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## **Temperament and coping flexibility in a group of art students**

### **Introduction**

Early adulthood, the stage at which students are, is an important time in an individual's development. It is a transition from stormy adolescence to adulthood connected with the shaping of many important properties concerning the self, identity and relation with other people (Matuszewska, 1997). Artistic work is an important aspect of this stage, which is sometimes developed in the course of university education, in a specific way at art studies. Since this work is talent-related, its development is a form of self-actualisation (Maslow, 1986). The process of education at art studies requires perseverance from young people, the ability to organise their time, and often resignation from other forms of activity than that aiming to improve their artistic talents. They also need the ability of self-correction during exercises and coping with the tension and stress. The coping competences should involve the ability to evaluate one's actions reflectively and change them if they are ineffective. Some young people can handle their tasks in such a way and be successful and others cannot. Thus a question arises – what does a coping ability conceived this way depend on? This paper discusses the flexibility of coping with stress among art students and its relation with their temperament understood as behavioural manifestation of the features of the nervous system.

### ***Coping flexibility***

The issue of flexibility in coping with stress is one of the most important problems investigated by health psychologists. Since the late 1970s less emphasis is put on the factors causing stress and more on the action taken by an individual challenged with a stressful situation. The reason of the change of this approach, among others, is the thesis that the ability of coping with stress has more impact on the results of being challenged with a stressor than the effect of the stressor itself (Basińska, 2009).

Richard Lazarus and Susane Folkman (1984) define coping as the process of managing internal or external demands, which are perceived to be taxing or exceeding one's ability. The strategies can be problem-focused (directed at changing or removing the demands e.g., doubling the effort to solve the problem). They can also be emotion-focused (directed at regulating the emotional reactions caused by the demands e.g., avoiding the stressor). There are also strategies that combine both these functions. For example, looking for social support reduces emotional tension triggered by stressors and provides instrumental aid (e.g., money when faced with financial problems) or additional information (e.g., problem solving procedures).

**Coping flexibility** is understood as the ability to abandon an ineffective coping strategy and create and implement an alternative coping strategy. This definition encompasses two reciprocal processes: evaluation coping and adaptive coping. A person that is faced with a stressful situation will attempt to deal with it. However, the coping strategy chosen by them may not always bring desired results. If they continue to use an ineffective coping strategy, the situation is unlikely to improve and may get worse. *Evaluation coping* occurs when a person begins to abandon the coping strategy that produces the undesirable outcomes. Evaluation coping includes various strategies, such as understanding one's environment, monitoring and evaluating coping outcomes, and discontinuing an ineffective coping strategy if the results are unfavourable. Not only does the person need to abandon the ineffective strategy, but also consider using an alternative coping strategy. This process is referred to as *adaptive coping* and it involves strategies such as creating available alternatives and implementing them. To be successful, a person must have many coping strategies at their disposal. Such a coping process resembles repertoire coping. If adaptive coping brings unfavourable results, the process of evaluation-adaptive coping is repeated until favourable outcomes are obtained (Kato, 2012, p. 263).

The concept of flexibility in coping with stress introduces deeper changes into the understanding of the coping phenomenon. The shift of approach to the perception of coping consists in abandoning the analysis of coping based on different styles and strategies and putting emphasis on the course of the process and its efficiency instead. The method of use of coping strategies becomes more important than the strategies themselves. It reveals the individual's ability to effectively modify the coping strategies applied depending on the requirements of a particular stressful situation (Kato, 2012).

Flexible coping produces the best outcomes (Heszen-Niejodek, 2000), while the outcome of any stiffening as the opposite of flexibility in coping is usually maladjustment in various areas of life. Therefore emotional flexibility and flexible coping are treated by some researchers as elements of healthy mental condition (Rozansky & Kubzansky, 2005). The more flexibility in coping a person has, the

more adaptive the results of their activity are (Kato, 2014). Greater flexibility is associated with greater well-being and achievement and negatively correlated with stress reactions and alienation (Lester, Smart & Baum, 1994). Coping flexibility involves perceived controllability and situation-related strategy and is negatively correlated with burnout (Gan, Shang & Zhang, 2007).

The life of a contemporary student is full of many stressful situations, both the minor stressors of everyday life and the unexpected events that are potentially traumatic (Vaez & LaFlamme, 2008; Voelker, 2003). To appraise the methods of coping with these stressors observed in a group of students, resilience and flexibility in coping with stress were taken into account. Results showed that coping flexibility was positively correlated to resilience in individual's adapting to college (Galatzer-Levy, Burton & Bonanno, 2012) and the persons with the highest coping flexibility were the least depressive (Kato, 2001) and displayed good mental health in a student group (Megumi & Eiichi, 2011).

