–0.06</b> | 0.02         | 0.06         | <b>–0.02</b> | <b>0.10</b>  | <b>0.13</b>  | 0.07         | <b>0.39</b>  | <b>0.33</b>  | <b>0.41</b>  | <b>–0.29</b> | –            |              |             |              |              |              |             |             |  |
| 18. COVID-19 epistemically suspect beliefs               | 0.07         | 0.06         | <b>–0.03</b> | <b>–0.20</b> | <b>–0.23</b> | <b>–0.20</b> | <b>–0.10</b> | 0.01         | <b>–0.03</b> | <b>0.12</b>  | <b>–0.26</b> | <b>0.10</b>  | 0.08         | <b>–0.03</b> | 0.03         | <b>–0.03</b> | 0.01         | –            |             |              |              |              |             |             |  |
| 19. Exposure to information about COVID-19               | 0.02         | <b>0.21</b>  | <b>0.10</b>  | 0.06         | 0.06         | <b>–0.04</b> | 0.00         | <b>0.14</b>  | <b>0.13</b>  | 0.05         | <b>0.10</b>  | <b>0.10</b>  | <b>–0.06</b> | 0.04         | 0.01         | <b>0.17</b>  | 0.01         | <b>–0.27</b> | –           |              |              |              |             |             |  |
| 20. Lack of control regarding COVID-19                   | <b>–0.17</b> | <b>0.33</b>  | <b>–0.06</b> | <b>–0.10</b> | <b>–0.16</b> | <b>–0.05</b> | <b>–0.12</b> | <b>0.17</b>  | 0.06         | <b>–0.02</b> | <b>–0.04</b> | <b>0.08</b>  | <b>–0.18</b> | <b>–0.11</b> | <b>–0.18</b> | <b>0.32</b>  | <b>–0.12</b> | <b>–0.01</b> | <b>0.27</b> | –            |              |              |             |             |  |
| 21. Unrealistic optimism regarding COVID-19              | <b>0.14</b>  | <b>–0.11</b> | <b>0.08</b>  | <b>0.24</b>  | <b>0.30</b>  | <b>0.17</b>  | <b>0.17</b>  | 0.05         | 0.02         | <b>–0.04</b> | 0.02         | <b>0.11</b>  | 0.03         | <b>0.09</b>  | 0.06         | <b>–0.10</b> | 0.02         | <b>–0.19</b> | <b>0.09</b> | <b>–0.08</b> | –            |              |             |             |  |
| 22. Trust in science                                     | <b>–0.01</b> | <b>–0.10</b> | 0.07         | <b>0.10</b>  | <b>0.13</b>  | 0.03         | 0.08         | 0.01         | 0.03         | <b>–0.05</b> | <b>0.23</b>  | <b>–0.15</b> | 0.02         | <b>0.15</b>  | 0.08         | <b>–0.05</b> | <b>0.09</b>  | <b>–0.41</b> | 0.05        | <b>–0.18</b> | 0.01         | –            |             |             |  |
| 23. Trust in governmental regulations regarding COVID-19 | 0.04         | <b>–0.02</b> | 0.05         | <b>0.24</b>  | <b>0.24</b>  | <b>0.22</b>  | 0.05         | <b>0.09</b>  | 0.05         | <b>–0.04</b> | <b>0.13</b>  | 0.05         | <b>–0.05</b> | <b>0.10</b>  | <b>–0.01</b> | 0.00         | 0.01         | <b>–0.59</b> | <b>0.32</b> | <b>0.18</b>  | <b>0.36</b>  | <b>0.19</b>  | –           |             |  |
| 24. Perceiving COVID-19 as a health threat               | <b>–0.10</b> | <b>0.24</b>  | 0.01         | 0.02         | <b>–0.02</b> | 0.01         | <b>–0.07</b> | <b>0.13</b>  | <b>0.10</b>  | 0.08         | 0.04         | <b>0.13</b>  | <b>–0.13</b> | <b>–0.01</b> | <b>–0.07</b> | <b>0.20</b>  | <b>–0.07</b> | <b>–0.26</b> | <b>0.42</b> | <b>0.54</b>  | <b>0.10</b>  | <b>–0.01</b> | <b>0.40</b> | –           |  |
| 25. Perceiving COVID-19 as an economic threat            | <b>–0.05</b> | <b>0.31</b>  | 0.05         | <b>–0.21</b> | <b>–0.26</b> | <b>–0.30</b> | <b>–0.13</b> | <b>0.10</b>  | 0.03         | <b>–0.08</b> | <b>–0.03</b> | 0.07         | <b>–0.01</b> | <b>–0.07</b> | <b>–0.05</b> | <b>0.20</b>  | <b>–0.01</b> | <b>0.09</b>  | <b>0.21</b> | <b>0.30</b>  | <b>–0.10</b> | <b>–0.10</b> | 0.01        | <b>0.37</b> |  |

Note. Values represent Pearson's correlation coefficient. Gender: Men were coded as 0, women as 1. Partnership status: People without a partner were coded as 0, people with a partner as 1. Values significant at  $p < 0.01$  are bolded.

