






ORIGINAL ARTICLE

# *Pandemic-activated psychological growth: significance of extraversion, self-consciousness and COVID-19 related anxiety*

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## BACKGROUND

The sense of threat to health and life in the face of a pandemic, accompanied by difficulties imposed by lockdown, may trigger a serious crisis. Among possible consequences of such a crisis may paradoxically be the phenomenon of psychological growth. The aim of this article is to identify predictors of pandemic-activated psychological growth (PPG). The relationships between extraversion, reflective and ruminative self-consciousness and PPG were the subject of our inquiry. Additionally, a question was posed about the indirect effect of self-consciousness on PPG through anxiety.

## PARTICIPANTS AND PROCEDURE

The study involved 1206 participants aged 18 to 26 years, who declared that the pandemic situation significantly threatened their important life goals. Procedure: cross-sectional design. Four online short questionnaire-measures were used: the Ten-Item Personality Inventory (TIPI), the Rumination-Reflection Questionnaire (RRQ), the Cur-

rent Self-disposition Scale (CSS), and the Post-traumatic Growth Inventory (PTGI).

## RESULTS

Extraversion and reflective self-consciousness were direct predictors of higher PPG, whereas ruminative self-consciousness was directly related to a lower PPG. There was an indirect effect of ruminative self-consciousness on PPG through COVID-19 related anxiety.

## CONCLUSIONS

Although the results do not confirm the permanence of a growth effect, finding PPG predictors considered as beneficial resources for coping with difficult pandemic circumstances appears to be valuable in the current state of affairs.

## KEY WORDS

extraversion; pandemic-activated psychological growth (PPG); reflective and ruminative self-consciousness; COVID-19 related anxiety

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## BACKGROUND

The study concerns potential positive consequences of difficulties experienced by young Poles during the first stage of the COVID-19 pandemic (March-May 2020). These difficulties arose from the risk of infection as well as from the introduced sanitary regime. At that specific time, Polish society was widely informed about threats to health and life, along with possible negative economic consequences on an unprecedented scale. A number of studies have demonstrated the detrimental impact of the COVID-19 pandemic on mental health, increased levels of anxiety and stress, depression, poor sleep quality, and PTSD symptoms, especially in the first period of the pandemic (Casagrande et al., 2020; Długosz, 2020; Hetkamp et al., 2020; Islam et al., 2020; Presti et al., 2020; Trzebiński et al., 2020; Wang et al., 2021). However, the difficulties and suffering associated with the pandemic and lockdown can be viewed from the perspective of positive psychology as the starting point for internal transformation and growth through meaning, coping, self-compassion, courage, gratitude, character strengths, positive emotions, positive interpersonal processes and high-quality connections (Cox et al., 2021; Schippers & Ziegler, 2019; Waters et al., 2021; Williams et al., 2021; Wong, 2020).

The phenomenon of post-traumatic growth (PTG) denotes positive mental changes that occur as a result of an individual's experience of trauma understood as a serious crisis, which not only affects the understanding and causes of the situation, but also overturns general assumptions about the world and oneself in it (Tedeschi & Calhoun, 1996). PTG comprises changes in the way of perceiving oneself as well as the world, enabling an individual to deal more effectively with difficult life situations in the future (Calhoun et al., 2010). These changes are also sometimes referred to as: positive psychological changes (Yalom & Lieberman, 1991), stress-related growth (Park et al., 1996), thriving (O'Leary & Ickovics, 1995), positive illusion (Janoff-Bulman, 1992), or positive reinterpretation (Scheier et al., 1986).

