

Validation of the Slovak version of the BEMAS-SK questionnaire for measuring benign and malignant envy.

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Abstract: The article focuses on the validation of the Slovak version of the BeMaS -SK questionnaire, designed to measure benign and malicious envy in adulthood population in Slovakia. The main aim of the study was to verify the factor structure, construct validity, and internal consistency of the instrument. The research sample consisted of 127 respondents aged between 18 and 65 years. Using exploratory factor analysis, two factors corresponding to the theoretical concept of benign and malicious envy were identified, thereby confirming the construct validity of the questionnaire. The internal consistency of the instrument was assessed using Cronbach's alpha, which reached a value of 0.815, indicating good reliability. The study highlights the importance of distinguishing between positive and negative aspects of envy and emphasizes the potential for their differentiation measurement within the Slovak linguistic and cultural context. The results support the applicability of the BeMaS -SK questionnaire in the future research and applied psychological practice, particularly in the field of social emotions and interpersonal motivation.

Keywords: benign envy, malicious envy, BeMaS -SK, factor analysis, construct validity

1. INTRODUCTION

Envy is an unpleasant emotion that an individual experiences when comparing themselves with another person and this comparison does not turn out to be a win-win for them. With envy, the individual feels the need to reduce the imaginary gap between themselves and the person they envy. The ways in which an envious individual copes with their unfavorable position can be destructive, but also motivating and activating (Van de Ven et al., 2009; Yuin et al., 2020; Miceli & Castelfranchi, 2007; Smith & Kim, 2007). The aim of the paper is to validate the BeMaS -SK questionnaire, which measures the experience of envy from a typological perspective in the Slovak population (Crucius & Lange, 2015). The validation was carried out by factor analysis and in Slovakia it represents a new measurement tool for measuring benign and malignant types of experienced envy. The work was developed with respect for ethical principles. Envy was primarily viewed from a unitary approach and was understood as a single construct including a set of adverse manifestations, such as pain, unpleasant feeling, hostile feeling, injustice, anger, emotional injury, loss of homeostasis, disruption of positive self-image, experiencing a feeling of inferiority, resentment and hostility (Smith & Kim, 2007; Cohen-Carash & Larson, 2017). In the period

Several theoretical outputs have been published in the last twenty years (Van de Ven et al., 2009; Crusius & Mussweiler, 2011; Van de Ven et al., 2011; Crusius & Lange, 2015; Van de Ven, 2016) focusing on the positive side of envy and its socially acceptable reactions.

2. RESEARCH OBJECTIVES

As part of the research study, we focused on verifying the factor structure, validity, and internal consistency of the Slovak version of the BeMaS -SK questionnaire on the adult population in Slovakia.

We have set the following goals:

- 1) To verify the factor structure of the Slovak version of the BeMaS -SK questionnaire using factor analysis. To identify the most suitable solution for the questionnaire, we tested the two-factor model proposed in the original BeMaS questionnaire (Lange & Crusius, 2015).
- 2) to verify the internal consistency of the Slovak version of the BeMaS -SK questionnaire

3. MATERIAL AND METHODS

The questionnaire contains 10 questions, 5 questions are aimed at measuring benign envy and 5 questions are aimed at measuring malignant envy. Items measuring benign envy are focused on increased effort, looking up to the reference person (If someone has excellent qualities, achievements, or possessions, I try to get them for myself). Items measuring malignant envy are focused on feelings of resentment towards the reference person, general feelings of anger when comparing oneself upwards (If other people have what I want, I wish they would lose it). Items are rated on a 6-point Likert scale from 1- I completely disagree to 6- I completely agree. The resulting score is calculated using the arithmetic mean of the items for benign envy and the arithmetic mean of the items for malignant envy. The higher average indicates the type of envy experienced. $\alpha = .79 - .90$ points. Internal consistency of items for malignant envy $\alpha = .83 - .91$ points (Crusius & Lange, 2015).

