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**DAYS OF APPLIED PSYCHOLOGY 2019 – PSYCHOLOGICAL RESEARCH  
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# **ABSTRACTS**





## PLENARY LECTURES

### OPEN SCIENCE AS A FRAMEWORK FOR PSYCHOLOGICAL RESEARCH

*Snežana Smederevac*

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Open science has become the most important goal in contemporary scientific community, whose achievements would contribute to the visibility of scientific results, significant social and economic benefits, as well as to supporting the development of new research. Psychology provides a significant boost to the development of open science, with a large number of researchers participating in replicability studies, pre-registering their research plans, sharing datasets and creating new scientific research frameworks, such as “citizen science”. Serbian Open Science Platform, adopted by the Ministry of Education, Science and Technological Development, requires that Open Access is mandatory for all publications resulting from publicly funded research. The Platform recommends that primary research data should be deposited in open data repositories. Adequate preparation of research data for reuse assumes that the data is findable, accessible, interoperable and reusable. These requirements are known as FAIR data principles. Existing repositories, such as Mendeley, Open Science Framework (OSF), as well as search engines, such as Google Dataset Search or Elsevier Data Search, are enabling open data management. A behavioral genetics cross-cultural study can illustrate the usefulness of open data in psychological research. The main objective of this study was to examine the contribution of genetic and environmental factors to the Five-Factors Model personality traits across three cultures – Croatian, German and Serbian. German dataset is deposit at GESIS Data Catalogue repository. After signing of the contract about rules for using these data, a license was obtained, and their database was included in the cross-cultural study. Croatian dataset was obtained by personal contact. Participants were 1006 monozygotic (MZ) and 710 dizygotic (DZ) volunteer general-population twin pairs from Croatia, Germany and Serbia. Multivariate twin modelling was used to explore the nature of the phenotypic associations between personality traits in three cultures. Results showed that the relative contributions of additive genetic and nonshared environmental factors to the variance of

all FFM dimensions have almost identical pattern in the German, Croatian and Serbian samples, confirming the heritable basis of the personality traits, which are consistent with previous results of behavioral genetic studies. The most important result of this study points to different patterns of common and specific genetic and environmental effects on personality traits as well as different patterns of genetic correlations across the three cultures. This study demonstrates several key principles of open science, such as “citizen science”, reproducibility and data sharing.

## **BIG DATA APPROACHES IN PSYCHOLOGY AND MEDICAL SCIENCES**

*Nemanja Vaci*

*Department of Psychiatry, University of Oxford*

The vast amount of information continuously collected on various behaviours, together with advanced analytic techniques, offers unprecedented opportunity to conduct data-driven research in psychology. From board and online games utilized in understanding basic cognitive mechanisms to unstructured medical records that allow for a better prediction of medication prescription in clinical research, the Big Data approaches are shaping psychological theories and practices. In this talk, I will illustrate how gamified environments and clinical notes can be used to obtain novel insights in normative and nonnormative ageing research. In the case of gamified environments, we utilize chess and sports data to understand the shape of the ageing function in real-life skills, as well as, factors that protect against age-related declines in later stages of career. Building more flexible nonlinear models, we show how intelligence and practice, factors typically associated with nature and nurture, enable the acquisition and retention of complex skills across the lifespan. In the case of clinical data, we use the natural language processing models to extract the medically relevant information from electronic health records. We use Oxfordshire Trust CRIS (Clinical Record Interactive Search) raw text records that form a medical picture of over than 150,000 patients of secondary care services in Oxfordshire county. In the talk, I will present results from the models that extract information behind dementia diagnosis: prescribed medication (acetylcholinesterase inhibitors and memantine) and cognitive performance scores (MMSE and MOCA). The extracted data is subsequently modelled to investigate the effect of medication prescription on the changes in cognitive performance in the case of dementia diagnosis.

## SYMPOSIUMS

### SYMPOSIUM SITUATIONS, LIFE EVENTS AND PERSONALITY TRAITS: AN INTRODUCTION

*Petar Čolović*

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The problem of relations among personality traits, situations, and life events, as well as of their specific and joint effects on behavior, is one of the crucial issues in personality psychology. In recent years, the research in this field has intensified due to advances in technology and significantly improved conditions for conducting cross-cultural studies. The growing popularity of situation-related studies is affected by the inclinations to explore personality „in context“ – in other words, in interplay with controllable or uncontrollable environmental factors. Among the studies in this field, one may single out several particularly relevant lines of studies. Line a) implies examining the structure of the descriptors of situations, both from the psycholexical (utilizing mostly the „inductive“ methodological strategy) and theoretically grounded aspects (employing „rational“ strategies, fashioned after personality studies). Line b) comprises cross-cultural studies, whose general aim is to examine the stability and replicability of situation perception models. Line c) regards the tendencies to develop and test an acceptable model which would connect personality traits, situational features, situation perception, and observable behavior. Besides the research in the field of personality – situation relations, the studies that attempt to determine the effects of environmental factors on behavior in a much broader time frame are particularly relevant. The concepts central to these studies are life events and life history. This set of studies is not homogenous either – life events are explored both from the atheoretical perspective and from the perspectives of established theories, such as evolutionary theory. In this symposium, the results of studies of situations, life events, and situations will be presented. Two of the presentations address situations, and they are a part of the International Situations Project, comprising sixty-five countries, including Serbia. Two presentations are dedicated to the validation of the Serbian translation of a measure of the Life History Theory, and the development of a new life events questionnaire, respectively.

*Key words:* situations, life events, life history, personality traits

## **DESCRIBING SITUATIONS: OPEN (ENDED) QUESTIONS, LITERALLY**

*Milan Oljača, Petar Čolović*

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The methodology for the extraction of the lexical descriptors of situations closely follows the methods used within the psycholexical paradigm. However, natural (written) language has seldom been explored as a source of information about situational features. This study aims to examine the structure of the situations' descriptors extracted from the open-ended descriptions, as well as to determine if there are group differences regarding the frequency of use of the terms relevant for situations. The data was gathered within the International Situations Project (ISP; Funder et al., 2019), where Serbia is among the participating countries. A total of 324 participants, comprising a student sample (N = 185; 159 women) and a community sample (N = 139; 86 women), responded to the three questions referring to a situation that happened to them the day before: what they did, where they were, and who was present. After the lemmatization, frequency analyses were carried out in order to identify the words that may occur more frequently in one of the subsamples (compared to the rest of the sample). Only words with a total frequency of five or more were included in the analysis. The results showed that the women from the student sample tend to mention close people, as well as the terms related to home and family, more frequently. Women from the community sample mention children, members of the extended family, and the word "alone" more often. The men from the student population focus on everyday activities, going out, and exercise, while the men from the community sample use the terms referring to parenthood, friends, and home. The results point to the possibility of discrimination among groups based on the key terms used to describe the situations, which leaves the door open to the forthcoming studies addressing the criteria for the preference of certain situational features.

*Key words:* psychological aspects of situations, The International Situations Project (ISP), situation descriptions

## LEXICAL DESCRIPTORS OF SITUATIONS IN NATURAL LANGUAGE: A STUDY IN SERBIAN

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*Department of Psychology, Faculty of Philosophy, University of Belgrade;*  
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During the past decades, the lexical approach to the identification of the descriptors of situations resulted in several influential taxonomies. In recent years, researchers' attention has been focusing on natural language as the source of information about situations. The principal aim of this study is to extract an optimal set of situations' descriptors, which can serve as the basis for a preliminary taxonomy. The primary source of information was the Serbian lexical corpus srWAC (Ljubešić & Klubička, 2016), comprising approximately 550 million words extracted from online documents. In the first phase of the study, the terms concordant with the phrase "the situation is..." were extracted from the corpus. In the second phase, semantic vectors were extracted for the terms obtained in the Phase 1, whereby the srWAC corpus was the database, and the set of context words comprised 3000 most frequent nouns, verbs, and adjectives extracted from the Corpus of Serbian Language (Kostić et al., 2001). This set of terms was compared to the personality descriptive adjectives list (De Raad, Smederevac, Čolović i Mitrović, 2018), and corrected in order to avoid the overlap between the two lists. One hundred and twelve terms were retained, all of them occurring at least 500 times and at most 4000 times along with the context words. Principal components analysis pointed to a six-component solution, accounting for approximately 11% variance. The components were Promax-rotated and named formal descriptions, negative descriptions, descriptions of absurd and confusing situations, fear vs. comfortable situations, descriptions of non-standard situations, and descriptions of anticipated situations. Bivariate correlations among the rotated components scores and the scores on lexical personality dimensions showed the relations between the formal descriptions and conscientiousness ( $r = .44$ ), negative situations and aspects of positive affectivity ( $r = -.41$ ), and absurd/confusing situations and conscientiousness ( $r = .57$ ). The results point to the acuteness of the issue of the nature of the relation between personality traits and situations, in other words to the role of personality states in the shaping of behavior in specific situations.

*Key words:* situation descriptions, situation taxonomies, semantic vectors

## **DEVELOPMENT OF THE LIFE EVENTS QUESTIONNAIRE (LEQ)**

*Milan Oljača, Nataša Katić, Bojan Branovački, Selka Sadiković*  
*Department of Psychology, Faculty of Philosophy, University of Novi Sad*

The results of numerous studies point to the conclusion that life events (LE) affect the change and stability of personality traits throughout the individual's life history, as well as to relations among the LE and various behavioral outcomes. On the other hand, questionnaire measures of the LE are mostly check-lists, which may reflect substantial cultural influences. The main aim of this study is to develop a LE questionnaire adjusted to the Serbian culture. The measures applied in this study are: the initial set of descriptors of life events, the LEQ questionnaire developed by Kandler et al, the Life Satisfaction Scale (SWLS), and the Serbian adaptation of the PANAS questionnaire. The derivation sample in this study comprised 801 participants (52.1% women), aged 18 – 69 ( $M = 35.1$ ;  $SD = 12.8$ ). Exploratory factor analysis yielded three latent dimensions of Positive LE (Important life turnarounds, Personal inner improvement, Personal successes) and Negative LE (Threatening events, Stressful events, Existential problems), respectively. The validation sample comprises 521 participants (50.5% women), aged 18 – 63 ( $AS = 35.5$ ;  $SD = 12.9$ ). The internal structure of the questionnaire was examined by the confirmatory factor analysis (CFA). Judging by the conventional fit indices, the six correlated dimensions model with no higher-order factors was selected as the most acceptable ( $CFI = .903$ ,  $TLI = .896$ ,  $RMSEA = .048$ ,  $SRMR = .124$ ). The relations of the new LE questionnaire with the PANAS, as well as with the SWLS, are in line with theoretical assumptions. The results point to the conclusion that the new LE questionnaire has acceptable psychometric properties, but also that there is room for further improvement.

*Key words:* life events, positive events, negative events, psychometric evaluation

## **PSYCHOMETRIC EVALUATION OF THE SERBIAN TRANSLATION OF THE K-SF-42 QUESTIONNAIRE**

*Milan Oljača, Marko Milošević*

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The Life History theory (LHT) is grounded in evolutionary biology, and at the same time influential in the field of psychology of individual differences. The studies by Figuerredo et al. resulted in the development of several self-assessment inventories, whereby the K-SF-42 is considered as currently the best measure of the LHT. The aim of this study is the psychometric evaluation of the K-SF-42 questionnaire in a Serbian sample. The study comprised 429 participants (49.9% men), aged 18 – 66 ( $M = 33.83$ ;  $SD = 13.10$ ). Four measures were applied in the study: K-SF-42, Big Five Plus Two (BF+2) as a measure of personality traits, SD3, ASP (dark tetrad), as well as two sets of questions for the assessment of the delinquent behavior and substance abuse. Five models of the K-SF-42 factor structure were tested. The two most acceptable models are the one with seven correlated factors ( $CFI = .964$ ,  $TLI = 0.961$ ,  $RMSEA = .051$  i  $SRMR = .068$ ), and the one with a hierarchical structure ( $CFI = .963$ ,  $TLI = 0.961$ ,  $RMSEA = .051$  i  $SRMR = .079$ ). As the fit indices are virtually identical, the hierarchical model was retained as the one in line with the recent results and the assumptions about the existence of the “Super-K,” a.k.a. a single highest-order factor. The factor loadings of all items are positive and higher than .42 ( $p < .001$ ). Regression weights of the lower-order dimensions on the higher-order dimensions are positive and larger of .43 ( $p < .001$ ), with the exceptions of the relation between the Loyalty to partner and Super-K ( $\beta = -.185$ ,  $p < .01$ ). Reliability of the K-SF-42 scales ranges from .77 to .93. The relations of the K-SF-42 dimensions with basic and dark personality traits, substance abuse and delinquent behavior are in line with theoretical assumptions. The Serbian translation of the K-SF-42 has favorable psychometric properties.

*Key words:* Life history theories, LHT, K-SF-42, psychometric validation



**SYMPOSIUM**  
**ADVERSE CHILDHOOD EXPERIENCES:**  
**MANIFESTATIONS, IMPLICATIONS, AND CORRELATES**

*Siniša Subotić*

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Psychology, Faculty of Philosophy, University of Banja Luka*

Adverse Childhood Experiences (ACEs) represent distressful, potentially traumatic experiences, that a person experiences during childhood or adolescence. The growing body of evidence, among which are the findings of a large longitudinal ACE study, which began in the mid-1990s and continues to date, shows that ACE is a robust predictor of a wide range of lifelong social, psychological, physical, academic, and other problems and difficulties. The association of ACEs with many undesirable outcomes is not only correlational in nature, but there is likely a causal relationship between the ACEs and such outcomes. This makes the ACEs to be among of the most important topics in psychology and related scientific disciplines. Consequently, the aim of this symposium is to present to the public some of the main findings regarding the manifestations and implications that early trauma, abuse and neglect may have on various aspects of the functioning of the individual, with an accent on the results of a small but growing number of research efforts regarding this topic from our speaking area.

*Key words:* Adverse Childhood Experiences, manifestations, implications, correlates

## **ADVERSE CHILDHOOD EXPERIENCES (ACES) AND DEPRESSION: INCREMENTAL VALIDITY OF THE REVISED ACES INVENTORY**

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Adverse childhood experiences (ACEs) are good predictors of various mental health issues, including depression. ACEs are most commonly measured using the ACE inventory, comprised of 10 categories of early abuse and neglect experiences. Recently, a revised ACE inventory has been proposed, expanded by four adverse experiences categories (peer victimization, isolation/rejection, community violence, and low socioeconomic status), which are supposed to increase the inventory's predictive power even further. The goal of this study was to test how well the revised ACEs inventory (i.e., ACE-14) predicts depression symptoms compared to the original ACEs inventory (i.e., ACE-10). We were also interested in examining how 'robustly' the ACE-14 predicts depressiveness over and above the Big 5 personality and general (matrix) reasoning. The sample consisted of 467 college students (52.9% females; average age: 21.7 years). The results show that the Big 5 personality traits and matrix reasoning account for 13% (11.8% adjusted) of the depressiveness variance. Once the ACE-10 score is added to the equation, the prediction increases by 6.4%, with the ACE-10 being the second-best predictor ( $\beta=.25$ ), behind the lower Conscientiousness ( $\beta=-.26$ ). If the ACE-14 score is added instead the ACE-10, the prediction increases by 12.9%, with the ACE-14 being the best predictor ( $\beta=.36$ ). If the four additional ACEs categories of the revised ACEs inventory are added above personality traits, reasoning, and the original ACE-10 score, they explain 11.4% of additional depressiveness variance and are the best predictor ( $\beta=.42$ ), accounting for all of the ACE-10's ( $\beta=.03$ ) predictive value (although there was some indication of the ACE-10 score still being predictively relevant for the female subsample). The results show that the ACEs robustly predict depressiveness symptoms beyond personality and reasoning, and that the revised ACE-14 inventory is much better depressiveness predictor (i.e., roughly twofold) than the original ACE-10 inventory.

*Key words:* adverse childhood experiences (ACEs), a revised inventory of ACEs, depressiveness/depression, Big 5 personality, matrix reasoning

## **ADVERSE CHILDHOOD EXPERIENCES AND DEPRESSIVENESS: MODERATING ROLE OF RESILIENCE**

*Marija Malenčić, Anđela Velimir, Jovana Baošić*

*MSc Psychology programme, Faculty of Philosophy, University of Banja Luka*

Resilience refers to the psychological capacity to recover quickly from difficulties. It has been often suggested as a moderator between various distressful life experiences and resulting negative psychological outcomes. For example, resilience has been shown to buffer severity of depressive symptoms in individuals who experienced childhood abuse and trauma. This association, however, has not yet been examined using a newly proposed revised/expanded version of a popular adverse childhood experiences (ACEs) inventory. Thus, the goal of this study was to examine a moderating role of resilience between the adverse childhood experiences (ACEs), measured by a revised ACE inventory, and depressiveness score. The sample comprised 467 gender equated (52.9% females) college students, of the average age of 21.7 (SD=1.50) years. The results show that ACEs and resilience have only trivial negative correlation:  $r=-.09$ ,  $p=.066$ . However, both ACEs ( $\beta=.36$ ,  $p<.001$ ) and resilience ( $\beta=.33$ ,  $p<.001$ ) have significant main effects on depressiveness, with a significant ACEs\*Resilience moderating effect ( $\beta=-.09$ ,  $p=.032$ ), which is responsible for about 1% of 28.4% explained depressiveness variance. Note that there was no indirect/mediating effect of ACEs on depressiveness through resilience. Thus, resilience predicts a decrease in depressiveness scores both directly and as a moderator, which significantly diminishes a correlation between the ACEs and depressiveness. Specifically, when resilience is low (-1SD), medium (M), and high (+1SD), ACEs' predictive effects are: .45, .36, and .27, respectively (all  $ps<.001$ ). This confirms that resilience might be a key in reducing, or maybe even breaking a destructive pathway between a sum total of childhood adversities (accounted for by the revised ACEs inventory) and depression. Further encouraging is the absence of correlation between the ACEs and resilience, which implies that the resilience can be built and the pathway diminishment can be achieved regardless of how many ACEs one has.

*Key words:* adverse childhood experiences (ACEs), a revised inventory of ACEs, depressiveness/depression, resilience, moderation

## **ADVERSE CHILDHOOD EXPERIENCES AND ADULT SEXUAL BEHAVIOR IN WOMEN**

*Lana Lugonja, Ana Keleman, Siniša Subotić*

*BSc Psychology programme, Faculty of Philosophy, University of Banja Luka; Faculty of Natural Sciences and Mathematics & Department of Psychology, Faculty of Philosophy, University of Banja Luka*

Adverse childhood experiences (ACEs) are related to many aspects of adult sexual behaviors and functioning, including sexual risk behaviors. The goal of this study was to examine the associations between the ACEs and sexual behaviors and attitudes in a sample of adult women (N=279; age between 18-36 (M=23.98, SD=3.71) years). ACEs were measured using the 10-category ACE inventory. Measured sexual behaviors and attitudes included frequency, number of partners, the age of first sexual experience, and the endorsement of casual sexual encounters. According to the Bayes factor (BF10), strong to very strong evidence was obtained for correlations between the total number of ACEs and numbers of lifetime sexual partners, partners in a previous year, expected lifetime partners, and one-night-stand partners. There was also anecdotal evidence for correlations between the total ACEs and a higher endorsement of casual sex and a lower preferred age of the first sexual experience (but not the reported age of the actual first sexual experience). Regarding the individual ACEs, strong to very strong support for correlations with several aspects of sexual behavior was found for emotional abuse, emotional neglect, and sexual abuse. All the correlations with sexual behaviors and attitudes, both for the individual ACEs and their total score, were of a lower intensity, with the highest correlations being between the sexual abuse and endorsement of casual sex ( $r=.24$ ), and between the total ACEs and a lifetime number of partners ( $r=.21$ ). The results show that there is a small in intensity, but strong in presence association between the childhood adversities, mainly related to sexual and emotional abuse and neglect, and later sexual behaviors and attitudes in adult age women.