We have assumed that in the case of people who declare that the pandemic situation significantly threatens their important life goals, we can expect similar phenomena as in the case of experiencing trauma. The subject of our interest is growth phenomena, designated in this study as pandemic-activated psychological growth (PPG). Similarly to the PTG model, we assume that growth changes may include the areas of interpersonal relationships, self-perception, and life philosophy (Tedeschi & Calhoun, 1996). The phenomenon of personal development in connection with the COVID-19 pandemic has been investigated by researchers (e.g. Chen et al., 2021; Zhai et al., 2021). However, it is conceptualized in various ways, which makes it difficult to formulate

conclusions, and the method of its measurement is questionable (Asmundson et al., 2021). Due to the volatility of the pandemic situation, we treat PPG as an initial, dynamic process and not a relatively stable result. In order for it to be initiated, two conditions should be met: significantly felt influence of the stressor and deliberate involvement in this stressor, for example through deliberative ruminations (Calhoun et al., 2010; Janoff-Bulman, 2006; Seligowski et al., 2015; Tedeschi & Calhoun, 1996). Unlike intrusive rumors, they are more volitional, constructive, and deliberate. According to Trapnell and Campbell (1999), both types of processing, intrusive and deliberative ruminations, result from personality predispositions within individual differences.

### SELF-CONSCIOUSNESS: SELF-REFLECTION, SELF-RUMINATION

Self-consciousness as a disposition is associated with health and well-being as well as difficulties in functioning (Silvia & Phillips, 2011). This ambiguity of effects of concentrating on oneself is explained through the distinction between reflective and ruminative self-consciousness as proposed by Trapnell and Campbell (1999). The criterion for this distinction is a motive that causes an individual to focus on his or her own mental processes. In the case of self-reflection it is openness and cognitive curiosity, and in the case of rumination it is distress. The authors treat the kind of prevalent motive for self-centered concentration as an internal disposition and associate it with personality traits. A high level of rumination is associated with neuroticism as well as symptoms of depression and anxiety (Trapnell & Campbell, 1999; Wolfradt et al., 2014). Conclusions of additional research indicate that self-rumination is intertwined with a tendency to evoke negative memories (Lyubomirsky et al., 1998), to create negative interpretations (Garrido, 2018), and also that it focuses the individual on feelings and intensifies mental stress (Xie et al., 2019). Self-reflection, on the other hand, manifested in a tendency for constructively discovering oneself, is associated with openness to experience (Trapnell & Campbell, 1999).

### PERSONALITY: EXTRAVERSION

The predictive power of the Big Five traits is well documented. However, the results of research carried out so far on correlations between personality traits and growth forms of functioning after intense stress are not settled and conclusive. Evidence from studies suggests different sets of traits as correlated with PTG (e.g. Linley & Joseph, 2004; Owens, 2016; Tedeschi & Calhoun, 1996).

Considering pervasive social aspects of experiencing the pandemic sanitary regime, our research was focused on extraversion. One of the main constraints was significant reduction of social contacts. Fulfilling this requirement – although severe for everybody – could have been the greatest challenge for extraverts. Extraversion represents a tendency to be sociable, active, dominant, and to intensify positive reactions from others (Costa & McCrae, 1992). On one hand, it involves creativity (Puryear et al., 2017) and activity, so it may be expected that extraverts will use in various ways the new, remote means of interpersonal contacts and maintaining relationships. On the other hand, the pandemic situation redefines social contacts as a potential threat to health and life, which overturns the extravert's previous notions of social life. These circumstances may motivate reflecting on the role of relationships as well as discovering new facets and forms of social life, which are important aspects of both PTG and PPG. For these reasons we expect that extraversion may be a predictor of PPG.

#### THE ROLE OF COVID-19 RELATED ANXIETY IN THE PROCESS OF GROWTH

Anxiety about getting infected is one of the main psychological characteristics of a pandemic. However, it should be noted that anxiety is also associated with other factors that could be consequences of a pandemic, such as financial difficulties, constraints of interpersonal contacts, etc. (Casale & Flett, 2020; Schimmenti et al., 2020).

Butcher et al. (2014) point to the adaptive value of moderate anxiety as it helps to prepare for potential threat, and may improve learning and effectiveness of actions. It is possible since one of the functions of emotions is disconnecting reactions from stimuli, introducing a “latency period” between them, to enable deeper analysis and evaluation of both stimuli and repertoire of reactions (Scherer, 1984). Excessive anxiety, when caused by unconscious sources, is unsettling and maladaptive, as the state of unfocused agitation does not generate a rational response. In the case of pandemic anxiety, the threatening stimulus is not particularly concrete (for instance, due to a variety of possible personal and social consequences) and is situated in both the present and the future. Additionally, it is only in part convertible into behavior (e.g., compliance with specific regulations of authorities), since an average person can not do much about macroeconomic changes.