Previous research results indicate that coping flexibility may be learnt (Cheng, 2001; 2003) and that some personality traits such as resilience (Galatzer-Levy, Burton, Bonanno, 2012) or internal locus of control (Gan, Shang & Zhang, 2007) facilitate flexible coping with stress. It seems justifiable to investigate what the relation between coping flexibility and temperament is.

### *Coping and temperament according to Ivan P. Pavlov*

According to the classical temperament theory of the Russian physiologist Ivan P. Pavlov, the type of the nervous system is innate and rather does not change under the influence of upbringing or the environment. It is the physiological fundament of temperament, which in turn is a mental manifestation of the type of the nervous system. Researchers say that Pavlovian typology provides apt interpretation of the physiological traits of the four types of temperament of Hippocrates-Galen. The course of mental processes and an individual's behaviour depends on the activity of the nervous system, that most important properties according to Pavlov were the strength of excitation processes, the strength of inhibition processes and the balance between them as well as their mobility. The strength of excitation (SE) is manifested in functional capacity, i.e. the ability of the nervous cells to withstand either prolonged or short-lived, but very strong excitation without slipping into protective inhibition. Therefore SE denotes the work capacity of the nervous cells. There are various sources of stimulation, the individual's own activity among others. The strength of inhibition (SI) is the capacity of the nervous system connected with conditioned inhibition, the ease of developing conditional inhibitory responses and the time during which the CNS is able to maintain the state of conditioned inhibition. As far as behaviour is concerned, SI is manifested in the individual's ability to withhold particular types

of behaviour, to delay them, appropriately as the situation requires, or to refrain from some types of behaviour and reactions, e.g. emotional expression when necessary. The balance of these processes (BNP) is the relation between SE and SI. The mobility of nervous processes (MNP) is the speed of change of one nervous process into another. An individual's ability to change their behaviour fast, appropriately to the changing conditions, is the ability to react fast and adequately to changes in the environment (Strelau & Zawadzki, 1998).

Differences between individuals consist in various combinations of the properties of this system. The strength of nervous processes is the starting point for making a classification of temperament types. Pavlov distinguished two types of the nervous system – weak (with the dominance of inhibition processes) and strong (with the dominance of excitation processes). The strong type may be balanced or unbalanced, depending on the equilibrium of the excitation and inhibition processes, and the strong and balanced type is divided into the mobile and slow types, depending on the mobility of nervous processes (after: Strelau & Zawadzki, 1998).

According to Pavlov, individuals with different types of the nervous system had different adaptation skills. In his opinion, both the strong and balanced types had the highest adaptation skills, while the weak nervous system – the lowest (after: Strelau & Zawadzki, 1998). Considering Pavlov's theory, we can assume that a man's behaviour depends strongly on the type of the nervous system, which determines the working style characteristic of a given individual. Research conducted in industrial plants has shown that in order for a working style to be effective, it must take into account the differences in individuals' nervous systems (after: Strelau, 1985).

Most experiments were conducted to investigate the relation between the strength of the nervous system and the style of action. The obtained results of the research into work efficiency led to the following conclusions: (1) in optimal stress-free conditions workers with the weak type of the nervous system were more efficient and safer as they performed more control and preventive actions than the workers with the strong type of the nervous system. (2) In hazardous conditions the behaviour of 'weak' individuals became disorganised – the performance, orientation and control functions were inhibited. The behaviour of 'strong' individuals was not affected by such changes. These differences in behaviour did not affect the work efficiency indicator (after: Strelau, 1985).

Contemporary research also confirms that the configuration of temperament traits is important for the functioning of an individual. In research conducted among teachers high value of the strength of excitation combined with medium level of the inhibition processes and mobility of the nervous processes was a potential temperamental risk factor for job burnout (Wontorczyk & Brudnik, 2013).

Many studies investigating the relation between the features of the nervous system and the working style were conducted on schoolchildren. Analysis of the styles of performing school activities made it possible to distinguish three factors differentiating children with either weak or strong type of the nervous system. With regard to work dynamics and the degree of fatigability, it was found that the pupils with the strong type of the nervous system did not get tired too fast, did not feel the need to rest often, and get used to their tasks gradually. Pupils with the weak type of the nervous system, on the other hand, get tired very fast, often rest, need silence when they work, and start with the more difficult tasks and finish with the easiest ones. As far as the study skills are concerned, pupils with the strong type of the nervous system integrate preparatory and verification activities, function well without planning their work, modify and correct the task when they are performing auxiliary activities. In the case of pupils with the weak type of the nervous system preparatory and verification activities predominate the performance activities. They plan their day, modify and correct the task when they perform the control activities. In a high tension situation the pupils with the strong type of the nervous system broaden the scope of their study skills, perform tasks faster, while the pupils with the weak type of the nervous system limit the scope of their study skills and perform tasks slower. These studies suggest that the nervous system of the weak type is not resistant to fatigue and strong stimuli – it activates the state of protective inhibition (protection against exhaustion) very fast. In stressful or complicated situations it inhibits the alternating of top-down attention and the efficiency of action of individuals with the weak type of the nervous system. They perform control and performance activities slower than. They often create their own style of action that involves intensification of control and preventive activities. The level of performance of the task is lower if a person is forced to perform a task which is inadequate to their style of work (after: Strelau, 1985).