*Key words:* adverse childhood experiences (ACEs), sexual risk behavior, sexual attitudes

## ADVERSE CHILDHOOD EXPERIENCES AND GENERALIZED ANXIETY

*Jelena Vilendečić, Jovana Mejakić, Siniša Subotić, Nela Marinković*  
*University of Banja Luka*

Adverse childhood experiences (ACEs) are typically related to many psychological and psychiatric problems. The goal of this study was to examine the ACEs' predictive value for explaining the generalized anxiety (GA) scores in a non-clinical sample, beyond the explanatory power of sociodemographic variables and general personality. The sample comprised 813 general sample participants (62.4% females; age: 26.63 years (SD=4.81); education: 21.6% high school graduates, 29.4% BA students, 47.2% BA or higher graduates). ACEs were measured using a 14-item revised inventory of adverse childhood experiences, GA was measured using GAD-7 generalized anxiety disorder scale, and personality was measured using a short Big Five Inventory (BFI-S). The results show that gender, age, level of education, work status, financial status, and Big Five personality can explain about 23.5% (22.5% adjusted) of the GA's variance, with Neuroticism being the best predictor ( $\beta=.41$ ). Bivariate correlation for the total ACEs and GA is:  $r=.25$ . After the ACEs are added to the regression model, additional 3.6% of the GA's variance is explained, with the ACEs being the second-best predictor ( $\beta=.20$ ; if the ACEs are entered before the personality variables:  $\beta=.23$ ), after Neuroticism ( $\beta=.42$ ). Note that ACEs and Neuroticism are not related ( $r=.04$ ) and there is no significant indirect ACEs-GA effect through Neuroticism ( $\beta=.01$ , 95% CI  $[-.01, .04]$ ). On a bivariate level, the strongest individual ACE-GA correlations are observed for the isolation/rejection ( $r=.34$ ), peer victimization ( $r=.20$ ), and emotional neglect ( $r=.17$ ). It can be concluded that ACEs incrementally predict GA, over and above the socioeconomic variables and personality. Especially important is the fact that Neuroticism and ACEs, as the two best predictors, are not related themselves and have no predictive overlap, i.e., they predict GA independently. Thus, ACEs provide a unique and robust piece of information when trying to understand the GA symptomatology, even for a general population.

*Key words:* adverse childhood experiences (ACEs), generalized anxiety, Big Five personality

**SYMPOSIUM  
STUDY OF WORK-FAMILY RELATIONS  
IN SERBIA 2018-2019<sup>1</sup>**

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During winter 2018-2019, the research team of the project 179002 financed by the Ministry of education, science and technological development of the Republic of Serbia conducted a series of studies on a joint geographical cluster sample from the general population of Serbia. This study is a follow-up of the Study of diversity of work-family relations in Serbia at the beginning of the 21th century, that was conducted by the same project team in the period 2011-2015. The total sample of the current study consisted of 1258 participants of working age living in 37 urban and rural locations distributed through 20 administrative districts of Serbia. Locations were either a part of a larger city or strings of smaller settlements and villages which the team could cover in a day. Care was taken that these locations be with at least a minimum concentration of population to make a data collection day efficient and for this reason isolated mountain hamlets or hard-to-reach villages with few inhabitants were not considered for data collection. For different reasons (insufficient populations size, logistical reasons), data collection was not carried out in 5 administrative districts and in the territory of the Kosovo and Metohija province. Data collection was carried out by teams of interviewers who travelled through Serbia and visited potential participants in their homes. It was carried out mostly during weekends in hope of finding employed participants at home. The participants were asked to complete the PORPOS-3 battery, an integrated instrument containing a number of short scales and individual questions measuring various constructs in the area of work, family, personality, work-family relations, mental health and collecting an array of demographic data. The whole battery and all scales comprising it were in Serbian. The battery itself was a composite created in order to accommodate data needed by various studies planned by the members of the research team, with the data collection being a shared research for everyone. The current symposium will present some of the findings collected in this study.

*Key words:* work-family relations, Serbia, career, vocation, family

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## **HOW WE EXPRESS AGGRESSIVENESS AT WORK AND HOW AT HOME? DOES JOB SATISFACTION MATTERS?<sup>2</sup>**

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The aim of this study was to examine relations between different forms of aggressiveness (Anger, Vengefulness, Dominance, and Hostility), job satisfaction, gender, education level, and work–family conflict. The sample consisted of 1015 employed participants in Serbia ( $M = 38.65$ ,  $SD = 11.23$ , 34.7% of males) living in 37 urban and rural locations in 20 administrative districts of Serbia. The participants were asked to complete the PORPOS-3 battery, an integrated instrument containing a number of short scales and individual questions measuring various constructs in the area of work, family, personality, work-family relations and mental health. The following instruments were used: Aggressiveness Questionnaire (AVDH; Dinić, Mitrović, & Smederevac 2014), Work–Family Conflict and Family–Work Conflict Scales (Netemeyer & Boles, 1996). Job satisfaction was assessed as rating on the 10-point scale. The data were analyzed for Work–Family conflict and Family–Work conflict separately. The results of sets of hierarchical regressions showed that only Hostility as dimension of aggressiveness was significant predictor for Work–Family conflict, while Anger and Vengefulness were significant predictors for Family–Work conflict. Job satisfaction had significant partial contribution in total variances of both examined conflicts. Significant interaction effect was examined between Hostility and Job satisfaction in cumulative variance of Family–Work conflict, but not of Work–Family conflict. Education level had no significance for examined conflicts, while gender was significant predictor just for Family–Work conflict. In conclusion, according to the obtained results different forms of aggressiveness differently affect family and work environment, while job satisfaction moderate this relationships.

*Key words:* work, family, aggressiveness, job satisfaction

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## MULTIPLE FACTORS OF DEPRESSION SYMPTOMS IN EMPLOYED RESIDENTS IN SERBIA<sup>3</sup>

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In order to examine the multiple sources of depression symptoms we included three sets of predictors: personality dimensions, conflict of family and work roles, and socioeconomic stress (total monthly income of the family, education required for the job, individual's salary). The sample consisted of 1015 employed residents in Serbia (65.3% female) younger than 65 years ( $M=39.77$ ;  $SD=11.23$ ). The following instruments were used: Brief HEXACO Inventory (BHI-24; de Vries, 2013), Work-family conflict scales (WFC; Netemeyer, Boles & McMurrian, 1996), and Patient Health Questionnaire 9 (PHQ-9; Kroenke, Spitzer & Williams, 2001) intended to measure symptoms of depression. Hierarchical regression analysis was applied. In the first model, we included the socio-demographic correlates of depression symptoms and the model explained 2.3% of variance ( $F(3,750)=5.90$ ;  $p<.01$ ); significant predictors were education required for the job one has ( $\beta=-.082$ ;  $p<.05$ ) and family income ( $\beta=-.083$ ;  $p<.05$ ). In the second step, personality dimensions were included and they explained additional 14.4% variance ( $F(9,750)=16.52$ ;  $p<.001$ ) of criterion. All personality dimensions apart from Openness had significant independent contributions in expected directions to the prediction of depression symptoms. In the third step ( $F(11,750)=18.47$ ;  $p<.001$ ), both work-family ( $\beta=.168$ ;  $p<.001$ ) and family-work ( $\beta=.104$ ;  $p<.01$ ) conflict showed significant independent contribution to the prediction of depression indicators. Compared to the results of the previous model, Agreeableness was the only dimension that lost its relevance. Following this results, interaction effects were tested. In the final step ( $F(13,750)=16.16$ ;  $p<.001$ ), the interaction effect between Agreeableness and work-family conflict ( $\beta=.087$ ;  $p<.05$ ) was found while all personality dimensions (apart from Openness and Agreeableness) showed a stronger independent predictive contribution in comparisons to the previous model. Sociodemographic predictors remained significant throughout. Findings suggest the relevance of a multifaceted approach in the study of depressive symptoms.

*Key words:* personality dimensions, work-family conflict, socioeconomic stress, depression symptoms, employed residents in Serbia

<sup>3</sup> This research is supported by the Ministry of Education, Science, and Technological Development of Republic of Serbia through science project no. 179002



## **DISORGANIZED ATTACHMENT, MENTALIZATION AND DISSOCIATION IN CONTEXT OF CHILDHOOD TRAUMA: IMPLICATIONS FOR DEPRESSIVE SYMPTOMS<sup>4</sup>**

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Evidence indicates that experiences of early abuse and neglect may be particularly maladaptive because negative evaluation is supplied directly by the primary attachment figures, activating a more negative model of the self and others, which is associated with the long-term increased risk of psychopathology, including depression. This aim of this study was to analyze the relation between disorganized attachment and depressive symptoms in the context of child maltreatment, and test if mentalization and dissociation may be mediators in this relation. Adult respondents (N=153) with a self-reported history of childhood interpersonal trauma were selected from a larger geographical cluster sample from the general population of Serbia, which consisted of 1258 working-aged respondents living in 37 urban and rural locations distributed throughout 20 administrative districts of Serbia. The respondents filled in a battery of instruments, including The Childhood Traumatic Events Scale - CTES (Pennebaker & Susman, 1988), Relationship Questionnaire - Clinical Version - RQ-CV (Holmes & Lyons-Ruth, 2006), Patient Health Questionnaire - PHQ-9 (Kroenke, Spitzer and Williams, 2001), Short Scale for the Assessment of Stress-Related Dissociation Symptomatology - SRD-10 (Knežević, Jovic & Antonijević, 2004) and The Mentalization Scale - MentS, (Dimitrijević, Hanak, Altaras Dimitrijević & Jolić Marjanović, 2015). Our findings suggest that there is a significant specific indirect effect of disorganized attachment on depressive symptoms, occurring through mentalization and dissociation as serial mediators, indicating that disorganized attachment causes a decrease in mentalization, which in turn causes dissociation, concluding in depressive symptoms as a final consequence (estimated indirect effect=0.014, boot-strapped 95% CI=0.005 to 0.026). Based on the significance of the role of mediators in the relationship between disorganized attachment and depressive symptomatology, it is possible to create the means for psychotherapeutic intervention.

*Key words:* Disorganized attachment, depressive symptoms, mentalization, dissociation

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## **SOME PSYCHOMETRIC CHARACTERISTIC OF SHORT INTOLERANCE OF AMBIGUITY SCALE ON A SERBIAN SAMPLE<sup>5</sup>**

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Intolerance of ambiguity was formally defined by Budner as “the tendency to perceive ambiguous situations as sources of threat” where ambiguous situation is defined as “one which cannot be adequately structured or categorized by the individual because of the lack of sufficient cues”. Some of the newer definitions of this construct are relying on descriptions of ambiguous stimuli as these are perceived as complex, unfamiliar, a subject of multiple conflicting interpretations, or dynamically uncertain. Despite widespread usage, the only measure of a similar construct in the Serbian cultural context is the facet Ambiguity from the Need for Closure Scale (Webster & Kruglanski, 1994) psychometric properties of which have so far not been comprehensively examined in the Serbian cultural context. The goal of this study was to construct and validate some aspects of a 10-item form of Short Intolerance of Ambiguity Scale (SIAS). The research was done on a geographical cluster sample that consisted of 1247 (62.9% female; Mage=39.41; SDage=13.05) adult residents of Serbia, participants of the Study of diversity of family and job relations in Serbia. Series of exploratory (bi)factor analyses were used to test the unidimensional structure. The obtained solution was assessed using Confirmatory Factor Analysis and the selected, best fitting model was a 9-item bifactor model that controlled for one group factor ( $\omega_{HS}=.35$ ) and one content-based correlated residual ( $ML\chi^2(22)=92.021$ ;  $p<.001$ ;  $RMSEA=.051$  (90% CI=.040-.061),  $CFI=.965$ ,  $TLI=.943$ ) suggesting essential unidimensionality. The results showed good reliability of the general factor ( $\alpha=.768$ ;  $\omega_H=.65$ ). This scale showed good external (number of significant correlations with external variables suggested by the theory, e.g. gender, age, personality traits, etc.) and convergent validity (significant correlation with Ambiguity scale). Overall, results suggest that SIAS captures one common underlying factor that accounts for the majority of reliable variance (65%) with established nomological network which recommends the instrument for usage in the Serbian population.

*Key words:* tolerance of ambiguity, test adaptation, short form, measurement, latent structure

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<sup>5</sup> This research is supported by the Ministry of Education, Science, and Technological Development of Republic of Serbia through science project no. 179002

## **THE ROLE OF FAMILY FUNCTIONING AND INTERPERSONAL RELATIONS AT WORK IN WORK-FAMILY CONFLICT<sup>6</sup>**

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The aim of this paper was to examine the effects of the dimensions of family functioning and relationships with colleagues and with the superior at work on the experience of work-family conflict in the employed married parents. Our assumption, based on previous studies, was that social relations realized in both spheres could be more or less functional and consequentially the work-family conflict could be more or less pronounced. We applied the appropriate scales of PORPOS battery, constructed for the purpose of the project 179002 (aimed to examine the diversity of relationships at work and in the family in Serbia in 2011) in the sample of 644 respondents of both genders (59.1% females). For the assessment of the dimensions of family functioning, the items were taken from both FACES III and FACES IV, while the other variables (work-family conflict and interpersonal relations at work) were examined with scales constructed within the project. Among the dimensions of family functioning, only communication distinguished itself as a significant predictor ( $\beta = -.180$ ;  $p < .01$ ), while both types of relationships at work (with colleagues ( $\beta = -.170$ ;  $p < .001$ ) and the superior ( $\beta = -.101$ ;  $p < .05$ )) predicted the experience of the work-family conflict. With the increase in the perceived quality of these relationships, as well as with better perceived family communication, the conflict was reduced. In addition, it had been found that the effect of communication on work-family conflict was partly mediated by the relationships at work. The higher the quality of family communication was, the better the quality of work-related relationships, and the lower the work-family conflict. The obtained results showed that interpersonal relations at work and the quality of communication in the family are important for the coordination of work and family roles.

*Key words:* work-family conflict, family functioning, relationship with colleagues, relationship with the superior

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## **OLD AGE – CHALLENGE OR ORIGIN OF FEAR<sup>7</sup>**

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Aging, as a process and old age, as a development phase, represent certain challenges when it comes to psychological integration of numerous aspects that these concepts bear. Faced not only with our own, but also with the process of ageing people from our immediate environment, we form attitudes that can ease, but also to make it difficult to accept changes that happen with aging on physical and psychological level. Having in mind that awareness of this process increases in adulthood, we were interested in role that age, gender and education have in forming attitudes toward old age and elderly people. The research was conducted on the territory of the Republic of Serbia whereby 1,229 respondents (of which 793 women) filled the battery PORPOS3, part of which is the *Scale Attitudes toward old age* that has three sub-dimensions: Fear of aging, Attitude towards the elderly people and Psychological aspects of aging. The data obtained were analyzed in relation to sociodemographic variables: age, gender and education. The results showed that there is only statistically significant difference ( $F(4, 1168)=3.196, p=0.013$ ) between respondents aged 31 to 40 ( $M=1.794$ ) and respondents older than 61 ( $AS=2.110$ ) in attitude about elderly people, in a way that older respondents (older than 61 year) have more negative attitude towards elderly. Generally, from the aspect of the social identity theory, more negative attitude of the older group with average age 65.776 years compared to the younger (average age 34.516 years), could be also understood in the sense that members of the older group still do not consider themselves as old. According to that, it can be concluded that the results of our research indicate that attitudes toward elderly people should be considered in the context of age differences.

*Keywords:* old age, process of aging, sociodemographic variables (age, gender, education)

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## **ALTRUISM, LIFE SATISFACTION AND GENDER AS PREDICTORS OF MARITAL SATISFACTION<sup>8</sup>**

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The levels of marital quality, generally, show a decreasing trend along the duration of a marriage. Previous study considered whether it is due to certain personality characteristics, beliefs or to family role obligation distribution between partners. The objective of our research was to examine whether person's altruism, general life satisfaction and gender could contribute to the prediction of marital satisfaction. The sample consisted of married subjects, aged 40 to 60 years (N = 367, 134 males). Altruism involves selfless behavior and care for other people welfare; it was measured by selected items from Altruism scale (Raboteg-Šarić, 2002) and Alzam scale (Čekrlija, Turjačanin & Blower, 2004). Marital satisfaction was estimated with subscale from Dyadic Adjustment Scale (Spanier, 1976). To assess Life satisfaction respondent was asked to estimate oneself on a Likert-type scale (1-completely dissatisfied, 10-completely satisfied). Hierarchical linear regression included altruism (F=17,01, p<0,01), in second step life satisfaction (F=15,92, p<0,01) and in the last step gender (F=13,23, p<0,01, R<sup>2</sup>=0,101), as predictors of marital satisfaction. Altruism explained 4,6% of variance, life satisfaction explained additional 3,7% (Fchange=14,21, p<0,01) and gender additional 1,9% (Fchange=7,27, p<0,01) of the criteria variance. All individual predictors were statistically significant (p<0,01) in all steps. In the final model, altruism (β=0,230) and life satisfaction (β=0,194) were shown to be better predictors of marital satisfaction than gender (β=-0,137, male respondents showed higher marital satisfaction). On the male sub-sample altruism (β=0,334) was the only significant predictor, while on the female sub-sample both altruism (β=0,170) and life satisfaction (β=0,232) were significant predictors. The findings show that marital satisfaction isn't well enough explained by included personal and socio-demographic characteristics of respondents. In order to reach better understanding further research should include also work-family conflicts and family roles harmonization.

*Key words:* marital satisfaction, altruism, life satisfaction, gender differences

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## NUMBER OF CHILDREN AND QUALITY OF MARRIAGE IN INDIVIDUALS AT MIDDLE STAGE OF DEVELOPMENT<sup>9</sup>

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Many factors can contribute to maintaining and improving partner relationship, as well as to decline in marriage quality. For that reason, years spent in marriage, health status of the partners, personality traits but also number of children, were examined in multiple research related to these constructs. One of the goals of the research conducted in 2018/2019, using PORPOS-3 battery, was to examine whether the number of children improves the quality of marriage. The sample consisted of 900 individuals, married or in romantic relationship out of which 274 are without children, 184 with one child, 365 with two children, and 67 with three or more. The quality of marriage was measured using shorter version of DAS scale (Spanier, 1976), in order to estimate dyadic adjustment. After applying factor analysis, three factors were extracted: dyadic consensus ( $\alpha=0.889$ ), satisfaction with marriage ( $\alpha=0.847$ ), and risks for marriage stability ( $\alpha=0.758$ ). Sample groups were divided into sub-groups based on age (from 18 to 29 years  $N=186$ ; from 30 to 39  $N=234$ , from 40 to 50  $N=51$ ). The results show that there are differences on dimensions of marriage quality regarding the number of children on the entire sample. Differences were found on dimension of dyadic consensus ( $F(3, 620)=6.907, p=0.000$ ) between individuals with no children ( $AS= 4.122$ ), on one hand, and individuals with one child ( $AS=3.68$ ) and two children ( $AS=3.88$ ), on the other. Differences were also found on dimension of satisfaction with marriage ( $F(3,632)=12.141, p=0.00$ ), between individuals with no children ( $AS=4.25$ ) on one side, and individuals with one child ( $AS=3.76$ ) and with two children ( $AS=3.88$ ), on the other. On a subsample aged 40 to 50 years, there is a significant difference ( $F(3,244)=3.680, p=0.013$ ) on dimension of dyadic consensus between individuals with one child ( $AS=3.55$ ) and individuals with three or more children ( $AS=4.14$ ).

*Key words:* marriage quality, dyadic consensus, number of children, middle stage of development

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## THE ROLE OF EDUCATION AND INCOME IN PRESERVING QUALITY OF MARRIAGE IN MIDDLE AGE<sup>10</sup>

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Numerous studies have shown that there is a tendency that quality of marriage decreases with its duration. Regarding that, one of the objectives of the research conducted at the end of 2018 and in early 2019, using battery PORPOS3, was to examine relations between quality of marriage and level of education, and income respectively in development phase of middle adulthood. In order to evaluate quality of marriage, we applied shorter version of DAS scale (Spanier, 1976). Using factory analysis three factors were extracted: dyadic consensus ( $\alpha=0.889$ ), satisfaction with marriage ( $\alpha=0.847$ ) and risks for marriage stability ( $\alpha=0.758$ ). The sample consisted of participants who are in a romantic relationship or in marriage, divided into three age categories: up to 30 years ( $N=186$ ), between 30 and 40 years ( $N=234$ ) and between 40 to 50 years ( $N=251$ ). Difference ( $F(4,224)=4.41$ ,  $p=0.002$ ) in the level of satisfaction in marriage was found between participants who finished elementary school ( $M=3.18$ ) and high school ( $M=3.76$ ) on one hand, and participants who have faculty degree ( $M=4,14$ ) on the other, on the subsample aged from 30 to 39 years. When it comes to individual income, it is shown that there is difference on the subsample aged from 40 to 50 years when it comes to dimension risks for marriage stability ( $F(5,194)=3.982$ ,  $p=0.002$ ) between participants whose income is lower than 20.000,00 dinars ( $M=2.00$ ) and all other categories of income, in the sense that risks for marriage stability are higher among people who earn less than 20.000,00. Based on these results we can conclude that the level of education improves the evaluation of marriage quality, particularly in the fourth decade, while low income in the fifth decade can reduce the stability of marriage.

