



ORIGINAL ARTICLE

# *Assessing mentalizing beyond personality pathology: exploring the psychometric properties of the Slovak version of the CAMSQ and its associations with personality traits and well-being*

Marek Lago <sup>A,B,C,D,E,F</sup>, Michal Kohút <sup>C,D,E,F</sup>

Department of Psychology, Faculty of Philosophy and Arts, University of Trnava, Trnava, Slovak Republic

## BACKGROUND

The Certainty About Mental States Questionnaire (CAMSQ) is a recently developed measure of mentalizing designed to assess certainty about one's own and others' mental states. While it was originally validated using personality pathology measures, this study explores the relevance of the CAMSQ for understanding personality traits and well-being in the general population.

## PARTICIPANTS AND PROCEDURE

The sample consisted of 462 Slovak participants aged 18-79 years ( $M = 34.0$ ). To assess temporal stability, 128 participants completed a retest after a minimum interval of two weeks. Participants completed the CAMSQ and measures of well-being (life satisfaction, subjective happiness, positive and negative affect, and self-esteem), Big Five personality traits, and Dark Tetrad traits. Psychometric properties of the CAMSQ were examined, including internal consistency, confirmatory factor analysis (CFA), measurement invariance across age and gender, and test-retest reliability.

## RESULTS

Self-Certainty and Other-Certainty were primarily positively associated with well-being measures, extraversion,

and conscientiousness, and negatively associated with negative emotionality. Other-Self Discrepancy was negatively associated with well-being. Condition-based regression analysis (CRA) revealed significant effects of discrepancy on psychopathy, sadism, and some well-being measures. The Slovak version of the CAMSQ exhibits acceptable psychometric properties including adequate temporal stability.

## CONCLUSIONS

The results suggest that the CAMSQ is not only relevant for assessing personality pathology but can also provide insights into personality psychology and well-being in the general population. Limitations include the predominantly female and young sample, cross-sectional design, reliance on self-report, and examination of a clinically relevant construct in a non-clinical population. These findings support the tool's utility beyond clinical settings, highlighting its potential for broader psychological research.

## KEY WORDS

Big Five; Dark Tetrad; mentalizing; self-certainty; other-self discrepancy

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CORRESPONDING AUTHOR – Marek Lago, Department of Psychology, Faculty of Philosophy and Arts, University of Trnava, Hornopotočná 23, 918 43 Trnava, Slovak Republic, e-mail: [marek.lago@tvu.sk](mailto:marek.lago@tvu.sk)

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## BACKGROUND

Mentalizing has become an increasingly important subject of investigation across psychoanalysis, psychology, and psychiatry (e.g., Ballespí et al., 2021; Luyten et al., 2020; Müller et al., 2023; Schwarzer et al., 2021). It is often referred to as the theory of mind (ToM), mentalizing, and mentalization. According to Bateman and Fonagy (2010, p. 11), mentalizing is defined as “a process by which we make sense of each other and ourselves, implicitly and explicitly, in terms of subjective states and mental processes.” It is a largely pre-conscious imaginative activity involving the interpretation of behaviour in terms of intentional mental states such as needs, desires, feelings, beliefs, and goals (Fonagy et al., 2007).

Luyten et al. (2020) conceptualize mentalizing as a multidimensional umbrella construct organized along four dimensions: it can concern the self or others, draw on affective or cognitive content, rely on internal or external cues, and operate automatically or through deliberate control. Within this framework, mindfulness and psychological mindedness represent explicit, largely self-oriented processes, whereas empathy is primarily directed toward others and is affect-dominant. Affect consciousness is strongly affect-focused and operates only in the explicit mode (Choi-Kain & Gunderson, 2008). ToM reflects mentalizing of others in the cognitive dimension (Luyten et al., 2020).

