

## CREATIVITY AND ITS RELATION TO STRESS PERCEPTION

<sup>a</sup>ZLATA VAŠAŠOVÁ

*Mathias Bell University  
Ružová 13, 97401 Banská Bystrica  
Slovak Republic  
email: <sup>a</sup>zvasasova@pdf.umb.sk*

**Abstract:** The article analyses the problems of the undergraduates' stress situation perception. The author looks for the differences of stress perception of highly and low creative respondents, and according to the results, she claims the less creative respondents perceive a lot more stress within their friendships (11,2 %) and their family relations (11,2 %) than more creative students (4,1 % and 7,2 %). On the contrary, more creative students feel more stress from health problems (15,5 %) than less creative ones (8,2 %). The least stressful situations for highly creative undergraduates are their friendships and anxiety states. The less creative respondents feel the least stress situations related to the anxiety states and unexpected situations.

**Keywords:** stress situations, creativity, differences in the stress situation perception

### 1 Creativity and Stress Situations

Creativity and stress situation coping are two phenomena, besides having more features in common, that are influenced also by some mutual factors, i.e. external and internal ones. In both cases we can talk about man's psychical functions and as well of his competences. We can say both phenomena are mutually determined and supported. Creativity is usually arisen during the process of solving a situation being unsolvable for a man in a used manner, and at the same time, this solution involves an active approach, that is an individual's creative activity. Considering these mentioned findings, we presuppose that the more creative an individual is the more active approach toward stress situation coping he/she should have, and then it also improves his/her life quality.

Our existing knowledge about creative activity importance for a man while considering stress situation perception and coping from his/her individual point of view, but also from a social-wide one had been the stimuli for our research. We have been inspired by research findings very rare in the Slovak, but also in the international setting (Amabile, 1996, Csikszentmihalyi, 1996, Kusá, 1996, 1997, 2000, 2004, 2006, Kováč, Matejčík, 1995, Kováč, 1996, 1998, 2000, Falát, 2001, Jurčová, 1998, 2000, 2005, Jurčová, Štubňová, 1999, 2004, Zelina a kol. 1996, Szobiova, 1998, 1999, 2001, 2004 and the others), but they point at the social importance of creativity very clearly, and at the intersections of creativity and social aspects.

Our aim was to analyze and to explain into more details the relations between creativity and stress situations. Creativity is understood in the professional literature as every man psychical manifestation enabling him/her to create new and useful values. We understand creativity to be a psychical function manifested in a system of personal characteristics, abilities and motivational tendencies of a man in his/her social context being new, unusual, acceptable and fecund for a subject, reference group or society (Szobiova, 2004; Kaliská, 2008). Every creative activity is influenced by a lot of factors determining the creativity level. Considering perused sources of basic factors determining creativity, we consider there to be personality features including cognitive processes, domain or skill, individual's expertise, individual's developmental stages and social conditions also within our work.

Stress situations are understood as situations when an individual is feeling the unbalance between the situational demands and own abilities or possibilities. They are the situations being dangerous, threatening for a man, and they induce stress and unpleasant experiences (Bratska, 1997; Oravcova, 2001).

### 2 Empirical Part

#### 2.1 The research aim

Our research aim was to find out the stress situation perception of highly and low creative respondents, and also to find the differences between them.

#### 2.2 The used methods

We have used for our research the Coping Strategy Inventory (CSI) by D.L. Tobin et. al. (1984). This inventory is based on several individual statements related to a concrete situation perceived by a respondent as a stressful one, and its description is also a part of the answering sheet. Besides measuring the individual differences in preferred coping strategies through CSI inventory, our aim was also to map stress situation types and their frequencies. The situation analysis of our research respondents' sample was categorized as it is mentioned in the chart below.

To find out the respondents' creativity level was applied Urban's figural test of creative thinking (TSD-Z) (Test zum schöpferischen denken – zeichnerisch – TSD – Z) used as a way to identify exceptionally highly creative abilities, but also to discover the individuals with below average creativity ability development; however being able to develop later on. Besides the cognitive components, the test respects also specific personality aspects such as risk taking, willingness to overcome the border, but also humor as an affective and emotional moment (Szobiova, 2004). The test is suitable for the four-year-old ones up to the late adulthood. The TSD-Z test author is Professor Hans G. Jellen realizing the first researches and modifications of this test in 1984-85.

#### 2.3 Research sample description

Our research sample was formed by the 3<sup>rd</sup> year students of Faculty of Education, Faculty of Human Sciences, and Faculty of Natural Studies at Mathias Bell University in Banská Bystrica, Slovakia. They were future teachers of various study specialization of the external and internal form of study. The overall respondent's number was 379, 174 men and 205 women of them. To be able to compare highly and low creative respondents, we had divided them into the extreme groups according to the Urban's manual (2002). According to this division, we had found out there were 98 low creative respondents and 97 highly creative ones within our research sample.

The reason we chose this research sample had been, these respondents of all faculties were preparing themselves to be future teachers of primary and secondary school level. Forasmuch as they are going to form pupils' personality, and because of the fact their creative thinking and also stress situation coping are the most important competencies, we have aimed our research at this group of respondents. Besides this we realize the teacher's profession brings a lot of stress situations, and their coping asks for an active approach to be very often as a behavioral model for students.