*Key words:* Quality of marriage (satisfaction with marriage, dyadic consensus, risks for marriage stability), education, income

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## **SOCIODEMOGRAPHIC AND INDIVIDUAL CORRELATES OF SLEEP QUALITY IN SERBIAN GENERAL POPULATION<sup>11</sup>**

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Sleep quality is an important public health concern as it relates to outcomes such as mental and somatic health, occupational efficacy/errors and motor-vehicle accidents. In clinical practice, sleep quality is frequently assessed via Pittsburgh Sleep Quality Index (Buysse et al., 1989) encompassing seven components of sleep difficulties (higher scores mean poor quality, within global scores from 0–21): subjective sleep quality, sleep disturbances, use of sleep medication, daytime dysfunction, sleep latency, sleep duration, and sleep efficiency. The aim of this research was to explore sociodemographic and individual correlates of sleep quality in serbian general population. The sample consisted of 1258 (62.8 % female; Mage=39.41, SDage=13.05) participants. Instruments/variables used were PSQI (Serbian adaptation; Popević et al., 2016), Ruminative Thought Style Questionnaire (RTSQ; Brinker & Dozois, 2009), Anger (affective component of aggression) and Hostility (interpersonal aspect) from Aggressiveness Questionnaire (AVDH; Dinić et al., 2014), and Depression (Patient Health Questionnaire 9, PHQ-9; Kroenke, Spitzer, & Williams, 2001). Commonly used cut-off value (>5) for total PSQI yield 36.2% of people with poor sleep quality (e.g. identical to German population). The hierarchical regression was used with the total PSQI score as a criterion. The first model explained 2.2% of variance ( $F(3,955)=7.07$ ;  $p<.001$ ) consisted of gender ( $\beta=.091$ ;  $p<.01$ ; women had higher scores), age ( $\beta=.08$ ;  $p<.05$ ), and education ( $\beta=-.084$ ;  $p<.01$ ). The second model [ $F(7,955)=62.833$ ;  $p<.001$ ] explained 31.7% of variance and included psychological vulnerability factors. Only age ( $\beta=.115$ ;  $p<.001$ ) and Depression ( $\beta=.538$ ;  $p<.001$ ) had significant contribution to prediction of poor sleep quality while other variables (Anger, Hostility, and Rumination) did not contribute to the model despite having positive zero-order correlation with the criterion (consistent across subdomains of PSQI apart from sleep duration, efficacy, and sleep medication use which are distinctively more associated with Depression). In conclusion, the findings suggest complex underlying interrelations between aspects of vulnerability for sleep difficulties and should be modeled accordingly.

*Key words:* sleep quality, depression, age, negative affectivity, rumination

<sup>11</sup> This research is supported by the Ministry of Education, Science, and Technological Development of Republic of Serbia through science project no. 179002



**SYMPOSIUM**  
**UNDERSTANDING SEXUAL RELATED BEHAVIOR IN**  
**STUDENTS: PERSONALITY, EMOTIONS AND ATTITUDES**

*Nikola Goljović*

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The focus of this symposium is directed to a psychological perspective in which sexuality is viewed as an integral part of a young person's life, and especially determined by her personality, previous experiences, and attitudes towards important personal and social issues. The quality of interactions that we make within intimate relationships was assessed over individual characteristics for perceived relationship satisfaction and the quality of emotional attachment with a partner. Taking into account the various aspects of relationship satisfaction, special attention is devoted to relationship satisfaction in these papers through a multifaceted approach and theory that can provide a wider context than the traditional approach, including sexual behavior as one of the basic components that should be the key to the relationship quality. Besides mentioned, one focus of this line of inquiry has been to determine the nature of the association between pornography use and sexual and relationship satisfaction. In addition to pornography, the focus is on masturbation, which is an alternative way of achieving sexual arousal, associated with the consumption of pornographic content. Research questions refer to testing potential adverse effects of pornography on loyalty and sexual intercourse aspects of the relationship. Some personal determinants, such as a (cognitive) representation of one's body image, were also examined. Although social attitudes are not directly related to the topic of sexuality, researchers have also recognized attitudes towards certain forms of sexual behavior such as homosexuality can be a societal context in which such behavior takes place with an underlying idea that such a context can lead to discrimination against homosexuality or homosexuals, associating these attitudes with conservative and rigid thinking. Conducted at the University of Niš, this research is of particular importance because it raises important questions for understanding sexuality in general, and later for continuing activities in the field of mental health of students and the community.

*Key words:* sexuality, students, personality, emotions, attitudes

## NEGATIVE AFFECTS ASSOCIATED WITH MASTURBATION RELATED TO ATTACHMENT DIMENSIONS AND LOVE ATTITUDES

*Tina Janjić, Nikola Goljović, Đorđi Đeorgiev*

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A feeling of shame and guilt related to masturbation can be associated with a preoccupied attachment to a partner, which makes the person feel bad because he sees masturbation as an act of imagined adultery. The main goal of this study is to examine whether personally experienced negative effects associated with masturbation can be predicted based on the dimensions of attachment and love attitudes. The sample is convenient and consist of 389 respondents ( $m=115$ ;  $f=274$ ) mostly students from the University of Niš, age from 18 to 31 ( $AS=22.89$ ;  $SD=2.63$ ). We used Experiences in Close Relationships questionnaire (PAVa; Brennan, Clark & Shaver, 1995), Short Love Attitudes Scale (S-LAS; Hendrick, Hendrick & Dicke, 1998) and Negative Attitudes toward Masturbation Inventory (NAMI-S; Abramson & Mosher, 1975). The results of multiple regression analysis confirmed the hypothesis that attachment dimensions represent a significant predictor of dimension Personally experienced negative affects associated with masturbation [ $R^2=.035$ ;  $F_{(2,386)}=6,984$ ,  $p<.001$ ], where a statistically significant contribution is achieved by the dimension Anxiety ( $\beta=.183$ ,  $p<.001$ ). Love attitudes do not make a marginally significant contribution, and as a model [ $R^2=.025$ ;  $F_{(6,382)}=1,647$ ,  $p>.05$ ], but the contribution of the dimension Mania ( $\beta=.111$ ,  $p<.05$ ) is significant, which also independently makes a statistically significant contribution [ $R^2=.015$ ;  $F_{(6,382)}=5,824$ ,  $p<.05$ ] with  $\beta=.122$ ,  $p<.05$ . However, in a model in which Mania would join the dimensions of attachment [ $R^2=.036$ ;  $F_{(3,385)}=4,784$ ,  $p<.01$ ], the impact of Mania is completely lost ( $\beta=.039$ ,  $p>.05$ ). The results confirmed the first hypothesis that dimensions of attachment have a small but statistically significant role in understanding the negative feelings associated with masturbation among students, while the role of love attitudes is considered but unsustainable. Too much investment in relationships with others and the possible dependency that comes from the negative working model can be the reason why people would feel bad about masturbation, but it should be kept in mind that the impact is relatively small.

*Keywords:* masturbation, guilt, attachment, love attitudes

## **PERSONALITY TRAITS, SEXUAL AND RELATIONSHIP SATISFACTION AS PREDICTORS OF PROBLEMATIC PORNOGRAPHY USE**

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The main purpose of this research is to examine if personality traits, sexual satisfaction and relationship satisfaction are predictors of problematic pornography use. Sample consists of 251 respondents (76,5% women), aged 18–31 ( $M=23.18$ ;  $SD=2.71$ ) predominantly students of University of Niš. The data were collected using Mini IPIP-6 personality inventory (Sibley et al., 2011), New Sexual Satisfaction Scale Short Form (Štulhofer, Buško & Brouillard, 2011), Perceived Relationship Quality Components Inventory (Fletcher, Simpson & Thomas, 2000) and Problematic Pornography Use Scale (Kor et al., 2014). Hierarchical regression analysis was used in order to test our research hypotheses. Results of this research have shown that Model 1 which forms personality traits is statistically significant and explains 6% of total variance ( $R^2=.06$ ;  $F(6,237)=2.47$ ,  $p<.05$ ), but Extraversion is the only statistically significant predictor of Problematic pornography use ( $\beta=.21$ ,  $p<.01$ ). Model 2 which forms personality traits and dimension of sexual satisfaction is statistically significant and explains 7% of total variance ( $R^2=.07$ ;  $F(8,235)=2.28$ ,  $p<.05$ ), but Extraversion is the only statistically significant predictor of Problematic pornography use ( $\beta=.21$ ,  $p<.01$ ). Model 3 which forms personality traits, dimension of sexual satisfaction and dimension of relationship satisfaction is statistically significant and all predictors taken together explain 10% of total variance ( $R^2=.10$ ;  $F(9,234)=2.89$ ,  $p<.01$ ), where Extraversion ( $\beta=.20$ ,  $p<.01$ ) and Relationship satisfaction ( $\beta=-.18$ ,  $p<.01$ ) are statistically significant predictors of Problematic pornography use. As we have expected, people who are not satisfied with their relationship are more likely to use pornography. These results confirm results from other researches that problematic pornography use was related to poorer relationship quality. On the other hand, extraverts also use pornography more often, which can be explained by their quest for specific experiences and more vibrant activities.

*Key words:* personality traits, sexual satisfaction, relationship satisfaction, problematic pornography use, students

## PREDICTION OF SEXUAL SATISFACTION BASED ON BODY UNEASINESS

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The aim of this research is to explore the possibility of predicting sexual satisfaction based on a person's sense of uneasiness with one's body. Feeling uneasy is more general and less specific than being dissatisfied; uneasiness comes with anxiety, being afraid or embarrassed and thinking that something is wrong. Research sample involved mainly student participants from Niš (N=389), aged 18-31 years (M=22.89, SD=2.63), 70.4% of whom were females. The data were collected using New Sexual Satisfaction Scale Short Form (NSSS-S; Štulhofer, Buško & Brouillard, 2011) and Body Uneasiness Test (BUT•A; Cuzzolaro, et al., 2006). Linear regression analysis was used in order to test our research hypotheses. Results indicate that both of the sexual satisfaction subscales can be predicted by a model containing body uneasiness subscales. The model is statistically significant and explains 13.8% ( $R^2=.13$ ,  $p<.001$ ) of the variance of Ego-centered subscale ( $F_{(5,332)}=10.665$ ,  $p<.001$ ), with Body Image Concerns ( $\beta=-.17$ ,  $p<.05$ ), Compulsive Self-Monitoring ( $\beta=-.19$ ,  $p<.05$ ) and Depersonalization ( $\beta=-.28$ ,  $p<.01$ ) as statistically significant predictors. Statistically significant model explains 12.5% ( $R^2=.12$ ,  $p<.001$ ) of the variance of Partner/sexual activity centered subscale ( $F_{(5,332)}=9.480$ ,  $p<.001$ ), with the Body Image Concerns ( $\beta=-.28$ ,  $p<.01$ ) as a statistically significant predictor. The Ego-centered subscale measures sexual satisfaction generated by personal sensations, a person's ability to experience erotic and sexual sensations. This satisfaction can be diminished if a person is constantly concerned by his/her own physical appearance during sexual intercourse, or if we have the feeling of detachment and estrangement toward our own body. Sexual satisfaction derived from an individual's perception of their partner's sexual behaviors and reactions, as well as the diversity of sexual activities can be weakened if a person tends to concentrate on his/her own body and possible flaws in physical appearance. These results support existing theories concerning sexual experiences and behavior; but also demonstrate the need to further investigate body uneasiness and body image in general, since it can affect our inner world, as well as the interpersonal area of functioning.

*Key words:* sexual satisfaction, body uneasiness, students

## EXAMINING THE ROLE OF PERSONALITY TRAITS AND ATTACHMENT IN RELATIONSHIP SATISFACTION: SOCIAL ECOLOGY MODEL

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Following the social ecology model which emphasizes the importance of individual characteristics for perceived relationship satisfaction, personality traits can be seen as determinants of the quality of intimate unions. Also, a dimensional approach of attachment notes that individual differences can be a result of the quality of the relationship with significant others and the early childhood experiences which guide later behavior in dyadic relation. Taking this in the count, this research aims to examine the contribution of attachment in addition to personality traits in the prediction of various aspects of relationship satisfaction. The sample consisted of 247 participants (m=59; f=188) involved in romantic relationship for at least 1 month, mostly students (72.9%), aged 18-31 ( $M=23.15$ ;  $SD=2.72$ ). Measuring instruments were: Perceived Relationship Quality Components Inventory (PRQC; Fletcher, Simpson & Thomas, 2000), Mini IPIP-6 (Sibley et al., 2011) and Questionnaire of Adult Romantic Attachment (Brenan, Clark & Sresuhaver, 1995). In total, seven hierarchical regression are executed, with two sets of predictors: (1) personality traits (Honesty-Humility, Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness) and (2) attachment (Anxiety, Avoidance). Results show that the final regression model is making a significant contribution to all six dimensions of relationship quality and also, and the global measure: Relationship Satisfaction [ $R^2=.168$ ;  $\Delta R^2=.146$ ;  $F_{(8,238)}=6.01$ ;  $p<.000$ ], Commitment [ $R^2=.203$ ;  $\Delta R^2=.140$ ;  $F_{(8,238)}=7.57$ ;  $p<.000$ ], Intimacy [ $R^2=.219$ ;  $\Delta R^2=.120$ ;  $F_{(8,238)}=8.32$ ;  $p<.000$ ], Trust [ $R^2=.142$ ;  $\Delta R^2=.122$ ;  $F_{(8,238)}=4.92$ ;  $p<.000$ ], Passion [ $R^2=.088$ ;  $\Delta R^2=.078$ ;  $F_{(8,238)}=2.85$ ;  $p<.01$ ], Love [ $R^2=.228$ ;  $\Delta R^2=.153$ ;  $F_{(8,238)}=8.80$ ;  $p<.000$ ] and global measure [ $R^2=.249$ ;  $\Delta R^2=.196$ ;  $F_{(8,238)}=9.89$ ;  $p<.000$ ]. What is particularly significant is that the predictive contribution of the dimensions of attachment is greater than personality traits (visible in the difference between total  $R^2$  and the  $\Delta R^2$  achieved by attachment) and that, when it comes to the importance of individual characteristics, the dimensions of attachment stand out in particular. Such results imply that attachment can be appended in the interpersonal part of this model, but we recommend taking in count the remain components that this model is proposing.

*Keywords:* relationship satisfaction, personality traits, attachment, social ecology model

## **AUTHORITARIANISM AS A PREDICTOR OF HOMOPHOBIA AMONG STUDENTS**

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Homophobia can be defined as irrational fear of, aversion to, or discrimination against homosexuality or homosexuals. Authoritarian personality type is characterized by inflexibility, conservative and rigid thinking and low capacity for introspection. Furthermore, such individuals strongly reject others who don't fit within the traditional value system and individuals that are being socially marginalized. We hypothesized that such personality type can perceive homosexuality as endangering, because it differs from conservative values. Aim of this research is to examine the relationship between homophobia and authoritarianism; and also, to examine if authoritarianism can be significant predictor of homophobia. The sample is consisted of 389 respondents (m-115; f-274), mostly students (75,8%), aged 18-31 ( $M=22.89$ ;  $SD=2.63$ ). Measuring instruments are the following: Homophobia scale (H25; Živanović et al., 2014) and Authoritarianism scale (UPA-S; Mihić, Bodroža & Čolović, 2009). Spearman's coefficient of correlation show that homophobia is in significant, medium and positive relation with all three subscales of authoritarianism such as: authoritarian submissiveness ( $r=.40$ ;  $p<.000$ ), authoritarian aggressiveness ( $r=.58$ ;  $p<.000$ ) and rigidity ( $r=.44$ ;  $p<.000$ ). Results of multiple regression analysis shows that subscales of authoritarianism can significantly predict homophobia [ $R^2=.41$ ;  $F_{(3,385)}=87,42$ ;  $p<.000$ ], solely and only through authoritarian aggressiveness ( $\beta=.57$ ;  $p<.000$ ), while the rest of subscales are not making any significant contribution in predicting homophobia. Such results are complementary with our hypothesis. Authoritarianism as phenomenon implicitly perceives homophobia as potential threat and menace both for individual and society, and is linked to rigid obedience of law, norms and principles reflected in authoritarian submissiveness; and also, with tendency for inflexible and rigid thinking. Authoritarian aggressiveness is reflected in low tolerance for diversity, anti-intractability and aggression pointed at individuals who don't act in obeying manner; who don't respect and accept social norms. Such findings can be seen as confirmation of rigidity and conservative thinking, with no capacity for diversity.

*Key words:* homophobia, authoritarianism, authoritarian submissiveness, authoritarian aggressiveness, rigidity

## **DEVELOPMENTAL AND EDUCATIONAL PSYCHOLOGY**

### **A COMPARISON OF THE ADULT ATTACHMENT STYLES IN BULGARIA AND THE UK**

*Galina Kabadzhova*

Attachment styles play a pivotal role in psychological research. Most of the research examining attachment-system functioning in adults has focused on attachment styles – patterns of expectations, needs, emotions, and social behavior that result from a particular history of attachment experiences, usually beginning in relationships with parents (Fraley & Shaver, 2000). There is evidence showing that the model of attachment could differ across cultures. According to a study involving 62 cultural regions, populations in East Asian countries are more likely to show preoccupied romantic attachment, while 79% of regions are more likely to demonstrate secure romantic attachment (Schmitt et al., 2004). These results underline the importance of assessing adult attachment for understanding the difference between nations in the way people interact and the type of love relationships their favor. In this vein, a cross cultural study was conducted in two samples of Bulgarian (N=150) and UK (N=120) populations. Attachment Styles in the present study were measured by items from the Adult Style Questionnaire (ASQ), developed by Feeney, Noller and Hanrahan (1994). The results have a theoretical and a practical implication – although preliminary, our empirical evidence demonstrates significant cultural differences in the attachment preferences: the UK respondents are seen as generally confident but showing signs of anxiety to be in a relationship and having some difficulty in sharing feelings with others, while the BG respondents show the same plus fear of abandonment and need for strong dependence.

*Key words:* attachment styles, cultures, cultural differences, relationships

## **FUNCTION OF THE DREAM IN AUTOBIOGRAPHICAL NARRATIVES OF ADOLESCENTS**

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Adolescence is a period of continuity and change. Processes of identity organization are reflected in construction of an Autobiographical narrative with distinct features of a Life Story. Adolescents acquire mastery in keeping a coherent view for themselves and in integrating past, present and future dimensions of their personal time. The present study is aimed at revealing the function and place of the Dream in adolescents' life narratives. Semi structured interviews were conducted using the method of Habermas and de Silveira (2008). Two theoretically derived functions of the Dream (defensive and motivational) were formulated and operationalized in rating criteria. A sample of 48 adolescents (30 girls, 17 boys), age 15-19 ( $M=16.41$ ,  $SD=1.08$ ) participated in the study. Defense mechanisms and mentalization were assessed using Bulgarian versions of Defense Style Questionnaire and Reflective Functioning Questionnaire for Youths (Hancheva, 2009, 2017). Interviews with 28 participants were transcribed verbatim, analyzed and rated for causal and thematic coherence. Contents and function of the Dream were categorized and quantitatively rated by two independent researchers. Correlations were found between causal coherence and motivational function of the Dream ( $r=.379$ ,  $p<.05$ ). A tendency for negative connection of causal coherence and defensive function of the Dream was not statistically significant. There were no significant differences in results of boys and girls. However, life events, like parental divorce and domestic violence resulted in tendency for defensive hypermentalization and lower thematic coherence in narratives. The importance of defensive processes and reflectivity in construction of coherent life story is discussed.

*Key words:* adolescence, dream, autobiographical narrative, defense mechanisms, mentalization



## **GENDER DIFFERENCES IN RELATIONSHIP BETWEEN LOVE AND JEALOUSY AMONG YOUNG PEOPLE**

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Since jealousy encompasses a series of emotions, thoughts and reactions in dealing with a threat that can endanger a love affair, it is divided into three basic components: emotional, cognitive and behavioral. Starting from the triangular theory of emotions, the aim of this study was to examine whether there are gender differences with regard to the various components of love and jealousy, as well as whether there is a relation between different types of jealousy and various components of love among youth. The study was conducted on a sample of 170 respondents aged 19 to 24 who are in romantic relationships. In the research we used the following instruments: Multidimensional Jealousy Scale (Pfeiffer & Wong, 1989) and Sternberg's Triangular Love Scale (Sternberg, 1997). The results show that there are no statistically significant gender differences on the overall score, nor when it comes to different components of love. However, there were statistically significant gender differences with respect to emotional jealousy (women are more jealous of emotional deception than men), while there are no significant gender differences in cognitive and behavioral components of jealousy. The results also show that there is a positive correlation between emotional jealousy and love ( $r=.19$ ,  $p=.02$ ), as well as the loyalty component ( $r=.18$ ,  $p=.03$ ) and passion ( $r=.26$ ,  $p=.002$ ). Cognitive jealousy is negatively related to the total measure of love ( $r=-.23$ ,  $p=.006$ ), as well as the intimacy component ( $r=-.25$ ,  $p=.003$ ) and loyalty ( $r=-.29$ ,  $p=.00$ ). Behavioral jealousy and total jealousy are not related with different components of love. This means that there are no significant gender differences when it comes to experiencing love, but that young men and girls in various ways manifest jealousy, where the emotional and cognitive component is shown to be the most important in relation to individual components of love.