Strong persons are resistant and function better in difficult situations, while highly reactive individuals have lower productivity and efficiency of the actions they perform (Strelau, 1978). Lower resistance is connected with higher emotional reactivity to adversities and problems occurring in difficult situations. Such persons more often react with fear or anxiety and in a situation of emotional agitation they are not able to overcome the difficulties (Jarosz, 1978).

Research results confirm the influence of temperament and coping traits on individual's adaptation and development of psychological problems (Lengua & Stormshak, 2000). In children, temperament affects the repertoire of coping methods and the applied method of coping with stress is an important mediator of the experience shaping the development of temperamental traits (Garmezy, 1987). Both the temperament type and other personality properties determine the character of the effects of children's functioning – adaptive versus non-adaptive

(Derryberry, Reed & Pilkenton-Taylor, 2003). Research conducted among adults shows there are direct relations between temperament characteristics and the strategies of coping with stress (Watson & Hubbard, 1996).

Flexibility in coping with stress allows to evaluate the individual's ability of self-correction with regard to coping. Such studies have not yet been conducted in Poland and conclusions concerning the flexibility of coping with stress were only indirect (Heszen-Niejodek, 2000; Ogińska-Bulik & Juczyński, 2008). Results of the research conducted so far make it possible to draw conclusions on the relation between the flexibility in coping with stress and situational availability of the applied methods of coping with stress (Kato, 2012) and the personality traits – resiliency (Galatzer-Levy, Burton & Bonanno, 2012) and internal locus of control (Gan, Shang & Zhang, 2007). As the studies show there is a relation between temperamental traits and the strategies of coping with stress (Garnezy, 1987; Watson & Hubbard, 1996), it is worth also investigating the dependency between temperament and the tendency to cope with stress flexibly. Therefore the study discussed in this paper provides information on the relation between the permanent features of an individual that temperament is and coping flexibility of young people, whose main activity is the development of their artistic skills in the course of university education.

The main goal of the study was to verify if the traits of temperament are correlated with the flexibility of coping with stress and whether the intensity of temperamental traits is affected by the application of flexible coping with stress in a sample group. Moreover, it was investigated whether the application of flexible coping with stress may be predicted on the basis of an individual's temperament.

## Research methods

Three research methods were applied to measure the variables: PTS temperament survey designed by Jan Strelau, Alois Angleitner and Bogdan Zawadzki (1998), the Coping Flexibility Scale created by Tsukasa Kato (2012) and demographics.

In the PTS temperament survey, the respondent must present their opinion on 57 statements by choosing one of the four answers: from full confirmation: *I strongly agree* to decisive denial: *I strongly disagree* (1-4 points). On the basis of respondents' answers behavioural characteristics of the traits of their nervous system are created, based on Pavlov's theory – the higher the raw score, the higher the strength of excitation (SE), strength of inhibition (SI) and mobility of nervous processes (MNP). Results achieved on SE and SI scales make it possible to additionally establish the level of balance of nervous processes (BNP). The raw SE, SI and BNP scale scores were calculated into sten scores, which makes it possible to control the age variable. Internal coherence of particular scales in the

Polish respondents ranged from 0.71 for strength of inhibition (SI) to 0.83 for mobility of nervous processes (MNP) (Strelau & Zawadzki, 1998).

The Coping Flexibility Scale of Tsukasa Kato (2012) includes 10 statements for which the respondents must present their opinions by selecting one of the four possible answers: very applicable, applicable, somewhat applicable, not applicable. In its original version the scale measures two aspects of the coping flexibility: Evaluation Coping – statements 2,6,7,8,9 and Adaptive Coping – statements 1,3,4,5 and 10.

In the original version, Cronbach's  $\alpha$  reliability coefficients for underscores were high – from 0.86 to 0.91, depending on the sample group. Absolute stability was established by comparing the results of two measurements made at 6-week intervals – it amounted to 0.73 (Kato, 2012).

Question number 2 had a negative correlation with the total, so they were removed and further analysis was made without them. During analysis on the other scale positions separated two factors – the evaluation of coping and adaptive coping with stress. The scale of evaluation of coping with stress made up 3 positions and the scale of the Adaptive coping made up 6 items. Cronbach's alpha reliability coefficient in tested group for evaluation coping amounted to 0.338 and for adaptive coping amounted to 0.860. Due to the low reliability of the Evaluation Subscale, in current studies only Adaption Subscale was included in the analyses. Absolute stability was determined by way of the comparison of two measurements, with a five-week interval. The result is 0.69 (Basińska, 2015b; Sołtys, 2015a). Whereas the low reliability of the evaluation coping subscale, in analyses only the adaptive coping scale was used.