Mentalizing theory (Bateman & Fonagy, 2019) distinguishes three forms of perceived mentalizing ability. Individuals with genuine mentalizing show modesty regarding their own mental states and caution in interpreting others, whereas impairments include hypomentalizing, characterized by overly concrete and limited understandings, and hypermentalizing, involving elaborate but insufficiently supported interpretations of mental states (Fonagy et al., 2016). These forms lead to systematic distortions in self-perceived mentalizing. To assess these forms, Müller et al. (2023) developed the Certainty About Mental States Questionnaire (CAMSQ). Although certainty should not be equated with accuracy, which cannot be assessed via self-report, certainty remains meaningful, with exaggerated certainty indicating hypermentalizing and reduced certainty indicating hypomentalizing.

## RELATIONS WITH PERSONALITY AND WELL-BEING

Mentalizing is frequently studied in the context of pathology; however, research suggests it plays a role in other areas, such as personality traits and well-being. Because mentalizing is theoretically linked to self-understanding, affect regulation, and interpersonal functioning (Choi-Kain & Gunderson, 2008; Luyten et al.,

2020), examining its associations with personality traits provides a meaningful framework for evaluating whether certainty about mental states aligns with stable patterns of psychological functioning. In this context, the Big Five represent broad, normative dimensions of personality functioning (Soto & John, 2017). Although research on these associations remains relatively limited, Dimitrijević et al. (2018) found that mentalizing is positively associated with extraversion, conscientiousness, openness and agreeableness, and negatively associated with neuroticism, suggesting systematic links with traits related to emotional stability, self-regulation, and social engagement.

Beyond normative traits, Müller et al. (2023) reported associations between CAMSQ scores and the Dark Core of personality, a construct broader than the Dark Triad or Tetrad that also includes egoism, malice, selfishness, and moral disengagement (Moshagen et al., 2020). Specifically, the Dark Core was positively related to certainty about one’s own mental states and negatively related to Other-Self Discrepancy, suggesting that mentalizing varies across socially aversive yet largely subclinical personality characteristics (Paulhus et al., 2021).

Research on well-being further supports the relevance of mentalizing beyond pathology. Well-being encompasses cognitive evaluations of life circumstances, emotional experiences, and self-evaluative judgments (Diener et al., 1985; Rosenberg, 1965; Thompson, 2007), domains that are closely linked to mentalizing-related processes. Cieślak et al. (2022) found that mentalizing is positively related to life satisfaction and mental adjustment to illness in cancer patients. Schwarzer et al. (2021) reported a positive relationship between mentalizing and well-being, suggesting that it may function as a protective psychological resource. Furthermore, the link between mentalizing and well-being is supported by the finding that individuals who were more confident about their mental states not only scored higher in self-esteem but were also more satisfied with their lives (Müller et al., 2023). Regarding resilience, Ballespí et al. (2021) concluded that mentalizing does not contribute to resilience by preventing the onset of symptoms, but by helping individuals cope with them, which may improve well-being regardless of the presence of psychopathology. Taken together, the findings suggest that mentalizing is related to different aspects of well-being.

## CURRENT STUDY

The purpose of the current study is to extend research on the Certainty About Mental States Questionnaire (CAMSQ) by introducing its Slovak translation and evaluating its psychometric properties, as well as by examining its associations with personality traits and indicators of well-being. Given the limited cross-cul-

tural validation of the CAMSQ beyond the original U.S. and German samples (Müller et al., 2023) and a single Turkish adaptation to date (Usluoglu et al., 2024), the current study contributes additional evidence from a central European country, Slovakia.

We aimed to evaluate the reliability and validity of the Slovak version of the CAMSQ by examining its factor structure, internal consistency, test-retest stability, and measurement invariance across gender and age. In addition, the study strengthens the evidence base on mentalizing beyond its relations with pathological constructs by examining associations with Big Five and Dark Tetrad personality traits and multiple indicators of well-being, including life satisfaction, subjective happiness, positive affect, and self-esteem.