*Key words:* love, jealousy, youth

## **CORRELATION BETWEEN ZONE OF ACTUAL AND ZONE OF PROXIMAL DEVELOPMENT MEASURED THROUGH PRESCHOOL DYNAMIC ASSESSMENT WITH SCHOOL PERFORMANCE IN THE EIGHTH GRADE**

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The subject of the study is to check the correlation between zone of actual (ZAD) and zone of proximal development (ZPD) of the child with school performance. A longitudinal study was conducted. Children were tested during the preschool with TIP-1, and then again in the first semester of the eighth grade, school performance was measured through average grade. During the preschool testing TIP-1 was extended into an instrument for dynamic assessment of the ZPD. Additional instructions were formulated for each task on two levels, motivational-affective and cognitive, which were available to the examiner in the situations where a child wasn't able to solve the task independently. In that way, the data about the ZAD, that is independent performance on the TIP-1, and the ZPD, which was measured on the basis of tasks solved in cooperation with a more competent adult, in accordance with the socio-cultural theory of Vigotsky, were obtained for every child. The sample includes 130 pupils of the eighth grade of Primary school "Stevan Colovic" in Arilje (67 (51.5%) boys, 63 (48.5%) girls). The results of the study show that there is a positive correlation between ZAD and school performance ( $r=0.325$ ,  $p<.001$ ), and between ZPD and school performance ( $r=0.256$ ,  $p<.005$ ). It can be concluded that ZAD and ZPD measured through preschool dynamic assessment can be used as predictors of school performance in the eighth grade during primary school, although the correlations are medium and low intensity. It could be unexpected result that ZPD correlate less with school performance than ZAD, since, according to Vygotsky, ZPD could be considered as a better predictor of school performance than ZAD. On the other hand, we must take into account that in this study we have analyzed correlation between ZAD and ZPD measured through preschool test with school performance eight years later, and not with proximately independent performance of the child. These results are considered not only in the context of Vygotsky's theory, but also in the context of dynamic assessment with an attempt to examine their theoretical and

practical implications. The importance, as well as the limitations of the conducted study, for future studies of cognitive factors as predictors of school performance are being considered.

*Keywords:* preschool-test, zone of proximal development, dynamic assessment, school performance

## **ASPECTS OF FATHER'S JOB SATISFACTION AND THEIR INVOLVEMENT IN CHILD CARE AND REARING**

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Economic support of the family is an indirect way in which fathers can contribute to their child's development. Satisfying financial needs of the family is the foundation on which many fathers build their involvement in family life. The aim of this paper is to examine the correlation between father satisfaction with various aspects of job and their assessment of their own involvement in the rearing of children, as well as to examine the predictive role of job satisfaction variables on father involvement. The sample is convenient, consisting of 73 fathers from territory of North Kosovo, aged 41 to 63 ( $M=50.68$ ;  $SD=5.19$ ). The instrument used to assess father involvement is the Inventory of Father Involvement, (Bradford et al., 2002), and a questionnaire designed for the purpose of this study assessed subjective job satisfaction, salary satisfaction and satisfaction with cooperation at work. The results of the study demonstrate that there is a statistically significant Spearman's correlation between dimensions of father job satisfaction and assessment of father involvement. Positive significant correlation was obtained between the father involvement and job satisfaction dimensions ( $\rho=.334$ ;  $p<.001$ ), salary satisfaction dimension ( $\rho=.259$ ;  $p<.05$ ) and satisfaction with cooperation at work dimension ( $\rho=.275$ ;  $p<.01$ ). The predictive value of the variables of satisfaction with different job aspects and father involvement was validated ( $aR^2=.163$ ,  $F(3,70)=5.756$ ,  $p<.001$ ). As the only significant predictor, the job satisfaction variable ( $\beta=.295$ ,  $p<.05$ ) was singled out. The findings of our research are consistent with earlier findings. Employed fathers, who have positive working experience, such as having satisfactory income, sense of belonging to the team and job satisfaction, are associated with more pronounced emotional intimacy with children and involvement in their upbringing.

*Keywords:* fathers, children, job satisfaction, father involvement

## EXAMINATION OF EDUCATIONAL SOCIALIZATION AND SELECTION HYPOTHESIS USING KOLB'S LEARNING STYLES MODEL

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This study is concerned with the relation between learning styles of psychology students and learning styles of their teachers. In this particular research, learning styles are understood as pivotal norms of academic discipline. More precisely, two aspects of Kolb's educational socialization and selection hypothesis were examined in this research: (1) educational socialization aspect, which refers to the question if students gradually become more similar to their teachers regarding the measures of learning styles; (2) educational selection aspect, which refers to the question if students who are more similar to their teachers in terms of learning styles achieve higher academic success. The research was conducted on the sample of 217 BA and MA psychology students and 23 university teachers of psychology at the Faculty of Philosophy, University of Niš. Learning styles were measured by Learning Style Questionnaire (Honey & Mumford, 2000), while academic success was operationalized via students' average grade. Mathematical distances were used to operationalize the examined similarities between students and their teachers on learning styles (average Squared Euclidean distances between students' measures of learning styles and teachers' centroids:  $d = 49.17$  for first-year students;  $d = 40.97$  for second-year students;  $d = 36.31$  for third-year students;  $d = 48.49$  for fourth-year students;  $d = 53.70$  for MA students). Despite the measures of examined learning styles showed that both students and their teachers have the same learning style (reflective) as the highest expressed ( $M = 15.57$ ,  $SD = 2.51$  for students;  $M = 15.32$ ,  $SD = 2.53$  for teachers), the results did not provide clear evidence in favor of educational socialization aspect of the hypothesis as no significant differences in computed distances between students of different years of study were found ( $F(4, 205) = 1.13$ ,  $p = 0.34$  for Squared Euclidean distances). Same applies to education selection aspect, as no significant correlations between examined distances and students' average grades were found (correlation coefficients ranged from 0.01 to 0.21 in subsamples of different study year students,  $p > 0.10$ ). However, the results highlight some suggestions relevant for further research in the field. Further research including students and teachers of various disciplines, as well as longitudinal studies, may throw new light on the problem.

*Key words:* learning styles, educational socialization, educational selection, psychology students and teachers

## **VALUE PRIORITIES AND CAREER CHOICE SATISFACTION OF FUTURE CLASS AND SUBJECT TEACHERS<sup>12</sup>**

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Values as the goals we tend to achieve and guiding principles, are particularly important when teachers are considered, since teachers influence generations of children. The article presents results of a broader study into teaching career choice motivation and value priorities, applying two theoretically and methodologically well-established frameworks: Factors Influencing Teaching Choice framework by Watt and Richardson and Schwartz theory of basic values. The goal of this work is exploration of value priorities of future teachers in Serbia, determination of the role of values in satisfaction with career choice of future teachers and comparison of future class and subject teachers' value ratings. The sample consisted of students, future class teachers and subject teachers of science and engineering and social science and humanities (N=433). Data were collected by Factors Influencing Teaching Choice questionnaire (alpha=.950 for career choice satisfaction subscale) and Portrait value questionnaire-21, measuring the ten basic values (alpha=.735). The results are congruent with previous studies, with self-transcendence values and self-direction placed on the top of hierarchy, which implies that future teachers appreciate mostly wellbeing of their nearest social environment and all the people in general, as well as the autonomy of thought and action. Among the priorities, there are values of security (referring to the safety and stability of the country and self), and stimulation (novelty, change, excitement in life), while power (defined as dominance over people and material resources) was estimated as the least important. Class teachers rate higher stimulation, tradition, universalism and benevolence, comparing to subject teachers. Regression analysis indicates that self-direction ( $\beta=.103$ ,  $t=1.931$ ,  $sig<.05$ ) and benevolence ( $\beta=.228$ ,  $t=3.942$ ,  $sig<.01$ ) predict positively, and power predicts negatively ( $\beta=-.187$ ,  $t=-3.337$ ,  $sig<.01$ ) satisfaction with the career choice. According to the obtained results, stronger devotion

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<sup>12</sup> The work was funded by Ministry of Education, Science and Technological Development, through the projects Improving the quality and accessibility of education in modernization processes in Serbia and From encouraging initiative, cooperation and creativity in education to new roles and identities in society (project no 47008 and 179034)

to the students, more prominent interest for their wellbeing, and higher job satisfaction during career can be expected from the class teachers. The obtained results can be useful for professional orientation and counseling purposes.

*Key words:* value priorities, class and subject teachers, teaching career choice satisfaction, Serbia

## **SOCIAL PSYCHOLOGY**

### **THE EFFECTS OF RIGHT-WING AUTHORITARIANISM ON NEWS SELECTION**

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The paper deals with the belief that people choose the news that fit their political views. This subject was researched by determining how Right-Wing Authoritarianism (RWA) affects news selection. RWA was examined using a short version of Altermeyer's scale constructed by Ingrid Zakrisson and translated to Serbian. The sample consisted of 110 people from different population groups. The questionnaire was presented through Google forms. The news had been designed for this purpose in the form of e-news clippings consisting of a photograph and text. Using photo manipulation, one photograph was altered in such a way as to make two different pictures one in which the characters looked grim, and the other showing them smiling, in the same situation. There were three people in the photos: Hashim Thaçi, the president of Kosovo, Federica Mogherini, high representative of the EU for foreign affairs and security policy, and Aleksandar Vučić, the president of Serbia. The texts were about the Belgrade-Pristina dialogue, one written in a positive tone, reporting about the two countries reaching an agreement and suggesting that the ongoing tensions would end, and the other dominated by a negative tone, reporting about the failure to find a solution, leaving uncertain future. The participants were requested to select only one news clipping which they believed was true. In addition, the questionnaire, consisting of five items and especially designed for this purpose, investigated the participants' attitude towards the work of the Government. No statistically significant effects of RWA on news selection were found, even when the clippings were sorted according to the content of the pictures and texts. The results do not confirm other findings and the dominant belief that people filter news according to their political preferences. The conclusion is that RWA does not affect news choice or the visual representation of authority.

*Key words:* Right-Wing Authoritarianism, e-news clippings, news preferences, Belgrade-Pristina dialogue



## **BIG FIVE AND PREJUDICE: THE MEDIATING ROLE OF RIGHT-WING AUTHORITARIANISM AND SOCIAL DOMINANCE**

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Dual-process motivational approach postulates that the influence of behavioural trait dispositions on prejudice is mediated by Social dominance orientation (SDO) and Right-wing authoritarianism (RWA) as dimensions of social attitudes. The aim of this research was to test dual-process motivational model of prejudice towards dangerous, subordinate and dissident groups. The sample consisted of 346 high school students (168 female) from four high schools in Republika Srpska. Personality traits were examined through the BFI personality questionnaire (Srivastava, 1999), RWA by Authoritarianism scale (Todosijević, 2013), SDO by Social domination scale (Todosijević, 2013), while prejudice was assessed with affective thermometer. Results of the full model mediational analysis showed significant total effect of Openness to experience ( $\beta=-0.11$ ,  $p=.033$ ) and Agreeableness ( $\beta=-0.21$ ,  $p<.001$ ) on prejudice towards dangerous groups, Openness to experience ( $\beta=0.13$ ,  $p=.022$ ) and Agreeableness ( $\beta=0.16$ ,  $p=.004$ ) towards subordinate groups, while prejudice towards dissident groups was predicted by Openness to experience ( $\beta=0.23$ ,  $p<.001$ ) and Extraversion ( $\beta=-0.16$ ,  $p=.005$ ). Results showed that the total effect of Agreeableness was partially mediated by SDO for prejudice towards dangerous groups ( $\beta=-0.06$ ,  $p<.001$ ), subordinate groups ( $\beta=0.04$ ,  $p=.015$ ), as well as dissident groups ( $\beta=0.05$ ,  $p=.003$ ). Further, RWA was a partial mediator for the total effect of Extraversion on the prejudice towards dissident groups ( $\beta=-0.04$ ,  $p=.049$ ). Relation between Agreeableness and prejudice was partially mediated by SDO as predicted by the model and confirmed in other studies. On the other hand, the relation between Openness to experience and Conscientiousness, and prejudice was not mediated by RWA, contrary to model prediction and previous research. This may be the result of the fact that some individual facets of Openness and Conscientiousness do not reflect the conformity personality trait that influences RWA. Consequently, relation of individual facets of Openness and Conscientiousness, RWA and prejudice should be explored to further develop the model and confirm it cross-culturally.

*Keywords:* dual-process motivational model, right-wing authoritarianism, social domination, Big five, prejudice

## **POLITICALLY RADICAL ORGANIZATIONS FROM SERBIA AND MILITANT EXTREMISM – CONTENT ANALYSIS OF WEBSITES<sup>13</sup>**

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In the study (Saucier et al., 2009) that inspired our research, written materials related to numerous militant extremist groups around the world were analyzed, and a list of 16 themes common to the militant extremists mindset was created. In this content analysis, we analyzed the content of the websites of politically radical organizations from Serbia by using 16 themes listed in the preceding study as categories for analysis. Texts published on the websites of 3 right-wing and 2 left-wing organizations in the period from September 2013 to September 2015 were analyzed. Paragraph was the unit of analysis, and a total of 1475 paragraphs were included in the analysis. Two independent coders estimated whether any of the 16 militant-extremist themes were present in each of the paragraphs, and the inter-coder reliability was 98.17%. The results showed that 86.68% of the analyzed paragraphs did not contain any of those themes, and that the most common were themes such as „Civil government as illegitimate“, „Perception that ‘the ability of our group to reach its rightful position is being tragically obstructed’” and „Glorifying the past, in reference to one’s group“. Themes that could be characterized as “particularly violent” (e.g. “Duty and obligation to kill, or to make offensive war”) were not present at all or were present in very few paragraphs. The results were interpreted as an indicator that people are approaching to these groups due to dissatisfaction with the current socio-political situation, while the violent “reach” of these groups is not a militant extremism. Individual groups and themes were also analyzed separately.

*Key words:* militant extremism, politically radical organizations, patterns of thinking, socio-political situation

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## **NATIONAL IDENTITY AND RELIGIOSITY AS PREDICTORS OF READINESS TO RECONCILIATION AMONG SERBS AND ALBANIANS<sup>14</sup>**

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Šiber defines national identity as a special set of attitudes towards own people, through the adoption of the culture, customs and values of own nation. The aim of this research was to examine the level of national identity and religiosity among Serbs and Albanians in Kosovo and Metohija, as well as to examine the possibility of predicting the degree of readiness for reconciliation between Serbs and Albanians based on these two variables and some socio-demographic data (gender, age, level of education). The survey was conducted in a 233 members of Serb ethnicity and 299 members of Albanian ethnicity from the Kosovo and Metohija. We administered NAIT scale of national identity, Scale of religiosity - part of the scale of value orientations and inventory which explores the attitudes toward reconciliation. The results showed that members of Serbian and Albanian nationality show a high level of national identity (MS<sub>N</sub> = 97.5; MA<sub>N</sub> = 99.62) and a high level of religiosity (MS<sub>N</sub> = 20.16; MA<sub>N</sub> = 19.89). Members of both nations showed a moderate attitudes toward reconciliation (MS<sub>N</sub> = 25,26; MA<sub>N</sub> = 32,55). The results of multiple regression analysis showed that, based on the socio-demographic data, it was possible to predict 2% of readiness to reconciliation ( $F(3) = 3,426, p < .05$ ) where level of education ( $\beta = 0.12, p < .01$ ) was the only predictor that significantly contributes to readiness to reconciliation. In final model, it is possible to predict 6% of variance of readiness for reconciliation between Albanians and Serbs ( $F(2) = 14,08, p < .00$ ); whereby religiosity had negative contribution to reconciliation ( $\beta = - 0.23, p < .01$ ), and education remained significant positive predictor ( $\beta = 0.10, p < .05$ ).

*Key words:* national identity, religiosity, preparedness for reconciliation

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## **LACK OF CONTROL AND CONSPIRACY BELIEFS - IS THERE A CAUSAL LINK?**

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Conspiracy theory beliefs receive increasing attention in the academic literature, with scholars aiming to find the psychological motivations for these beliefs. One prominent explanation in both the academic and popular science literatures is that conspiracy beliefs represent a means of regaining a feeling of control over the world. However, the experimental evidence for a causal link between feelings of control and conspiracy thinking is inconclusive, with some studies supporting the control hypothesis, and others disconfirming it. We discuss reasons why conspiracy theory beliefs are not likely to be related in any straightforward way to perceived control, interrogating existing findings and presenting new data that call the relation into question. In Study 1, undergraduate students' (N = 67) perceived control was threatened when they tried to solve an unsolvable problem. In Study 2 (N = 65), control was manipulated in a lottery game in which participants appeared to exert control (or not) over the outcome. In both studies, conspiracy beliefs were measured with the Conspiracy Theory Ideation subscale of the Conspiracy Mentality Scale (Stojanov & Halberstadt, in press). There was no difference in conspiracy beliefs between the control and experimental group (Study 1:  $t(61) = 0.498$ ,  $p = 0.618$ ,  $d = 0.13$ ; Study 2:  $t(51) = -0.44$ ,  $p = 0.66$ ,  $d = 0.12$ ), The results expand the literature on conspiracy beliefs and compensatory control and indicate that conspiracy beliefs are not always suitable for compensatory control purposes.

*Key words:* perceived control, conspiracy theories, conspiracy beliefs, compensatory control

## **NUDGING SOCIETY. LIBERTARIAN PATERNALISM AND ITS PRACTICES.**

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Some years ago, the philosopher of Law Cass Sunstein and the Nobel Prize for Economy Richard Thaler published a book with a very curious title, *Nudge*. In that book, they presented a new political and economical perspective useful for social institutions to activate practices of good citizenship, which help people to take a right decision. They defined that new approach, Libertarian Paternalism. At a first and superficial look, it could seem to be a very ambiguous definition and, strictly speaking, it sounds as a sort of oxymoron. In which way, in fact, can we harmonize the natural tendency to autonomy proper to every libertarian tradition with the typical attitude to control of a paternalistic policy? The main idea of this paper is to present that approach analyzing it both under a psychological and political viewpoint. Many times, during their life, people take decisions and many times that deliberative actions are not grounded to a rational calculus, but, on the contrary, they are conditioned by contrasting information, the complexity of daily life and inertia. In other terms, wrong decisions, good intentions and the illusion of a rational inner nature constitute a dangerous but very common mixture, which influence all the dimensions of public and private life. Under this profile, libertarian paternalism, moving by the approach of social psychology and behavioural economics, try to introduce a new way of evaluation of choices and opportunities and ascribe a new role to institutions. In a very original and unusual way, Libertarian Paternalism uses the traps of irrationality to solve many social dilemmas (Health, Wealth and so on) and to foster people to find their road to happiness.

*Key words:* Social Psychology, Behavioural economics, Irrationality, Paternalism, Libertarianism, Social practices

## **THE ROOTS OF DESTRUCTIVE FORCE**

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To create a strategy of preventing and dealing with destructive behavior it is important to establish its causes. We need to know how much it comes from the inside of an individual and how much it is rooted outside – in the structure of our society and other environmental factors. This is the theoretical overview of several basic paradigms and fields of research regarding aggression and related phenomena which may result in destructive mind set and behavior. Psychoanalytic, cognitive, behavioral, existentialistic, humanistic and anthropological approaches are discussed. In addition, some unanswered questions of these paradigms are presented along with few more inquiries. The neuroscientific approach is becoming more and more useful in understanding both natural and deviant processes. Therefore, its basis regarding the psychopathic tendencies, attachment patterns and other defensive behavior which may lead to destruction are also presented. Psychopathic tendencies are discussed from a psychological and neurological standpoint. Antisocial tendencies in a relation to distorted way of perceiving the world based on insecure attachment patterns and its neurobiological background are offering another relevant perspective. Finally, affective neuroscience and the polyvagal theory are contributing to a better understanding of the processes behind potentially destructive behavior by explaining defensive but harmful social behavior.