## Participants

The entire sample group consisted of 114 people, among whom there were 76 (67%) women and 38 (33%) men. All the respondents were single (maiden or bachelor). The average age for the entire group was 21.67 years ( $SD=2.06$ ). Men ( $M=22.05$ ;  $SD=2.21$ ) and women ( $M=21.47$ ;  $SD=1.98$ ) were at the same age ( $t$ -Student=1.418;  $p=0.159$ ).

Table 1. The number of respondents divided by their major

Major	Number ( <i>f</i> )	%
Singing	13	11.60
Music education	7	6.25
Playing an instrument	73	65.18

Church music	3	2.68
Jazz instruments	4	3.57
Instrumental pedagogy	1	0.89
Composition, Music theory, Choir conducting	8	7.15
Jazz and stage music	3	2.68
NA	2	1.79

Most of them ( $n=101$ ; 88%) came from complete families and ( $n=102$ ; 89%) had siblings, while the rest ( $n=13$ ; 12%) came from one-parent families and had no brothers or sisters ( $n=12$ ; 11%). Most of the respondents were first or second year students ( $n=78$ ; 69%), and the rest ( $n=36$ ; 31%) – students of the higher years. Almost all of them ( $n=106$ ; 93%) graduated from a secondary music school, only few of them ( $n=8$ ; 7%) did not attend such school. Most people studied playing musical instruments ( $n=73$ ), singing ( $n=13$ ), music education ( $n=7$ ) and other majors ( $n=11$ ) (Table 1).

## Research procedure

The survey was conducted anonymously and voluntarily. Respondents were recruited on the basis of the ‘snowball sampling’ in student hostels and approved their participation in the survey. The selection of members of the sample group was driven by the criterion of the studied art major.

## Statistical analysis

All the statistical analyses were conducted with the *Statistica* package version 10. To describe the sample group, descriptive statistics were applied of the following variables: mean (*M*), standard deviation (*SD*), minimum (*Min.*) and maximum (*Max.*). To establish the scale of differences between the means, the parameter test *t*-Student or variation analysis *ANOVA* was applied. Analyses of the relations between the variables were made on the basis of Pearson’s *r* correlation test and multiple regression analysis in the ridge version.

## Results

The average intensity of the level of analysed variables in the sample student group was average, and all the scores were very varied (Table 2).



Table 2. Descriptive statistics for adaptive coping (raw scores) and temperament descriptions (sten scores) for the surveyed students ( $N=114$ )

Analysed variables	<i>M</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>
Adaptive coping (AC)	10.07	3.82	0.00	18.00
Strength of excitation – SE	5.79	1.73	1.00	10.00
Strength of inhibition – SI	5.39	2.03	1.00	10.00
Balance of nervous processes – BNP	0.43	2.50	-7.00	6.00
Mobility of nervous processes – MNP	5.76	1.96	1.00	10.00

At the initial stage, it was verified whether sex plays a differentiating role for the analysed variables. There were slight differences in the scores of men and women, yet they were not statistically relevant (Table 3). Therefore further analyses were conducted for the entire group of men and women together.

Table 3. The scale of differences in the dimensions of adaptive coping and aspects of temperament among the surveyed men and women

Analysed variables	Women ( $n=76$ )		Men ( $n=38$ )		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Adaptive coping (AC)	10.38	3.77	9.45	3.90	1.234	0.220
Strength of excitation – SE	5.96	1.75	5.45	1.66	1.500	0.137
Strength of inhibition – SI	5.51	2.07	5.16	1.95	0.880	0.381
Balance of nervous processes – BNP	0.50	2.65	0.29	2.22	0.422	0.674
Mobility of nervous processes – MNP	5.93	1.98	5.42	1.91	1.321	0.189

Variation analysis was conducted to verify whether coping flexibility is affected by the intensity of particular temperamental aspects. To make it possible to carry out, the persons were divided with regard to the intensity of particular temperamental aspects SE, SI and MNP classified into: low (from 1 to 3 stens), average (from 4 to 7 stens) and high (from 8 to 10 stens). For the balance of nervous processes (BNP) the adopted criterion complied with the guidelines of the method's authors – a score at the level of  $\pm 2$  indicated a balance, a negative score below  $-2$  meant the dominance of inhibition processes, and a positive score above  $+2$  meant the dominance of excitation processes (Strelau & Zawadzki,

1998). No statistically relevant differences were found, and the conducted analyses suggest that the level of coping flexibility of respondents does not differ with regard to the level of their temperamental aspects (see Chart 4). Only a certain trend in the differentiation of coping flexibility was observed with regard to the mobility of nervous processes. More detailed analyses based on the *post-hoc* LSD test showed that the persons with low mobility of nervous processes are characterised with the lowest coping flexibility and differ considerably from the persons with high mobility of nervous processes (Table 5).