COVID-19 related anxiety tends to be associated with negative phenomena (e.g. Albery et al., 2021; Li et al., 2020), while its mentalizing may have positive consequences (Steele, 2020). Associating COVID-19 related anxiety with self-reflective or self-ruminative

processing styles may therefore increase the likelihood of PPG.

#### THE PRESENT STUDY

Our research was conducted in April 2020, when Poland had severe restrictions in place to curb the pandemic, mainly consisting of limiting social contacts to the indispensable minimum. The manner of responding as well as capabilities of adaptation to these conditions varied individually. Referring to positive psychology, especially in its existential form (Asmundson et al., 2021; Wong, 2020), we have assumed that for those who see the pandemic as a threat to their important life goals, the situation at that time may have resulted in psychological growth similar to that of post-traumatic growth (Tedeschi & Calhun, 1996). We have posed a question: which individual predispositions increase the chance for such growth?

Taking into consideration personality predispositions, we anticipate that extraversion is a direct predictor of PPG. Social isolation may be associated with a higher level of suffering among extroverted people (Abbott et al., 2008; Liu et al., 2021). On the other hand, their positive emotionality may favor growth processes in response to stress resulting from sanitary restrictions. The individual's tendency to positive affect influences the initial cognitive assessment of the situation and thus has a direct influence on the positive and negative indicators of psychological functioning (Heidemeier & Göritz, 2016).

Self-reflective or self-ruminative processing styles are cognitive-emotional means facilitating growth (Janoff-Bulman, 2006; Tedeschi & Calhun, 1996). Resulting from prominence of intellectual elements in reflective self-consciousness, and a negative affect in the ruminative one, we expect that a predilection for self-reflection is directly positively correlated with PPG, while a tendency to self-rumination is negatively correlated with PPG.

We also presume that there is an indirect effect of self-consciousness on PPG through pandemic anxiety, because it concerns a threat to health and life, and therefore it is an additional factor motivating changes to the way of perceiving oneself and the world. Referring to the existential perspective, fear (including the fear of death) can have a positive impact on the thoughts, attitudes and behavior of people (Dąbrowski, 1979; Frankl, 1959).

#### PARTICIPANTS AND PROCEDURE

##### PARTICIPANTS

The data were collected from 1644 students at the University of Wrocław. The study group included

1206 participants who declared that the current pandemic situation significantly threatened achievement of their important life goals. There were 939 women (77.9%), 258 men (21.4%) and 9 individuals who refused to state their gender (0.7%). The age of respondents ranged from 18 to 26 years ( $M = 21.64$ ,  $SD = 1.76$ ). The survey was conducted in Polish (for 94% of students of the University of Wrocław Polish is their mother tongue).

## PROCEDURE

The research was anonymous and without compensation. Recruitment was conducted by sending an e-mail to all students at the University of Wrocław, asking them to take part in the research. Data collection was carried out entirely online. Participants gave their informed consent. They also were given full information about the purpose and progress of the research.

## MEASURES

The respondents completed three questionnaires preceded by a survey, which, in addition to metrics questions, required designation of the threat level to important life goals of the participant by the current pandemic situation. Cronbach's  $\alpha$  for all questionnaires is displayed in Table 2.

*Extraversion.* The Ten-Item Personality Inventory (TIPI; Gosling et al., 2003) in the Polish adaptation of Sorokowska et al. (2014) was used to measure extraversion. The scale comprises 10 items, 2 for each of five personality traits (openness, conscientiousness, extraversion, agreeableness, neuroticism). The respondent evaluates each of 10 given characteristics on a 7-point scale from 1 (*I strongly disagree*) to 7 (*I strongly agree*).