*Key words:* aggression, destructive, psychopathic, antisocial, defensive behavior

## PSYCHOLOGY OF PERSONALITY

### EMPATHY AND PRO-SOCIAL UNDERSTANDING IN KINDERGARTEN CHILDREN

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Achieving understanding of emotions of the others and of oneself is considered a milestone in early socio-emotional development. Basic empathic capacity is important for development of pro-social acts of sharing, caring, helping and cooperating. The present study is aimed at assessing empathy and pro-social behavior in preschool children using both adults' ratings and children's performance. A sample of 134 kindergarten children (two age groups: 4-5 years and 6-7 years) participated in different assessment procedures. Social competence (including empathy) in 4-5 year old children (42 girls, 35 boys) was assessed with The Pro-social Orientation Story-completion Task (Ornaghi et al., 2015). This projective method is piloted for the first time in Bulgarian language. The Bulgarian version showed good psychometric properties and the inter-rater reliability was high (Krippendorff's  $\alpha=.86$ ). Children aged 6-7 years (30 girls, 27 boys) completed the Eyes Test-Child (Baron-Cohen et al., 2001, 2011; Bulgarian adaptation Hancheva & Rachev, 2018). In both groups children's social competence was also assessed by teachers, and in some cases by parents (N=85). Children's performance in 4-5 year-old age group was moderately correlated with teachers' ratings of social competence and mothers' ratings of pro-social behavior. In the elder group, correlations of teachers' ratings, mothers' ratings, and children's results on the Eyes Test-Child were surprisingly low. A moderate correlation of fathers' ratings and children's performance on cognitive empathy was found. Teachers' bias to rate girls higher in empathy, social competence, and pro-social behavior was discussed. The study thus addresses important challenges of reliable assessment of empathy and social competence in kindergarten children.

*Key words:* empathy, pro-social understanding, social competence, performance test, projective method, kindergarten children

## **PERSONALITY TRAITS AND AGE IDENTITY IN MIDDLE ADULTHOOD**

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Linking early and late adulthood, midlife is a crucial developmental period of biological, personal, intergenerational and social challenges. The way in which the opposite tendencies of growth and decline are balanced and integrated in one's age identity is seen as an important biopsychological marker of adult development. The youthful subjective age bias - perceiving oneself younger than current age, is considered to be a protective factor in aging process. The purpose of this study is to investigate the direction of age identity's bias and the extent to which the Big Five personality factors can predict the overall subjective age. A total of 200 respondents (50 % men and 50 % women), aged 40 to 65 years answered questions about their subjective age (Kastenbaum, Derbin, Sabatini, Artt, 1972), desired age, the Big Five personality traits (Mini IPIP, Karabeliova, Petrov, Milanov, Ivanova, 2016), as well as different demographic characteristics. The results showed that their overall subjective age scores revealed younger self-perceptions ( $M=2.47$ ;  $SD=0.81$ ) and their desired age was on average 17.58 years ( $SD=11.65$ ) younger than their chronological age. Multiple regression analysis ( $F=18.78$ ,  $p<0.001$ ;  $R=0.407$ ,  $R^2=0.17$ ) identified both the traits of Extraversion ( $\beta=-0.56$ ;  $p<0.001$ ) and Openness to experiences ( $\beta=-0.44$ ;  $p<0.001$ ) as significant predictors, negatively associated with age identity. These relationships are consistent with previous studies and may be regarded as positive markers of psychosocial adaptation to developmental context of midlife.

*Key words:* subjective age, personality traits, desired age, middle adulthood



## **ASSOCIATIONS OF PERSONALITY TRAITS WITH EATING BEHAVIORS IN ADULTS**

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With the increasing epidemic of obesity across the world, recent research has begun to focus on genetically determined eating behaviors and their interaction with the "obesogenic" environment. There is a growing need to further understand those eating patterns in order to develop early-life interventions and prevention techniques for weight-related health problems. While there is plenty of research on personality traits and eating disorders, a lot less is known about the links between personality traits and appetitive characteristics. The aim of this study is to examine the associations of the Big Five personality factors with eating behaviors in 321 Bulgarian adults (aged  $M=36.29$ ,  $SD=11.22$ , 82.6% of women). The data was analyzed by the methods of descriptive statistics, correlation analysis and multiple regression analysis. Correlation analysis showed that Food Fussiness was negatively correlated with Openness ( $r=-.19$ ,  $p<.00$ ), Agreeableness ( $r=-.22$ ,  $p<.00$ ) and Extraversion ( $r=-.30$ ,  $p<.00$ ). Neuroticism was associated with Emotional Overeating ( $r=.17$ ,  $p<.001$ ) and Food Responsiveness ( $r=.28$ ,  $p<.00$ ). Extraversion was negative predictor of Food Fussiness ( $\beta=-.30$ ,  $p=.00$ ) and positive predictor of Food Responsiveness ( $\beta=.12$ ,  $p=.04$ ). Neuroticism was a positive predictor of Emotional Overeating ( $\beta=.17$ ,  $p=.00$ ) and Food Responsiveness ( $\beta=.31$ ,  $p=.00$ ). These findings suggest that neuroticism and extroversion are important variables that could further explain why some people are more likely to overeat in an environment with easily accessible palatable foods.

*Keywords:* eating behavior, appetitive traits, personality traits, psychology of eating, obesity

## **PSYCHOLOGICAL PAST, PRESENT AND FUTURE IN RELATION TO FUTURE CONSIDERATIONS AND SELF- ESTEEM**

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The concept of time is viewed as a basic dimension of human functioning that influences decisions, judgments and actions. Our Self is constructed by the way we align experiences along our psychological time line (Shmotkin & Eyal, 2003). The aim of the study is to establish the relations between time perspectives according to Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999) and several self-related measures – Preference for Consistency Scale (Cialdini et al., 1995), Consideration of Future Consequences Scale (Strathman et al., 1994) and Rosenberg Self-Esteem Scale (Rosenberg, 1965), and to determine the effect of demographic variables on temporal profiles. The sample consisted of 543 participants (60.6% females; age range: 18-70 years;  $M=26.46$ ;  $SD=11.27$ ). Results showed Past-Negative orientation to be negatively correlated with Self-Esteem ( $r=-.52$ ;  $p<.01$ ). Future factor is associated with Preference for Consistency ( $r=.37$ ;  $p<.01$ ). Present-Fatalistic has negative correlations with Consideration of Future Consequences ( $r=-.51$ ;  $p<.01$ ). Significant demographic differences in time perspectives were proven through One-way ANOVA. In relation to gender the same tendency emerged in three of the dimensions. Women scored higher than men regarding Present-Hedonistic ( $F(1,540) = 13.45$ ;  $p<.001$ ), Past-Positive ( $F(1,540) = 4.95$ ,  $p<.05$ ), and Present-Fatalistic ( $F(1,540) = 10.73$ ;  $p<.001$ ). According to age, the first group of participants up to 21 years showed higher scores in relation to Present-Hedonistic orientation compared to the group aged over 21 years ( $F(1,540) = 12.48$ ;  $p<.001$ ). Respondents with higher educational degree scored above those with secondary education according to Future ( $F(1,526) = 9.36$ ;  $p<.05$ ) and Present-Fatalistic orientation ( $F(1,526) = 4.16$ ;  $p<.05$ ). Findings of the study contribute to a growing body of research providing evidence about the predictive effect of individual differences in time perspective to diverse psychological and behavioral outcomes.

*Keywords::* Time Perspective, Zimbardo Time Perspective Inventory, Preference for Consistency, Consideration of Future Consequences, Self-Esteem

## **HEDONIC AND EUDAIMONIC MOTIVES FOR WATCHING FILMS IN REGARD TO SOME SOCIO-DEMOGRAPHIC VARIABLES AND PREFERENCES FOR FILM GENRES**

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Motives for watching films can be various, but we can divide them in two categories: hedonic and eudaimonic motives. The aim of this research is to verify correlation and differences between these two types of motivation and different variables (age, gender, professional qualifications and preferences for film genres). This survey was conducted on a sample consisting of 250 students and employed persons from 20 to 65 years of age. The two questionnaires used in this study were the scale of hedonic and eudaimonic motivation (Pašić, Mrđa, 2018) and the scale of film genre preferences which is constructed for the purpose of this research. Results of MANOVA indicate that there is statistically significant difference in hedonic motivation in regard to age ( $F = 4.444$ ;  $p < .05$ ), eudaimonic motivation in regard to gender ( $F = 5.607$ ;  $p < .05$ ), as well as professional qualifications ( $F = 2.656$ ;  $p < .05$ ). On the other hand, there is statistically significant correlation between higher scores on the scale of hedonic motivation and those with higher preferences for watching drama ( $r = .138$ ;  $p < .01$ ), as well as those with higher preferences for watching comedy ( $r = .435$ ;  $p < .01$ ). Statistically significant correlation was also found between higher results on the eudaimonic motivation scale and respondents who prefer drama ( $r = .255$ ;  $p < .01$ ), science fiction (SF) films ( $r = .185$ ;  $p < .01$ ), comedy ( $r = .138$ ;  $p < .05$ ) and romance ( $r = .245$ ;  $p < .05$ ). Comparing the results of this research with the results of available research from other speaking areas, it can be seen that there is difference in some segments, which can be explained by specific characteristics of our sample's culture and specific scale which has been adapted for our speaking area.

*Key words:* hedonic motivation, eudaimonic motivation, scale of film genre preferences, age, gender, professional qualifications

## **ROGERS' THE PERSON-CENTERED APPROACH: THE KEY CONTRIBUTIONS TO APPLIED PSYCHOLOGY**

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Carl Rogers (1902-1987) was one of the leading humanistic psychologists with a strong phenomenological emphasis who provided some very significant theoretical and practical contributions to contemporary psychology. In his prolific scientific and professional work, Rogers developed original approach to personality, psychotherapy and interpersonal relationships – the person-centered approach, known also as the nondirective or client-centered approach. In short, this psychological approach is based on the positive or optimistic view of human nature, on the notion of human motivation and personality that emphasized personal power and personal growth and fulfillment or „the actualizing tendency“, as well as on his influential concept of therapy and counseling as a helping relationship in which the focus is on the relating, listening and understanding of subjective or phenomenological experiences of the person (the client). The main purpose of this paper is to consider and to point to the key and widely accepted practical contributions of this general approach to the various fields of applied psychology and to emphasize its continuing importance and, direct or indirect, lasting influence at the present time. In this endeavor, a special attention is paid to Rogers' demystifying psychotherapy and therapeutic relationship, to his model of counseling as psychotherapy, as well as to his insistence on the primary importance of the therapist's or counselor's personal qualities and on the therapeutic relationship as a principal healing agent in therapy and counseling. The implications of the Rogerian nondirective or person-centered approach in other areas of applied psychology such as education, creativity, family and marital relationships, communication and human relations, are also considered.

*Ključne reči:* Carl Rogers, person-centered approach, psychotherapy, psychological counseling, applied psychology

## PSYCHOLOGY OF INTERNET

### PERSONALITY AND EMOTION REGULATION IN DECISION-MAKING ASSISTED BY VIRTUAL SOCIAL NETWORKS

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Making decisions can be greatly facilitated by the abundant information available in Internet, at the same time, the information ubiquity complicates the process. To resolve the conflict, people often turn for assistance to their virtual social networks and ask others to share experience and judgment. Although this is a widespread practice, little is known of its contents and dynamics. In this wain, we conducted a study on the role personality characteristics and emotional regulation play in the decision-making for personal matters done with the help of friends from the virtual social networks. Personality was assessed with the Big five model and the Mini-IPIP (Donnellan et al., 2006). To study the emotion regulation, we used Gross and John model and Berkeley Expressivity Questionnaire (Gross & John, 1995,1997). The Berkeley Expressivity Questionnaire was standardized for the Bulgarian population by Jenya Millusheva (Millusheva, Zinovieva, & Gaidajieva, 2018). For the shared decision-making we employed the scale by Kiryakov (2015), which assesses tendency to ask friends from on-line social media for opinion, suggestions and previous experience when taking personal decisions. The total sample consisted of 280 participants: women (63,2%) and men (36,8%), most aged 21-30 (71,4%). The empirical study revealed that people with high neuroticism are more prone to let the social network friends influence their decision-making and neuroticism is the only significant predictor of this type of decision-making. The emotion regulation, however, seems to have a negligible role in the process. The results can be used for training purposes for professional and personal matters.

*Key words:* personality, decision-making, emotion regulation, virtual social networks

## **PERSONALITY AND SELF-PRESENTATION STYLE IN SOCIAL MEDIA**

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Social media are so pervasive in peoples' lives that they now form a world in their own. They imply expectations and turn them into imperatives. One such imperative is trying to establish and promote oneself as a brand in the social media. For many, this turns into a play of uniqueness and continuous quest for likes. Psychology has produced a large body of research into these new phenomena, yet, the focus on the individuals and their personal styles is in its infancy. In the present paper we investigate the self-presentation style as a function of a number of personality traits. To this end, we conducted 173 interviews, in which respondents described their own approach to self-presentation. They described what they did, how they made choices, how they usually responded to other peoples' comments to their self-presentation and how they reacted to typical others' presentations. Then, we asked our respondents to fill out a questionnaire, which assesses personality traits of two well-known models: Big five (Mini-IPIP - Donnellan, Oswald, Baird, & Lucas, 2006) and the Dark triad (Short Dark Triad – Jones & Paulhus, 2014). For each personality trait we divided the sample of questionnaire answers in three groups: high, middle, and low level for each personality trait using the mean and plus/minus one standard deviation as criterion. Finally, we compared the interviews of the people from the two extreme groups searching for characteristic patterns of self-presentation. Results show that personal styles in self-presentation in social media can be traced and they are connected to personality characteristics. For example, high extroverts easily reveal on-line personal events, opinions, preferences, even personal data and believe they can overcome negative consequences; introverts show only their interests and connect with others on that basis; narcissists make large number of posts to keep others' attention focused on their behavior.

*Key words:* personality, self-presentation style, self-presentation, social media, virtual social networks, big five, dark triad

## **PEER ATTACHMENT AND FEAR OF MISSING OUT AS PREDICTORS OF FREQUENCY OF SOCIAL NETWORKING SITES USE**

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Social networking sites (SNSs) are a component of everyday life of innumerable adolescents and are considered important channels for seeking out and maintaining social connections. In addition to the more significant positive effects which social networks can have, there are certain fears regarding their intensive use. SNSs promote the production of content which attracts attention, which puts pressure on many users to constantly look for experiences worth sharing with others, with their friends and partners. This kind of use of SNSs has led to the definition of a relatively new phenomenon – the fear of missing out (FoMO), which is determined as a pervasive apprehension that others might be having rewarding experiences from which one is absent. The goal of this research is to examine the possibility of prediction between attachment to friends, fear of missing out, and the frequency of SNSs use on a sample of adolescents (N=564, 212 male, 346 female; M age 18,09). The following instruments were used: the Inventory of peer attachment from IPPA-R (Gullone & Robinson, 2005); and FoMO scale (Przybylski, Murayama, DeHaan, & Gladwell, 2013); and the frequency of SNSs use adapted from MTUAS (Rosen, Whaling, Carrier, Cheever & Rökkum, 2013). A multiple regression indicated that the model is statistically significant ( $F=(4,48)32.55$ ;  $p=.000$ ), while the predictors explain approximately 20 percent of the variance ( $R^2=.21$ ; adj.  $R^2=.20$ ). Although all four variables are statistically significant predictors, the greatest contribution was made by the IPPA-R subscale Communication with friends ( $St\beta = .40$ ), and not FoMO ( $St\beta = .29$ ). The subscales Trust in friends and Alienation from friends have a smaller and negative contribution to frequency of SNSs use ( $St\beta = -.22$ , that is  $-.14$ ). Predicting the frequency of SNSs use is not straightforward, as shown by the results of this study. Communication is the most significant predictor, but the use of SNS is also driven by FoMO. Adolescents who have more trust in friends will be less likely to use SNS, as well as those who feel alienated, which is, at first glance, a contradictory result. The findings of this research can be used to plan educational support programs that target SNSs use by adolescents.

*Keywords:* social networking sites, peer attachment, communication with friends, fear of missing out, adolescents

## ATTITUDES TOWARD CYBERBULLYING AND CYBERAGGRESSIVE BEHAVIOR AMONG ADOLESCENTS

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Given the frequency and consequences of cyberbullying, it is important to examine the possible predictors of this phenomenon. Our study investigates cyberbullying behavior as a function of several different attitudes that people may have toward cyberaggression. In order to explore our assumption that attitudes could be a predictor of cyberbullying acts, we conducted a survey in 8 Bulgarian schools with a sample of 847 high-school students (358 boys and 489 girls), ranged between 13 and 19 years of age ( $m=15.93$ ;  $SD= 1.38$ ). The participants were asked to anonymously fill out three self-report measurements – *Attitudes toward Cyberbullying Scale* (Barlett & Gentile, 2012), *Cyberbullying Questionnaire (CBQ)* (Calvete et al., 2010) and *Cyberaggression and cybervictimization scale* (Ybarra et al., 2007). The Bulgarian translation of all three scales was accomplished by P. Kalchev and S. Koleva, who also formulated new items for the first one. *Attitudes toward Cyberbullying Scale* considers six dimensions: *positive attitudes toward cyberbullying, strength differential, anonymity, reinforcement, indirectness and public visibility*. The other two instruments together measure three categories of cyberaggressive behavior: *cyberaggression, cyberbullying and cybervictimization*. To examine the effect that the six proposed attitudes might have on the three behaviors mentioned above, a multiple regression analysis was ran. The results obtained from it suggest that three of the six attitudes (*positive attitudes toward cyberbullying, anonymity, reinforcement*) are significant predictors of both *cyberaggression* and *cyberbullying* ( $\beta$  ranging from 0.126 to 0.300), and only *public visibility* significantly but poorly effects *cybervictimization* ( $\beta=-0.099$ ). A part of the interpretation of our results concerns the status of our participants – such of a person who is not a bully, nor has been victimized, a bully, a victim or a combination of both. In this survey, we have used the attitudes towards cyberbullying as predictors but we suggest they could be used as mediators in future researches.

*Key words:* attitudes toward cyberbullying, cyberaggression, cyber-victimization



## **SITUATIONAL PREVENTION OF INTERNET CHILD SEXUAL ABUSE**

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According to the definition, situational prevention means to identify, modify and control factors that encourage criminal behaviour. This approach gained popularity because of its wide range of applicability to various criminal situations in terms of type of criminal act and the context of perpetration. Researchers have already recognized potential of the situational approach in preventing child sexual abuse. In theory, situational prevention is more efficient than other prevention models because it's focused on the situation which includes various factors from motivation of the perpetrator to physical environment factors.

The aim of this work is reviewing situational techniques that are applying to prevent internet child sexual abuse, with special attention to Serbian context. Current research shows that internet child sexual abuser seem to have more stable life factors and engage in less risky behaviour and criminal activity when compared with contact offenders. It is also more likely that contact offenders will transition to committing child pornography offenses than the opposite. Apparently, internet child sexual abusers are more situational and opportunistic than predatory types, so considering implementing situational approach seems appropriate. Some situational prevention techniques involving the increasing efforts are: target hardening (e.g., support of the vulnerable groups of children), access control (e.g., predicting the rules and procedures for website visitors), deflecting potential perpetrators (recommending school teachers not to communicate with students by their private e-mails or phone numbers). Formal surveillance (e.g. tracking the perpetrator movement via internet or credit card) should increase the risk. Support programs for potential perpetrators could help in controlling prompts. Reducing permissibility provides techniques that clarify responsibility, personalize victims, setting rule and clarify consequences (e.g. public education campaign).