In relation to the observed the significance of the intensity of adaptive coping with stress depending on the level of mobility of the nervous system, additional correlation test and multiple regression analysis were made, which confirmed the said results. Pearson's  $r$  correlation between adaptative coping and temperament turned out to be statistically relevant only with the mobility of nervous processes ( $r=0.262$ ;  $p=0.005$ ). Individuals with high mobility of nervous processes are more flexible in coping with stress in the dimension of adaptive coping.

Table 4. The number of respondents divided by the levels of temperamental aspects and the results of variation analysis of one of the dimensions of coping flexibility, namely adaptive coping

SE levels	$f$	$\Sigma f$	%	$\Sigma\%$	$F$	$p$
Low SE	13	13	11.40	11.40	0.352	0.704
Average SE	85	98	74.56	85.96		
High SE	16	114	14.04	100.00		
SI levels	$f$	$\Sigma f$	%	$\Sigma\%$	$F$	$p$
Low SI	22	22	19.30	19.30	1.164	0.316
Average SI	76	98	66.67	85.96		
High SI	16	114	14.04	100.00		
BNP levels	$f$	$\Sigma f$	%	$\Sigma\%$	$F$	$p$
Dominance of inhibition processes	13	13	11.40	11.40	0.176	0.839
Balance between SE and SI	80	93	70.18	81.58		
Dominance of excitation processes	21	114	18.42	100.00		
MNP levels	$f$	$\Sigma f$	%	$\Sigma\%$	$F$	$p$
Low SPN	12	12	10.53	10.53	4.631	0.012
Average SPN	78	90	68.42	78.95		
High SPN	24	114	21.05	100.00		

Table 5. Importance of differences in the results of HSD test for coping flexibility taking into account the level of mobility of nervous processes

Mobility of nervous processes – levels	Low MNP {1} <i>M</i> =8.17	Average MNP {2} <i>M</i> =9.81	High MNP {3} <i>M</i> =11.88
Low {1}	-	0.525	0.041
Average {2}	0.525	-	0.134
High {3}	0.041	0.134	-

At the final stage it was verified whether temperamental aspects make it possible to predict the exercise of one dimension of coping flexibility – adaptive coping. Because the variables were correlated with each other, multiple regression analysis in the ridge version was applied. The model turned out not to be statistically relevant. Only the mobility of nervous processes turned out to be a predictor for adaptive coping in the sample group ( $\beta=0.264$ ;  $t(109)=2.748$ ;  $p=0.007$ ; partial correlation=0.255).

## Discussion

Maria Tyszkowa calls the age between 18 and 22, when young people usually study at higher schools, the period of ‘maturing to adulthood’ (Przetacznik-Gierkowska & Tyszkowa, 2003). This is the stage at which generally the human body has already reached full biological maturity. Yet in mental development, a significant indicator of the ability of the young adults to function maturely in the society is their ability to think in terms of the content rather than in the formal categories only (Gurba, 2000). However, from the point of view of the presented results, the fact that the thinking of young people changes its character from uncompromising and unequivocal description of problematic situations to more relativistic, when they start noticing the influence of various points of view, contexts, and consequences on the judgements and opinions they present (Perry, 1986, after: Gurba, 2000), seems to be of particular importance. If we compare the adaptive coping mean with the results of other sample groups, it turns out that, for example the youths from junior high schools and vocational schools obtained a lower score ( $M=8.64$ ) (Grzankowska & Minda, 2015; Kruczek, 2015), and the non-art students adaptive coping was on a slightly lower level ( $M=8.91$ ) (Stępka-Tykwińska, 2015). In the group of chronically ill adults (Basińska, 2015a; Softys, 2015b) also a lower adaptive coping score was observed ( $M=9.21$ ) than in the group of art students. These results confirm that education and developmental aspects influence the level of coping flexibility. The students of art majors, together with the audited group of

policemen, were the most flexible in coping with stress. It seems that the development of coping flexibility depends largely on the development of cognitive processes. This result requires verification in further studies.

Previous research suggests there is a relation between temperamental traits and coping strategies (Garmezy, 1987; Watson & Hubbard, 1996). This conclusion can be extended to coping flexibility with a certain degree of care. Temperament as a relatively permanent property, biologically conditioned, is one of the factors regulating the relations between an individual and its external environment. It affects the individual's resistance to the influence of long-term strong stimuli, which occur in various life situations (Strelau, 2001). The obtained results suggest that the mobility of nervous processes, which indicates the ability of shifting fast from one nervous process to another, plays a significant role. This property is measured by the time that a person needs to switch from one activity to another, from being passive to being active and the other way round. An individual's ability to change their behaviour appropriately to the changing conditions is the ability to react fast and appropriately to changes in the environment (Strelau & Zawadzki, 1998). Coping flexibility means that an individual can change their behaviour when it turns out to be ineffective. The faster it is done, the more effective the coping will be. It can be assumed that temperament, with regard to the mobility of nervous processes, is the basis for development of one of the dimensions of coping flexibility, namely adaptive coping, yet its role is not significant.