Appendix B

**Table B**  
Results of hierarchical linear regression predicting positive and negative affect.

| Predictor                                            | Positive affect                                       |                       | Negative affect                                       |                       |
|------------------------------------------------------|-------------------------------------------------------|-----------------------|-------------------------------------------------------|-----------------------|
|                                                      | $\beta$                                               | 95% CI                | $\beta$                                               | 95% CI                |
| <i>1. Demographic information</i>                    | <b>Adj. R<sup>2</sup> = 0.015</b>                     |                       | <b>Adj. R<sup>2</sup> = 0.016</b>                     |                       |
| Age                                                  | -0.04                                                 | [-0.09, 0.02]         | -0.01                                                 | [-0.06, 0.04]         |
| Gender                                               | -0.16                                                 | [-0.27, -0.05]        | 0.00                                                  | [-0.10, 0.10]         |
| Education                                            | 0.00                                                  | [-0.05, 0.06]         | 0.04                                                  | [-0.01, 0.08]         |
| Strength of religious faith                          | 0.01                                                  | [-0.04, 0.07]         | 0.02                                                  | [-0.03, 0.07]         |
| Partnership status                                   | 0.11                                                  | [0.00, 0.22]          | -0.05                                                 | [-0.15, 0.05]         |
| <i>2. Big Five personality domains</i>               | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.296</b> |                       | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.367</b> |                       |
| Extraversion                                         | <b>0.22</b>                                           | <b>[0.16, 0.28]</b>   | -0.03                                                 | [-0.09, 0.02]         |
| Agreeableness                                        | 0.04                                                  | [-0.02, 0.11]         | <b>-0.10</b>                                          | <b>[-0.15, -0.04]</b> |
| Conscientiousness                                    | 0.05                                                  | [-0.02, 0.11]         | -0.02                                                 | [-0.08, 0.04]         |
| Negative Emotionality                                | <b>-0.27</b>                                          | <b>[-0.34, -0.20]</b> | <b>0.46</b>                                           | <b>[0.40, 0.53]</b>   |
| Open-Mindedness                                      | <b>0.15</b>                                           | <b>[0.09, 0.20]</b>   | -0.04                                                 | [-0.09, 0.02]         |
| <i>3. COVID-19 factors</i>                           | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.019</b> |                       | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.056</b> |                       |
| COVID-19 epistemically suspect beliefs               | 0.11                                                  | [0.04, 0.18]          | 0.08                                                  | [0.02, 0.15]          |
| Exposure to information about COVID-19               | <b>0.09</b>                                           | <b>[0.03, 0.15]</b>   | <b>0.11</b>                                           | <b>[0.05, 0.16]</b>   |
| Lack of control regarding COVID-19                   | -0.03                                                 | [-0.09, 0.04]         | 0.07                                                  | [0.01, 0.13]          |
| Unrealistic optimism regarding COVID-19              | <b>0.09</b>                                           | <b>[0.03, 0.14]</b>   | -0.02                                                 | [-0.07, 0.03]         |
| Trust in science                                     | -0.03                                                 | [-0.09, 0.02]         | 0.01                                                  | [-0.05, 0.06]         |
| Trust in governmental regulations regarding COVID-19 | 0.08                                                  | [0.01, 0.15]          | -0.03                                                 | [-0.09, 0.04]         |
| Perceiving COVID-19 as health threat                 | -0.03                                                 | [-0.10, 0.04]         | 0.03                                                  | [-0.03, 0.10]         |
| Perceiving COVID-19 as economic threat               | 0.01                                                  | [-0.05, 0.07]         | <b>0.14</b>                                           | <b>[0.09, 0.20]</b>   |
| <i>Full model</i>                                    | <b>Adj. R<sup>2</sup> = 0.329</b>                     |                       | <b>Adj. R<sup>2</sup> = 0.439</b>                     |                       |

Note. The table shows the results of two hierarchical regressions (for positive and negative affect) with three blocks of predictors (demographic variables, personality predictors, and COVID-19 factors). The columns include changes in adjusted R<sup>2</sup> at every step of the regression, as well as standardized regression coefficients extracted from the final step of the regression. CI - Confidence Interval. The  $\beta$  Values significant at  $p < 0.0027$  are bolded. The R<sup>2</sup> values significant at  $p < 0.01$  are bolded. Gender: men were coded as 0 and women as 1. Partnership status: participants without a partner were coded as 0 and people with a partner as 1.