Keywords: internet, child sexual abuse, situational prevention

## **ORGANIZATIONAL PSYCHOLOGY**

### **EMPLOYEES SATISFACTION BOOSTERS: THE ROLE OF SOCIAL BENEFITS**

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This research paper is focused on social benefits as a crucial element for increasing employees' satisfaction through the HRM systems. 352 professionals working in Bulgarian and international companies participated in the survey. The methodology used is separated in two. Employees' satisfaction is measured by a questionnaire developed for Bulgarian population by prof. Snezhana Ilieva (Ilieva, 2006), covering different aspects of satisfaction management, working environment, remuneration, etc. Social benefits are explored by a 3-item scale, part of a bigger instrument evaluating HRM practices (Ilieva, 2006; Ilieva, 2009; Alexandrova, 2017). Some additional questions are also added for identifying the compensation structure currently in place, the preferred type of social benefits and the employees' attitudes towards such type of policies within the organizations. The results re-confirm the theoretical and practical evidence that social benefits are very solid predictor of employees' satisfaction, explaining 32% of the variations ( $p < 0,000$ ,  $\hat{I}^2 = 3,02$ ). In 76,3% of the participants' answers remuneration package includes additional part (social benefits and/or variable part). However, only 49% of the employees are happy with what they get. Even when measuring their satisfaction, remuneration has the lowest mean value of  $M = 3,46$ . Other than that, the most desired social benefits are additional health care, food vouchers, additional annual paid vacation days, home office days, cards for public transportation, sports cards, etc. In many of the Bulgarian companies the majority of those are present. The practical aspects of this research paper show that the key to employees' effectiveness and high satisfaction rates is the right combination and way of communication of those benefits. This is also part of the recommendations for the future improvement of HRM strategy.

*Key words:* social benefits, employees' satisfaction, HRM strategy

## **JOB LOSS AS A FACTOR OF CHANGES IN THE EXPERIENCE OF A SELF-CONCEPT**

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Self-concept is a psychological structure that includes perception, thoughts and feelings about one's own personality, and is forming under the influence of one's own experience and feedback that we receive from the social environment. Performance at work and professional careers have a significant impact on self-concept, which is confirmed by the facts from the literature that people who do not have a job or lost it, as a rule, have a negative image of themselves. Starting from this, the main aim of this research was to answer the question: What is the experience of self-concept among our workers who have lost their jobs? The survey was conducted on a sample of 107 respondents who lost their jobs and are on the records of National Employment Service in Serbia. Two instruments were used in the research: Self-concept questionnaire (Opačić, 1995) and Questionnaire designed for the purpose of this research for the registration of basic socio-demographic variables - gender, age, previous work experience, length of unemployment, degree of education and marital status. Research results show that the loss of job has an effect on some aspects of the image of oneself, since significant deviations from the expected average values have been obtained in the following dimensions: Global self-esteem ( $F=23,73$ ;  $p=0.00$ ), Misanthropy ( $F=6,45$ ;  $p=0.01$ ), Emotionality ( $F=7,17$ ;  $p=0.08$ ), Locus control ( $F=16,75$ ;  $p=0.00$ ) and Morality ( $F=5,37$ ;  $p<=0.02$ ). The obtained results also show that a loss of job differently reflects on the subjective self-concept experience in different categories of respondents, so that the changes in the negative sense are more pronounced among: older respondents, those who wait longer for work, who have a lower level of education and those with longer working experience. For a safer conclusion that loss of work contributes to the deterioration of the self-concept would require longitudinal monitoring, or a comparison of a group of unemployed and employed workers, but it is evident that some categories of unemployed have a negative image of themselves, which is probably the result of the interaction of their socio-demographic characteristics and situation loss of work and professional status.

*Key words:* self-concept, job loss, workers, unemployment

## **ATTITUDES TOWARDS INNOVATIONS AMONG MANAGERS, ENTREPRENEURS AND EMPLOYEES**

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Modern business models imply innovative problem-solving. Orientation towards the "new" is the contemporary tool for creating, managing and expanding a business structure. Personal skills and the cognitive style of managers for building, implementing and managing innovations are key to the success of the change. This requires innovation to be seen as a key personality feature, as willingness/readiness to change. The continuum covers innovation from the lowest ("rigidity") to the highest levels ("innovativeness"). Our study outlined differences in the perceived innovation between managers and employees of non-military positions, defining innovation as a normally distributed personal construct. An exploratory factor analysis with fixed two factors ("innovativeness" and "rigidity") was performed on the innovation self-assessment scale, designed by Hurt, Joseph and Cook's (1997). The original scale measures the innovativeness as a personal desire for change, but also as the time needed for innovation adoption. The study included 968 participants, divided into two groups – managers (N=365) and employees (N=523), and 80 unemployed persons (not included in analyzes). The results indicated a statistically significant differences between managers and employees on both the innovativeness (managers:  $M = 48.96$ ,  $SD = 6.51$ ; employees:  $M = 45.60$ ,  $SD = 7.53$ ) at the  $p < 0.05$  level ( $F(2, 965) = 21.64$ ,  $p < 0.001$ ), and rigidity scales (managers:  $M = 17.01$ ,  $SD = 5.29$ ; employees:  $M = 18.53$ ,  $SD = 6.00$ ) at the  $p < 0.05$  level ( $F(2, 965) = 11.57$ ,  $p < 0.001$ ), but there was no significant difference between managers who have their own business and managers in companies owned by others on either scale - Rigidity ( $t(363) = -1.60$ ,  $p = 0.11$ ), Innovativeness ( $t(363) = 0.95$ ,  $p = 0.34$ ). This requires a more in-depth study of innovativeness as an intrinsic trait of the managers, which is affected by different personal and contextual factors.

*Key words:* innovation, business, manager, employee, management

## **LEADERSHIP STYLES, SELF-EFFICACY, JOB SATISFACTION AND THE DARK TRIAD AS PREDICTORS OF PSYCHOPHYSICAL HEALTH IN THE WORK ORGANIZATIONS**

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It is known that a large number of outcome variables that are relevant for work organizations depend on personal characteristics (e.g. personality traits) and characteristics of work organization (e.g. organizational culture). The aim of this research is to determine to what extent personal characteristics (self-efficacy, perception of job satisfaction and dark triad traits) and characteristics of organization (leadership styles) predict psychophysical health of employees in public and private sector, as well as, interaction of personal and organizational factors. The sample contains 223 respondents (52.9% women, 56.5% employed in public sector) age from 19 to 65 ( $M=34.59$ ,  $SD=10.12$ ). The following instruments were used: Inventory of Leadership Styles (Litwin & Stringer, 1968), Generalized Self-Efficacy Scale (Schwarzer & Jerusalem, 1995), SD3-27 (Paulhus & Jones, 2014), An Index of Job Satisfaction (Brayfield & Rothe, 1951) and Scale of psychophysical health (Majstorović, 2011). The results of regression analysis indicate that set of predictor variables explain about 30% variance of psychophysical health ( $F(7,215)=12.89$ ,  $p<.001$ ,  $R^2=.296$ ). Mediation analysis was also conducted, the results indicate that there is statistically significant indirect effect of supportive leadership on relationship between self-efficacy and psychophysical health ( $b=-.069$ ,  $SE=.027$ ,  $90\%CI=[-.131,-.023]$ ) and on relationship between job satisfaction and psychophysical health ( $b=-.042$ ,  $SE=.018$ ,  $90\%CI=[-.082,-.012]$ ). The conclusion of this paper is that both personal characteristics and leadership characteristics have significant effect on psychophysical health, and that these two groups of factors do not function independently, but that certain forms of leadership can have “supportive” effect on relationship between personal characteristics and psychophysical health. In addition, the results have practical contribution, because leadership styles can be modified and in that way with the combination of personal characteristics, contribute to a better psychophysical state of employees, which also has positive consequences for the organization itself.

*Key words:* leadership styles, self-efficacy, job satisfaction, the Dark Triad, psychophysical health

## **IMPACT OF LEADERSHIP STYLES ON CHANGE STRATEGIES**

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Organizational change is a complex process and its success depends on leadership styles and change implementation strategies. The impact of leadership styles on strategies for implementation of organizational change and on evaluation of its success was examined. 223 respondents from two companies in a continuing process of organizational change and restructuring took part in the study. Leadership styles – transformational, transactional and liberal and the five change implementation strategies – power strategy, systematic change strategy, negotiation strategy, programmatic change and dialogue strategy, as an evaluation of organizational change success were measured. The results indicate a significant relationship between the transformational leadership style and change strategies. The systematic change, negotiation and programmatic change strategies are more often used and more successful than power strategy and dialogue strategy. Transformational style is strongly related to the choice of change management strategy. The results from the regression analysis show that the success of organizational change is predicted mainly by transformational leadership style, power strategy and negotiation strategy. Transactional leadership style, programmatic change strategy and dialogue strategy also predict the success of change but the liberal leadership and systematic change strategy are not predictors of the success of change. It can be concluded that successful management and implementation of organizational change is based on transformational and transactional leadership styles and consists of a combination of approaches and strategies including power, negotiation and dialogue. The success of change will increase if the studied organizations apply more systematic and programmatic strategies to change and invest in development of managerial competencies and skills of leading change.

*Keywords:* leadership styles, transformational leadership, organizational change, change strategies, success of organizational change process

**CLINICAL AND HEALTH PSYCHOLOGY****DIMENSIONAL MODEL TO PERSONALITY DISORDERS (DSM-5) AND SADISTIC TENDENCIES IN ADOLESCENCE**

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The alternative dimensional model of diagnosing personality disorders in DSM-5 (American Psychiatric Association, 2013) differentiates pathological personality traits, organized in five broad domains: Negative Affect, Detachment, Antagonism, Psychotism, and Disinhibition and so provides broader research-orientated understanding of personality pathology. The aim of this study is to examine if domains and facets in that dimensional model can predict everyday sadism in adolescence, understood as the subclinical form of excitement, and pleasure deriving from the control, domination, and suffering of others. To proceed that goal the Bulgarian versions of two self-report inventories, specially adapted for adolescence, were used: *Short 100 items Version of Personality Inventory for DSM-5* (PID-5-SF, Maples et al., 2015; Kalchev & Koleva, 2019) and *Assessment of Sadistic Personality* (ASP, Plouffe et al., 2017; Kalchev & Koleva, 2017), deriving two forms of sadism - *Pleasure seeking in pain inflicting* and *Subjugation*. In previous research psychometric properties of both instruments were investigated. Factor structures were analyzed and validated in independent samples with exploratory and confirmatory factor analyses. The median of PID-5-SF domains reliability (Cronbach's  $\alpha$ ) was 0,88, and for facets: 0,77; for ASP *Pleasure seeking in pain inflicting*  $\alpha=0,86$  and *Subjugation*  $\alpha=0,88$ . Having the evidence that both instruments are factor validated and reliable, current research is conducted in a sample of 403 adolescents, 189 boys, and 214 girls, age range 14 - 18 ( $M=16,03$ ;  $SD=1,25$ ). Data are analyzed on domain and facets level. Antagonism is identified as the main predictor of *Pleasure seeking in pain inflicting* ( $\beta=.72$ ,  $R^2=.43$ ,  $p<0.001$ ) and *Subjugation* ( $\beta=.57$ ,  $R^2=.57$ ,  $p<0.001$ ). Results obtained on facet level point as significant predictors for both sadistic tendencies ( $R^2=.50$  &  $R^2=.60$ ,  $p<0.001$ ) Callousness ( $\beta=.23$  to  $.32$ ), Deceitfulness ( $\beta=.22$  to  $.31$ ), Grandiosity ( $\beta=.13$  to  $.17$ ), and Intimacy Avoidance ( $\beta=-.08$  to  $-.09$ ). Present study indicates that assessment of sadistic tendencies, using the dimensional approach of DSM-5 is applicable in adolescence.

*Key words:* personality traits, everyday sadism, assessment, adolescence

## **FAIL AND THEY WILL KNOW: THE RELATION BETWEEN IMPOSTOR PHENOMENON AND FEAR OF FAILURE**

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This paper presents data from a pilot study, aiming to explore the relationship between impostor phenomenon and fear of failure in Bulgarian socio-cultural context. Impostor phenomenon depicts the painful cycle of feeling incompetent and unintelligent, the inability to internalize success, and the fear of being exposed as a fraud. Impostor feelings usually amplify when the individual faces a new task and their performance is appraised. One of the strategies to keep their "fake" image is to avoid situations in which they can fail and reveal their fraudulence. For the purposes of this study, the questionnaire battery included Clance Impostor Phenomenon Inventory (Clance, 1978) and Performance Failure Appraisal Inventory (PFAI; Conroy, 2003), being used for the first time in Bulgaria. The sample consisted of 80 participants (86,3% females; age range: 18-64 years,  $M = 37,08$ ,  $SD = 12,16$ ). Impostor phenomenon was significantly associated with general fear of failure ( $r=.618$ ;  $p<.05$ ) and all subscales of PFAI. People with higher impostor phenomenon scores are more concerned about devaluing their self-esteem ( $r=.609$ ,  $p<.05$ ) and experiencing shame or embarrassment when fail ( $r=.542$ ,  $p<.05$ ). There is a positive association between impostor phenomenon and fear of uncertain future ( $r=.487$ ,  $p<.05$ ). Surprisingly, there's a weak correlation between impostor phenomenon and fear of upsetting the important others ( $r=.258$ ,  $p<.01$ ) and moderate correlation to fear of losing the interest of others ( $r=.344$ ,  $p<.05$ ). The hypothesis that concerns about others' opinion and expectations nurture the impostor phenomenon feelings, or vice versa, is partially confirmed. The research implications contribute to the existing literature and may be used in counseling practice to help impostors reach the level of their optimal psychological functioning.

*Key words:* Impostor phenomenon, fear of failure, devaluing self-esteem, embarrassment, upsetting others



## **ANXIETY ABOUT AGING AND QUALITY OF LIFE IN EARLY AND MIDLIFE ADULTHOOD**

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The aim of this research was to examine anxiety about aging and quality of life in early and midlife adulthood. Quality of Life refers to individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. Anxiety about aging represents anticipation of negative physical, psychological and personal losses that may be experienced during the aging process. The research included 200 participants (100 men in early and midlife adulthood and 100 women in early and midlife adulthood). In order to obtain data we used instruments: WHOQOL-BREF (World Health Organisation Quality of Life-Bref) and Anxiety about Aging Scale (AAS, Lasher and Faulkender, 1993). Results showed that anxiety about aging is statistically significant ( $t=2.298$ ,  $p<.023$ ) higher in early adulthood ( $M=56.08$ ) compared to midlife adulthood ( $M=52.19$ ). Results also showed that there was no significant difference between these two groups on total quality of life. It was found that people in midlife adulthood had statistically significant ( $t=-2.485$ ,  $p<.014$ ) higher scores on dimension Physical health ( $M=24.47$ ) compared to those in early adulthood ( $M=23.27$ ). It has also been determined that there is statistically significant negative correlation between quality of life and anxiety about aging in midlife adulthood ( $r=-.402$ ,  $p<.001$ ). On the other hand, there was no significant correlation between quality of life and anxiety about aging in early adulthood. The results in this research were considered in the framework of Levinson's theory and previous research results. From the results we can conclude that people in early adulthood are more anxious about aging than those in midlife adulthood. The results also indicate that people in these two groups differ one from another only on dimension Physical health.

*Key words:* anxiety about aging, quality of life, early adulthood, midlife adulthood

## **MENTAL WELLBEING AND HEALTH TOURISM - A PILOT STUDY**

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The evidence demonstrating health benefits from time spent in green spaces, parks, and natural environments has led to nature-prescription programs (Rx-nature) that have emerged as preventive and curative health interventions. In our research mental wellbeing improvement of the potential client of medical SPA and health tourism program has been estimated. Our participants were health college students (14 females and 2 males) aged from 19 to 36 years. They were instructed to test their mental wellbeing by: *Manchester Color Wheel Test (MCW)* (Carruthers, Morris, Tarrier and Whorwell, 2010); *Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWS)* (Fat, Scholes, Boniface, Mindell and Stewart-Brown, 2017); *Method of Mandala like drawings* (Zdravković and Jovičić, 2017). Effects on participants' were assessed after they have been learning in the library and after they have spent the same time in the nature (Rx-nature: forest therapy walk, walking with a dog, walking with a friend, cycling in the urban forest). Based on the t-test, it was found that there is the difference between the paired samples on the total score of SWEMWS. In all cases the response values of the participants after the Rx- nature increased. According to MCW test after Rx-nature more neutral and positive colours have been chosen. Mandala like drawings were analyzed after learning and after Rx-nature, comparing data (colors, surfaces and symbols). According to our research, mandala like drawing is valuable method assessing wellbeing of the health tourism client.

*Keywords:* mental wellbeing, health tourism, mandala like drawing, nature prescription

## **ORGANIZATIONAL AND MARKETING PSYCHOLOGY**

### **COACHING PSYCHOLOGY: ARE WE THERE YET WITH THE EVIDENCE BASE?**

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Coaching as an organizational practice has been gaining popularity in the past couple of decades, although its grounding in academic psychology has not followed accordingly. There has been an increase in theoretical elaborations with the aim of mapping the principles, operating models and tools and techniques in coaching psychology. One of the repeating themes in research about coaching psychology has been a need for expanding the evidence base. The current review examined the scholarly literature published between 2000-2019 on coaching outcomes and coaching process. Quantitative studies that were examined pointed to areas in which coaching interventions were perceived as effective, as well as to factors contributing to successful outcomes, such as characteristics and behaviors of effective coaches, coaching relationship and the organizational context. Qualitative studies that were examined offered insights into the coaching process in specific contexts in form of case studies, as well as to microanalysis of the coaching process. Examples of mixed-method approaches to studying coaching process were also included in the review. The review contributes to the evidence base of coaching psychology as an academic discipline, but also aims at assisting various stakeholders in making informed choices regarding the coaching psychology practice.

*Keywords:* coaching psychology, coaching evidence base, coaching outcomes, coaching process, microanalysis in coaching

## **ASSERTIVENESS OF COMMERCE AND CATERING STUDENTS**

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Human resources are extremely important for a successful business in the commerce and catering field of work. Professional knowledge, skills, and the adequate personality profile in this sector are vital. The demands of this profession which involve good communication skills with guests and delivery of standard quality services are, for example: a genuine need to work with people, a positive attitude towards catering, a strict following of the code of conduct towards guests/clients, high-quality communication with guests/clients, adequate greeting, conversation and body language, etc.). One of the main components of good communication skills is assertive communication, usually defined as "Standing up for yourself in a social situation and being confident in your speech". The goal of the paper is to determine the level of assertiveness of Commerce and Catering school graduates, as future "front line" employees, in immediate, daily contact with guests/clients. The research was conducted on the sample of 183 graduates (85 from Zrenjanin and 98 from Novi Sad) of the following high school profiles: Waiter, Cook, Commerce technician. A-scale (Tovilović, Okanović & Krstić, 2009) was used for assessment of assertiveness. A-scale provides indicators of healthy, socially-adapted and self-protected behavior in interpersonal situations (13 items), as well indicators of non-assertive behavior (14 negatively oriented items). Respondents are categorized into one of the five categories (from extremely low, to very high assertiveness) based on their scores on A-scale. The hypothesis was that at least 50% of the graduates would score high and very high in assertiveness. However, the results show that 37% of graduates had low assertiveness, 37% had average, and only 26% of graduates scored high in assertiveness. This paper shows that there is a need to innovate and change curriculum in Commerce and Catering high schools in such way that it would focus more on advancement of communication skills. One of the key factors could be assertiveness training.

*Key words:* commerce and catering, education, assertiveness, communication skills

## **PICTOGRAMS AS A SPECIFIC WAY OF CREATING A PUBLIC IMAGE AND ADVERTISING OF PUBLIC SPACES AND INSTITUTIONS**

*Erina Krysteva*

The main purpose of this article is to discuss some details related to Visual Communication and more precisely a special type of it – pictograms or icons (both terms are appropriate in the scientific as well as the artistic field). Actually, pictograms are part of graphic design but with additional functions not only aesthetical. They give important information and orientate people on public places as quickly as possible but at the same time some of them could be defined as a piece-of-art because of their design characteristics. In this point of view they are well noticed by everybody and should be considered as an extremely effective tool which can be used in positive image creating and advertising too. The major reason is that pictograms are visual language and they send messages when it comes to the specifics of the place (for example is it in retro style or it is up-to-date facility etc.). The article discusses the way and stages of creating unique systems of visual communication consist of a number of icons when it comes to different public spaces. It debates the pros and cons that are related to traditional and abstract ways of inventing and improving such systems and gives other views how to reach clearness. The main goal is those systems to be more reliable and when they are displayed on public places to be perfectly understandable. The third part of the article is devoted to individual image of institutions and how to use systems of visual communication as an additional and successful image making and advertising tool. At the same time, pictograms are unique way to have influence over visitors of the public places (the power to affect the way someone or something behaves, or thinks, without using direct force or orders). Icons help in giving information as well as they convey desired meaning in psychological point of view too.