## Conclusions

Results of the conducted research on the relation between temperament and coping flexibility allow for formulating the following conclusions:

In the studied group the coping evaluation scale showed very poor reliability and therefore the results must be approached cautiously.

The surveyed students of art majors are characterised with average levels of the analysed properties, regardless of their sex.

Temperament defined in Pavlov's approach is a predictor of one of the dimensions of coping flexibility, namely adaptive coping, only with regard to the mobility of nervous processes, but it does not play a significant role.

## Limitations of the presented study

The obtained results should be treated carefully as the sample group was not too numerous and the number of students in the subgroups created for the purpose of conducting analysis was low. Moreover, there was no sex balance in the sample group.

## References

- Basińska, M.A. (2009). *Funkcjonowanie psychologiczne pacjentów w wybranych chorobach endokrynologicznych. [Psychological functioning of patients in selected endocrine diseases. Somatic and personality determinants]*. Bydgoszcz: Wydawnictwo Uniwersytetu Kazimierza Wielkiego. [in Polish]
- Basińska, M.A. (2015a). Elastyczne radzenie sobie ze stresem a oczekiwania od edukacji terapeutycznej i przestrzeganie zaleceń lekarskich przez pacjentów chorych przewlekle. [Coping flexibility with stress and expectations from education and adherence to medical recommendations for patients with chronic disease]. In: M.A. Basińska (ed.), *Coping flexibility with stress in health and in disease. Elastyczne radzenie sobie ze stresem w zdrowiu i w chorobie* (pp. 238-258). Bydgoszcz: Wydawnictwo UKW. [in Polish]
- Basińska, M.A. (2015b). Polish version of Coping Flexibility Scale – the summary of research results. In: M.A. Basińska (ed.), *Coping flexibility with stress in health and in disease. Elastyczne radzenie sobie ze stresem w zdrowiu i w chorobie* (pp. 259-278). Bydgoszcz: Wydawnictwo UKW.
- Cheng, C. (2001). Assessing coping flexibility in real-life and laboratory settings: A multimethod approach. *Journal of Personality and Social Psychology*, 80(5), 814-833
- Cheng, C. (2003). Cognitive and motivational processes underlying coping flexibility: a dual-process model. *Journal of Personality and Social Psychology*, 84, 425-438.
- Derryberry, D., Reed, M.A. & Pilkenton-Taylor, C. (2003). Temperament and coping: advantages of an individual differences perspective. *Development and Psychopathology*, 15(4), 1049-1066.
- Galatzer-Levy, I.R., Burton, C.L. & Bonanno, G.A. (2012). Coping Flexibility, Potentially Traumatic Life Events, and Resilience: A Prospective Study of College Student Adjustment. *Journal of Social and Clinical Psychology*, 31(6), 542-567.
- Gan, Y., Shang, J. & Zhang, Y. (2007). Coping flexibility and locus of control as predictors of burnout among Chinese college students. *Social Behavior and Personality*, 35(8), 1087-1098.
- Garnezy, N. (1987). Stress, competence, and development: Continuities in the study of schizophrenic adults, children vulnerable to psychopathology, and the search for stress-resistant children. *American Journal of Orthopsychiatry*, 57, 159-174.
- Grzankowska, I. & Minda, M. (2015). Samoocena a elastyczne radzenie sobie ze stresem w grupie młodzieży szkół gimnazjalnej i ponadgimnazjalnej [Self-esteem and coping flexibility in groups of college students and high school students]. In: M.A. Basińska (ed.), *Coping flexibility with stress. Elastyczne radzenie sobie ze stresem* (pp. 63-100). Bydgoszcz: Wydawnictwo UKW. [in Polish]
- Gurba, E. (2000). Wczesna dorosłość. [Early adulthood]. In: B. Harwas-Napierała & J. Trempała (eds.), *Psychologia rozwoju człowieka, [Psychology of Human Development]*, (t. II, pp. 202-229). Warszawa: Wydawnictwo Naukowe PWN. [in Polish]
- Heszen-Niejodek, I. (2000). Teoria stresu psychologicznego i radzenia sobie. [The theory of psychological stress and coping]. W: J. Strelau (red.), *Psychologia. Podręcznik akademicki [Psychology. Academic handbook]*, (t. 3, pp. 465-492). Gdańsk: Gdańskie Wydawnictwo Psychologiczne. [in Polish]