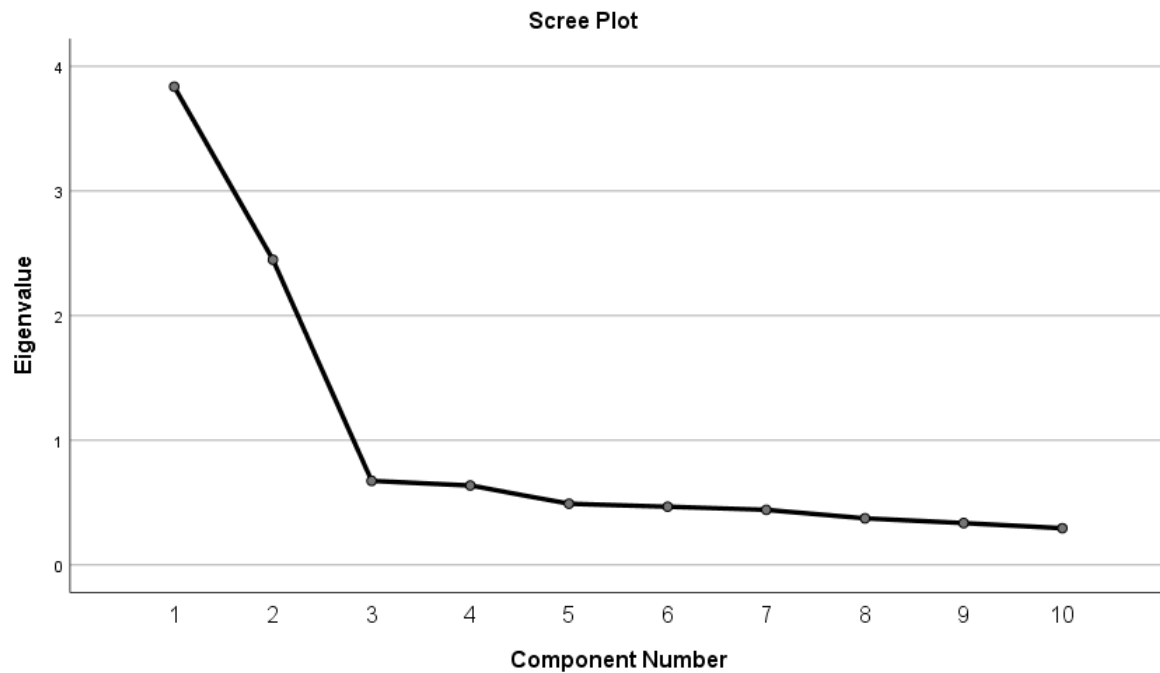
The research sample consisted of 127 adult respondents. 55 men (43.3%) and 72 women (56.7%) participated in the research. Data collection took place from May 2024 to December 2024. Data were collected using the translated BeMaS -SK questionnaire from the German original BeMaS (Lange & Crusius, 2015). The translation into Slovak was carried out with the help of a German psychologist speaking Slovak and Slovak psychologists speaking German.

The data were collected via the website click4survey.sk. The reliability of the collected data was ensured by asking respondents at the beginning of the questionnaire battery to complete the questionnaire only if they answered voluntarily and truthfully. The invitation to complete the questionnaire was sent to students of the University of St. Cyril and Methodius in Trnava for both full-time and part-time studies. It was also sent to random persons to their email addresses. The obtained data were subsequently transferred from Excel to the SPSS v. 26 statistical file and evaluated using factor analysis.

4. RESULTS

Objective: 1) to verify the factor structure of the Slovak version of the BeMaS -SK questionnaire using factor analysis.

The factor structure of the Slovak version of the BeMaS -SK questionnaire was verified using factor analysis. A two-factor model was verified to identify the most appropriate solution. The rubble graph of the FA of the BeMaS -SK questionnaire identified two factors before the break (Chart 1).



1Rubble graph of identified factoids

Source: Research author

The results of the identified factors are shown in the table (Table 1). Factor analysis identified two factors in the BeMaS -SK questionnaire.

Table 1 Identified factors FA BeMaS -SK

Components	Initial Eigenvalues		
	Total	% Variance	Cumulative %
1	3,837	38,368	38,368
2	2,448	24,482	62,850

Source: Research author

The table of eigenvalues and percentages of explainable variability of the BeMaS -SK questionnaire (Table 2) shows confirmation of the division of the questionnaire questions according to the German original into benign and malignant envy. The questions are equally divided, benign envy is measured using questions B1(0.808), B2(0.800), B4(0.796), B5(0.761),

B3(0.657), malignant envy is measured using questions M3(0.837), M5(0.823), M2(0.805), M4(0.734), M1(0.684).

Table 2 Eigenvalues and percentages of explained variability

	Component									
	1	2	3	4	5	6	7	8	9	10
Malignant	0.837	0.823	0.805	0.743	0.684	0.033	-0.005	-0.096	0.251	0.367
Benign	-0.027	0.142	0.083	-0.036	0.252	0.808	0.800	0.796	0.761	0.657

Source: Research author

Objective 2) to verify the internal consistency of the Slovak version of the BeMaS -SK questionnaire

The internal consistency of the BeMaS -SK questionnaire was verified using Cronbach's alpha (Table 3) with a value of 0.815 points.