*Personal self-consciousness.* The short form of the Rumination-Reflection Questionnaire (RRQ; Trapnell & Campbell, 1999) in the Polish adaptation of Słowińska et al. (2014) was used to measure self-consciousness. The questionnaire comprises 12 test items: 6 of them pertain to self-reflection and 6 to self-rumination. The respondent evaluates given statements on a 5-point response scale, from 1 (*strongly disagree*) to 5 (*strongly agree*).

*COVID-19 related anxiety.* To measure the intensity of pandemic anxiety, the Current Self-disposition Scale (CSS), which was developed for the purpose of this particular study, was used. Based on the theoretical concepts of anxiety and a review of existing tools (Beck et al., 1988; Cattell & Rickels, 1964; Derogatis & Cleary, 1977; Elwood et al., 2012; Julian, 2011; Spielberger et al., 1983; Taylor, 1953) it was assumed that the scale should apply to: overt anxiety and external

manifestations of convert anxiety; periodic anxiety (related to a pandemic), which is something between a trait and a state in Spielberger's distinction (not as permanent as a trait and not as transient as a state). The distinction between "feel at this moment" and "generally feel" is also used in other tools, such as STICSA (Grös et al., 2007). We have abandoned the clear distinction between the psychodynamic interpretation of fear as having internal causes (unaware or poorly informed internal conflict) and the cognitive-behavioral interpretation that the cause of anxiety is an external stimulus, and the distinction between the anticipated and the present stimulus (anxiety vs. fear; see Öhman, 2000). The scale was designed as a single factor scale to avoid the perception of an excessive extension of the concept of anxiety created by more complex constructions such as SCL-90 (Derogatis & Cleary, 1977), EMAS (Endler et al., 1991) or IPAT (Cattell & Rickels, 1964).

Recognizing the importance of distinguishing between cognitive, feelings, somatic and behavioral components (Rosenhan & Seligman, 1989) for a content-accurate description of anxiety, we made sure that all of them were proportionally represented in our CSS scale. We gave up constructing a four-factor tool, such as the FSAQ Four-System Anxiety Questionnaire (Koksal & Power, 1990), as such a tool would be too extensive for our needs. We generated 25 items that met the assumptions; after theoretical analysis, we selected 9 items that best reflect the idea of the measured construct. One more item was removed after the factor loadings were calculated.

The final version of the CSS consists of 8 items. Respondents are asked to indicate to what extent they are experiencing conditions that may be related to the current pandemic situation. The items refer to experiencing anxiety arising from the spread of SARS-CoV-2 and possible consequences of the pandemic – phrasing of all items is presented in Table 1. Responses are given on a 5-point scale from 1 (*I do not experience it at all*) to 5 (*I experience it very strongly*).

Before performing proper analyses, basic psychometric properties of the CSS were verified. The Cronbach's  $\alpha$  (.80) value indicates satisfactory scale reliability. While verifying construct validity, the correlations of COVID-19 related anxiety with emotional stability were checked – a moderate negative correlation was expected. The obtained results are consistent with the hypothesis:  $r = -.38$ ,  $p < .001$ . The criterion validity was checked using confirmatory factor analysis, estimated using maximum likelihood, performed in IBM Statistics AMOS. The results confirmed that the single factor model fits the data well,  $\chi^2(19) = 187.07$ ,  $p < .001$ , SRMR = .04, RMSEA = .086, CFI = .94. Factor loadings were between 0.32 and 0.78.

Table 1 provides factor loadings for all items of the CSS. In conclusion, the CSS can be considered



a valid and reliable tool for measuring the intensity of COVID-19 related anxiety in the analyzed sample, although it should be noted that more extensive tool validation tests are being carried out simultaneously.

*Pandemic-activated psychological growth.* To measure post-traumatic growth, the Post-traumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996) in the Polish adaptation of Ogińska-Bulik and Juczyński (2010) was used, with modification required for the present study. The modification consisted of indicating in instructions that the answers to the Inventory questions are to concern only events related to the SARS-CoV-2 virus threat.