- Jarosz, M. (1978). Sytuacje trudne oraz ich wpływ na stan psychiczny. [Difficult situations and their impact on mental state]. *Journal of the American Medical Association*, 289, 2055-2056. [in Polish]
- Kato, T. (2001). The relationship between flexibility of coping to stress and depression. *Japanese Journal of Psychology*, 72(1), 57-63.
- Kato, T. (2012). Development of the Coping Flexibility Scale: Evidence for the Coping Flexibility Hypothesis. *Journal of Counseling Psychology*, 59(2), 262-289.
- Kato, T. (2014). Effects of flexibility in coping with chronic headaches on depressive symptoms. *International Journal of Behavioral Medicine*, 18 September
- Kruczek, A. (2015). Emotion control and anger expression style in relation to coping flexibility in students of middle and secondary schools. In: M.A. Basińska (ed.), *Coping flexibility with stress. Elastyczne radzenie sobie ze stresem* (pp. 101-122). Bydgoszcz: Wydawnictwo UKW.
- Lazarus, R.S. & Folkman, S. (1984). *Stress, appraisal, and coping*. Berlin Heidelberg New York: Springer.
- Lengua, L.J. & Stormshak, E.A. (2000). Gender, gender roles, and personality: Gender differences in the prediction of coping and psychological symptoms. *Sex Roles*, 43, 787-817.
- Lester, N., Smart, L. & Baum, A. (1994). Measuring coping flexibility. *Psychology and Health*, 9(6), 409-424.
- Maslow, A. (1986). *W stronę psychologii istnienia. [Toward a Psychology of Being]*. Warszawa: Instytut Wydawniczy PAX. [in Polish]
- Matuszewska, M. (1997). Zmiany rozwojowe wczesnej dorosłości. [Developmental changes of early adulthood]. *Forum Psychologiczne*, 2(2), 31-44. [in Polish]
- Megumi, S. & Eiichi, K. (2011). Coping flexibility and stress responses during a teacher training practicum. *Japanese Journal of Health Psychology*, 24(1), 34-44.
- Ogińska-Bulik, N. & Juczyński, Z. (2008). *Osobowość, stres a zdrowie. [Personality, stress and health]*. Warszawa: Difin. [in Polish]
- Przetacznik-Gierowska, M. & Tyszkowa, M. (2003). *Psychologia rozwoju człowieka: zagadnienia ogólne. [Human Developmental Psychology: General Issues]*. Warszawa: PWN. [in Polish]
- Rozansky, A. & Kubzansky, L.D. (2005). Psychological functioning and physical health: a paradigm of flexibility. *Psychosomatic Medicine*, 67, 47-53.
- Sołtys, M. (2015a). Cultural adaptation and psychometric properties of the Coping Flexibility Scale: current results of Polish studies. In: M.A. Basińska (ed.), *Coping flexibility with stress. Elastyczne radzenie sobie ze stresem* (pp. 41-59). Bydgoszcz: Wydawnictwo UKW.
- Sołtys, M. (2015b). Elastyczne radzenie sobie ze stresem a subiektywna ocena stanu zdrowia wśród osób chorych przewlekle – pośrednicząca rola dobrostanu duchowego oraz wieku. In: M.A. Basińska (ed.), *Flexibility coping with stress in health and in disease. Elastyczne radzenie sobie ze stresem w zdrowiu i w chorobie* (pp. 216-238). Bydgoszcz: Wydawnictwo UKW.
- Stępka-Tykwińska, E. (2015). Styles and strategies of coping with stress and flexibility coping among a group of students. In: M.A. Basińska (ed.), *Coping flexibility with stress. Elastyczne radzenie sobie ze stresem* (pp. 165-182). Bydgoszcz: Wydawnictwo UKW.

- Strelau, J. & Zawadzki, B. (1998). *Kwestionariusz Temperamentu PTS: Podręcznik. [Temperament Questionnaire PTS: A Handbook]*. Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego. [in Polish]
- Strelau, J. (1978). *Rola temperamentu w rozwoju psychicznym. [The role of temperament in mental development]*. Warszawa: Wydawnictwo Naukowe PWN. [in Polish]
- Strelau, J. (1985). *Temperament, osobowość, działanie. [Temperament, personality, action]*. Warszawa: PWN. [in Polish]
- Strelau, J. (2001). *Psychologia temperamentu. [Psychology of temperament]*. Warszawa: Wydawnictwo Naukowe PWN. [in Polish]
- Vaez, M. & LaFlamme, L. (2008). Experience stress, psychological symptoms, self-rated health and academic achievement: a longitudinal study of Swedish university students. *Social Behavior and Personality*, 36(2), 183-196.
- Voelker, R. (2003). Mounting student depression taxing campus mental health services. *JAMA*, 289(16), 2055-2056.
- Watson, D. & Hubbard, B. (1996). Adaptational style and dispositional structure: Coping in the context of the five-factor model. *Journal of Personality*, 64, 737-774.
- Wontorczyk, A. & Brudnik, M. (2013). Cechy temperamentu jako predyktory wypalenia zawodowego u nauczycieli wychowania fizycznego [Temperamental traits as predictors of professional burnout among physical training teachers]. *Psychologia Społeczna*, 8(24), 96-110. [in Polish]