In line with these aims, we formulated four hypotheses. H1: The Slovak version of the CAMSQ would replicate the original two-factor structure consisting of Self-Certainty and Other-Certainty. H2: Consistent with Dimitrijević et al. (2018), both Self-Certainty and Other-Certainty were expected to be positively associated with extraversion, conscientiousness, open-mindedness, and agreeableness, and negatively associated with negative emotionality. H3: Self-Certainty was expected to be positively related to Dark Tetrad traits, whereas Other-Self Discrepancy was expected to be negatively related to these traits (Müller et al., 2023). H4: Certainty about mental states was expected to be positively associated with life satisfaction, subjective happiness, positive affect, and self-esteem (Cieślak et al., 2022; Müller et al., 2023; Schwarzer et al., 2021).

## PARTICIPANTS AND PROCEDURE

### PROCEDURE

Participants were recruited online via social media, informed about the study's goals, and provided informed consent prior to data collection. They answered sociodemographic questions and then proceeded to the measures. At the end of the questionnaire, participants were offered the opportunity to participate in a retest after a minimum interval of two weeks. Data were collected between February and July 2024.

### PARTICIPANTS

The survey was started by 684 participants; 222 were excluded due to non-consent ( $n = 2$ ), non-completion ( $n = 200$ ), or failed attention checks ( $n = 20$ ). The final sample consisted of 462 participants aged 18-79 years ( $M = 34.0$ ,  $SD = 13.6$ ), of whom 64.5% were women, 35.3% men, and 0.2% identified as other. The median completion time was 15.53 minutes.

A total of 146 participants entered the retest; after exclusions for failed attention checks ( $n = 1$ ) and

non-completion ( $n = 17$ ), the final retest sample included 128 participants aged 18-79 years ( $M = 36.51$ ,  $SD = 14.84$ ). The test-retest interval ranged from 14 to 56 days ( $Mdn = 14$ ), with a median completion time of 4.56 minutes. Attrition analyses showed that younger age and higher agreeableness were associated with a slightly higher likelihood of retest participation (see Table S1 in Supplementary materials).

## MEASURES

Internal consistency across measures was acceptable to excellent, with McDonald's  $\omega$  ranging from .66 to .90. More detailed information regarding the translation process and measures are presented in Supplementary materials.

*The Certainty About Mental States Questionnaire* (Müller et al., 2023), a 20-item questionnaire, was used to measure certainty about mental states of self (Self-Certainty), certainty about mental states of others (Other-Certainty) and Other-Self Discrepancy.

*The 30-item short form of the Slovak Big Five Inventory-2* (Kohút et al., 2020) was used to measure Big Five personality domains: extraversion, agreeableness, conscientiousness, negative emotionality, and open-mindedness.

*The Short Dark Tetrad Scale* (Paulhus et al., 2021) was used due to its conceptual overlap with the Dark Core (Moshagen et al., 2020). The scale consists of 28 items measuring four socially aversive traits: Machiavellianism, psychopathy, narcissism, and sadism. We used the Slovak translation employed by Teličák et al. (2024).

As for well-being indicators, we focused on life satisfaction measured using the 5-item Satisfaction with Life Scale (SWLS; Diener et al., 1985); positive and negative affect measured using the 10-item short form of the International Positive and Negative Affect Schedule (I-PANAS; Thompson, 2007); subjective happiness measured using the 4-item Slovak Subjective Happiness Scale (SHS; Babinčák, 2018); and self-esteem measured using the 10-item Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) in its Slovak version (Halama & Bieščad, 2006).

*The single-item MacArthur Scale of Subjective Social Status* (Adler et al., 1994) was used to explore whether socioeconomic status is associated with mentalizing.

## DATA ANALYSES

Condition-based regression analysis (CRA; Humberg et al., 2018) and confirmatory factor analysis were performed using the *lavaan* package (Rosseel, 2012) in RStudio (Posit Team, 2025). CRA was used to estimate conditional discrepancy effects, testing whether the imbalance between Self-Certainty and

Other-Certainty predicts outcomes after controlling for their overall magnitude; this imbalance effect is indexed by the CRA discrepancy parameter (*abs*). The maximum likelihood estimator with robust correction of errors (MLR) was used in accordance with the original validation study (Müller et al., 2023), given its appropriateness for 7-point Likert scale items (Li, 2016). This estimator was also used for testing measurement invariance. Similarly to Müller et al. (2023) we use the scaled comparative fit index (CFI), scaled root mean square error of approximation (RMSEA), and standardized root mean squared residual (SRMR) for evaluation of model fit.