The PTGI contains 21 items and is used to measure changes in four areas: self-perception (9 items), relationships with others (7 items), appreciation of life (3 items) and spirituality (2 items). The respondent evaluates given statements on a 6-point scale from 0 (*no change as a result of traumatic experience*) to 5 (*change to a very large extent*).

## RESULTS

To answer the inquiry questions and verify hypotheses, in the first step descriptive statistics and correlations between variables were calculated using IBM SPSS Statistics. Additionally, an enter method regression analysis was carried out to determine which of the included variables were predictors of pandemic growth. Subsequently, structural equation models using IBM Statistics AMOS were performed, which enabled simultaneous tracking of direct and indirect correlations between variables. Parameters were estimated using the maximum likelihood method.

## DESCRIPTIVE STATISTICS, CORRELATIONS OF VARIABLES, AND REGRESSION MODEL

Means, standard deviations and bivariate correlations for all the study variables are presented in Table 2. Extraversion is negatively correlated with rumination and COVID-19 related anxiety and posi-

**Table 1**

*Items of the CSS and corresponding standardized pattern coefficients using confirmatory factor analysis (N = 1206)*

Items	Factor loading
1. I am afraid for my own safety or that of my friends and family.	.66
2. I only go out of the house as a last resort.	.32
3. I feel as if something terrible is about to happen.	.78
4. I sleep less well because of the current situation.	.53
5. I get nervous when someone stands too close to me.	.55
6. I am afraid of what will be happening after the pandemic.	.55
7. I feel disquiet in my body.	.69
8. When I feel worse, I wonder whether I got infected.	.53

*Note.* CSS – Current Self-disposition Scale.

**Table 2**

*Descriptive statistics, Cronbach's  $\alpha$  coefficients and Pearson's correlations (N = 1206)*

	1	2	3	4	5
1. Extraversion					
2. Rumination	-.28***				
3. Reflection	-.05	.24***			
4. COVID-19 related anxiety	-.09**	.34***	.08**		
5. PPG	.27***	-.09**	.10**	.20***	
<i>M</i>	9.88	22.67	22.42	24.05	37.18
<i>SD</i>	3.06	4.95	4.97	6.64	24.18
Skewness	-.52	-.62	-.48	.09	.41
Kurtosis	-.50	-.17	-.30	-.65	-.65
Cronbach's $\alpha$	.73	.83	.83	.80	.94

*Note.* PPG – pandemic-activated psychological growth; \*\* $p < .01$ , \*\*\* $p < .001$ .

tively with PPG. Rumination is positively correlated with reflection and COVID-19 related anxiety and negatively with PPG, whereas reflection correlates positively with both COVID-19 related anxiety and pandemic growth. Finally, COVID-19 related anxiety is positively correlated with PPG.

The results of the linear regression analysis presented in Table 3 indicate that all the variables included in the model (extraversion, reflection, rumination, and COVID-19 anxiety) are predictors of pandemic growth ( $F(4, 1201) = 50.53, p < .001, \text{adjusted } R^2 = .14$ ).

RESULTS OF PATH ANALYSIS

A diagram depicting correlations between variables along with parameter values is presented in Figure 1. The path model fits the data very well, with the following indices:  $\chi^2(3) = 2.46, p = .482, \text{SRMR} = .013, \text{RMSEA} < .001, \text{CFI} = 1$ . All dispositional variables are direct predictors of PPG. Higher levels of extraversion and reflection allow higher levels of PPG,  $\beta = .27, p < .001$ , and  $\beta = .12, p < .001$ , respectively, to be predicted, while rumination is a direct predictor of a lower level of PPG,  $\beta = -.12, p < .001$ . There is an

indirect effect of rumination on PPG. It is a positive relationship – rumination is a predictor of a higher level COVID-19 related anxiety,  $\beta = .33, p < .001, R^2 = .11$ , and COVID-19 related anxiety is a predictor of higher PPG,  $\beta = .25, p < .001$ .

Thus, although there are both direct and indirect effects for rumination, the total effect of this variable is the weakest (only  $-.04$ ) and extraversion remains the strongest predictor of PPG. The complete model explains 15% of PPG variance.