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## Temperament a elastyczne radzenie sobie ze stresem w grupie studentów kierunków artystycznych

### Streszczenie

**Wprowadzenie.** Wczesna dorosłość, etap na którym znajdują się studenci, to ważny czas w rozwoju jednostki. Stanowi on przejście z burzliwego okresu adolescencji do dorosłości oraz wiąże się z kształtowaniem wielu ważnych właściwości dotyczących siebie i własnej tożsamości oraz relacji z innymi ludźmi. Ważnym aspektem tego etapu jest twórczość, która bywa rozwijana podczas kształcenia uniwersyteckiego, w sposób szczególnie na studiach artystycznych. Proces kształcenia na kierunkach artystycznych wymaga od młodych ludzi wytrwałości, umiejętności organizowania swojego czasu, często rezygnacji z aktywności innej, niż służąca doskonaleniu swoich talentów artystycznych. Potrzebne są także zdolności do autokorekty podczas ćwiczeń oraz radzenia sobie z napięciem i stresem. Kompetencje w zakresie radzenia sobie powinny cechować się zdolnością do refleksyjnej oceny swoich działań i ich zmiany, jeżeli są nieskuteczne. Niektórzy z młodych ludzi potrafią w taki sposób podchodzić do swoich zadań i odnoszą sukcesy, a inni tego nie umieją. W związku z tym pojawia się pytanie, od czego zależą kompetencje w zakresie tak rozumianego radzenia sobie. W prezentowanej pracy podjęto tematykę elastycznego radzenia

sobie ze stresem przez studentów kierunków artystycznych oraz jego związku z temperamentem rozumianym jako behawioralne przejawy cech układu nerwowego.

Koncepcja elastycznego radzenia sobie ze stresem Tsukasy Kato wprowadza głębsze zmiany w rozumienie zjawiska radzenia sobie. Zmiana perspektywy w spostrzeganiu radzenia sobie polega na odejściu od analizowania radzenia sobie z punktu widzenia stylów i strategii, w zamian za położenie nacisku na jego przebieg i skuteczność. Przenosi ona akcent z rodzaju stosowanych sposobów radzenia sobie na sposób ich stosowania. Wskazuje na zdolności człowieka do efektywnej modyfikacji stosowanych strategii radzenia sobie w zależności od wymagań, jakie niesie ze sobą stresująca sytuacja

Dotychczasowe wyniki pokazują, że elastycznego radzenia można się nauczyć, ale także pewne właściwości osobowościowe np. prężność, ułatwiają elastyczne radzenie sobie ze stresem. Wydaje się zasadne sprawdzenie, jaki związek występuje między elastycznym radzeniem sobie a temperamentem w ujęciu Iwana Pawłowa, jako behawioralny przejaw cech układu nerwowego.

**Celem** prezentowanych analiz było określenie związku pomiędzy temperamentem a elastycznym radzeniem sobie ze stresem w grupie studentów kierunków artystycznych.

**Badane osoby.** Przeprowadzono analizę statystyczną danych, które zebrano od 114 studentów kierunków artystycznych, w tym 76(67%) kobiet i 38(33%) mężczyzn.

**Metody badawcze.** Do pomiaru zmiennych zastosowano trzy metody badawcze: Kwestionariusz Temperamentu (PTS) opracowany przez Jana Strelaua, Aloisa Angleitnera i Bogdana Zawadzkiego (1998), skalę Elastycznego Radzenia Sobie ze Stresem (*The Coping Flexibility Scale*) autorstwa Tsukasy Kato (2012) oraz metryczkę do zebrania danych demograficznych.

**Wyniki.** W badaniu wykorzystano tylko jeden z wymiarów elastycznego radzenia sobie – adaptacyjne radzenie sobie ze stresem. Skala ewaluacji radzenia sobie okazała się niezetelna w badanej grupie. Średnie adaptacyjne radzenie plasowało się na poziomie 10,07 punktów i było najwyższe spośród badanych grup. Stwierdzono istotną zależność między adaptacyjnym radzeniem sobie ze stresem a wymiarem temperamentu związanym z ruchliwością procesów nerwowych. Temperament w rozumieniu Pawłowa tylko w aspekcie ruchliwości procesów nerwowych jest predyktorem jednego wymiaru elastycznego radzenia sobie ze stresem, jednak nie jest to rola bardzo znacząca.

**Słowa kluczowe:** elastyczne radzenie sobie, temperament, studenci