**Table C**  
Results of hierarchical linear regression predicting life satisfaction.

| Predictor                               | Past                                                  |                | Present                                               |                | Future                                                |                | Past to present                                       |                | Present to future                                     |                |
|-----------------------------------------|-------------------------------------------------------|----------------|-------------------------------------------------------|----------------|-------------------------------------------------------|----------------|-------------------------------------------------------|----------------|-------------------------------------------------------|----------------|
|                                         | $\beta$                                               | 95% CI         | $\beta$                                               | 95% CI         | $\beta$                                               | 95% CI         | $\beta$                                               | 95% CI         | $\beta$                                               | 95% CI         |
| <i>1. Demographic information</i>       | <b>Adj. R<sup>2</sup> = 0.025</b>                     |                | <b>Adj. R<sup>2</sup> = 0.051</b>                     |                | <b>Adj. R<sup>2</sup> = 0.038</b>                     |                | <b>Adj. R<sup>2</sup> = 0.019</b>                     |                | <b>Adj. R<sup>2</sup> = 0.010</b>                     |                |
| Age                                     | -0.08                                                 | [-0.14, -0.02] | -0.07                                                 | [-0.13, -0.02] | <b>-0.12</b>                                          | [-0.18, -0.07] | 0.00                                                  | [-0.06, 0.06]  | <b>-0.10</b>                                          | [-0.17, -0.04] |
| Gender                                  | <b>0.21</b>                                           | [0.09, 0.34]   | 0.11                                                  | [-0.01, 0.23]  | 0.13                                                  | [0.02, 0.24]   | -0.12                                                 | [-0.24, 0.00]  | 0.06                                                  | [-0.07, 0.19]  |
| Education                               | 0.03                                                  | [-0.04, 0.09]  | <b>0.09</b>                                           | [0.04, 0.15]   | 0.06                                                  | [0.01, 0.12]   | 0.08                                                  | [0.02, 0.14]   | -0.03                                                 | [-0.09, 0.04]  |
| Strength of religious faith             | -0.03                                                 | [-0.09, 0.03]  | 0.01                                                  | [-0.05, 0.07]  | 0.00                                                  | [-0.05, 0.06]  | 0.05                                                  | [-0.01, 0.11]  | -0.01                                                 | [-0.08, 0.05]  |
| Partnership status                      | 0.17                                                  | [0.04, 0.29]   | <b>0.29</b>                                           | [0.17, 0.41]   | <b>0.19</b>                                           | [0.07, 0.30]   | 0.14                                                  | [0.02, 0.26]   | -0.11                                                 | [-0.24, 0.02]  |
| <i>2. Big Five personality domains</i>  | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.083</b> |                | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.074</b> |                | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.076</b> |                | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.017</b> |                | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.004</b> |                |
| Extraversion                            | <b>0.15</b>                                           | [0.08, 0.22]   | 0.07                                                  | [0.00, 0.13]   | <b>0.11</b>                                           | [0.04, 0.17]   | -0.09                                                 | [-0.16, -0.02] | 0.08                                                  | [0.01, 0.15]   |
| Agreeableness                           | 0.07                                                  | [0.00, 0.14]   | 0.03                                                  | [-0.04, 0.10]  | 0.04                                                  | [-0.02, 0.11]  | -0.05                                                 | [-0.12, 0.02]  | 0.04                                                  | [-0.04, 0.11]  |
| Conscientiousness                       | -0.02                                                 | [-0.10, 0.05]  | 0.00                                                  | [-0.07, 0.07]  | -0.03                                                 | [-0.10, 0.04]  | 0.02                                                  | [-0.05, 0.09]  | -0.04                                                 | [-0.12, 0.04]  |
| Negative Emotionality                   | <b>-0.17</b>                                          | [-0.24, -0.09] | <b>-0.20</b>                                          | [-0.27, -0.12] | <b>-0.16</b>                                          | [-0.23, -0.09] | -0.03                                                 | [-0.11, 0.04]  | 0.02                                                  | [-0.06, 0.1]   |
| Open-Mindedness                         | 0.03                                                  | [-0.03, 0.10]  | 0.00                                                  | [-0.06, 0.07]  | 0.00                                                  | [-0.06, 0.06]  | -0.03                                                 | [-0.10, 0.03]  | 0.00                                                  | [-0.07, 0.07]  |
| <i>3. COVID-19 factors</i>              | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.011</b> |                | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.088</b> |                | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.137</b> |                | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.136</b> |                | <b><math>\Delta</math> Adj. R<sup>2</sup> = 0.045</b> |                |
| COVID-19 epistemically suspect beliefs  | 0.03                                                  | [-0.06, 0.11]  | -0.05                                                 | [-0.13, 0.02]  | -0.08                                                 | [-0.16, -0.01] | -0.09                                                 | [-0.17, -0.01] | -0.06                                                 | [-0.15, 0.02]  |
| Exposure to information about COVID-19  | <b>0.11</b>                                           | [0.04, 0.18]   | 0.03                                                  | [-0.03, 0.09]  | 0.05                                                  | [-0.01, 0.11]  | -0.09                                                 | [-0.16, -0.03] | 0.04                                                  | [-0.03, 0.11]  |
| Lack of control regarding COVID-19      | -0.03                                                 | [-0.10, 0.05]  | -0.03                                                 | [-0.10, 0.04]  | -0.07                                                 | [-0.14, 0.00]  | -0.01                                                 | [-0.08, 0.06]  | -0.07                                                 | [-0.15, 0.01]  |
| Unrealistic optimism regarding COVID-19 | 0.05                                                  | [-0.01, 0.12]  | <b>0.12</b>                                           | [0.06, 0.18]   | <b>0.19</b>                                           | [0.13, 0.24]   | 0.07                                                  | [0.01, 0.14]   | <b>0.15</b>                                           | [0.08, 0.21]   |
| Trust in science                        | 0.04                                                  | [-0.03, 0.10]  | -0.02                                                 | [-0.08, 0.05]  | 0.00                                                  | [-0.06, 0.06]  | -0.06                                                 | [-0.13, 0.00]  | 0.03                                                  | [-0.04, 0.1]   |