#### 2.4 Research results analyses and its interpretation

We have found out the answers of highly and low creative respondents vary (Table 1). The school and work stress situations were mentioned by both groups as the most frequent type of stress situations (49 situations, 50% by low creative ones, and 47 situations, 48,4% by more creative ones).

The second most frequent group for less creative ones are family problems and friendship problems (11 situation, 11,2%) and health problems for highly creative ones (15 situations, 15,5%).

The third most frequent group for both compared samples were stress types related to partnership problems (10 situations, 10,2% for low creative ones; 13 situations, 13,4% for highly creative ones).

The fourth category of listed stress types for less creative respondents was formed by situations related to health condition (8 situation, 8,2%), for highly creative ones by unexpected situations (9 situations, 9,3%).

There were ranked unexpected situations into the fifth listed group by low creative individuals (6 situations, 6,1%) and family problems for highly creative ones (7 situations, 7,2%).

The sixth listed stress situation category was covered by anxiety states by low creative ones (6 situations, 6,1%) and by friendship problems for highly creative ones (4 situations, 4,1%).

The seventh group was formed by stress types possessing frequency of less than 5 % for more creative respondents, and they were anxiety states (2 situations, 2,1%).

**Table 1 Stress types of less and more creative respondents**

variables	Low creative ones			Highly creative ones		
	n	%	Order	n	%	Order
School and work stress situations	49	50,0	1	47	48,4	1
Family problems	11	11,2	2	7	7,2	5
Partnership problems	10	10,2	3	13	13,4	3
Friendship problems	11	11,2	2	4	4,1	6
Unexpected situations	6	6,1	5	9	9,3	4
Health problems	8	8,2	4	15	15,5	2
Anxiety state	3	3,1	6	2	2,1	7
Total	98	100,0		97	100,0	

The differences of the mentioned stress situation types between individual respondents' groups were verified statistically by Mann-Whitney U-test. We found out the statistically significant difference at the significance level  $p \leq 0,001$  between low and highly creative respondents (M-W 3556,5,  $p \leq 0,001996$ ). According to these results, we conclude the less creative respondents perceive a lot more stress in their friendships (11,2 %) and their family relations (11,2 %) than more creative students (4,1 % and 7,2 %). On the contrary, we can claim that more creative students perceive more health problems (15,5 %) as stressful than less creative respondents (8,2 %). The least stress situations are friendships and anxiety states for them. The least stress situations of low creative respondents are related to the anxiety states and unexpected situations.

## 2.5 Conclusion

We have proved by our research sample that the school and work situations are being considered as the most frequent stress situations in the undergraduates' lives.

- The highly creative students considered their health problems as the most frequent stress situations, and their anxiety states and friendships are perceived as being stressful the least.
- The low creative students perceive the most stressful situations related to their faculty environment and outcomes during their study. They are being stressed

the least by their anxiety states and unexpected situations.

## Recommendations for research and practice:

- To explore possible relations of found differences in students' stress situation types to their various creativity level with their personal characteristics.
- To explore other possible relations of highly frequent stress situations related to work and school problems of highly and low creative students.
- To aim research to relation exploration between stress types and used coping strategy types.
- Training program elaboration and realization for future teachers directed at creative approach toward stress situation coping with an emphasis at school and work setting.