*Key words:* Pictograms, Icons, Design, Information Design, Visual Communication, Visual Communication Systems, Graphic Design, Advertising, Art, Psychology

## **INVOLVEMENT AND VICARIOUS INNOVATIVENESS IN THE CONTEXT OF CONSUMER BEHAVIOUR**

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This article presents the results of a study examining the extent to which consumer involvement can predict vicarious innovativeness. The data were collected from 1106 Bulgarian participants aged between 22 and 64, selected on the “everyone who responded” principle. For the purposes of the study, two measures were used: the Chandrasekaran scale, measuring consumer involvement (2004) and the Chao’s vicarious innovativeness scale (2010). The results of the regression analysis demonstrate that consumer involvement is a statistically significant predictor of vicarious innovativeness and its dimensions (advertising, word of mouth and modelling). In particular, involvement is the most powerful predictor of the dimension advertising, and accordingly the weakest predictor of the dimension modelling. The article examines and analyzes the impact of some demographic factors on consumer involvement from the point of view of its relation with vicarious innovativeness.

*Key words:* vicarious innovativeness, consumer involvement, advertising, word of mouth, modelling

**INDIVIDUAL DIFFERENCES AND PSYCHOLOGICAL  
MEASUREMENT**

**CREATIVITY - PSYCHOLOGICAL ASSESSMENT AND  
MEASURING PROBLEMS IN MULTIFACTORIAL  
APPROACH**

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In the multifactorial approach, creativity is based on a particular combination of individual factors, such as mental abilities, personality traits, and environmental characteristics. The nature of these factors and their interaction varies according to the proposed theory (Lubart, 1999). One of the strengths of this approach is the combination of multiple components with an important role for creativity. Analyzing many factors together permits better understanding and assessment of different aspects of creativity. Amabile (1996) argues that there are three within-individual components underlying creativity: domain-relevant skills, creativity-relevant processes, task motivation and one outside the individual – social environment. For Woodman and Schoenfeldt (1990) creativity is the result of a complex interaction of three major components: the antecedent, the individual characteristics, and the characteristics of the situation. According to Sternberg and Lubart (1995), six types of resources are needed for creativity. These are the aspects of intellect, knowledge, cognitive styles, personality, motivation, and environment that provide physical and social stimulation to help generate and develop ideas. Feldman, Csikszentmihalyi and Gardner (1994) developed a system approach to creativity with three elements - individual, field, domain. The existing diversity of theories makes measurement of creativity a very difficult task. Therefore, this work aims to present how much the most commonly used methods of measuring creativity reflect the multifactorial approach to it, as well as the main problems and difficulties in the psychological assessment. According to the multifactorial approach, the full assessment of creative potential should include cognitive, conative, emotional and environmental characteristics (Mouchiroud, Lubart, Zenasni, Tordjman 2009). In the article psychometric properties of of The Creativity Styles Questionnaire-Revised; the Creative Personality Scale (CPS); Creative Achievement

Questionnaire (CAQ) and some others were presented based on a literature review. This analysis could be seen as contribution in clarifying the direction of future work in the field of psychological measurement of creativity.

*Key words:* creativity, multifactorial approach, psychological methods and measuring problems



## **CORRELATION OF CREATIVITY AND DIFFERENT DIMENSIONS OF NEED FOR CLOSURE**

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The results of research show that creativity may vary depending on the need for closure, although it remains questionable in which way and how the degree of individual creativity correlates with different dimensions of need for closure: desire for predictability, preference for order and structure, decisiveness, close-mindedness and discomfort with ambiguity. It is particularly indicative to investigate the correlation with the last dimension because an ambiguity tolerance often stands out as one of the trait of creative personalities. In this research, the degree and type of correlations between creativity and different dimensions of the need for closure were examined. The research was carried out on the sample of students of the Faculty of Dramatic Arts in Belgrade and the Faculty of Physical Education and Sport Management Singidunum University (N=64). Participants filled out the questionnaire composed of two parts: the first part was based on the Need for Closure scale (Webster & Kruglanski, 1994), while the other was based on the task from the Test of Consequences for measuring the abilities of divergent thinking (Christensen, Merrifield, & Guilford, 1953). Correlation analysis has confirmed that creativity is negatively related to the preference of order and structure [ $r=-.43$ ;  $p<.001$ ], with desire for predictability [ $r=-.51$ ;  $p<.001$ ], with close-mindedness [ $r=-.35$ ;  $p<.01$ ], as well as with the total score of the need for closure [ $r=-.46$ ;  $p<.001$ ]. A regression model that includes all dimensions of the need for closure can be a predictor of creativity [ $R^2=.35$ ;  $F(5,58) = 6.18$ ;  $p<.001$ ], although the only statistically significant predictor is desire for predictability [ $\beta=-.38$ ;  $t=-2.49$ ;  $p<.05$ ]. The results show that the degree of creativity can depend on certain dimensions of the need for closure, but additional research and special caution are needed when considering the role of ambiguity tolerance in creative process.

*Key words:* creativity, need for closure, desire for predictability, preference for order and structure, close-mindedness, uniqueness coefficient

## GENDER DIFFERENCES IN CORRELATION OF CREATIVITY AND NEED FOR CLOSURE

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Earlier findings indicate that creativity is negatively correlated to the need for closure, and that the patterns of correlation of particular dimensions with creativity can be sensitive to gender differences. The dimensions of the need for closure are desire for predictability, preference for order and structure, decisiveness, close-mindedness and discomfort with ambiguity. In this study we have examined whether and how their effects on creativity varied in relation to the gender of the participants. Male ( $n_1 = 33$ ) and female ( $n_2=31$ ) students of the Faculty of Dramatic Arts in Belgrade and the Faculty of Physical Education and Sport Management at Singidunum University filled out the questionnaire composed of the Need for Closure scale (Webster & Kruglanski, 1994), and the task from the Test of Consequences for measuring the divergent thinking abilities (Christensen, Merrifield, & Guilford, 1953). The analysis of variance did not confirm the effect of interaction of gender and the need for closure, but the correlation analysis by gender groups showed certain differences: creativity of female students is negatively related to the desire for predictability [ $r=-.42$ ;  $p<.01$ ] and decisiveness [ $r=-.49$ ;  $p<.01$ ], while creativity of male students is negatively related to the desire for predictability [ $r=-.39$ ;  $p<.05$ ], decisiveness [ $r=-.51$ ;  $p<.01$ ] and discomfort with ambiguity [ $r=-.38$ ;  $p<.05$ ]. The regression model based on the dimensions of the need for closure can be a predictor of creativity for male group ( $R^2=.38$ ;  $F(5,25)=3.03$ ;  $p<.05$ ), although the only statistically significant predictor is desire for predictability [ $\beta=-.45$ ;  $t=-2.10$ ;  $p<.05$ ]. For the female group, the regression model explains a higher percentage of variance: the dimensions of the need for closure can be predictors of creativity [ $R^2=.48$ ;  $F(5,27)=4.93$ ;  $p<.01$ ], and statistically significant predictor is close-mindedness [ $\beta=-.44$ ;  $t=-2.70$ ;  $p<.05$ ]. The results expand insights on the correlation between creativity and the need for closure, showing that gender differences can be relevant to understanding different creative approaches and styles.

*Key words:* gender, creativity, need for closure, desire for predictability, close-mindedness, ambiguity tolerance

## **THE ROLE OF AFFECTIVE EXPERIENCE IN AESTHETIC PREFERENCE OF MUSIC**

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Previous research on aesthetic experience of visual artworks showed that aesthetic experience of an artwork can be substantially explained by affective experience of all meanings activated in the mind of the beholder while observing the artwork (Janković, 2015). The aim of this study was to evaluate whether the same model of aesthetic experience can be successfully generalized to include, not only the domain of visual, but also the domain of auditory stimuli, in this case music. In the first phase of the study participants rated their aesthetic experience of musical stimuli (5 seconds long excerpts) on a bipolar seven-step beautiful-ugly scale, and afterwards were asked to report what they had in mind while making aesthetic evaluation of each musical stimuli. In the second phase of the study, the same group of participants rated their affective experience of verbal responses given in the first phase of the study. The results of multiple regression analysis showed that linear combination of three dimensions of affective experience (valence, arousal and cognitive evaluation) of verbal responses explained 92,1 percent of variance in aesthetic preference of musical stimuli. Valence of verbal responses showed the greatest contribution in explained variance of aesthetic preference of musical stimuli, indicating that participants preferred musical stimuli that induce pleasant associations over the musical stimuli that induce unpleasant or neutral associations. Findings of this study suggested that VACe model of aesthetic experience can be successfully generalized to include the domain of music stimuli as well.

*Key words:* music, VACe model, aesthetic preference, affective experience

## **VALIDATION OF THE TRANSGRESSION RELATED INTERPERSONAL MOTIVATIONS INVENTORY (TRIM-12) IN BOSNIAN-HERZEGOVINIAN CULTURE AND THE RELATIONSHIP WITH AFFM PERSONALITY TRAITS**

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According to McCullough and associates the propensity for forgiveness is not a dispositional characteristic but rather reflects the prosocial change in interpersonal motivation. It consists of two components, Avoidance and Revenge. With this assumption, the questionnaire TRIM-12 (Transgression Related Interpersonal Motivations Inventory) was developed. It consists of 12 items (Revenge 5, Avoidance 7 items). In this paper the validation of the TRIM-12 scale in the Bosnian-Herzegovinian culture was carried out. Forgiveness measures are also interpreted through relationships with personality traits of the Alternative Five Factor Personality Model. The sample consisted of 259 respondents (185 women), between 20 and 68 years of age ( $M=40.84$ ,  $SD=8.50$ ). In addition to the TRIM-12 questionnaire, personality traits (Neuroticism, Extraversion, Sensation seeking, Aggression, Activity) were estimated using the ZKA-PQ/SF. First, descriptive characteristics of the TRIM-12 scales were considered. The dimensionality of the questionnaire was analyzed using confirmatory factor analysis, while relations to personality traits were analyzed using Person's correlation analysis. The reliability of both scales of the TRIM-12 is beyond satisfactory (Revenge  $\alpha=.81$ ; Avoidance  $\alpha=.84$ ). Skewness and kurtosis do not show significant deviations from normal distribution. Confirmatory factor analysis clearly shows two robust factors that are in accordance with Avoidance and Revenge Scales. Results also show acceptable fit indexes of the tested model:  $\chi^2/df=3.66$ ,  $p<.01$ ; CFI=.87; TLI=.84, RMSEA=.10; SRMR=.07. Moreover, the Avoidance dimension does not correlate with any personality trait, while the Revenge significantly correlates with Aggression ( $r=.27$ ,  $p<.01$ ), Neuroticism ( $r=.22$ ,  $p<.01$ ), and Extraversion ( $r=-.15$ ,  $p<.05$ ). The results suggest satisfactory psychometric characteristics of the TRIM-12 questionnaire. Results in the context of personality traits give enough support for forgiveness to be treated as a motivational component, but at the same time provide the basis for the tendency of forgiveness to be treated as a dispositional characteristic.

*Key words:* Forgiveness, TRIM-12 Inventory, validation, AFFM personality traits

## INTRODUCING YOUTH SCHADENFREUDE SCALE

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The study presents initial work on constructing a self-descriptive instrument - Youth Schadenfreude Scale (YSS) on measuring schadenfreude, specially designed for adolescents. Schadenfreude is understood as the malicious joy, experienced when another person is in a misfortune situation, and is typically assessed with instruments, based on a projection or anticipation - short scenarios, vignettes or observation of video clips. Participants rate their response in terms of amusement, satisfaction, pleasure, sympathy. Although people are reluctant to admit experiencing schadenfreude, the aim of this study is to construct a reliable, and time-saving instrument that can be used in practical field, e.g. in schools. 21 items were formulated in regard with core understanding that deservedness of the misfortune is an important predictor of schadenfreude, so items cover content of a sense that the advantage enjoyed by the other is undeserved, anger or resentment, and disliking of the target person. Data are collected in adolescent sample (N=599, 230 boys, 369 girls, age range 14 to 18). Exploratory factor analysis suggests possible four-factor solution, the fourth factor consisting only of two items. On detailed evaluation of factor loadings and item content, a one-factor structure, consisting of 13 items (Cronbach's  $\alpha = 0,89$ ) is derived, as support for such decision lies on theoretical understanding of experience of a joy due to deservedness of the misfortune and failure of others. Validity of YSS is tested running regression analysis with *Short 100 items Version of Personality Inventory for DSM-5* (PID-5-SF, Maples et al., 2015; Kalchev & Koleva, 2019) with the aim to investigate if the alternative dimensional model of diagnosing personality disorders in DSM-5 encompasses schadenfreude. Three domains are identified as significant predictors of schadenfreude (adjusted- $R^2=.33$ ): Antagonism ( $\beta=.42$ ), Negative Affect ( $\beta=.24$ ), and Disinhibition ( $\beta=.11$ ), excluding Detachment and Psychotism. Results state the importance and relation of schadenfreude with personality pathology, and confirm the appliance of a self-report measurement of schadenfreude.

*Key words:* schadenfreude, adolescence, assessment, PID-5

## POSTER PRESENTATIONS

### **THE ROLE OF COGNITIVE STRATEGIES IN THE LINKAGES BETWEEN DARK TRIAD PERSONALITY TRAITS AND SUBJECTIVE WELL-BEING**

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To identify the possible keys to happiness many studies focused on the associations between personality traits according to the Big Five model, showing that subjective well-being was linked positively with extraversion, agreeableness, and conscientiousness and negatively with neuroticism. Recently, there has been increasing interest in the linkage between Dark Triad personality traits and subjective well-being: narcissism was found to be more positively associated with well-being compared to Machiavellianism and psychopathy. However, the factors explaining individual differences in terms of cognitive strategies for achieving happiness, i.e., life of pleasure (implying maximizing positive experiences), life of engagement (referring to activities that produce a state of flow), and life of meaning (concerning activities that contribute to greater general good), remained poorly understood. This study examined the mediation effects of orientations to happiness on the relation between dark personality traits and subjective well-being in terms of life satisfaction. The sample of 460 Italian adults (mean age = 42.17; 273 males) completed a battery of paper-pencil questionnaires comprising the Dark Triad Questionnaire (Jones & Paulhus, 2014), the Orientations to Happiness scale (Peterson, Park, & Seligman, 2005), the Satisfaction with Life scale (Di Fabio & Busoni, 2009) and the Positive/Negative Affect Schedule (Terracciano, McCrae, & Costa, 2003). The fit indices of the model were good,  $\chi^2(10) = 25.086, p < .010, RMSEA = .057, 90\% \text{ C.I.} = .030 - .086, CFI = .963, SRMR = .030$ . Path model showed that (1) meaningful and engaged life mediated the relationships between narcissism and life satisfaction and between narcissism and positive affect, (2) engaged life mediated the relationship between psychopathy and life satisfaction. The pleasant life was predicted by the Dark Triad

and was a predictor of positive affect, although no mediation effect was found. These findings highlighted the contribution of the 'dark traits' on cognitive strategies to pursuit well-being.

*Key words:* dark triad personality traits, cognitive strategies, orientations to happiness, subjective well-being, life satisfaction

## **A SYSTEMATIC REVIEW OF MOBILE PHONE APPLICATIONS FOR COMPASSIONATE INTERVENTIONS<sup>15</sup>**

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The rapid expansion of mobile apps is increasingly relevant to the field of therapy as they offer cost-effective and scalable solutions to addressing the mental health treatment gap. The goal of this study was to review efficacy and effectiveness of mental health apps focused on compassionate interventions. We used systematic review methodology to select relevant literature for further analysis. Google scholar, ProQuest were used to search for the following key words: compassion and “mobile apps” or compassion and “mobile application”, which generated 5,194 results. Out of these we selected articles based on the following inclusion criteria: using mobile apps for an intervention and quantitative measurement of compassion. The selected articles were evaluated in terms of mobile apps efficacy for cultivating compassion using systematic narrative approach. Our findings suggest that mobile apps are a feasible way to increase not only compassion and self-compassion, but also mindfulness, body image, mental well-being, resilience and are also helpful in reducing psychological distress, anxiety, and symptoms of depression among others. Compassionate interventions distributed through mobile apps can improve some aspects of negative mental health in the short term and may strengthen positive mental health when used regularly. Further research is required to examine the long-term effects of these apps.

*Key words:* mobile phone applications, compassion, self-compassion, intervention

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**EFFECT OF THE INTERVENTION MINDFULNESS -  
BASED COMPASSIONATE LIVING ON THE LEVEL OF  
SELF - CRITICISM AND SELF - COMPASSION<sup>16</sup>**

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Mindfulness – Based Compassionate Living (MBCL) is an intervention developed to learn how to cope with physical, mental, emotional or relational stress in a healthy way. The aim of our study was to investigate the effect of the short – term online version of the MBCL intervention on the level of self – criticism and self – compassion on the non – clinical convenience sample of participants. The participants were randomly divided into experimental and control group. The experimental group consisted of 26 participants who were instructed through everyday' emails to complete the MBCL tasks for 15 consecutive days. The control group consisted of the remaining 24 participants who did not complete any tasks. Data collection was conducted through online battery of questionnaires measuring the level of self – criticism and self – compassion, which we administered 3 times – before intervention, after intervention and 2-months follow-up. The results showed significant decrease in the level of self – criticism and significant increase in the level of self – compassion after completion of the MBCL intervention, with the result persistent in follow-up. The main limitations of our research study are relatively small sample and quite high attrition rate.

*Key words:* self – compassion, self – criticism, intervention, Mindfulness – Based Compassionate Living

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## **THE EFFECTS OF BRAND POPULARITY AND THE BIG FIVE ON PERCEIVED QUALITY OF REFRESHMENT PRODUCTS: A REPLICATION STUDY**

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With this study, we wanted to replicate our recent findings (Mirkovic & Lakić, 2019) that brand popularity affects the perceived quality of refreshment products and that this is more pronounced in emotionally labile persons. In the original study, we explored the effects on general quality evaluation of different potato chips and energy drinks products, whereas in the present study we tested the effects of orange and cola drinks. Again, we used 2x3 repeated measures design where we manipulated the brand awareness condition (blind-test vs. brand names revealed) and where we used three brands from different ordinal categories of popularity (brands perceived as highly, moderately or lowly advertised). The Big Five traits were self-assessed with the Ten-Item Personality Inventory. Both studies were conducted on convenience samples, each comprising of 100 university students. The first task for the participants was to blind-taste all products, upon which they tasted them with brands revealed. For cola drinks we observed a significant awareness x popularity interaction ( $F(2,192)=5.93, p<.001, p.\epsilon^2=.01$ ), where both highly ( $t(100)=2.11, p=.037, d=0.21$ ) and moderately ( $t(100)=1.83, p=.070, d=0.18$ ) advertised brands tended to receive better evaluation when the brand was revealed, whereas the opposite was the case for lowly advertised brands ( $t(100)=-2.30, p=.024, d=-0.23$ ). A similar trend was observed for orange juices ( $F(2,192)=1.83, p=.163, p.\epsilon^2=.003$ ). The ratings of lowly and moderately advertised brands did not change much across conditions ( $d<0.10$ ), while there was a noticeable change for a highly advertised brand where it was rated better when the brand was revealed ( $t(96)=2.20, p=.030, d=0.22$ ). Again, neuroticism was found to be the only Big Five trait to obtain conspicuous correlations with the change in ratings dependent on the condition. But surprisingly, we observed opposite trends: for cola drinks, emotionally labile persons tended to change their ratings somewhat more ( $r(98)=.17, p=.089$ ), whereas for orange juices this was the case for emotionally stable persons ( $r(98)=-.16, p=.118$ ). It seems that either type of the product or the absolute value of the brand moderates the effect of neuroticism on quality perception. Nevertheless, with our studies, we found another evidence for the hypothesis that brand popularity somewhat affects the perceived quality of refreshment products.

*Key words:* brand popularity, brand awareness, Big Five, perceived quality, refreshment products

**SIZE OF THE ORGANIZATIONAL SYSTEM AND  
SATISFACTION OF BASIC NEEDS AS POTENTIAL  
ANSWER OF EMPLOYEE RETENTION IN THE SECTOR  
OF INFORMATION TECHNOLOGY**

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Employee retention in IT sector is an issue that animates researchers around the world. In support of this fact in 2017 noticeably higher percentage of fluctuations in IT sector was observed (13.6%) than in any other field. In this paper we dealt with the problem of relationship between the size of the organizational system, number of employees, and potential fluctuation. Another problem question examines the differences, in terms of satisfying the basic needs of employees (investments in knowledge and skills etc.) for employees in small, medium and large organizational systems. Two hypotheses have been constructed: H1: there are differences in the potential intent to leave work between employees depending on the size of the organization system; H2: there are differences in satisfying the basic needs among employees depending on the size of the organization system. The questionnaire that measures the potential fluctuations (Majstorovic & Komlenić, 2019) was completed in the form of an online survey, by 156 respondents employed in the IT sector in Serbia. The results of the one-way analysis of variance did not confirm H1 and statistically significant differences were not observed in the intention to leave the work between employees regarding the size of the organization system ( $F = 1.242, p > 0.05$ ). One-way ANOVA has found that there are differences in satisfying the basic needs of employees in different organizational systems compared to the number of employees ( $F = 3.671, p < 0.05$ ), and that this difference is especially emphasized among employees in organizations from 20 to 100 employees and organizations that have between 100 and 300 employees. These results give us practical implications, development of basic needs among staff can lead to greater satisfaction and lasting intention to remain in the organization and perceived opportunities for advancement is certainly in favor of a larger organizational system.