(continued on next page)



Table C (continued)

| Predictor                                            | Past                              |               | Present                           |                | Future                            |                | Past to present                   |                | Present to future                 |                |
|------------------------------------------------------|-----------------------------------|---------------|-----------------------------------|----------------|-----------------------------------|----------------|-----------------------------------|----------------|-----------------------------------|----------------|
|                                                      | $\beta$                           | 95% CI        | $\beta$                           | 95% CI         | $\beta$                           | 95% CI         | $\beta$                           | 95% CI         | $\beta$                           | 95% CI         |
| Trust in governmental regulations regarding COVID-19 | -0.01                             | [-0.09, 0.07] | <b>0.12</b>                       | [0.04, 0.20]   | 0.08                              | [0.01, 0.16]   | <b>0.15</b>                       | [0.07, 0.23]   | -0.04                             | [-0.12, 0.04]  |
| Perceiving COVID-19 as health threat                 | 0.00                              | [-0.08, 0.08] | 0.05                              | [-0.03, 0.13]  | 0.04                              | [-0.03, 0.12]  | 0.06                              | [-0.02, 0.14]  | 0.00                              | [-0.09, 0.08]  |
| Perceiving COVID-19 as economic threat               | 0.07                              | [0.00, 0.13]  | <b>-0.19</b>                      | [-0.25, -0.12] | <b>-0.22</b>                      | [-0.29, -0.16] | <b>-0.29</b>                      | [-0.35, -0.22] | <b>-0.11</b>                      | [-0.18, -0.04] |
| <i>Full model</i>                                    | <b>Adj. R<sup>2</sup> = 0.120</b> |               | <b>Adj. R<sup>2</sup> = 0.212</b> |                | <b>Adj. R<sup>2</sup> = 0.251</b> |                | <b>Adj. R<sup>2</sup> = 0.171</b> |                | <b>Adj. R<sup>2</sup> = 0.059</b> |                |

Note. The table shows the results of two hierarchical regressions (for positive and negative affect) with three blocks of predictors (demographic variables, personality predictors, and COVID-19 factors). The columns include changes in adjusted R<sup>2</sup> at every step of the regression, as well as standardized regression coefficients extracted from the final step of the regression. CI - Confidence Interval. The  $\beta$  Values significant at  $p < 0.0027$  are bolded. The R<sup>2</sup> values significant at  $p < 0.01$  are bolded. Gender: men were coded as 0 and women as 1. Partnership status: participants without a partner were coded as 0 and people with a partner as 1.