Measurement invariance was examined separately for gender and age groups. Age groups were formed by dividing the sample based on a cut-off age of 29, as this age is recognized as the end of emerging adulthood (Arnett, 2015). We focused on three levels of measurement invariance: configural (same model structure), metric (fixed factor loadings), and scalar (fixed item intercepts). The level of achieved measurement invariance was assessed by the change in the comparative fit index (CFI), root mean square error of approximation (RMSEA) and standardized root mean squared residual (SRMR). We did not rely on the chi-square test because it is overly sensitive, with larger samples, and rejects invariance even when the differences are not substantial (e.g., Meade et al., 2008). To confirm each level of invariance, model fit was required not to worsen beyond the cut-off values proposed by Chen (2007), namely a decrease in CFI of no more than 0.010, an increase in RMSEA of no more than 0.015, and an increase of SRMR of no more than 0.030 for metric and 0.010 for scalar invariance.

All other analyses were conducted using jamovi software (The jamovi project, 2024). The differences between genders were examined using Student's *t*-test for two independent samples, while differences between measurements of Self-Certainty and Other-Certainty were assessed using the paired-sample *t*-test. Pearson's correlation coefficient (*r*) was used to calculate correlations with other variables and assess time stability of each domain.

Analyses and datasets are available in the Open Science Framework: <https://osf.io/97u2w>

## RESULTS

The descriptive statistics and internal consistency of the CAMSQ and other used measures are presented in Table S2 in Supplementary materials. Based on the skewness and kurtosis, all variables showed approximately normal distribution. Regarding reliability of the CAMSQ, both domains showed strong internal consistency and adequate inter-item correlations (Table S3 in Supplementary materials), ranging from .44 to .68 ( $M = .57$ ) for Other-Certainty and .49 to .71

( $M = .59$ ) for Self-Certainty. Good temporal stability was supported by test-retest correlations for Self-Certainty ( $r = .82$ ; 95% CI [.75, .87]), Other-Certainty ( $r = .86$ ; 95% CI [.80, .90]) and Other-Self Discrepancy ( $r = .71$ ; 95% CI [.61, .79]).

## CONFIRMATORY FACTOR ANALYSIS AND MEASUREMENT INVARIANCE

Following the original study, we ran CFA model comprising two correlated factors. The results showed that the two-factor model fit the data better than the null model (CFI = .903) and accounted for a relatively small amount of error (RMSEA = .057 (90% CI [.051, .064]); SRMR = .053). Standardized factor loadings were strong in general (Supplementary Table S3), ranging from .52 to .77 ( $M = .64$ ) in Self-Certainty and from .46 to .74 ( $M = .62$ ) in Other-Certainty. Furthermore, there was a moderate relationship between the two domains ( $r = .52$ ,  $p < .001$ ). Although not strictly fulfilling criteria proposed by Hu and Bentler (1999), the combination of these indicators suggests fairly acceptable model fit (e.g. Brown, 2015).

In the next step, we examined measurement invariance separately across gender and age groups. Constraining the factor structure, factor loadings, and item intercepts did not result in a substantial worsening of model fit, as indicated by changes in alternative fit indices (CFI, RMSEA, and SRMR). These results suggest that the CAMSQ demonstrated scalar measurement invariance across both gender and age groups. Detailed results are presented in Table S4 in Supplementary materials.

## DIFFERENCES BETWEEN SELF-CERTAINTY AND OTHER-CERTAINTY AND GENDER DIFFERENCES

To explore mean-level differences, we compared Self-Certainty and Other-Certainty scores and assessed gender differences. The results showed that, on average, people are more certain about their own mental states than they are about the mental states of others ( $M = -.53$ ;  $t_{(461)} = 14.10$ ;  $p < .001$ ;  $d = .66$ ; 95% CI [.56, .75]). There was no significant difference between women ( $N = 298$ ) and men ( $N = 163$ ) either in Self-Certainty ( $t_{(459)} = 1.75$ ;  $p = .082$ ;  $d = .17$ ; 95% CI [-.02, .36]) or Other-Certainty ( $t_{(459)} = -.62$ ;  $p = .537$ ;  $d = -.06$ ; 95% CI [-.25, .13]).