## Literature:

1. AMABILE, M. T.: *Creativity in Context*. Colorado, USA, Westview Press, 1996. 17 p. ISBN 0-8133-3034-33.
2. BRATSKÁ, M.: Konštruktívne riešenie a zvládanie situácií psychickej záťaže v skupine. In: *Psychológia a patopsychológia dieťaťa*. 32, No 2, 1997. p. 188 – 193, ISSN 0555-5574.
3. CSIKSZENTMIHALYI, M.: *Creativity*. New York, Harper Perennial, 1997. 456 p. ISBN 0-06-092820-4.
4. FALÁT, M.: Creativity as a Predictor of „good“ Coping? In: *Studia Psychologica*, 2000a. 42, No 4, p. 317 – 324, ISSN 0039-3320.
5. FALÁT, M.: Tvorivosť ako prediktor dobrého zvládania. In: Jurčová, M. (Ed). *Tvorivá osobnosť a jej kompetencie*. Bratislava: Ústav experimentálnej psychológie SAV, 2000. p. 67 – 75, ISBN 80-88910-04-8.
6. JURČOVÁ, M.: Humor and Creativity – Possibilities and Problems in Studying Humor. In: *Studia Psychologica*, 1998. 40, No 4, p. 312 – 316, ISSN 0039-3320.
7. JURČOVÁ, M.: Sociálna kompetentnosť tvorivých adolescentov. In: *Československá psychologie*. 2000. 44, No 6, p. 481-491, ISSN 0009-062X.
8. JURČOVÁ, M.: Creativity Research at The Institute of Experimental Psychology SASC – Areas, Topics, Methods and Findings. In: *Studia Psychologica*, 2004b. 47, No 4, ISSN 0039-3320.
9. JURČOVÁ, M., ŠTUBŇOVÁ, E.: Creativity and Social Competence of Adolescents. In: *Studia Psychologica*, 1999. 41, No 3, p. 193 – 202, ISSN 0039-3320.
10. JURČOVÁ, M., ŠTUBŇOVÁ, E.: Creative Climate to Whom Does it Fit Best and who Might Feel to be Threatened by it. In: *Studia Psychologica*, 2004. 46, No 1, p. 3 – 19, ISSN 0039-3320.
11. KALISKÁ, L.: Učebné štýly vo vzťahu k inteligencii, tvorivosti a školskej úspešnosti. Dizertačná práca. Nitra : FSVaZ Nitra.
12. KOVÁČ, T.: Tvorivosť, stres a niektoré aspekty zvládania ťažkostí. In: *Psychológia a patopsychológia dieťaťa*, 1996. 31, No 3, p. 238 – 243, ISSN 0039-3320.
13. KOVÁČ, T.: Creativity and Prosocial Behavior. In: *Studia Psychologica*, 1998a. 40, No 4, p. 326 – 330, ISSN 0039-3320.
14. KOVÁČ, T.: Vývinové (?) aspekty vzťahov niektorých faktorov tvorivosti. In: *Psychológia a patopsychológia dieťaťa*. 1998b. 33, No 3, p. 216 – 222, ISSN 0555-5574.
15. KOVÁČ, T.: Zvládanie školských problémov z pohľadu tvorivosti. In: *Psychológia a patopsychológia dieťaťa*. 2000. 35, No 1, p. 74 – 79, ISSN 0555-5574.
16. KOVÁČ, T., MATEJÍK, M.: Rozvíjanie tvorivosti detí a rodičov. In: *Psychológia a patopsychológia dieťaťa*. 1995. 30, No 1, p. 43 – 46, ISSN 0555-5574.
17. KUSÁ, D.: „Prosocial face“ of Conformity and Creativity in Adolescents. In: *Studia Psychologica*, 1996. 38, No 4, p. 225 – 232, ISSN 0039-3320.
18. KUSÁ, D.: Tvorivosť a bariéry sociálnej interakcie v adolescencii. In: RUISELOVÁ, Z. (Ed). *Bariéry kognitívnej a sociálnej adaptácie u adolescentov*. Bratislava: ÚEP SAV, 1997. p. 82-94, ISBN 80-889-1000-5.

19. KUSÁ, D.: Toward Creativity as a Potential for Social Competence. In: *Studia Psychologica*, 2000a. 42, No 3, p. 217 – 220, ISSN 0039-3320.
20. KUSÁ, D.: K problémom polarity a kvality vzťahu medzi tvorivosťou a konformitou. In: Jurčová, M. (Ed) *Tvorivá osobnosť a jej sociálna kompetencia*. Bratislava: UEP SAV, 2000b. 88 p. ISBN 80-88910-04-8.
21. KUSÁ, D.: Focusing on Recognized Creators: Dynamic Conception of Creativity and Creator. In: *Studia Psychologica*, 2004. 46, No 4, p. 297 – 304, ISSN 0039-3320.
22. KUSÁ, D.: Social Benefits of Being Creative: Creativity as a Positive deviance. In: *Studia Psychologica*, 2006. 48, No 3, p. 229 – 240, ISSN 0039-3320.
23. ORAVCOVÁ, J.: *Religiozita ako prostriedok zvládania psychickej záťaže*. Dizertačná práca, FF UK, Bratislava, 183 p. 2001.
24. SZOBIOVÁ, E.: Fenomén tvorivosti – základné pojmy a ich chápanie v retrospektíve dnes. In: *Československá psychologie*, 1998. XLII, No 6, p. 525 – 533, ISSN 0009-062X.
25. SZOBIOVÁ, E.: *Tvorivosť – od záhady k poznaniu*. Bratislava: Stimul, 1999. 282 p. ISBN 80-88982-05-7.
26. SZOBIOVÁ, E.: Vzťah tvorivosti a inteligencie: prieniky, podobnosti a odlišnosti. In: *Československá psychologie*, 2001. 45, No 4, p. 289 – 337, ISSN 0009-062X.
27. SZOBIOVÁ, E.: *Tvorivosť – od záhady k poznaniu (2. doplnené vydanie)*. Bratislava: Stimul, 2004. 371 p. ISBN 80-88982-72-3.
28. TOBIN, D. L., HOLROYD, K. A., REYNOLDS, R. V.: *User manual for the Coping Strategies inventory*. Ohio University 1984.
29. ZELINA, M., BOHONYOVÁ, M., ARBET, L.: Creativity, Humanization an Interaction Styles in Education. In: *Studia Psychologica*, 1996. 38, No 4, p. 215 – 223, ISSN 0039-3320.
30. URBAN, K. K., JELLEN, H. G., KOVÁČ, T.: Urbanov figurálny test tvorivého myslenia (TSD-Z). Bratislava: Psychodiagnostika, a. s., 57 p. 2002.

**Primary Paper Section: A**

**Secondary Paper Section: AN**