## References

- Anglim, J., & Horwood, S. (2021). Effect of the COVID-19 pandemic and big five personality on subjective and psychological well-being. *Social Psychological and Personality Science*, 194855062098304. <https://doi.org/10.1177/1948550620983047>
- Anglim, J., Horwood, S., Smillie, L. D., Marrero, R. J., & Wood, J. K. (2020). Predicting psychological and subjective well-being from personality: A meta-analysis. *Psychological Bulletin*, 146(4), 279–323. <https://doi.org/10.1037/bul0000226>
- Cantril, H. (1965). *The pattern of human concerns*. Amsterdam University Press.
- Dawel, A., Shou, Y., Smithson, M., Cherbuin, N., Banfield, M., Calear, A. L., Batterham, P. J., ... (2020). The effect of COVID-19 on mental health and wellbeing in a representative sample of Australian adults. *Frontiers in Psychiatry*, 11, 1026. <https://doi.org/10.3389/fpsy.2020.579985>
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542–575. <https://doi.org/10.1037/0033-2909.95.3.542>
- Dolinski, D., Dolinska, B., Zmacynska-Witek, B., Banach, M., & Kulesza, W. (2020). Unrealistic optimism in the time of coronavirus pandemic: May it help to kill, if so—Whom: Disease or the person? *Journal of Clinical Medicine*, 9(5), 1464.
- Gassen, J., Nowak, T. J., Henderson, A. D., Weaver, S. P., Baker, E. J., & Muehlenbein, M. P. (2021). Unrealistic optimism and risk for COVID-19 disease. *Frontiers in Psychology*, 12, Article 647461. <https://doi.org/10.3389/fpsy.2021.647461>
- Genç, E., & Arslan, G. (2021). Optimism and dispositional hope to promote college students' subjective well-being in the context of the COVID-19 pandemic. *Journal of Positive School Psychology*, 5(2), 87–96. <https://doi.org/10.47602/jps.v5i2.255>
- Halama, P., Kohút, M., Soto, C. J., & John, O. P. (2020). Slovak adaptation of the big five inventory (BFI-2): Psychometric properties and initial validation. *Studia Psychologica*, 62(1). <https://doi.org/10.31577/sp.2020.01.792>
- Hartman, R. O., Dieckmann, N. F., Sprenger, A. M., Stastny, B. J., & DeMarree, K. G. (2017). Modeling attitudes toward science: Development and validation of the credibility of science scale. *Basic and Applied Social Psychology*, 39(6), 358–371. <https://doi.org/10.1080/01973533.2017.1372284>
- Kahneman, D., Krueger, A. B., Schkade, D., Schwarz, N., & Stone, A. A. (2006). Would you be happier if you were richer? A focusing illusion. *Science* (Vol. 312,(5782)), 1908–1910. <https://doi.org/10.1126/science.1129688>
- Kohút, M., Halama, P., Soto, C. J., & John, O. P. (2020). Psychometric properties of Slovak short and extra-short forms of big five Inventory-2 (BFI-2). *Ceskoslov. Psychol.*, 64(5), 550–563.
- Kowal, M., Coll-Martín, T., Ikizer, G., Rasmussen, J., Eichel, K., Studzińska, A., Koszaikowska, K., Karwowski, M., Najmussaib, A., Pankowski, D., Lieberoth, A., & Ahmed, O. (2020). Who is the most stressed during the COVID-19 Pandemic? Data from 26 countries and areas. *Applied Psychology: Health and Well-Being*, 12(4), 946–966. <https://doi.org/10.1111/aphw.12234>
- Lee, S. (2020). Subjective well-being and mental health during the pandemic outbreak: Exploring the role of institutional trust. *Research on Aging*, 016402752097514. <https://doi.org/10.1177/0164027520975145>
- Modersitzki, N., Phan, L. V., Kuper, N., & Rauthmann, J. F. (2020). Who is impacted? Personality predicts individual differences in psychological consequences of the COVID-19 pandemic in Germany. *Social Psychological and Personality Science*, 194855062095257. <https://doi.org/10.1177/1948550620952576>
- Mongkhon, P., Ruengorn, C., Awiphan, R., Thavorn, K., Hutton, B., Wongpakaran, N., Wongpakaran, T., & Nochaiwong, S. (2021). Exposure to COVID-19-related information and its association with mental health problems in Thailand: Nationwide, cross-sectional survey study. *Journal of Medical Internet Research*, 23(2), Article e25363. <https://doi.org/10.2196/25363>