## CORRELATIONS WITH AGE, PERSONALITY AND WELL-BEING

To examine construct validity, we assessed correlations of CAMSQ dimensions with demographic vari-

**Table 1***Correlations of the CAMSQ with age, SES, well-being and personality measures*

	Self-Certainty		Other-Certainty		Other-Self Discrepancy		Latent CRA	
	<i>r</i>	95% CI	<i>r</i>	95% CI	<i>r</i>	95% CI	<i>abs</i>	<i>p</i>
Age	<b>.17</b>	.08, .26	-.05	-.14, .04	<b>-.23</b>	-.31, -.14	–	–
SES	<b>.26</b>	.17, .34	<b>.14</b>	.05, .23	<b>-.13</b>	-.22, -.04	–	–
Satisfaction with life	<b>.42</b>	.34, .49	<b>.16</b>	.07, .25	<b>-.28</b>	-.36, -.19	<b>.41</b>	.008
Subjective happiness	<b>.52</b>	.44, .58	<b>.23</b>	.14, .31	<b>-.31</b>	-.39, -.23	<b>.48</b>	.002
Positive affect	<b>.54</b>	.47, .60	<b>.34</b>	.26, .42	<b>-.22</b>	-.31, -.13	-.16	.809
Negative affect	<b>-.48</b>	-.41, -.55	<b>-.20</b>	-.28, -.11	<b>.31</b>	.22, .39	<b>.38</b>	.012
Self-esteem	<b>.63</b>	.58, .69	<b>.22</b>	.13, .30	<b>-.45</b>	-.52, -.37	<b>.85</b>	< .001
Extraversion	<b>.44</b>	.36, .51	<b>.25</b>	.17, .34	<b>-.21</b>	-.29, -.12	-.02	.539
Agreeableness	<b>.26</b>	.18, .35	<b>.13</b>	.04, .22	<b>-.15</b>	-.23, -.06	.17	.167
Conscientiousness	<b>.42</b>	.35, .50	<b>.27</b>	.18, .35	<b>-.18</b>	-.26, -.09	-.11	.765
Negative emotionality	<b>-.52</b>	-.58, -.45	<b>-.27</b>	-.35, -.19	<b>.27</b>	.19, .36	.15	.166
Open-mindedness	<b>.24</b>	.15, .32	<b>.26</b>	.17, .34	.010	-.08, .10	-.32	.972
Machiavellianism	.04	-.05, .13	.07	-.02, .16	.03	-.06, .12	.02	.454
Narcissism	<b>.33</b>	.25, .41	<b>.35</b>	.26, .42	.00	-.09, .09	-.63	.999
Psychopathy	-.01	-.10, .09	<b>.12</b>	.03, .21	<b>.12</b>	.03, .21	<b>.44</b>	.008
Sadism	-.08	-.17, .01	.06	-.03, .15	<b>.14</b>	.05, .23	<b>.28</b>	.029

*Note.* CRA – condition-based regression analysis; SES – subjective socioeconomic status. The columns under “Latent CRA” report conditional discrepancy effects estimated via CRA. The parameter *abs* represents the CRA discrepancy parameter, which tests whether the imbalance between Other-Certainty and Self-Certainty predicts the outcome after controlling for their overall magnitude. In the present data, the sign of the CRA discrepancy effect (*a3*) corresponded to the direction of the zero-order correlations with the Other-Self Discrepancy, indicating that the direction of imbalance observed in simple difference scores was also observed when controlling for overall certainty. *p*-values for the correlation matrix were corrected for multiple comparisons using the Benjamini–Hochberg false discovery rate (FDR) procedure, and correlations that remained significant after correction ( $p < .05$ ) are shown in bold. *p*-values from the CRA analysis are unadjusted and reported as originally obtained.

ables, personality traits, and well-being indicators (Table 1). Both dimensions showed a similar pattern. Significant positive correlations were found for subjective socioeconomic status, Big Five domains except negative emotionality, narcissism, life satisfaction, subjective happiness, positive affect and self-esteem. Negative emotionality and negative affect correlated negatively with both dimensions. Age correlated only with Self-Certainty, whereas psychopathy correlated only with Other-Certainty; however, both correlations were only very weak. Generally, stronger correlations were found for Self-Certainty (mean  $|r| = .34$ ) than for Other-Certainty (mean  $|r| = .20$ ).