Table 3 Internal consistency of the BeMaS -SK questionnaire

Cronbach's alpha	N
0.815	217

Source: Research author

5. DISCUSSION

The research verified the validity of the BeMaS -SK questionnaire for measuring benign and malignant envy in the Slovak population of adult respondents. Factor analysis confirmed that Slovak respondents perceive a difference in the type of envy experienced based on the typological division, despite the fact that the Slovak language does not recognize the designation of harmless - benign and harmful - malignant envy. Factor analysis identified the factors Benign envy, which was measured using the items B1 When I envy others, I focus on how I could be equally successful in the future, B2 When I notice that another person is better than me in something, I try to improve myself, B3 Envy of others motivates me to achieve my goals, B4 I also try to achieve excellent successes like other people and B5 When someone has better qualities, achievements or possessions than me, I try to get them too. The second factor of the analysis, which we called malicious - malignant envy, included the following questions: M1 I wish that people who surpass me in something would lose their advantage/superiority, M2 If other people have what I would like to have, I would like to take it from them, M3 I have hostile feelings towards people I envy, M4 Envy causes me to dislike other people, M5 Other people's successes make me angry. The division of factors copies the translation of the BeMaS questionnaire into other foreign languages such as mutations of Asian countries such as Chinese, Hindi , Urdu. For this reason, we consider the translation of the questionnaire into the Slovak language to be relevant, despite the fact that Slovak primarily knows envy as a concept with a negative connotation .

Factor analysis confirmed that Slovak respondents also perceive positive experiences of envy. The Slovak phrase "Závid v dobrom" can refer to benign envy. The internal consistency of the questionnaire items was verified using Cronbach's alpha with a result of 0.815 points. Based on the results, we consider the translated Slovak version of the BeMaS -SK questionnaire to be valid and recommend its use if the experience of the envy construct needs to be measured in future research.

CONCLUSION

Envy is primarily studied from a unitary perspective and considered a negative emotion. The typological view brings new possibilities for exploring its positive benefits for the envious. Since Slovakia lacked a questionnaire that would be oriented towards measuring the positive, harmless – benign side of envy, we decided to fill this gap. The research managed to verify the validity of the questionnaire measuring benign and malignant envy for the adult population and its validity and internal consistency were verified on the Slovak adult population. We therefore consider the BeMaS -SK questionnaire to be a relevant tool for measuring experienced envy and recommend its use in case of need for future research.

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Autor: Crusius, J. & Lange, J. (2015)

Preklad a validácia pre slovenskú populáciu: Bc. Dana Šebová

	<i>Prosím přečtajte si výrok a vyjadrite svoj nesúhlas alebo súhlas podľa priloženej tabuľky</i>	1- Absolútne nesúhlasím 2- Nesúhlasím 3- Skôr nesúhlasím 4- Skôr súhlasím 5- Súhlasím 6- Úplne súhlasím
1 B1	Keď závidím druhým, sústredím sa na to, ako by som mohol byť v budúcnosti rovnako úspešný	1 2 3 4 5 6
2 M1	Želám si, aby ľudia, ktorí ma v niečom prevyšujú, stratili svoju výhodu/ nadradenosť.	1 2 3 4 5 6
3 B2	Keď si všimnem, že iná osoba je v niečom lepšia ako ja, snažím sa aj ja zlepšiť.	1 2 3 4 5 6
4 B3	Závišť voči druhým ma motivuje, aby som dosahoval svoje ciele.	1 2 3 4 5 6
5 M2	Ak majú iní ľudia to, čo by som aj ja rád mal, najradšej by som im to zobral.	1 2 3 4 5 6
6 M3	Mám nepriateľské pocity voči ľuďom, ktorým závidím	1 2 3 4 5 6
7 B4	Aj ja sa snažím dosiahnuť výborné úspechy ako majú iní ľudia.	1 2 3 4 5 6
8 M4	Závišť spôsobuje, že nemám rád druhých ľudí.	1 2 3 4 5 6
9 B5	Keď má niekto lepšie vlastnosti, úspechy alebo majetky ako ja, snažím sa ich získať aj ja.	1 2 3 4 5 6
10 M5	Úspechy iných ľudí vo mne vyvolávajú hnev.	1 2 3 4 5 6