*Key words:* IT sector, fluctuation, basic needs retention, number of employees in the organization

## PSYCHOMETRIC ANALYSIS OF THE SLOVAK VERSION OF THE COMPASSIONATE ENGAGEMENT AND ACTION SCALES<sup>17</sup>

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The goal of this study was to validate the Slovak version of a recently developed instrument The Compassionate Engagement and Action Scales (CEAS; Gilbert et al., 2017) consisting of three scales Self-Compassion, Compassion to Others, and Compassion from Others. The convenience sample consisted of 638 people, aged from 18 to 69 years ( $M = 23.20$ ,  $SD = 6.56$ ). We tested the reliability and factor structure of The Compassionate Engagement and Action Scales and validity of the scale by concurrent measurement by The Self-compassion Scale (SCS; Neff, 2003). Cronbach's alphas for total score of the three scales Self-Compassion, Compassion to Others, and Compassion from Others were between 0.7 and 0.89 while for subscales of Engagement were between 0.53 and 0.77 and Action subscales ranged from 0.83 to 0.90. Reliability indices (Omega Total, Omega Hierarchical, and Explained common variance index) indicated that Compassion to Others ( $\omega_h = 0.81$ ; ECV = 0.76) and Compassion from Others ( $\omega_h = 0.89$ ; ECV = 0.80) but not Self-Compassion ( $\omega_h = 0.57$ ; ECV = 0.40) had the very strong single general factor. Therefore, we can reliably use unit-weighted total score for Compassion to Others and Compassion from Others but not for Self-Compassion. Self-compassion of CEAS had strong positive correlation with Compassionate Responding of SCS (0.51,  $p < 0.001$ ) and negative correlation with Uncompassionate Responding of SCS (-0.23,  $p < 0.001$ ) as we expected. We fitted the three sets of models, each set containing Compassion for Others, Compassion from Others, Compassion for Self scales, each set with four models: a) the 3-factor CFA model, b) the ESEM 2-factor model, c) the bifactor CFA model, and d) the bifactor ESEM model. For all scales the bifactor ESEM displayed the best fit. To conclude, the findings of our research showed that the Slovak versions of The Compassionate Engagement and Action Scales could be used for measuring three kinds of compassion.

*Key words:* university community garden, psychological sense of community, action-oriented research, community intervention

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## **IMPORTANT BUT NOT SUFFICIENT? THE ROLE OF FACTUAL KNOWLEDGE IN SELF-REPORTED PRO-ENVIRONMENTAL BEHAVIOR**

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Literature recognizes knowledge as a component of environmental literacy, critical, but not sufficient for the appropriate behavior. Another significant component refers to environmental attitudes, considered necessary for transformation of knowledge into pro-environmental behavior. This study aims to clarify the role of knowledge and attitudes in demonstrating pro-environmental behavior. The sample consists of members of a Facebook group, gathered around the problem of river protection (N= 255). The authors applied a *Test of Factual Environmental Knowledge* (Kaiser et al., 1999), *Environmental Concern Scale* (range 1 to 5), consisting of environmental apathy, anthropocentrism, connectedness with nature and emotional affinity for the nature (Amerigo et al., 2017) and *Pro-environmental Behavior Scale* (range 1 to 3), measuring self-reported pro-environmental behavior (Amerigo et al., 2017). The average score on the factual knowledge was almost maximal, (9.19 out of 10), ecological apathy was low (M=1.17), anthropocentrism was under the scale center point (M=2.28), but connectedness and emotional affinity for nature were prominent (M=4.69 for both). Self-reported behavior (M=1.89), although not supported by the actual conditions, has significant correlations with three attitudinal subscales:  $r=-.318$  with environmental apathy,  $r=.233$  with connectedness and  $r=.276$  with emotional affinity (all significant at .01 level). Correlation of self-reported behavior with knowledge and anthropocentrism was close to zero. The results suggest that, although having similar level of knowledge, the respondents' self-reported behavior varies, implying that having general information on environmental problems is important, but not sufficient for demonstrating pro-environmental behavior; but the feeling of belonging to the nature and the authentic need to spend time outdoors could be helpful. Also, being indifferent for environmental problems can be more harmful than anthropocentric need to preserve the natural resources for the sake of people. The results are congruent with previous studies, implying that the environmental education should be focused on developing the sense of belonging to the nature, loving and respecting it, as a whole that we are a part of.

*Key words:* environmental knowledge, environmental attitudes, self-reported pro-environmental behavior

## THE RELATION BETWEEN SOCIO-DEMOGRAPHIC CHARACTERISTICS AND BURNOUT OF PRIMARY SCHOOL TEACHERS

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Teaching was identified as a particularly stressful occupation. As a result of stressful aspects of teaching, burnout of teachers is expressed in physical, psychological, and behavioral symptoms. The aim of this study was to investigate whether there are differences in burnout depending on teachers' socio-demographic characteristics. The sample consisted of 916 teachers (80.8% female) from 32 elementary schools in Bosnia and Herzegovina, aged 22 to 66 ( $M=40.04$ ,  $SD=9.23$ ). We used the Maslach Burnout Inventory (Maslach & Jackson, 1986) and socio-demographic characteristics questionnaire. The multivariate analysis of variance and post-hoc test LSD was used for data processing. Statistically significant difference has been determined in emotional exhaustion taking into account gender ( $F(1)=5.929$ ,  $p=.015$ ,  $\eta^2=.009$ ), age ( $F(4)=7.979$ ,  $p=.000$ ,  $\eta^2=.034$ ), duration of service ( $F(3)=13.118$ ,  $p=.000$ ,  $\eta^2=.042$ ), and job affection ( $F(2)=9.885$ ,  $p=.000$ ,  $\eta^2=.022$ ). Male, teachers older than 56 years, teachers with more than 26 years of service, and teachers who don't like their job are the most prone to emotional exhaustion. Further, statistically significant difference has been determined in depersonalization considering gender ( $F(1)=21.502$ ,  $p=.000$ ,  $\eta^2=.023$ ), age ( $F(4)=3.457$ ,  $p=.008$ ,  $\eta^2=.015$ ), duration of service ( $F(3)=7.575$ ,  $p=.000$ ,  $\eta^2=.025$ ), position ( $F(1)=10.751$ ,  $p=.001$ ,  $\eta^2=.012$ ), job affection ( $F(2)=4.710$ ,  $p=.009$ ,  $\eta^2=.010$ ), and material circumstances ( $F(2)=5.285$ ,  $p=.005$ ,  $\eta^2=.012$ ). Male, teachers older than 56 years, teachers with more than 26 years of service, subject teachers, teachers who don't like their job, and teachers whose material circumstances are below the average are the most prone to depersonalization. In addition, statistically significant difference has been determined in personal achievement considering gender ( $F(1)=21.502$ ,  $p=.002$ ,  $\eta^2=.011$ ), position ( $F(1)=26.606$ ,  $p=.000$ ,  $\eta^2=.029$ ), job affection ( $F(2)=5.021$ ,  $p=.007$ ,  $\eta^2=.011$ ), and marital status ( $F(1)=5.387$ ,  $p=.021$ ,  $\eta^2=.006$ ). Female, class teachers, teachers who like their job, and married teachers are the most vulnerable to personal achievement decline. The results of this study suggest that socio-demographic characteristics significantly determine teachers' burnout.

*Key words:* burnout, socio-demographic characteristics, teachers

## **ATTITUDES TOWARD HOMOSEXUALITY AND THEIR RELATION TO HUMAN VALUES AND FRIENDSHIP WITH MEMBERS OF LGBT POPULATION**

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The aim of this research was to examine whether there is a statistically significant correlation between Human Values and Attitude Toward Homosexuality; whether there is a difference in Attitude Toward Homosexuality based on having a homosexual friend; and, also, to examine whether score on the Attitude Toward Homosexuality could be predicted based on a score on Human Values. The sample was suitable and included 333 people ( $M = 146$ ,  $F = 187$ ) between the ages of 18 and 45 ( $M = 21,47$ ;  $SD = 2,76$ ). Instruments that were used in the research were: Portrait Value Questionnaire (PVQ, Schwartz, 1994) and Attitudes toward Homosexuality Scale (ATHS; Falomir-Pichastor & Mugny, 2009). The results show that people who have a homosexual friend have more positive attitude toward homosexual people than those who don't ( $t = 6.39$ ;  $df = 331$ ,  $p < .05$ ). Regression analysis ( $R^2 = 0.190$ ;  $F(4, 328) = 19.24$ ;  $p = .000$ ) shows that Attitude Toward Homosexuality can be statistically significant predicted based on the dimension Conversation ( $\beta = -0.464$ ,  $p < .01$ ) and based on the dimension Self Transcendence ( $\beta = 0.394$ ,  $p < .01$ ), while dimensions Openness To Change ( $\beta = -.076$ ,  $p > .05$ ) and Self Enhancement ( $\beta = .010$ ,  $p > .05$ ) are statistically insignificant predictors. Model explains 19.0% of the variance of the Attitude Toward Homosexuality. Therefore, people who have higher score on the dimension Conservation will have more negative attitude toward homosexual people, while those who have higher score on the dimension Self Transcendence will have more positive attitude. Also, the research shows that people who have a homosexual person in their circle of friends will have more positive attitude toward homosexuality than those who don't have a homosexual friend. This research helps us to better understand the factors that have influence on attitude toward the LGBT population.

*Key words:* Human Values, Homosexuality, Friendship with LGBT members

## **RELATION BETWEEN NORMATIVE AND HUMANISTIC ORIENTATION WITH ATTITUDES TOWARDS GAY MAN AND LESBIANS AMONG STUDENTS**

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The aim of this research is to determine whether there is a correlation between the Normative/Humanistic ideologies and the attitude toward male and female homosexual population; to examine whether there is a difference in attitude toward male and female homosexual population based on whether someone is a student of humanistic or non-humanistic sciences; as well as to examine whether the attitude toward male and female homosexuality could be presupposed based on the Normative/Humanistic dimension. The sample was suitable and included 333 people ( $M = 146$ ,  $F = 187$ ) between the ages of 18 and 45 ( $M = 21,47$ ;  $SD = 2,76$ ), of whom 196 are students of humanistic sciences, and 137 of non-humanistic sciences. Instruments that were used in the research were: Polarity Scale (PS43; Tomkins, 1964; Stone & Schaffner, 1988) and The Attitudes Toward Lesbians and Gay Men Scale (ATLG-R; Herek, 1998). Attitude Toward Male Homosexuality can statistically be significantly predicted based on the Normative/Humanistic dimension ( $\beta = -.309$ ,  $p = .000$ ). The model is statistically significant ( $R^2 = 0.095$ ;  $F(1, 331) = 34.85$ ;  $p = .000$ ) and explains the 9.5% of the variance. Attitude Toward Female Homosexuality can also be statistically predicted based on the Normative/Humanistic dimension ( $\beta = -.252$ ,  $p = .000$ ). The model is statistically significant ( $R^2 = 0.063$ ;  $F(1, 331) = 22.44$ ;  $p = .000$ ) and explains 6.3% of the variance. Based on the results, we can conclude that the students of humanistic sciences have a less negative attitude toward male and female homosexuality than students of non-humanistic sciences. Also, we came to the conclusion that the higher value of humanistic orientation is associated with less negative attitude toward male and female homosexuality, and the higher value of normative orientation is associated with more negative attitude toward male and female homosexuality. Furthermore, we can conclude that we can predict attitude toward male and female homosexuality based on the Normative/Humanistic dimension.

*Key words:* Normative, Humanistic, Non-humanistic, Homosexuality



## **SOCIAL STRUCTURE IN CHILDREN'S GROUPS: FRIENDSHIP, POPULARITY, AND DOMINANCE**

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The aim of this study is to describe the structures of children's social groups with a focus on friendship and popularity. According to the hypothesis, the declared friendships of children will not be stable over time, and children will identify other children which are popular in a group. At the same time, it is assumed that dominance will have a significant impact on children's popularity. The data was obtained by participant observation and interviews in a children's Jewish camp in the USA. The sample size was 26 children (14 girls and 12 boys) and the fieldwork duration was 77. All sociometric constructs such as dominance, friendship and child's popularity were treated as dyadic. After the coding of observational data and constructing the sociometric matrices, the linearity and transitivity of a dominance and popularity hierarchy were tested. The normalized David's score was calculated to estimate the child's position in the hierarchy. The stability of a friendship as well as the relation between the declared and observed friendship was explored by the robust canonical correlation between the sociometric matrices. Because the dominance hierarchy is bounded variable, it was needed to use the beta regression with a logit link for estimating of the relation between the popularity and dominance. The results show the consistency of declared and observed children's friendships ( $r = .69$ ). The stability of declared friendships is also to a large extent stable over time ( $r = .62$ ). The relation between the child's popularity and her or his position in the dominance hierarchy is much more complicated. At the beginning of the vacations, there was a weak but statistically significant relation between popularity and dominance ( $\beta = .016$ ,  $p = 0.011$ ). At the end, this relation weakened to the level impossible to detect ( $\beta = .012$ ,  $p = .08$ ).

*Key words:* children group, dominance, hierarchy, popularity, friendship

## **PRESENT HEDONISTIC AND PRESENT FATALISTIC TIME ORIENTATIONS IN A BULGARIAN SAMPLE**

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The purpose of this study is to find whether the demographic characteristics would differentiate significantly the levels of the "Present Hedonistic" and "Present Fatalistic" time orientations. A total of 542 Bulgarian participants took part in this study, their mean age being 26. Most of them currently live in Sofia and are occupied. More than half are involved in humanitarian studies. Again more than 50% have finished only high school education. The study was carried out via an online platform and consisted of a number of questionnaires. The ones, important to this study, are Zimbardo and Boyd's Time Perspective Questionnaire, The Big 5 Inventory by John and Srivastava, Strathman's scale for the consideration of future consequences, The Trait Anxiety Inventory by Spielberger and Zung's scale for depression. The results show that the levels of the hedonistic orientation towards the present vary according to age, gender, and specialty. Gender also affects the levels of the "Present Fatalistic" temporal perspective. Positive significant correlations were found between the "Present Hedonistic" time orientation and the scales "Extraversion" and "Openness". The "Present Fatalistic" scale has significant positive correlations with the scales "Anxiety" and "Depression". Significant but negative correlations were found between "Consideration of Future Consequences" and the two temporal orientations towards the present time.

*Key words:* present hedonistic, present fatalistic, time orientation

## WORKSHOPS

### **“MY BODY, MY HOME” - BODY PSYCHOTHERAPY EXPERIENTIAL WORKSHOP**

*Vanja Žikić*

For a long period of time, body was neglected in psychology and psychotherapy, focusing only on the mind and verbal communication. In the last few decades, psychology and neuropsychology are (finally) starting to acknowledge the body as an inseparable part of one integrity. We are getting familiar with new terms, such as embodiment, mindfulness, somatic countertransference, somatic memory etc. Contemporary authors speak a lot about how trauma is stored in the body and how bodywork is essential for dealing with trauma. In practical work, body is becoming a fruitful resource in the therapeutic process, and a precious anchor for the client to find inner peace and connect to his or hers own being. Given all the above, this workshop will enable its participants to experience why body is so important in therapy, and how their own body is connected to their psyche. Participants will be guided through body psychotherapy techniques, as well as some free movement. We will be working with body, breathing, muscular tensions, our life energy, visualizations etc. Participants will be invited to go deep into their body, and feel its subtle sensations, to allow themselves to breathe deeply and express their emotions through their body. The workshop will be two hours long and we will work barefoot.

*Key words:* body, psychotherapy, mindfulness, embodiment, breathing, centering

## **PROFESSIONAL GENOGRAM: OLD TOOLS IN NEW PRACTICES**

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Relational, theoretical, spiritual, social themes affecting and shaping psychotherapist's practice can be well explored by professional genogram. Training in psychotherapy addresses personal, professional and social narratives and their connectedness. Both trainees and supervisors need to recognize important influential historical threads of various dimensions of their professional development, also identifying messages received from teachers/mentors/supervisors, as well as their adopted and preferred theories in dominant socio-political discourse. Professional genogram can be a potent tool in training process. During this process various relevant questions can emerge. Professional genogram may also, be used in evaluation of training and cross-cultural comparative studies. Questions frequently asked are: How does the society I live in shape my practice? Which theoreticians do I see as a "leaders of change" in the large community of psychotherapists? What kept me going during the learning process and when I was at risk of giving up? Workshop is designed to enable participants to reflect upon different levels in which professional genogram may be applied. For trainees, it can provide tool of acquiring self reflectivity while learning about reflexive process in systemic framework. For trainers and supervisors, it can be a means of questioning their practice, both in training and in therapy, but also a means of testing their influence in teaching and promoting sensitive and efficient psychotherapy. Workshop participants will be asked to engage in interactive exercise offering immediate experience in constructing professional genogram, sharing and discussing this experience.

*Key words:* genogram, psychotherapy, training

## **HOW CAN WE COMPARE TEST SCORES ACROSS GROUPS? ON DIFFERENTIAL RESPONSE FUNCTIONING**

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In the field of psychometric testing (either psychological or educational), we often face the task of comparing scores across groups. Do girls perform better than boys in a reading comprehension test? Do patients from the cities display higher levels of neuroticism than those from rural areas? Does the test we develop function similarly for university students and the general population in my country? Simple comparison of scores brings a lot of risk. It is often problematic to suppose that test measures the same construct in the same way for both groups we want to compare. Reasons can be various from test-taking skills (i.e. training in responding to various tests and questionnaires) to much more hidden cultural differences. However, modern psychometric theory based on probabilistic models (IRT) enables us to address these problems. In the IRT framework, a differential response functioning (Chalmers, 2018) offers the opportunity of identifying various aspect of a test bias, such as differential item (DIF), bundle (DBF), and test (DTF) functioning. Differential item functioning (DIF) means that two groups with the same level of a latent variable we want to measure display different probabilities of a particular response to the same item. Now, there is an opportunity to extend this analysis to a bundle of items (DBF) as well to the test as a whole (DTF). Each kind of differential response functioning may reveal different aspects of a test bias. The proposed study is a methodological presentation based on a set of examples from the large scale educational testing in Slovakia. All examples will be presented using the mirt package of a statistical environment R.

*Key words:* Measurement invariance; Item Response Theory; testing; Differential item functioning

## **DISORGANIZED ATTACHMENT PATTERN: RECOGNITION, UNDERSTANDING AND THERAPY**

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The first attachment relationship, which has long-term consequences, is formed in childhood, through the sensitivity and responsiveness of the primary caregiver to the children's needs and signals. Responses can be adequate or inadequate, absent or even frightening. Disorganized attached children did not have anyone to handle their traumas, so the trauma remained in them untreated. The disorganized infant behavior does not show the consistency across individuals and the consistent strategy for organizing responses to the need for security when under stress. Since the disorganized attachment pattern is difficult to describe and recognize, as well as it is hard to live with it, the workshop will present numerous instruments of assessment of this attachment pattern, translated and followed by instructions for evaluation and interpretation. Participants will learn how to identify the disorganized children on following techniques: Strange situation; Attachment Question Set –AQS and its shorten versions - Toddler Attachment Sort and Brief Attachment Scale; Autobiographical Emotional Events Dialogues. The way of recognizing the DA pattern will be explained also in the techniques intended for adults: The Adult Attachment Interview and Adult Attachment Projective, as well as some of the most popular questionnaires. Finally, techniques intended solely to assess the disorganization: Adult Disorganized Attachment scale, Caregiving Helplessness Questionnaire, Disturbances in Attachment Interview and Disconnected and extremely Insensitive Parenting will be presented. Some possible therapeutic interventions will also be discussed, with special emphasis on the original domestic therapeutic program – SEP and a presentation of a brief case report. The workshop is especially intended for domestic practitioners, given the offer of instruments for assessing the disorganized pattern, as well as the therapy and prevention of this pattern and the disorders created on its basis.

Number of participants: 30; Working language: Serbian

*Key words:* Disorganized attachment, trauma, instruments, therapy



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