Other-Self Discrepancy correlated negatively with age, subjective socioeconomic status, life satisfaction, subjective happiness, positive affect, self-esteem, extraversion, agreeableness, and conscientiousness, and positively with negative affect, negative emotionality, psychopathy, and sadism. To examine the unique effects of Other-Self Discrepancy, we conducted CRA.

Negative effects were observed for life satisfaction, subjective happiness, and self-esteem. Positive effects were observed for negative affect, psychopathy, and sadism, whereas effects for other variables were non-significant.

## DISCUSSION

The present study contributes to the literature on mentalizing by extending prior research on its associations with the Big Five and Dark Tetrad personality traits and well-being. Moreover, it provides information about the psychometric properties of the Slovak version of the Certainty About Mental States Questionnaire (CAMSQ).

Regarding the psychometric properties, the results showed strong internal consistency for both dimensions. The item-rest correlations were moderate to strong, supporting the reliability of the instrument.

When examining the normality of the distribution, we observed that the skewness and kurtosis values fell within an acceptable range. The results of CFA supported the original two-factor model, by showing acceptable model fit based on the CFI, RMSEA and SRMR, meaning that our first hypothesis was confirmed. Moreover, the model demonstrated measurement invariance across gender and age groups.

The results also supported our second hypothesis – both dimensions showed significant correlations with Big Five personality domains. Among these correlations, the strongest was the negative relationship between Self-Certainty and negative emotionality. Negative emotionality shares conceptual similarities with the negative affectivity dimension of the PID5BF+M (Bach et al., 2020), although it represents a normative rather than maladaptive construct. Consistent with prior findings showing negative associations between affectivity and CAMSQ dimensions (Müller et al., 2023), our results align with evidence suggesting that emotional instability is linked to hypomentalizing (Fossati et al., 2017), characterized by a reduced capacity to reason about complex mental states of the self and others (Fonagy et al., 2016). Positive relationships emerged among all other traits, although only those between Self-Certainty and extraversion and conscientiousness were at least moderate.

Extraversion, as measured by the Big Five Inventory-2 (BFI-2; Soto & John, 2017) reflects sociability, energy, and assertiveness, which may foster greater social engagement and enhance understanding of others' mental states. Conscientious individuals, according to the facets in BFI-2, are responsible, organized, and productive. These qualities may be very important in relation to the fulfilment of mental states such as needs, desires and goals. Agreeable individuals, characterized by compassion, respectfulness, and trust, are more often selected as friends (Selfhout et al., 2010), which may provide increased opportunities to engage in close relationships and develop mentalizing abilities. Moreover, conscientiousness and agreeableness predict empathy (Melchers et al., 2016), a component of the broader mentalizing construct (Choi-Kain & Gunderson, 2008), which may partly account for the observed associations. Similar patterns were reported by Dimitrijević et al. (2018).

Associations with Dark Tetrad traits provided limited support for the third hypothesis. Psychopathy and sadism showed only very weak relationships with Other-Certainty, whereas narcissism was moderately positively associated with both Self- and Other-Certainty. Although Müller et al. (2023) found associations between CAMSQ scores and the Dark Core of personality, these relationships were limited at the level of individual Dark Tetrad traits. The association with narcissism may reflect self-enhancement

tendencies characteristic of grandiose narcissism (Miller et al., 2011), leading to inflated self-reports of certainty. Shared variance with extraversion may further contribute to this association (Gómez-Leal et al., 2024), as suggested by conceptual overlap between items of used measures (e.g., the SD4 item "People see me as a natural leader" and the BFI-2-S item "I am someone who is dominant, acts as a leader").