DISCUSSION

The study pertained to conditions for PPG, in a situation of risk (threat) of COVID-19 infection along with sanitary restrictions, in individuals experiencing the pandemic as threatening their important life goals. We anticipated that predispositions such as extraversion and self-consciousness would allow the strength of this growth to be predicted and that anxiety caused by the pandemic would mediate the correlation between self-consciousness and PPG.

The obtained results confirm most of the hypotheses. As expected, extraversion allows for PPG predic-

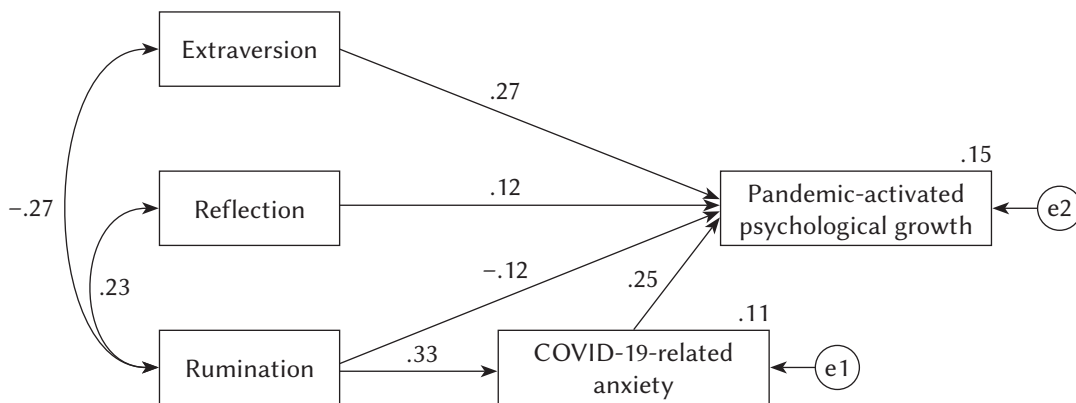
Table 3

Linear regression with pandemic growth as outcome variable: standardized betas ( $\beta$ ) and partial correlations of predictors ( $N = 1206$ )

	$\beta$	$t(1201)$	$p$	Partial correlation
Extraversion	.27	9.55	< .001	.27
Rumination	-.12	-4.13	< .001	-.12
Reflection	.12	4.32	< .001	.12
COVID-19 anxiety	.25	8.94	< .001	.25

Figure 1

Final model of relationships between variables



Note. All parameters are significant at the .001 level.

tion, which is consistent with results of previous studies demonstrating correlations between the Big Five and PTG (Owens, 2016; Tedeschi & Calhoun, 1996). Reduction of interpersonal contacts and alterations to their forms are spectacular and probably lasting transformations of the social fabric brought about by the pandemic. The fastest and strongest impact of these phenomena is on sociable people. Although extroversion is generally associated with a lower level of perceived stress (Jackson & Schneider, 2014), this relationship is not obvious in lockdown conditions. Studies by Liu and colleagues (2021) show that higher levels of extraversion are associated with higher levels of stress during a pandemic, and the perceived threat of the virus was not mediated by this association. The authors suggest that the source of stress may come from a different source, e.g. reduced social contacts. The results obtained in our study confirm this suggestion.

COVID-19 related anxiety was found to be irrelevant to the relationship between extraversion and PPG. What triggers the growth process in this case is probably positive affect (Frederickson et al., 2003). Given the positive emotionality that characterizes extroverts, we can assume that the PPG process in their case is triggered by stress resulting from social isolation while maintaining positive affect. Additional corroboration of this inference may come from the results of Wijngaards and colleagues (2020) indicating the mitigating effect of extraversion in the relationship between the strength of sanitary restrictions and depression. A relationship has also been detected between positive affect and resilience in the face of the COVID-19 pandemic (Israelashvili, 2021). Resilience is recognized as the central mechanism of self-transcendence aimed at transforming suffering and alleviating the negative aspects of a pandemic (Wong, 2020). This phenomenon belongs to the area of positive growth (Tedeschi & Calhoun, 1996, 2004).