- Morales-Vives, F., Dueñas, J. M., Vigil-Colet, A., & Camarero-Figuerola, M. (2020). Psychological variables related to adaptation to the COVID-19 lockdown in Spain. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.565634>
- Pak, A., McBryde, E., & Adegboye, O. A. (2021). Does high public trust amplify compliance with stringent COVID-19 Government Health Guidelines? A multi-country analysis using data from 102,627 individuals. *Risk Management and Healthcare Policy*, 14, 293–302. <https://doi.org/10.2147/RMHP.S278774>
- Paolini, D., Maricchiolo, F., Pacilli, M. G., & Pagliaro, S. (2020). COVID-19 lockdown in Italy: the role of social identification and social and political trust on well-being and distress. *Current Psychology*. <https://doi.org/10.1007/s12144-020-01141-0>. Published.
- Poulin, M. J., & Haase, C. M. (2015). Growing to trust: Evidence that trust increases and sustains well-being across the life span. *Social Psychological and Personality Science*, 6(6), 614–621.
- Renström, E. A., & Bäck, H. (2021). Emotions during the Covid-19 pandemic: Fear, anxiety, and anger as mediators between threats and policy support and political actions. *Journal of Applied Social Psychology*, 51(8), 861–877. <https://doi.org/10.1111/JASP.12806>
- Schimmack, U., Oishi, S., Furr, R. M., & Funder, D. C. (2004). Personality and life satisfaction: a facet-level analysis. *Personality and Social Psychology Bulletin*, 30(8), 1062–1075. <https://doi.org/10.1177/0146167204264292>
- Shukla, S., Mishra, S. K., & Rai, H. (2021). Optimistic bias, risky behavior, and social norms among Indian college students during COVID-19. *Personality and Individual Differences*, 111076. <https://doi.org/10.1016/j.paid.2021.111076>
- Sorokowski, P., Groyeck, A., Kowal, M., Sorokowska, A., Białek, M., Lebuda, I., Dobrowolska, M., Zdybek, P., & Karwowski, M. (2020). Can information about pandemics increase negative attitudes toward foreign Groups? A case of COVID-19 outbreak. *Sustainability*, 12(12), 4912. <https://doi.org/10.3390/su12124912>
- Šrol, J., Ballová Mikúšková, E., & Čavojská, V. (2021). When we are worried, what are we thinking? Anxiety, lack of control, and conspiracy beliefs amidst the COVID-19 pandemic. *Applied Cognitive Psychology*, 35(3), 720–729. <https://doi.org/10.1002/acp.3798>
- Stahnke, B., & Cooley, M. (2020). A systematic review of the association between partnership and life satisfaction. *The Family Journal*, 29(2), 182–189. <https://doi.org/10.1177/1066480720977517>
- van Mulukom, V., Pummerer, L., Alper, S., Bai, H., Čavojská, V., Farias, J. E. M., ... Žeželj, I. (n.d.). COVID-19 conspiracy beliefs are predicted by epistemic and socio-existential motives: a dual pathway model and systematic review. PsyArXiv. doi: 10.31234/osf.io/u8yah.
- The jamovi project. (2021). *Jamovi (Version 1.6) [Computer Software]*. Retrieved from <http://www.jamovi.org>.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070. <https://doi.org/10.1037/0022-3514.54.6.1063>
- Wijngaards, I., de Zilwa, S. C. S., & Burger, M. J. (2020). Extraversion moderates the relationship between the stringency of COVID-19 protective measures and depressive symptoms. *Frontiers in Psychology*, 11, Article 568907. <https://doi.org/10.3389/fpsyg.2020.568907>
- Zhang, Z., & Zhang, J. (2015). Belief in a just world mediates the relationship between institutional trust and life satisfaction among the elderly in China. *Personality and Individual Differences*, 83, 164–169. <https://doi.org/10.1016/j.paid.2015.04.015>
- Zheng, J., Morstead, T., Sin, N., Klaiber, P., Umberson, D., Kamble, S., & DeLongis, A. (2021). Psychological distress in North America during COVID-19: The role of pandemic-related stressors. *Social Science & Medicine*, 270, Article 113687. <https://doi.org/10.1016/j.socscimed.2021.113687>