Both CAMSQ dimensions were positively associated with life satisfaction, subjective happiness, positive affect, and self-esteem, and negatively associated with negative affect. These findings are consistent with previous studies (Cieślak et al., 2022; Johnsen et al., 2023; Müller et al., 2023) and show that individuals with greater certainty about mental states tend to be more satisfied with their lives, happier, and experience more positive and less negative affect. Overall, these results confirm the fourth hypothesis.

In the original study of the CAMSQ, discrepancies analysed through CRA revealed relationships with psychopathology. While our study does not directly address psychopathology, it is important to note that low well-being is associated with it (Rek et al., 2021), so we can consider it as a proxy indicator, which adds relevance to our findings.

For completeness, we reported results regarding simple Other-Self Discrepancy scores. However, such scores can be misleading because they confound overall certainty with imbalance between Self- and Other-Certainty. To address this limitation, our conclusions regarding discrepancy effects are based on CRA, which simultaneously estimates the effects of both dimensions and analytically separates overall magnitude from imbalance.

Using this approach, we found that the imbalance between Self- and Other-Certainty had effects on several well-being outcomes. Specifically, stronger imbalances relative to individuals' overall certainty level were related to lower life satisfaction, subjective happiness, and self-esteem, as well as higher negative affect. These findings suggest that both the overall level of certainty and the balance between its dimensions contribute to individual differences in well-being.

Discrepancy effects were also observed for selected Dark Tetrad traits, specifically psychopathy and sadism. These findings provide partial support for the validity of the Slovak version of the CAMSQ in relation to psychopathology-related constructs, as higher levels of discrepancy were associated with lower well-being and elevated levels of socially aversive traits.

Consistent with the original validation study (Müller et al., 2023), participants reported significantly higher certainty about their own mental states than about those of others. Self-Certainty was positively related to Other-Certainty and age. However, the negative association between Other-Certainty

and age observed in the original study was not replicated. Overall, these findings largely converge with the original study.

#### LIMITATIONS AND FUTURE DIRECTIONS

Key limitations include a predominantly female and relatively young sample, as well as a cross-sectional, self-report design, which may constrain generalizability, limit causal inference, and introduce response bias. Moreover, examining a clinically relevant construct in a general population entails both advantages and conceptual limitations.

Given the correlational design, the associations between CAMSQ, personality, and well-being may partly reflect unmeasured third variables, such as perceived stress, which covaries with mentalizing-related processes, well-being, and BFI-2 negative emotionality (Schwarzer et al., 2021; Soto & John, 2017). General cognitive ability may also contribute to these correlations by shaping self-report response quality and satisficing tendencies (Kaminska et al., 2010), and because the CAMSQ indexes certainty about mental states, higher scores may partly reflect confidence bias in social judgments rather than adaptive mentalizing (Moore & Healy, 2008).

Future research should further validate the CAMSQ by examining links with personality pathology (e.g., maladaptive traits, justice sensitivity) and interpersonal dysfunction and by exploring associations with Big Five facets.

#### CONCLUSIONS

This study examined associations between mentalizing, personality traits, and well-being in a Slovak adult population, extending the application of the CAMSQ beyond personality pathology to normative personality traits and well-being. Self-Certainty showed strong positive associations with well-being, extraversion, and conscientiousness, and a negative association with negative emotionality. In contrast, Discrepancy effects identified through CRA were also observed for psychopathy, sadism, and well-being indicators, providing partial support for the validity of the Slovak version of the CAMSQ.

The validation of the Slovak version of the CAMSQ has clear practical implications by providing a brief, psychometrically supported measure of mentalizing for use in Slovakia. As the first validated Slovak instrument for assessing mentalizing, it can support research and assessment in contexts where intra- and interpersonal understanding is relevant.

*Supplementary materials are available on the journal's website.*

#### DISCLOSURES

This research received no external funding. Institutional review board statement: Not applicable. The authors declare no conflict of interest.

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