The results pertaining to the role of self-consciousness support the hypothesis about a negative correlation between predilection for self-rumination and PPG, and also about a positive correlation between self-reflection and PPG. A similar correspondence is present in the PTG model on which the PPG construction is based. According to the PTG model, growth is more likely when processing is volitional and has a more reflective character (Calhoun et al., 2010; Morris & Shakespeare-Finch, 2011; Taku et al., 2009). The positive correlation obtained between self-reflection and PPG is also consistent with Harrington and Loffredo's (2010) finding of a correlation between self-reflection and personal growth.

We presumed an indirect effect of self-consciousness on PPG through anxiety. There was an indirect effect of ruminative self-consciousness on PPG through the COVID-19 related anxiety. This means that people with a predilection for rumination while

experiencing CSS anxiety perceive a higher level of PPG, but if they do not experience it, they perceive a lower level of PPG. This finding is consistent with the finding of a relationship between anxiety for life and health and growth processes in various ways (Cox et al., 2021; Vail et al., 2012). It is worth noting that COVID-19 related anxiety measurement also takes into account the anxiety about friends and family as well as what may happen in the future. Perhaps the experience of COVID-19 related anxiety distances people inclined to self-ruminate from thoughts and feelings focused on the past negative experiences associated with the self. At the same time, it directs them to other aspects of the self or to other types of experiences, for example those related to social relationships or to a real threat to health or the financial situation in the future. Thus, it increases the probability of existential reevaluation (Janoff-Bulman, 2006) and opens the individual to other areas of life, providing an opportunity to experience growth. However, there are results showing a negative relationship between PTG and coronavirus anxiety (Skalski et al., 2020) but the measure of anxiety used in this study was a clinical tool for the study of dysfunctional anxiety (Lee, 2020).

However, it should be emphasized that the total effect of self-rumination compared to other variables is the weakest. It is also possible that the observed relationship of PPG with self-rumination in the mediation of COVID-19 related anxiety refers to an illusory increase, i.e. PPG demonstrated by the respondents is associated with dysfunctional coping methods: avoidance or defensive (Asmundson et al., 2021). The lack of mediation effect of anxiety between self-reflection and PPG suggests that other processes of a more intellectual nature (e.g. curiosity and cognitive openness) are involved in motivating an individual to grow in these conditions.

Several limitations should be observed when interpreting the results of the present study. The respondents (students) belong to a low risk group regarding health consequences of infection. Most of them do not support their own family; thus the financial consequences of the pandemic are not so dire for them; they are also a better educated group. For this reason, it could be claimed that our results may be underestimated, concerning the sense of threat experienced, in relation to the general population. The predominance of women among the respondents makes them prudent in adopting conclusions with regard to the population. Additionally, the self-report method limits the validity of data because of social desirability, along with the employed tools steering respondents toward issues of growth. Moreover, this study was cross-sectional, and it is possible to speak of a statistical prediction.

It should be emphasized that PPG is treated in this study as being involved in the process of coping,

not as its result (Tedeschi & Calhoun, 1996). Moreover, the correlations observed pertain to the initial stage of this process. According to research on PTG, shortly after a stressful event, perception of growth is the result of efforts aimed mainly at improving one's emotional state. At this stage, it is not yet possible to assess the impact of experienced growth on functioning and whether it will be a lasting result of confronting trauma (Eisma et al., 2019; Hobfoll et al., 2007; Zalta et al., 2017). These matters require further inquiry.

## CONCLUSIONS

Personality predispositions that allow one to predict growth in the face of the threat of important life goals due to the COVID-19 pandemic are extraversion and self-reflection. The lack of a COVID-related anxiety mediation effect suggests that the factors triggering the growth process are associated with the inconvenience of sanitary restrictions during lockdown rather than with anxiety for health and life of the respondents. PPG is more conducive to positive affect and creativity. This result contributes to the discussion of possible growth mechanisms, especially the role of suffering and anxiety. The difference in growth paths in people prone to self-reflection and self-rumination suggests the need to take into account individual differences in psychological support in the face of pandemic-related stressors.

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